

ISO 9001:2000 · FDA 510K CLEARANCE · RoHS · WEEE · UL · CSA · TUV · IEC · IP68 · CE · AP

### **Corporate Capabilities**

### Application Engineering

- Application Engineers with a combined 65 years of experience
- Unmatched ability to suggest proper foot control for customers' needs
- Second to none in offering custom products
- Daily interface between customers and vendors
- Agency expertise (UL, CSA, CE, WEEE, RoHS, FDA)

#### **Customer Service**

- Customer Service Representatives with a combined 55 years of experience
- Estimated 110,000 hours of direct interface with customers
- Servicing accounts worldwide
- Defined and dedicated territories to establish a rapport with the customer
- Direct human interface
- Real time data availability
- Most technical questions are answered on your first call

#### Information Systems (IT)

- 4 MIS Technicians with more than 90 years of combined experience
- 2 IT programmers
- 1 MIS Manager
- 1 Graphic Design/PC Programmer
- Custom Web design for ease of browsing & navigation
- Ability to generate product sheets for customers in PDF or hardcopy formats
- Custom E.R.P. System (Mfg. software)
- Fully integrated system which provides timely delivery and instant answers

#### Engineering

- Approximately 170 years of Engineering experience accounted for
- 1 Software Engineer
- 1 Senior Design Engineer
- 2 Mechanical Engineers
- 1 Draftsman
- 2 Document Control personnel
- 1 Component Compliance Engineer
- 1 Project Leader
- 2 Electrical Technician
- 1 Engineering Manager
- Maintenance of approximately 12,000 drawing library, ISO documentation & Work Procedures
- Leaders of product enhancement projects
- Direct customer and Engineering interface (if required)
- Custom designing to satisfy customer needs
- UL, CSA, CE certification for LINEMASTER® product
- FDA approval for IR Wireless products
- **RoHS** Compliant

#### "Linemaster Switch Corporation's mission is to provide a superior foot switch at an affordable price without compromise."

#### Manufacturing

- Manufacturing Managers with a combined 50 years of manufacturing experience
- 50,000 sq. foot facility under one roof
- Certified Training; verified through training matrix
  - Currently 1.5 running shifts; 3 shift potential (growth potential)
  - Label Department
    - **Custom labeling** 0
      - 0 Majority of standard labeling done in-house
      - 0 Ability to produce serial and barcode labels
  - Cord Department
    - Custom cable assembly design (specific per 0 customer requirements)
    - 0 EPTAC certified (solder)
    - Completely lead free solder
    - In-house molding capabilities (grommets/phone plugs)
  - Drill Department
    - Secondary machining
    - Automated multi-head drilling capability
    - C.N.C. machine centers
    - Paint Department
      - In-house paint shop
      - Custom colors available
      - Textured finishes available
      - Durable water base paint
      - Conveyer belt oven bakes on paint in less than 1 hour
  - Assembly
    - 5 operating cells by switch family, potential of 15
    - First piece inspection on all items for maximum quality
    - 0 Light duty assembly
    - Long term experienced employees
    - Strategically placed departments for proper work flow

#### Quality

- Quality department consists of 7 people (2 Quality Engineers and 1 Quality Manager)
- 66 years of combined experience
- ISO 9001 Certified since 1997 (continuous certification)
- FDA audit for IR Wireless product
- CSA, UL, TUV, CE, VDE audits of LINEMASTER  $^{\circ}$  product
- On-site water testing (submersion) lab hypot immersion testing
- Handles semi-annual ISO audits and various customer audits
- Internal Audits performed throughout the year to monitor quality
- Automated testing machines assures reliability
- Capable of performing full dimensional inspections
- Calibration of all testing and measuring tools yearly
- Highly recognized for quality product by top OEMs
- RoHS compliant on all standard products
- Completely compliant per the WEEE Directive

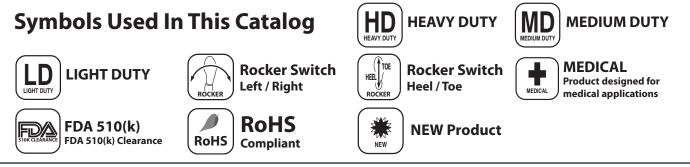
LINEMASTER AMERICA'S FOOT SWITCH LEADER

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LINEMASTER® Switch Corporation reserves the right to change the content of this catalog at anytime without notice. Refer to www.linemaster.com for up to date product information.



Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668



### **Custom Medical OEM Switches**

That custom foot switch you need may already have been designed. Illustrated are but a few of the custom foot switches we have manufactured to meet the specific needs of the Original Equipment Manufacturer. Whether you are looking for a standard model or a custom foot switch designed to your specifications, be sure to contact LINEMASTER<sup>®</sup>. Let us know the details of your foot switch specifications for a prompt quotation. Remember, our many years of experience in designing and making foot switches, will save you time and money and avoid costly design pitfalls.

CUT

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www.linemaster.com

29 Plaine Hill Road POB 238 Woodstock, CT 06281-0238 USA Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668

### **Custom Industrial OEM Switches**

Special variations are only available to the Original Equipment Manufacturer (O.E.M.) in production quantities. Specials are made to the O.E.M.'s specifications, and orders for specials are accepted on a direct basis only. Any modification to a standard item, however slight, i.e. minus the nameplate, would be considered a special.

We offer custom cordset service, so that we can provide a complete foot control assembly to the O.E.M.'s specifications. Special paint finishes, nameplates, mounting provisions and packaging are some of the options available to the O.E.M.

If a REPLACEMENT FOOT CONTROL assembly (Special) is required for a particular piece of equipment, we would suggest that direct contact be made with the O.E.M. for replacements, as all specials are made on a proprietary basis.



Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668

RUN



### **Special Variations - Original Equipment Manufacturers**

Special Variations are only available to the Original Equipment Manufacturer (O.E.M.) in production quantities. Specials are made to the O.E.M.'s specifications, and orders for specials are accepted on a direct basis only. Any modification to a standard catalog item, however slight, i.e. minus the nameplate, would be considered a special.

We offer custom cordset services, so that we can provide a complete foot control assembly to the O.E.M's specifications. Special paint finishes, nameplates, mounting provisions and packaging are some of the options available to the O.E.M.

If a O.E.M. REPLACEMENT FOOT CONTROL assembly is required for a particular piece of equipment, we would suggest that direct contact be made with the O.E.M. for replacements, as all specials are made on a proprietary basis.

MULTIPLE LISTING-O.E.M. All LINEMASTER<sup>®</sup> foot switches are UL Listed, CSA Certified or UL Recognized Components. Under UL and CSA Multiple Listing Programs, it is possible for the O.E.M. to include the UL or CSA insignias on their own nameplate. Please contact the factory for details.

#### **CE MARKING**

Many of our foot switches are or, with modifications, can be CE Marked to meet the EC Low Voltage Directive. We are working with Underwriters Laboratories, TUV Product Service and TUV ESSEN to meet the needs of our customers requiring CE Marking to specific EN standards. Our foot switches are considered general use devices and see a wide variety of end uses. To this end we have an on-going long term project with UL to investigate our entire product line to various EN Standards.

It should be noted; a foot switch that is to be attached to a finished product by the Original Equipment Manufacturer need not be CE Marked. According to the U.S. Department of Commerce, we can ship our foot switches to the European Community provided the following declaration is made on the shipping documents: "These components are intended exclusively for an industrial assembly operation for incorporation in apparatus.

#### **FDA**

Many of our foot switches are used on a wide variety of medical device products. The FDA considers the foot switch to be a component and not an accessory when used with the manufacturer's finished medical device.

#### UI

#### **Underwriters** Laboratories

UL (Underwriters Laboratories, Inc.): Standards agency and testing laboratory for the United States. UL also has some limited involvement in international certifications.

#### RoHS

**RoHS** - Restriction of Hazardous Substances

#### WFFF

WEEE - Waste Electrical and Electronic Equipment

#### **PRIVATE LABELING**

With this option, the O.E.M. can order foot switches with a nameplate which is identical to our standard nameplate except the customer name and address would replace the LINEMASTER<sup>®</sup> name and address. All other information would remain the same.

#### CUSTOM NAMEPLATE SERVICE-O.E.M.

Special nameplates and custom WARNING labels are available to the O.E.M. as part of a special foot switch assembly or as separate items.

#### GOLD ALLOY CONTACTS-O.E.M.

In most applications that required a foot operated switch, our customers have found that one of our standard basic models have met their needs. In those special design applications that require a special foot control with gold alloy contacts, we can offer the O.E.M. a basic snap switch with SPDT gold alloy contacts rated 1 Amp 125 VAC in most of our foot switch housings. The use of this basic gold alloy snap switch, would delete all agency approvals where noted. Before a decision is made to specify gold alloy contacts, we would suggest that a standard foot switch model be evaluated in the particular application.

#### MULTI PEDAL CONTROLS-O.E.M.

Many of our basic foot switch models can be mounted in combinations to provide multi function foot controls. Several of the more commonly required dual models are offered as standard twin units and are shown in the catalog and listed in the price sheet. Other multi pedal combinations are available to the O.E.M. on special order, in production quantities. Please refer to the back cover of the catalog for some representative examples. Up to eight DPDT functions can be incorporated in a single assembly.

#### CUSTOM CORDSET SERVICE-O.E.M.

Custom cordsets are available to the O.E.M. as part of a complete foot switch assembly or as separate items. LINEMASTER<sup>®</sup> is a UL Recognized and CSA Certified source for Wiring Harnesses and Processed Wire.

#### **MATERIAL SAFETY DATA SHEETS-MSDS**

LINEMASTER<sup>®</sup> products do not require Material Safety Data Sheets.

#### ENVIRONMENTAL PERFORMANCE

In addition to the familiar NEMA, UL and CSA enclosure types, LINEMASTER<sup>®</sup> offers a variety of standard foot switches that meet IEC 529, Type IP68 and/or IEC 60601-2-2, Section 44, Subparagraph aa requirements for protection against access to and the entrance of foreign objects and water to the electrical switching elements and connections. This is accomplished by either sealing the enclosure or the switching element itself.

Virtually all of our foot switch families can be constructed to accommodate these requirements as a special variation for the O.E.M.



29 Plaine Hill Road www.linemaster.com POB 238 Woodstock, CT 06281-0238 USA

### **Application Cross Reference**

LINEAR IR WIRELESS	72-74		•				•	•	•		•		•				•		•							Π						Γ		•			•	•	•		Π	
DIGITAL IR WIRELESS	69-71		•				•	•	•		•		•	•					•					•				╞						•			•	•	•		Π	
RF WIRELESS HERCULES	68															_		_																							Π	
SLIM-LINE	67		•				•	•	•		•		•	•				_		•				•	•			•				•						•	•		Π	
THROTTLE CONTROLS	99		•				•				•						•	_	•										•									•			Π	
POTENTIOMETER	61-65		•	•			•				•		•				•		•					•				•			•		•			•		•			4.00	1.80
AC SPEED CONTROL	60		•				•				•						•		•		•							╞	•		•								$\square$		1.20	1.01
AIR SWITCHES	58-59		•				•				•	•	•								•	•		•				•				┢			$\square$	•		•	╞		1.00	0.45
AIR VALVES	52-57		•				•	•			•	•	•				•															Γ									3.00	1.35
ROCKER	49-51		•				•				•		•			•				•	•			•	•			•	T		•	Γ				•		•			1.00	0.45
GEM-V & GEM-VK	48		•				•				•		•						•	•				•				•	•		•	Γ				•	•	•			1.00	0.45
PREMIER	47		•				•				•		•				•		•	•		•		•				•	• •		•					•		•			1.75	0.79
DOLPHIN	46		•				•				•		•						•					•					•					•		•		•			0.60	0.27
TREADLITE II	44-45		•				•	•			•	•	•						•	•	•			•				•	•		•			•		•	•	•			0.50	0.23
HI-TREADLITE	43		•				•	•			•		•							•		•		•				•	• •		•					•	•	•			0.75	0.34
COMPACT	42		•				•	•			•	•	•						•	•		•		•				•	• •		•					•	•	•			0.50	0.23
AQUILINE	39-41		•				•	•			•		•	•					•	•	•			•	•			•			•			•		•		•	•		1.20	.54
DELUXE II	38		•					•	•		•		•							•				•	•			•			•					•		•	•		2.00	0.90
DELUXE	37		•				•				•		•	•						•				•				•			•					•		•	•		1.00	0.45
JUNIOR	36		•				•				•		•						•	•	•	•		•	•			•	•		•					•		•	•		1.00	0.45
CLIPPER	34-35		•				•	•			•	•	•	•						•		•		•	•			•	• •		•					•	•	•	•		2.00	0.00
NAUTILUS	33		•				•				•	•	•							•	•	•		•					•					•		•		•			2.50	1.13
CLASSIC REED	32		•				•				•		•						•					•					•		•										1.25	0.56
CLASSIC VARIABLE	31		•				•				•		•				•		•										•		•							•			1.25	0.56
CLASSIC	30		•				•				•		•				•			•	•			•				•			•					•		•			1.25	0.56
CLASSIC II	29		•	•			•				•		•									•		•	•				•				•			•	•	•				1.20
CLASSIC IV	27-28		•	•			•	•			•		•								•			•	•			•				L		•		•	•		L		6.00	2.70
CLASSIC IV LINEAR	26																															L							L		$\square$	
MEDICAL EXPLOSION PROOF	24-25		•				•	•			•		•						•					•				'	• •			•		•		•			L		$ \rightarrow $	3.00
INDUSTRIAL EXPLOSION PROOF	22-23			•			•	•			•		•							•	•			•	•				•			•		•		•					7.75	3.50
ATLAS	18-21		•	•			•				•		•						•	•				•	•			'	•			L		•		•		•			4.5	2.0
HERCULES	14-17		•	•			•				•	•	•	•	•						•	•		•	•	•		'	•			L	•			•	•	•			8.0	3.6
ANTI-TRIP	9-13			•	•		•				•		•	•							•	•		•	•			_	•				•			•	•	•	•			3.6
	Page No.	Protection	No Guard (or separate)	Full Guard	Anti-trip mechanism	Treadle	One	Two	Three	Action	Momentary	Maintained	Single stage	Two stage	Three stage	Mechanical interlock	Variable	Rating	7A 125-250 VAC or less	10A 125-250 VAC	15A 125-250 VAC	20A 125-250 VAC	Circuitry	Single pole	Double pole	Triple pole	Switch termination	Quick connect/solder	Screw Cable or Connector	Sealing	IP20	IP41 & IP43	IP56	IP68	Standards	<b>13</b> . (1).	6	c(1) c(1) c(1)	©⊜ (€	Weight	Pounds (lbs.)	Kilograms (kg)



# **A**WARNING

#### USE OF FOOT CONTROLS ON MACHINERY LACKING EFFECTIVE POINT OF OPERATION SAFEGUARDS CAN CAUSE SERIOUS INJURY TO THE OPERATOR.

Foot controls should only be used where "Point of Operation" and "Pinch Point" guarding devices have been properly installed and are utilized so that it is IMPOSSIBLE for the operator's hands or fingers to remain within the point of operation during the machine cycle.

**POINT OF OPERATION**-The point or area of the machine or equipment where the work piece or material is actually positioned and work is being performed during any process such as cutting, shearing, punching, forming, welding, riveting, assembling, etc.

**PINCH POINT**-Any point at which it is possible for a portion of the body to be caught and injured between moving machine or equipment or work piece parts.

**IT IS THE RESPONSIBILITY OF THE USER** to determine the suitability of a foot control for the user's intended use and to determine that the foot control chosen by the user and wring up and installation of same will comply with all Federal, State and Local safety and health regulations and codes.

Due to the unlimited variety of business equipment, instruments, machines and vehicles on which our foot switches are used, the thousands of standards, and customers' varying interpretations of the standards covering these applications, it is impossible for LINEMASTER\* personnel to be experts on standards and requirements for all these products. We offer over 150 stock foot switch models and guards plus a large variety of specials which are made to customer specifications. We can advise you what is available in our foot switch line and you can examine models to see what meets your needs. We believe our customers' engineering departments should be the qualified experts in their own product field and know what specifications or details they may require in a foot switch for their equipment. If one of our stock models meets their needs, they can specify it, or possibly ask for a modification of a stock model if that is required.

## SHOULD YOU HAVE ANY QUESTIONS OR IF ANY OF THE ABOVE WARNING IS UNCLEAR, PLEASE CALL LINEMASTER<sup>®</sup> SWITCH CORPORATION.

**LINEMASTER**<sup>\*</sup> **SWITCH CORPORATION** reserves the right to discontinue or change specifications, designs or materials, without notice consistent with sound engineering principles and modern practices.

### Corporate History

The roots of LINEMASTER<sup>®</sup> extend back to the great depression of the 1930's. With a generous gift of \$500.00 from his Aunt, and a business machinery loan from the Reynolds Company in Providence, Rl, Albert Simonds, incorporated the Simonds Machine Company in Southbridge, Massachusetts in 1937. From this modest beginning, he produced the Lensmaster optical machinery line to grind lenses of all sizes. As his business grew, he found a need for a good, reliable foot switch to operate his equipment that required the operator to maintain hands-free capability at all times. Consequently, he invented the foot switch, and LINEMASTER<sup>®</sup> was born. His first foot switch, the Senior, came to fruition through the sale of Al's optical machinery to a company called New Era in Chicago. The management of a tool shop in the same building saw it and asked if they could acquire some of those switches. This request was forwarded back to Al at Lensmaster, and the ball began to roll.

The Second World War interrupted the growth of Lensmaster and delayed the development of LINEMASTER°; however, in the early 1940's, the Junior and Duplex models were added to the Senior family and expanded Al's offerings. The housings of the switches were made of cast iron manufactured by the Connecticut Foundry and the interior switching mechanisms were designed and developed by Arrow-Hart & Hegeman of Hartford, CT. The Treadlite, Compact and Electro-Lok followed in rapid succession at the close of the war and Mr. Simonds felt that LINEMASTER® was now capable of its own business destiny. Lensmaster was growing guickly and LINEMASTER<sup>®</sup> needed to move to a quieter, more desirable location. When Al Simonds married Nancy B. Blakely in Woodstock, CT during November 1951, they started to look for a future home for LINEMASTER® in the Woodstock area. Bald Hill Acres was available and on April 11, 1952 was purchased as their home, office and manufacturing facility. On May 1, 1952, Linemaster Switch Corporation was officially established as a privately owned and operated manufacturing facility in the state of Connecticut. Soon the Simonds family needed additional space and added the first of many structures to the small wooden carriage house on the property. The mansion remained Al's and Nancy's home and office until 1964.

LINEMASTER<sup>\*</sup> acquired the components for the assembly operation from other small companies in the area. Connecticut manufacturers were favored, however, firms throughout the country aided the growth of LINEMASTER<sup>\*</sup>.

During the '50's, additional models were added to the foot switch family. Led by the burly Hercules, an onslaught of different designs and application specific switches were introduced to the American public. The Nautilus,

Cadet, Clipper, Executive and Deluxe models, to name a few, increased the company's core product line. To this day, most remain the bread and butter of Linemaster Switch Corporation. Al Simonds' untimely death in 1966 left the company with a strong legacy that its employees have maintained. His wife, Nancy, who had been very active in the business since 1942 at Simonds Machine, became President and Treasurer and has carried on in the same manner until her retirement in 2002. Their daughter, Nancy Iris, has held many key positions with the company.

Joseph Carlone joined LINEMASTER<sup>®</sup> as Vice President/General Manager in April 1996, bringing to the company his knowledge and experience in manufacturing. He was named President in 1998, and is responsible for the engineering enhancements and cutting edge technologies that ensure Linemaster's continued growth and integrity. Mr. Carlone purchased Linemaster Switch Corporation in June 2002 and takes great pride in guiding "America's Foot Switch Leader" into the new millennium.

The growth of LINEMASTER<sup>\*</sup> and its facilities is the story of a small business success that has repeated itself many times across America. Small business is the backbone of American industry that fires the ingenuity in all of us. Over the decades, LINEMASTER<sup>\*</sup> has continued to grow while remaining faithful to its original small company focus of service, quality and integrity. America's Foot Switch Leader offers a complete range of electric, air-powered and variable speed foot switches. Today, the manufacturing facility is situated in the heart of the 91 acres that is still referred to as Bald Hill and has expanded to over 50,000 square feet. It produces over 200 standard catalog items featuring heavy, medium and light-duty switches. These switches are found in industrial, medical and commercial based applications of all types worldwide.

LINEMASTER<sup>\*</sup> has become the foot switch of choice to those who require exceptional quality and engineered technologies that are uncommon and not standard. The changing needs of our customers have brought LINEMASTER<sup>\*</sup> to new levels, embracing new technologies such as solid modeling design and stereo lithography. LINEMASTER<sup>\*</sup> is currently able to design and test new foot switches in only a fraction of the time it took LINEMASTER<sup>\*</sup> in the past. New models such as the Air Seal, Atlas and Aquiline are examples of foot controls designed to meet tomorrow's standards today. LINEMASTER<sup>\*</sup> looks forward with great enthusiasm to the challenges of the new millennium, striving always to provide excellent service and uncompromising quality in its 50 year old tradition.



29 Plaine Hill Road POB 238 Woodstock, CT 06281-0238 USA

### Hercules Anti-Trip - Full Shield

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

#### **Materials of Construction:**

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

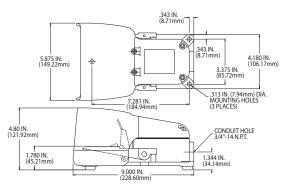
#### Features & Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw

#### **Options:**

HD

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Gated Models available for additional protection (See "Hercules Anti-Trip Gated..." on pages 12 &13 for details)
- Twin and triple models available Special Order



Size (HxWxD):	4.80 x 5.88 x 9.00 ln.
Weight:	8.00 lbs.

#### **AWARNING** SEE PRODUCT WARNING ON PAGE 8

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PECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)																
0529 1		DESCRIPTION	STAGE	CIRCUIT		ELECTRICAL RATINGS										
56	511-B	Momentary	SINGLE	SPDT	С	20 A 125-250 VAC										
56	511-B2 <sup>1</sup>	Momentary	SINGLE	DPDT	С	1 H.P. 125-250 VAC										
56	511-B2A	Momentary	TWO	SPDT	С	Heavy Pilot Duty 250 VAC Max.										
56	511-B3	Momentary	SINGLE	SPDT DB <sup>2</sup>	Z	15 A 125-250 VAC										
56	511-B4 <sup>1</sup>	Momentary	SINGLE	DPDT DB <sup>2</sup>	Z	1/2 H.P. 125 VAC 1 H.P. 250 VAC										
56	511-B4A	Momentary	TWO	SPDT DB <sup>2</sup>		Heavy Pilot Duty 250 VAC Max.										
	<b>0529</b> Protection 56 56 56 56 56 56	0529         CATALOG NUMBER           56         511-B           56         511-B2 <sup>1</sup> 56         511-B2A           56         511-B3           56         511-B4 <sup>1</sup>	0529 ProtectionCATALOG NUMBERDESCRIPTION56511-BMomentary56511-B21Momentary56511-B2AMomentary56511-B3Momentary56511-B41Momentary	0529 ProtectionCATALOG NUMBERDESCRIPTIONSTAGE56511-BMomentarySINGLE56511-B21MomentarySINGLE56511-B2AMomentaryTWO56511-B3MomentarySINGLE56511-B41MomentarySINGLE	0529 ProtectionCATALOG NUMBERDESCRIPTIONSTAGECIRCUIT56511-BMomentarySINGLESPDT56511-B21MomentarySINGLEDPDT56511-B2AMomentaryTWOSPDT56511-B3MomentarySINGLESPDT DB256511-B41MomentarySINGLEDPDT DB2	0529 ProtectionCATALOG NUMBERDESCRIPTIONSTAGECIRCUITFORM56511-BMomentarySINGLESPDTC56511-B21MomentarySINGLEDPDTC56511-B2AMomentaryTWOSPDTC56511-B3MomentarySINGLESPDTC56511-B41MomentarySINGLESPDT DB2Z56511-B41MomentarySINGLEDPDT DB2Z										

<sup>1</sup>One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a 511-B2. <sup>2</sup>DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.





## Hercules Anti-Trip - O Shield

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

#### Materials of Construction:

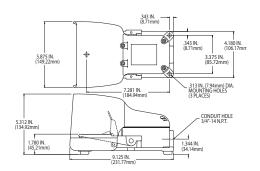
- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### Features & Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle
  as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw

#### **Options**:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Gated Models available for additional protection (See "Hercules Anti-Trip Gated..." on pages 12 &13 for details)
- Twin and triple models available Special Order



SIZE (HxWxD):	5.31 x 5.88 x 9.13 ln.
WEIGHT:	8.00 lbs.

#### AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) AGENCY ELECTRICAL CATALOG EN 60529 APPROVALS NUMBER DESCRIPTION STAGE CIRCUIT FORM RATINGS SPDT ŝ 🖲 🏵 IP56 511-BO SINGLE С Momentary 20 A 125-250 VAC 511-B2O1 (š) (h) (f) IP56 SINGLE DPDT 1 H.P. 125-250 VAC С Momentary Heavy Pilot Duty 250 VAC Max. ŝ 🖲 🏵 IP56 511-B2OA TWO SPDT С Momentary (H) SP IP56 511-B3O Momentary SINGLE SPDT DB<sup>2</sup> Ζ 15 A 125-250 VAC 1/2 H.P. 125 VAC (H) **SP** IP56 511-B4O1 SINGLE DPDT DB<sup>2</sup> Ζ Momentary 1 H.P. 250 VAC (h) 🚯 IP56 511-B4OA Momentary TWO SPDT DB<sup>2</sup> Ζ Heavy Pilot Duty 250 VAC Max.

<sup>1</sup>One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a 511-B2. <sup>2</sup>DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.



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### Hercules Anti-Trip - OX Shield

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

#### Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

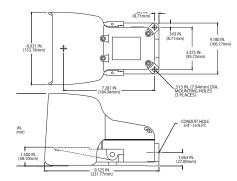
#### **Features & Benefits:**

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw

#### **Options:**

HD

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Gated Models available for additional protection (See "Hercules Anti-Trip Gated..." on pages 12 &13 for details)
- Twin and triple models available Special Order



SIZE (HxWxD):	5.78 x 6.03 x 9.13 ln.
WEIGHT:	8.00 lbs.

#### AWARNING SEE PRODUCT WARNING ON PAGE 8

	WARNING SEE PRODUCT WARNING ON PAGE 8											
SPECIFICATIONS	5 (Special varia	ations are available t	o the O.E.M. on special or	ler on the m	odels listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT	FORM	ELECTRICAL RATINGS					
(† 10 🚯 🚯	IP56	511-BOX	Momentary	SINGLE	SPDT	С	20 A 125-250 VAC					
ŝ 🖲 🚯	IP56	511-B2OX <sup>1</sup>	Momentary	SINGLE	DPDT	С	1 H.P. 125-250 VAC					
ŝ <b>(4) SP</b>	IP56	511-B2OXA	Momentary	TWO	SPDT	С	Heavy Pilot Duty 250 VAC Max.					
(h) <b>(f)</b>	IP56	511-B3OX	Momentary	SINGLE	SPDT DB <sup>2</sup>	Z	15 A 125-250 VAC					
(h) <b>(f)</b> -	IP56	511-B4OX <sup>1</sup>	Momentary	SINGLE	DPDT DB <sup>2</sup>	Z	1/2 H.P. 125 VAC 1 H.P. 250 VAC					
(h) <b>(f)</b>	IP56	511-B4OXA	Momentary	TWO	SPDT DB <sup>2</sup>	Z	Heavy Pilot Duty 250 VAC Max.					
10ne pole of these mode	na note of these models has an adjustable actuation mechanism that enables you to make or break one note here the other. EVANUES You can break the N.O. Circuit Long before you would remake a N.C. Circuit in a S11.P.2											

<sup>1</sup>One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a 511-B2. <sup>2</sup>DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.





## Hercules Anti-Trip - Gated O Shield

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

#### Materials of Construction:

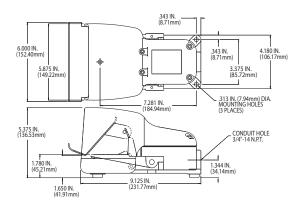
- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### Features & Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle
  as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Twin and triple models available Special Order



SIZE (HxWxD):	5.38 x 6.00 x 9.13 ln.
WEIGHT:	8.00 lbs.

AWARNING	WARNING SEE PRODUCT WARNING ON PAGE 8												
	PECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)												
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT		ELECTRICAL RATINGS						
ś 🖲 🚯	IP56	511-BG	Momentary	SINGLE	SPDT	С	20 A 125-250 VAC						
ŝ 🖲 🚯	IP56	511-B2G <sup>1</sup>	Momentary	SINGLE	DPDT	С	1 H.P. 125-250 VAC						
ŝ 🖲 🚯	IP56	511-B2GA	Momentary	TWO	SPDT	С	Heavy Pilot Duty 250 VAC Max.						
(h) <b>(h</b> )	IP56	511-B3G	Momentary	SINGLE	SPDT DB <sup>2</sup>	Z	15 A 125-250 VAC						
(h) <b>(h</b> )	IP56	511-B4G <sup>1</sup>	Momentary	SINGLE	DPDT DB <sup>2</sup>	Z	<sup>1</sup> / <sub>2</sub> H.P. 125 VAC 1 H.P. 250 VAC						
(h) <b>(h</b> )	IP56	511-B4GA	Momentary	TWO	SPDT DB <sup>2</sup>	Z	Heavy Pilot Duty 250 VAC Max.						
<sup>1</sup> One pole of these mode	Ine pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a 511-B2.												

<sup>2</sup>DB Double Break models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.U. Circuit long before you would remake <sup>2</sup>DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.



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HD

### Hercules Anti-Trip - Gated OX Shield

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

#### Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

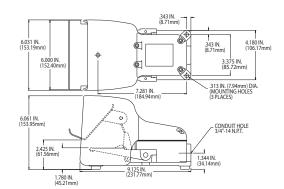
#### **Features & Benefits:**

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw

#### **Options:**

HD

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Twin and triple models available Special Order



SIZE (HxWxD):	6.06 x 6.03 x 9.125 ln.
WEIGHT:	8.00 lbs.

SPECIFICATIONS	WARNING SEE PRODUCT WARNING ON PAGE 8 PECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)												
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT	FORM	ELECTRICAL RATINGS						
(† 10 🚯	IP56	511-BOXG	Momentary	SINGLE	SPDT	С	20 A 125-250 VAC						
(† 10 🚯	IP56	511-B2OXG <sup>1</sup>	Momentary	SINGLE	DPDT	С	1 H.P. 125-250 VAC						
(† <b>6</b> )	IP56	511-B2OXGA	Momentary	TWO	SPDT	С	Heavy Pilot Duty 250 VAC Max.						
(h) <b>(f)</b>	IP56	511-B3OXG	Momentary	SINGLE	SPDT DB <sup>2</sup>	Z	15 A 125-250 VAC						
(h) <b>(f)</b>	IP56	511-B4OXG <sup>1</sup>	Momentary	SINGLE	DPDT DB <sup>2</sup>	Z	1/2 H.P. 125 VAC 1 H.P. 250 VAC						
(h) <b>(f)</b>	IP56	511-B4OXGA	Momentary	тwo	SPDT DB <sup>2</sup>	Z	Heavy Pilot Duty 250 VAC Max.						
	ne pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a 511-B2. B Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.												

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### **Hercules - No Shield**

NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight NO SHIELD

#### Materials of Construction:

- Treadle, cover and housing constructed from cast iron for strength and durability
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### Features & Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
   In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

Size (HxWxD):	3.16 x 4.06 x 8.38 ln.
Weight:	8.00 lbs.

#### AWARNING SEE PRODUCT WARNING ON PAGE 8

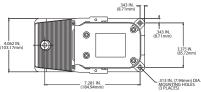
GENCY PPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT	FORM	ELECTRICAL RATINGS
₽) <b>(£</b> )	IP56	531-SWN	Momentary	Single	SPDT	С	
₽) <b>(£</b> )	IP56	571-DWN	Maintained	Single	SPDT	С	
₽) <b>(£</b> )	IP56	532-SWN	Momentary	Single	DPDT	С	]
₩ <b>\$</b> ₽	IP56	572-DWN	Maintained	Single	DPDT	С	20 A 125-250 VAC
₩ <b>ઊ</b>	IP56	533-SWN	Momentary	Single	TPDT	С	1 H.P. 125-250 VAC
₽) <b>(£</b> )	IP56	573-DWN	Maintained	Single	TPDT	С	Heavy Pilot Duty 250 VAC Max.
₽) <b>(£</b> )	IP56	534-SWN	Momentary	Two	SPDT	С	
₽) <b>(}</b>	IP56	574-DWN	Maintained	Two	SPDT	С	
₽) <b>(£</b> )	IP56	535-SWN	Momentary	Three	SPDT	С	
₽) <b>(£</b> )	IP56	575-DWN	Maintained	Three	SPDT	С	
₽) <b>@</b> •	IP56	536-SWN	Momentary	Single	SPDT DB <sup>1</sup>	Z	
₩) <b>(£)</b>	IP56	576-DWN	Maintained	Single	SPDT DB <sup>1</sup>	Z	15 A 125-250 VAC
₩. <b>()</b>	IP56	537-SWN	Momentary	Single	DPDT DB1	Z	1⁄2 H.P. 125 VAC 1 H.P. 250 VAC
₽) <b>(£</b> )	IP56	577-DWN	Maintained	Single	DPDT DB1	Z	Heavy Pilot Duty
₽) <b>(}</b>	IP56	538-SWN	Momentary	Two	SPDT DB1	Z	250 VAC Max.
₽) <b>(£</b> )	IP56	578-DWN	Maintained	Two	SPDT DB1	Z	

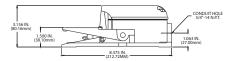
'DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.





HD





### **Hercules - Full Shield**

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight STANDARD FULL SHIELD

#### **Materials of Construction:**

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### **Features & Benefits:**

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
   In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is
- placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

HD

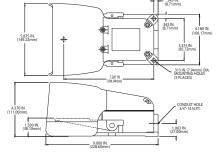
- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 34" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- AirVal models are available (See "Hercules Pneumatic AirVal" on page 53 for details)
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
   Hercules models available with cast aluminum base and covers (except unshielded)
- cover which is gray iron)

Size (HxWxD):	4.37 x 5.88 x 9.00 ln.
Weight:	8.00 lbs.

	WARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATION	S (Special varia	tions are available	to the O.E.M. on special	order on the	e models listed below)				
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT	FORM	ELECTRICAL RATINGS		
(h) <b>(h</b> )	IP56	531-SWH	Momentary	Single	SPDT	С			
(h) <b>(f</b> )	IP56	571-DWH	Maintained	Single	SPDT	С			
(h) <b>(f)</b>	IP56	532-SWH	Momentary	Single	DPDT	С			
(h) <b>(f</b> )	IP56	572-DWH	Maintained	Single	DPDT	С			
(h) <b>(f</b> )	IP56	533-SWH	Momentary	Single	TPDT	С			
(h) <b>(f</b> )	IP56	573-DWH	Maintained	Single	TPDT	С	20 A 125-250 VAC		
(h) <b>(f</b> )	IP56	534-SWH	Momentary	Two	SPDT	С	1 H.P. 125-250 VAC Heavy Pilot Duty		
(h) <b>(f</b> )	IP56	574-DWH	Maintained	Two	SPDT	С	250 VAC Max.		
(h) <b>(f</b> )	IP56	574-DWHA <sup>1</sup>	See Foot Note	Two	SPDT	С			
(h) <b>(f</b> )	IP56	574-DWHD <sup>2</sup>	See Foot Note	Two	SPDT	С			
(h) <b>(f)</b>	IP56	535-SWH	Momentary	Three	SPDT	С			
(h) <b>(f</b> )	IP56	575-DWH	Maintained	Three	SPDT	С			
(h) <b>(f)</b>	IP56	575-DWHA <sup>3</sup>	See Foot Note	Three	SPDT	С			
(h) <b>(f)</b>	IP56	536-SWH	Momentary	Single	SPDT DB <sup>4</sup>	Z			
(h) <b>(f</b> )	IP56	576-DWH	Maintained	Single	SPDT DB <sup>₄</sup>	Z			
(h) <b>(f)</b>	IP56	537-SWH	Momentary	Single	DPDT DB⁴	Z	15 A 125-250 VAC		
(h) <b>(f</b> )	IP56	577-DWH	Maintained	Single	DPDT DB⁴	Z	1/2 H.P. 125 VAC		
(h) <b>(f</b> )	IP56	538-SWH	Momentary	Two	SPDT DB <sup>4</sup>	Z	1 H.P. 250 VAC Heavy Pilot Duty		
(h) <b>(f</b> )	IP56	578-DWH	Maintained	Two	SPDT DB <sup>4</sup>	Z	250 VAC Max.		
(h) <b>(f</b> )	IP56	578-DWHA <sup>1</sup>	See Foot Note	Two	SPDT DB <sup>4</sup>	Z			
(h) <b>(f</b> )	IP56	578-DWHD <sup>2</sup>	See Foot Note	Two	SPDT DB <sup>4</sup>	Z			
<sup>1</sup> 1st stage Maintair	ned 2nd stage Mo	omentary. 21st stage N	omentary 2nd stage Mainta	ained. <sup>3</sup> 1st stage	e Maintained 2nd & 3rd stag	e Moment	ary. ⁴DB Double Break models must be wired		

<sup>1</sup>1st stage Maintained 2nd stage Momentary. <sup>2</sup>1st stage Momentary 2nd stage Maintained. <sup>3</sup>1st stage Maintained 2nd & 3rd stage Momentary. <sup>4</sup>DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.





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### Hercules - O Shield

#### NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13 CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight "O" SHIELD

#### Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange

Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### **Features & Benefits:**

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 34" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
   Special Twin models available to the Q.E.M. on special order
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models are available (see her wheless hercules on pages to inducting)
   Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

Size (HxWxD):	5.03 x 5.88 x 9.13 ln.				
Weight:	8.00 lbs.				

AWARNING SEE PRODUCT WARNING ON PAGE 8

AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT	FORM	ELECTRICAL RATINGS
₩ <b>\$</b> ₽	IP56	531-SWHO	Momentary	Single	SPDT	С	
₩. <b>€</b> ₽	IP56	571-DWHO	Maintained	Single	SPDT	С	
₩. <b>€</b> ₽	IP56	532-SWHO	Momentary	Single	DPDT	С	
₽) <b>(£</b> )	IP56	572-DWHO	Maintained	Single	DPDT	С	
₽) <b>(£</b> )	IP56	533-SWHO	Momentary	Single	TPDT	С	
₽) <b>(}</b>	IP56	573-DWHO	Maintained	Single	TPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC
₩. <b>\$</b> ₽	IP56	534-SWHO	Momentary	Two	SPDT	С	Heavy Pilot Duty
₩. <b>\$</b> ₽	IP56	574-DWHO	Maintained	Two	SPDT	С	250 VAC Max.
₽) <b>(£</b> )	IP56	574-DWHOA <sup>1</sup>	See Foot Note	Two	SPDT	С	
₽) <b>(}</b>	IP56	574-DWHOD <sup>2</sup>	See Foot Note	Two	SPDT	С	
₩ <b>\$</b> ₽	IP56	535-SWHO	Momentary	Three	SPDT	С	
₽) <b>(£</b> )	IP56	575-DWHO	Maintained	Three	SPDT	С	
₽) <b>(£</b> )	IP56	575-DWHOA <sup>3</sup>	See Foot Note	Three	SPDT	С	
₩. <b>€</b> ₽	IP56	536-SWHO	Momentary	Single	SPDT DB⁴	Z	
₩. <b>\$</b> ₽	IP56	576-DWHO	Maintained	Single	SPDT DB⁴	Z	
₩. <b>€</b> ₽	IP56	537-SWHO	Momentary	Single	DPDT DB⁴	Z	15 A 125-250 VAC <sup>1</sup> /2 H.P. 125 VAC
₩. <b>€</b> ₽	IP56	577-DWHO	Maintained	Single	DPDT DB <sup>4</sup>	Z	1 H.P. 250 VAC
₩. <b>6</b> ₽	IP56	538-SWHO	Momentary	Two	SPDT DB <sup>₄</sup>	Z	Heavy Pilot Duty
₩. <b>€</b>	IP56	578-DWHO	Maintained	Two	SPDT DB <sup>₄</sup>	Z	250 VAC Max.
₩. <b>€</b> ₽	IP56	578-DWHOA1	See Foot Note	Two	SPDT DB⁴	Z	
₽) <b>(}</b>	IP56	578-DWHOD <sup>2</sup>	See Foot Note	Two	SPDT DB <sup>4</sup>	Z	

<sup>1</sup>1st stage Maintained 2nd stage Momentary. <sup>2</sup>1st stage Momentary 2nd stage Maintained. <sup>3</sup>1st stage Maintained 2nd & 3rd stage Momentary. <sup>4</sup>DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.



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13 IN. 13 IN.

## **Hercules - OX Shield**

#### **NEMA Type 2, 4 & 13 UL ENCLOSURE 2, 4 & 13** CSA ENCLOSURE 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight **"OX" SHIELD**

#### Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### **Features & Benefits:**

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

HD

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

Size (HxWxD):	5.78 x 6.03 x 9.13 ln.
Weight:	8.00 lbs.

<b>AWARNING</b>	AWARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATION	5 (Special varia	ations are available t	o the O.E.M. on special orde	er on the mo	dels listed below)				
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT	FORM	ELECTRICAL RATINGS		
	IP56	531-SWHOX	Momentary	Single	SPDT	С			
(h) <b>(f)</b>	IP56	571-DWHOX	Maintained	Single	SPDT	С			
(h) <b>(f)</b>	IP56	532-SWHOX	Momentary	Single	DPDT	С			
(h) <b>(f)</b>	IP56	572-DWHOX	Maintained	Single	DPDT	С			
(h) <b>(f)</b>	IP56	533-SWHOX	Momentary	Single	TPDT	С			
(h) <b>(f)</b>	IP56	573-DWHOX	Maintained	Single	TPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC		
(h) <b>(f)</b>	IP56	534-SWHOX	Momentary	Two	SPDT	С	Heavy Pilot Duty		
(h) <b>(f)</b>	IP56	574-DWHOX	Maintained	Two	SPDT	С	250 VAC Max.		
(h) <b>(f)</b>	IP56	574-DWHOXA <sup>1</sup>	See Foot Note	Two	SPDT	С			
(h) <b>(f)</b>	IP56	574-DWHOXD <sup>2</sup>	See Foot Note	Two	SPDT	С			
(h) <b>(f)</b>	IP56	535-SWHOX	Momentary	Three	SPDT	С			
(h) <b>(f)</b>	IP56	575-DWHOX	Maintained	Three	SPDT	С			
(h) <b>(f)</b>	IP56	575-DWHOXA <sup>3</sup>	See Foot Note	Three	SPDT	С			
(h) <b>(f)</b>	IP56	536-SWHOX	Momentary	Single	SPDT DB <sup>₄</sup>	Z			
(h) <b>(f)</b>	IP56	576-DWHOX	Maintained	Single	SPDT DB <sup>₄</sup>	Z			
(h) <b>(f)</b>	IP56	537-SWHOX	Momentary	Single	DPDT DB⁴	Z	15 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125 VAC		
(h) <b>(f)</b>	IP56	577-DWHOX	Maintained	Single	DPDT DB⁴	Z	1 H.P. 250 VAC		
(h) <b>(f)</b>	IP56	538-SWHOX	Momentary	Two	SPDT DB <sup>₄</sup>	Z	Heavy Pilot Duty 250 VAC Max.		
(h) <b>(f)</b>	IP56	578-DWHOX	Maintained	Two	SPDT DB <sup>₄</sup>	Z	200 VAC IVIdX.		
(h) <b>(f)</b>	IP56	578-DWHOXA <sup>1</sup>	See Foot Note	Two	SPDT DB⁴	Z			
(h) <b>(f)</b>	IP56	578-DWHOXD <sup>2</sup>	See Foot Note	Two	SPDT DB⁴	Z			

1st stage Maintained 2nd stage Momentary. 21st stage Momentary 2nd stage Maintained. 31st stage Maintained 2nd & 3rd stage Momentary. 4DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line



7.281 IN

9.125 lN 231.77m

.500 IN

3.375 II (85.72r

.313 IN. (7.94mm) DI MOUNTING HOLES

CONDUIT HOL

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### Atlas - No Shield



NEMA Type 1, 2, 4, 6, 6P & 13 UL ENCLOSURE 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 IEC 60601-2-2

#### Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

#### Materials of Construction:

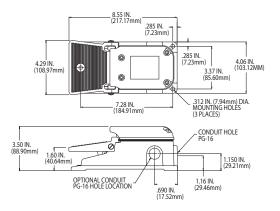
- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard

#### Features & Benefits:

- Protected by a strong cast iron cover
- Developed for worldwide application
- Snap action SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available Special Order



Size (HxWxD):	3.50 x 4.29 x 8.55 ln.
Weight:	4.50 lbs.

<b>AWARNING</b>	WARNING SEE PRODUCT WARNING ON PAGE 8									
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)										
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT		ELECTRICAL RATINGS				
c 🕕 us 😰 🤇 🤆	IP68	936-SWN	Momentary	SPDT-SNAP ACTION		A300, Q300: Ith = 10A (AC)				
c 🕕 us 🙆 🤇 🤆	IP68	936-SWNBM	Momentary	SPDT-SLOW ACTION BBM <sup>1</sup>		lth = 2.5 A (DC) AC15: Ue = 240V; le = 3A				
c 🕕 us 🙆 🤇 🤆	IP68	936-SWNMB	Momentary	SPDT-SLOW ACTION MBB <sup>2</sup>		Ue = 120V; le = 6A DC13: Ue = 250V; le = 0.27A				
c(UL) us ( (	IP68	937-SWN	Momentary	DPDT-SNAP ACTION		Ue = 120V; Ie = 0.55A Ue = 24V; Ie = 2.5A				
<sup>1</sup> Break Before Make	<sup>2</sup> Make Before	Break								

<sup>1</sup>Break Before Make <sup>2</sup>Make Before Br







### Atlas - Full Shield

NEMA Type 1, 2, 4, 6, 6P & 13 UL ENCLOSURE 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 IEC 60601-2-2

#### Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

#### Materials of Construction:

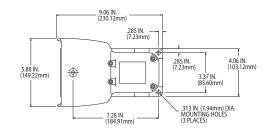
- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard

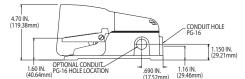
#### **Features & Benefits:**

- Protected by a strong cast aluminum Shield
- Developed for worldwide application
- Snap action SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available Special Order





Size (HxWxD):	4.70 x 5.88 x 9.06 ln.
Weight:	4.50 lbs.

	WARNING SEE PRODUCT WARNING ON PAGE 8 PECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG		circuit	FORM	ELECTRICAL RATINGS			
c 🕕 us 😰 🤇 🤆	IP68	936-SWH	Momentary	SPDT-SNAP ACTION		A300, Q300: lth = 10A (AC)			
c 🕕 us 😰 🤇 🤆	IP68	936-SWHC41	Momentary	SPDT-SNAP ACTION		Ith = 2.5 A (DC) AC15:			
c 🕕 us 😰 🤇 🤆	IP68	936-SWHBM	Momentary	SPDT-SLOW ACTION BBM <sup>2</sup>		Ue = 240V; le = 3A Ue = 120V; le = 6A			
c 🕕 us 😰 🤇 🤆	IP68	936-SWHMB	Momentary	SPDT-SLOW ACTION MBB <sup>3</sup>		DC13: Ue = 250V; le = 0.27A			
c (U) us ( E	IP68	937-SWH	Momentary	DPDT-SNAP ACTION		Ue = 120V; le = 0.55A Ue = 24V; le = 2.5A			
<sup>1</sup> Sinale 3/4" - N.P.T.	Conduit Entry <sup>2</sup>	Break Before Make <sup>3</sup>	Make Before Break						



### Atlas - O Shield



NEMA Type 1, 2, 4, 6, 6P & 13 UL ENCLOSURE 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 IEC 60601-2-2

#### Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

#### Materials of Construction:

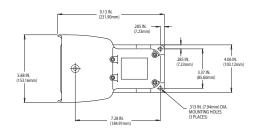
- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard

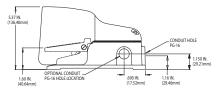
#### Features & Benefits:

- Protected by a strong cast aluminum Shield
- Developed for worldwide application
- Snap action SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available Special Order





Size (HxWxD):	5.37 x 5.88 x 9.13 ln.
Weight:	4.50 lbs.

#### AWARNING SEE PRODUCT WARNING ON PAGE 8

A WARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS		
¢@us 🕑 ( 🤅	IP68	936-SWHO	Momentary	SPDT-SNAP ACTION		A300, Q300: Ith = 10A (AC)		
c 🕕 us 🙆 🤇 🤆	IP68	936-SWHOBM	Momentary	SPDT-SLOW ACTION BBM <sup>1</sup>		Ith = 2.5 A (DC) AC15: Ue = 240V; Ie = 3A		
c 🕕 us 😂 🤇 🤆	IP68	936-SWHOMB	Momentary	SPDT-SLOW ACTION MBB <sup>2</sup>		Ue = 120V; le = 6A DC13: Ue = 250V; le = 0.27A		
ն∰us <b>( €</b>	IP68	937-SWHO	Momentary	DPDT-SNAP ACTION		Ue = 230V; $Ie = 0.27AUe = 120V$ ; $Ie = 0.55AUe = 24V$ ; $Ie = 2.5A$		
<sup>1</sup> Break Before Make	Break Before Make Before Break							





### Atlas - OX Shield

NEMA Type 1, 2, 4, 6, 6P & 13 UL ENCLOSURE 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 IEC 60601-2-2

#### Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

#### Materials of Construction:

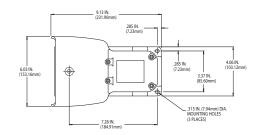
- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard

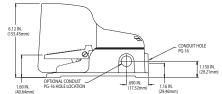
#### Features & Benefits:

- Protected by a strong cast aluminum Shield
- Developed for worldwide application
- Snap action SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment

#### **Options:**

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available Special Order





Size (HxWxD):	6.12 x 6.03 x 9.13 ln.
Weight:	4.50 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS	S (Special varia EN 60529 Degree of Protection	CATALOG	e O.E.M. on special order on DESCRIPTION	the models listed below)	FORM	ELECTRICAL RATINGS			
¢∰us ☎ ( €			Momentary	SPDT-SNAP ACTION		A300, Q300: Ith = 10A (AC)			
c 🕕 us 😰 🤇 🧲	IP68	936-SWHOXBM	Momentary	SPDT-SLOW ACTION BBM <sup>1</sup>		Ith = 2.5 A (DC) AC15: Ue = 240V; le = 3A			
:(0) us 🕲 ( (	IP68	936-SWHOXMB	Momentary	SPDT-SLOW ACTION MBB <sup>2</sup>		Ue = 120V; le = 6A DC13: Ue = 250V; le = 0.27A			
c.∰us <b>Ç €</b>	IP68	937-SWHOX	Momentary	DPDT-SNAP ACTION		Ue = 120V; Ie = 0.55A Ue = 24V; Ie = 2.5A			
<sup>1</sup> Break Before Make	<sup>2</sup> Make Before I	- Break			•				

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### **Explosion Proof - Industrial 500**

CLASS I, DIVISION 1, Group D CLASS II, DIVISION 1, Group F & G CLASS I, ZONE 1, GROUP IIA NEMA Type 2, 7D & 9F UL ENCLOSURE 2 EN 60529 Degree of Protection IP41

#### EQUIPMENT FOR HAZARDOUS LOCATIONS

#### Materials of Construction:

- Aluminum full guard with integral base plate painted Alert Orange
- All models supplied with a 3/4"-14 N.P.T. threaded rigid metal conduit entry and mounting provisions in the base plate
- Integral handle for ease of moving

### Features & Benefits:

- Non sparking cast aluminum housing
  4 holes provided for rigid mounting to floor or equipment
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time

#### **Options:**

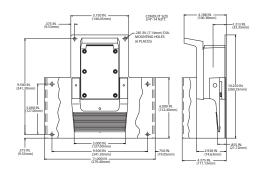
- Waterproof model available under "600 Series" (See "Explosion Proof Industrial 600" on page 23 for details)
- Medical Explosion-proof models available (See "Explosion Proof Medical..." on pages 24 & 25 for details)

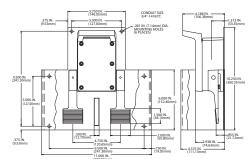


MD

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Size (HxWxD):	4.38 x 11 x 10.25 ln.
Weight:	7.75 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT		ELECTRICAL RATINGS	
c UL us	IP41	592-EX	Single Pedal / Momentary	SPDT	C	15 A 125 VAC 10 A 250 VAC	
c (U) us	IP41	594-EX	Single Pedal / Momentary	DPDT	С	<sup>3</sup> ⁄4 H.P. 125 VAC 1 H.P. 250 VAC	
c UU us	IP41	597-EX	Two Pedal / Momentary	Each Pedal SPDT	<i>c</i>	3 A 28 VDC Heavy Pilot Duty 250 VAC Max.	



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### **Explosion Proof - Industrial 600**

CLASS I, DIVISION 1, Group D CLASS II, DIVISION 1, Group F & G CLASS I, ZONE 1, GROUP IIA NEMA Type 2, 3, 4, 6, 6P, 13, 7D & 9F UL ENCLOSURE 2, 3, 4, 6, 6P, 7, 9 & 13 EN 60529 Degree of Protection IP68 Meets IEC 60601-2-2

#### Driptight • Dusttight • Watertight • Oiltight EQUIPMENT FOR HAZARDOUS LOCATIONS

#### **Materials of Construction:**

- Aluminum full guard with integral base plate painted Alert Orange
- Integral handle for ease of moving
- All models supplied with a 3/4"-14 N.P.T. threaded rigid metal conduit entry and mounting provisions in the base plate
- Industrial Explosion Proof foot switch Series 600 offers added environmental protection against water and oil, through the addition of sealing O-rings on the pivot rod and between the cover and base
- This is accomplished by increasing the thickness of the housing walls, without negating the integrity of the metal to metal contact required to qualify as explosion proof

#### **Features & Benefits:**

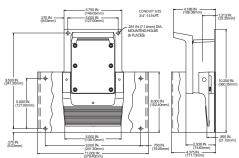
- Non sparking cast aluminum housing
- 4 holes provided for rigid mounting to floor or equipment
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time

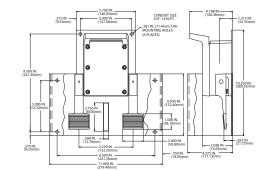
#### **Options:**

 Medical Explosion-proof models available (See "Explosion Proof - Medical..." on pages 24 & 25 for details)









Size (HxWxD):	4.38 x 11 x 10.25 ln.
Weight:	8.00 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY		CATALOG	DESCRIPTION	CIRCUIT		ELECTRICAL RATINGS			
c (UL) us	IP68	602-EX	Single Pedal / Momentary	SPDT	С	15 A 125 VAC 10 A 250 VAC			
c (UL) us	IP68	604-EX	Single Pedal / Momentary	DPDT	С	<sup>3</sup> ⁄4 H.P. 125 VAC 1 H.P. 250 VAC			
c (U) us	IP68	607-EX	Two Pedal / Momentary	Each Pedal SPDT		3 A 28 VDC Heavy Pilot Duty 250 VAC Max.			



### **Explosion Proof - Medical 500**

#### **CLASS I, DIVISION 1, Group C & D** CLASS I, ZONE 1, Group IIA & IIB NEMA Type 7C EN 60529 Degree of Protection IP41

EQUIPMENT FOR HAZARDOUS LOCATIONS

Not For Use In Industrial Applications

#### **Materials of Construction:**

- Aluminum base plate with nonskid conductive rubber base pad
- Both models prewired with potted connector MS-3102R-18-4PW
- Two pedal model wired with an electrical interlock and supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time
- Foot switch painted black
- Integral handle for ease of moving

#### **Features & Benefits:**

- Non sparking cast aluminum housing
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time
- Two pedal models prewired with electrical interlock

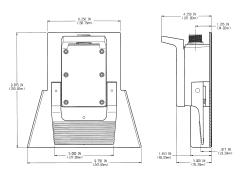
#### **Options:**

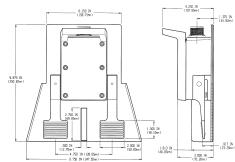
- Use mating connector MS-3106A-18-4SW, plus strain relief clamp MS-3057-10 or 10A
- Mating connector with cable clamp available from LINEMASTER<sup>®</sup>. Order as Catalog Number LSC-835
- Industrial Explosion-proof models available (See "Explosion Proof Industrial..." on pages 22 & 23 for details)



Нα







Size (HxWxD):	4.38 x 9.75 x 10.00 ln.
Weight:	6.50 lbs.

<b>AWARNING</b>	AWARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)									
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM		ELECTRICAL RATINGS		
c∰us <b>( €</b>	IP41	591-EX	Single Pedal / Momentary	SPDT	с	Pin A-Normally Open B-Common C-Normally Closed D-Ground			
с <sup>(II)</sup> из ( Є	IP41	596-EX	Two Pedal / Momentary	Each Pedal SPNO	A	Pin A-Normally Open (Left Pedal) B-Common C-Normally Open (Right Pedal) D-Ground	5 A 125-250 VAC 3 A 28 VDC		



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#### CLASS I, DIVISION 1, Group C & D CLASS I, ZONE 1, Group IIA & IIB NEMA Type 7C EN 60529 Degree of Protection IP68 Meets IEC 60601-2-2

#### **EQUIPMENT FOR HAZARDOUS LOCATIONS** Not For Use In Industrial Applications

#### **Materials of Construction:**

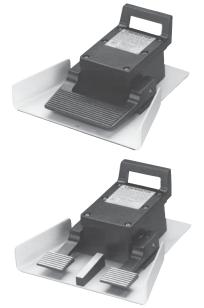
- Medical Explosion Proof foot switch Series 600 is a UL Listed construction that allows the addition of sealing O-rings on the pivot rod and between the base and cover
- This is accomplished by increasing the thickness of the housing wall, without negating the integrity of the metal to metal contact required to qualify as explosion proof
- Aluminum baseplate with non-skid conductive rubber basepad
- Footswitch painted black
- Integral handle for ease of moving

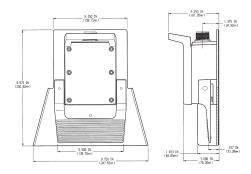
#### **Features & Benefits:**

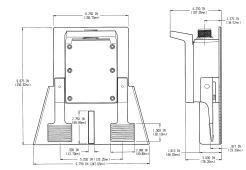
- Non sparking cast aluminum housing
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time
- Two pedal models prewired with electrical interlock

#### **Options:**

- Use mating connector MS or CA-3106F-18-4SW-(A105)-(F74)\* which includes cable clamp, or CA-06R-18-4SW-(A105)-(F74)\* which includes cable clamp
- Mating connector with cable clamp available from LINEMASTER<sup>\*</sup>. Order as Catalog Number LSC-575-24
- Industrial Explosion-proof models available (See "Explosion Proof Industrial..." on pages 22 & 23 for details)







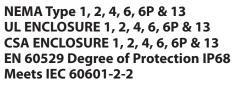
Size (HxWxD):	4.38 x 9.75 x 10.00 ln.
Weight:	6.50 lbs.

AWARNING SPECIFICATIONS	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	WIRED	ELECTRICAL RATINGS	
c∰us <b>( €</b>	IP68	601-EX	Single Pedal / Momentary	SPDT	С	Pin A-Normally Open B-Common C-Normally Closed D-Ground		
շ <sup>ա</sup> նյու ( է	IP68	606-EX	Two Pedal / Momentary	Each Pedal SPNO	A	Pin A-Normally Open (Left Pedal) B-Common C-Normally Open (Right Pedal) D-Ground	5 A 125-250 VAC 3 A 28 VDC	

Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668



### Classic IV - Linear



Driptight • Dusttight • Watertight • Oiltight COMPACT & WATERPROOF DESIGN

#### **Materials of Construction:**

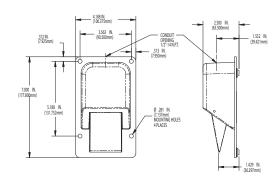
- One Piece Cast Aluminum Housing Single Stage Momentary Contact
- Aluminum baseplate on unguarded models
- Single Pedal 1/2"-14 N.P.T. Threaded Conduit Opening is Standard
- Twin Pedal 3/4"-14 N.P.T. Threaded Conduit Opening is Standard

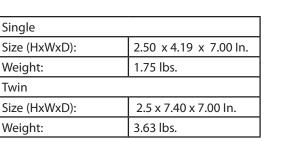
#### **Features & Benefits:**

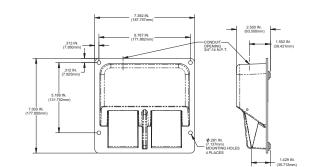
- No dead spot in switch actuation
- Hall Effect sensor for high reliability
- Non-Skid Feet To Minimize Movement
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once
- 4 holes provided for rigid mounting to floor or equipment

#### **Options:**

- Upto two pushbutton switches possible
- Mode change switch
- Custom switch colors available
- Custom labeling & silkscreening available
- Protective bag for easy clean-up







WARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS Degree of Protection CATALOG NUMBER DESCRIPTION TYPE CIRCUIT ELECTRICAL RATING								
Please Contac	t LINEMASTER	• for additional Informatio	n 1-860-974-1000					
(h) <b>(f</b> )	IP68	(Single Model)	Momentary	Unguarded	Linear	Input voltage 5-15 VDC		
(h) <b>(f)</b>	IP68	(Twin Model)	Momentary	Unguarded	Linear	(Other voltages available)		



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### **Classic IV - Guarded**



NEMA Type 1, 2, 4, 6, 6P & 13 UL ENCLOSURE 1, 2, 4, 6, 6P & 13 CSA ENCLOSURE 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 Meets IEC 60601-2-2

Driptight • Dusttight • Watertight • Oiltight GUARDED, COMPACT & WATERPROOF DESIGN

#### Materials of Construction:

- One Piece Cast Aluminum Housing Single Stage Momentary Contact
- Aluminum baseplate on unguarded models
- Single Pedal 1/2"-14 N.P.T. Threaded Conduit Opening is Standard
- Twin Pedal 3/4"-14 N.P.T. Threaded Conduit Opening is Standard

#### Features & Benefits:

- Non-Skid Feet To Minimize Movement
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once
- 4 holes provided for rigid mounting to floor or equipment
- Heavy Gauge Steel Full Guard painted Alert Orange Covering Entire Foot Switch

4.50 x 6.00 x 7.00 ln.

4.50 x 11.00 x 7.00 ln.

6.00 lbs.

10.00 lbs.

#### **Options:**

Single

Weight:

Weight:

Twin

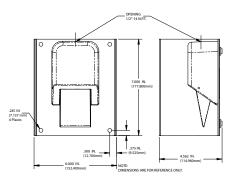
Size (HxWxD):

Size (HxWxD):

Linear (Hall Effect) mode models available







		OPENING 3/4*-14 N.P.T.	
		7.000 N. (177.800mm)	°
Ø.281 IN. (7.137mm) 4 PLACES	.500 IN. (12.700mm)	.375 IN. (9.525mm)	
-	11.000 IN. (279.400mm)		4.562 IN. (114.960mm)

SPECIFICATION	SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS Degree of Protection CATALOG NUMBER DESCRIPTION TYPE CIRCUIT FORM ELECTRICAL RATING									
(h) <b>(f</b> )	IP68	88SH1-05	Momentary	Guarded	SPDT	C			
(h) <b>(f)</b>	IP68	88SH2-05	Momentary	Guarded	DPDT	С	16A 125-250 VAC		
(h) <b>(f</b> )	IP68	TWIN 88SH1-05	Momentary	Guarded	Each Pedal SPDT	С	1/2 H.P. 125-250 VAC 250 VAC Maximum		
(h) <b>(h</b> )	IP68	TWIN 88SH2-05	Momentary	Guarded	Each Pedal DPDT	С			



### Classic IV - No Guard

NEMA Type 1, 2, 4, 6, 6P & 13 UL ENCLOSURE 1, 2, 4, 6, 6P & 13 CSA ENCLOSURE 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 Meets IEC 60601-2-2

Driptight • Dusttight • Watertight • Oiltight COMPACT & WATERPROOF DESIGN

#### **Materials of Construction:**

- One Piece Cast Aluminum Housing Single Stage Momentary Contact
- Aluminum baseplate on unguarded models
- Single Pedal 1/2"-14 N.P.T. Threaded Conduit Opening is Standard
- Twin Pedal 3/4"-14 N.P.T. Threaded Conduit Opening is Standard

#### Features & Benefits:

- Non-Skid Feet To Minimize Movement
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once
- 4 holes provided for rigid mounting to floor or equipment

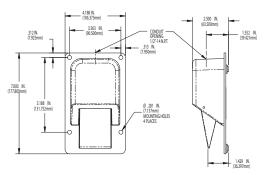
#### **Options:**

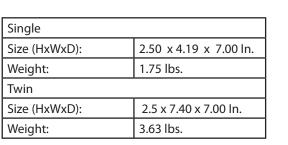
- Linear (Hall Effect) mode models available (See "Classic IV Linear" on page 26 for details)
- Heavy Gauge Steel Full Guard painted Alert Orange Covering Entire Foot Switch Available (See "Classic IV - Guarded" on page 27 for details)

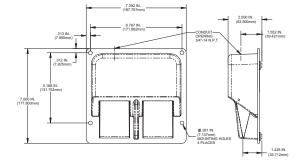


MD









<b>A</b> WARNIN	A WARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)									
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	ТҮРЕ	CIRCUIT	FORM	ELECTRICAL RATING		
(h) (f)	IP68	88SN1-05	Momentary	Unguarded	SPDT	С			
(h) <b>(f</b> )	IP68	88SN2-05	Momentary	Unguarded	DPDT	С	16A 125-250 VAC		
(h) <b>(f</b> )	IP68	TWIN 88SN1-05	Momentary	Unguarded	Each Pedal SPDT	С	1/2 H.P. 125-250 VAC 250 VAC Maximum		
(h) <b>(f</b> )	IP68	TWIN 88SN2-05	Momentary	Unguarded	Each Pedal DPDT	С			



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### Classic II

#### NEMA Type 1, 2, 4 & 13 UL ENCLOSURE 1, 2, 4 & 13 CSA ENCLOSURE 1, 2, 4 & 13 EN 60529 Degree of Protection IP56

#### Driptight • Dusttight • Watertight • Oiltight MEDIUM DUTY COMPACT DESIGN

#### Materials of Construction:

- Cast aluminum body and treadle with steel base plate and nonskid base pad
- Single 3/4"-14 N.P.T. threaded conduit entry is standard

#### Features & Benefits:

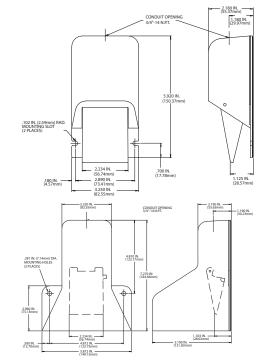
- All models single stage momentary contact
- 2 holes provided for rigid mounting to floor or equipment

#### **Options:**

- Special threaded conduit entry available to the O.E.M. on special order (Dual / Metric)
- Single/Dual 1/2 In. -14 NPT threaded conduit entry
- Metric threaded conduit entry







No Shield	
Size (HxWxD):	2.25 ln. x 3.50 x 6.20 ln.
Weight:	1.50 lbs.
Shielded	
Size (HxWxD):	5.19 ln. x 5.90 x 7.25 ln.
Weight:	2.75 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)									
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS				
(h) <b>(f)</b>	IP56	78SN1	Momentary	SPDT	С					
(h) <b>(f)</b>	IP56	78SN2	Momentary	DPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC				
(h) <b>(f)</b>	IP56	78SH1	Momentary / Shielded	SPDT	С	Heavy Pilot Duty 250 VAC Max.				
(h) <b>(f)</b>	IP56	78SH2	Momentary / Shielded	DPDT	С					



#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### **COMPACT DESIGN**

#### **Materials of Construction:**

- Cast aluminum body painted black
- Cast aluminum treadle and base plate with nonskid base pad
- Internal strain relief clamp accepts a wide range of cable sizes

#### Features & Benefits:

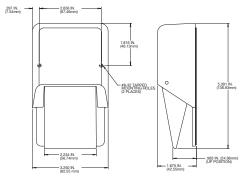
- Single stage momentary contact
- Clean lines and compact design with a modest cost
- Versatility of this model makes it ideal for O.E.M. devices

#### **Options:**

- Special threaded conduit entry available to the O.E.M. on special order. (Dual / Metric)
- Custom cordsets and modifications are available to the O.E.M. on special order
- Also available in Solid State (Hall Effect) format on special order. Contact office for specifications
- AirVal models available (See "Classic Pneumatic AirVal" on page 57 for details)
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)



MD



Size (HxWxD):	1.75 x 3.25 x 5.25 ln.
Weight:	1.13 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS	SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS Degree of Protection CATALOG NUMBER DESCRIPTION CIRCUIT FORM RATINGS								
c <b>FN</b> us	IP20	77SN1	Momentary	SPDT	С	15A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC		



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#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### VARIABLE SPEED COMPACT DESIGN

#### Materials of Construction:

MD

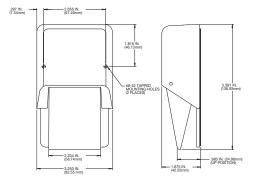
- Cast aluminum body painted black
- Cast aluminum treadle and base plate with nonskid base pad
- Internal strain relief clamp accepts a wide range of cable sizes
- Designed to control small fractional horsepower Universal AC/DC motors
- Half wave in the variable speed portion and full wave at full speed
- Long treadle travel provides for very smooth, controlled speed changes
- Full motor speed is realized when the treadle is depressed fully, and stops when the treadle is released

#### **Features & Benefits:**

- Single stage momentary contact
- Versatility of this model makes it ideal for O.E.M. devices
- Clean lines and compact design with a modest cost
- When the 77SN7A is used, just plug cord from the motor into receptacle of series plug, and plug series plug into 125 VAC wall outlet **Options:**

#### Custom cordsets and modifications are available to the O.E.M. on special order.

- Also available in Solid State (Hall Effect) format on special order. Contact office for specifications
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)



Size (HxWxD):	1.75 x 3.25 x 5.25 ln.
Weight:	1.13 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS Degree of Protection CATALOG NUMBER DESCRIPTION CIRCUIT FORM RATINGS								
c (UL) us	IP20	77SN7A1	Momentary			6A 125 VAC		

<sup>1</sup>6 ft. 18/3 cord and 3 prong series plug. Green lead grounded.

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# Classic - Variable



### Classic - Reed

#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### LOW POWER COMPACT DESIGN

#### **Materials of Construction:**

- Cast aluminum body painted black
- Cast aluminum treadle and base plate with nonskid base pad
- Internal strain relief clamp accepts a wide range of cable sizes

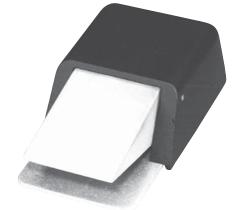
#### Features & Benefits:

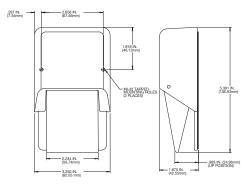
- Single stage momentary contact
- Versatility of this model makes it ideal for O.E.M. devices
- Clean lines and compact design with a modest cost
- When the 77SN7A is used, just plug cord from the motor into receptacle of series plug, and plug series plug into 125 VAC wall outlet

#### **Options:**

- Custom cordsets and modifications are available to the O.E.M. on special order.
- Also available in Solid State (Hall Effect) format on special order. Contact office for specifications
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)

THE CLASSIC REED IS A LOW POWER DEVICE AND MUST BE USED ONLY IN THOSE APPLICATIONS WHERE SUITABLE DESIGN CONSTRAINTS AND SAFETY PRECAUTIONS ARE MET. CONTACT PROTECTION IS RECOMMENDED IF INDUCTIVE OR HIGH VOLTAGE LOADS ARE SWITCHED. PROPER SNUBBER NETWORKS ARE REQUIRED. HIGH INRUSH CURRENT, DAMAGING TO THE CONTACTS MAY BE PRESENT WHEN SWITCHING TUNGSTEN FILAMENT BULBS OR THROUGH WIRE OF SUFFICIENT LENGTH TO INTRODUCE STORED CAPACITANCE.





Size (HxWxD):	1.75 x 3.25 x 5.25 ln.
Weight:	1.13 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS Degree of Protection VIMBER DESCRIPTION CIRCUIT FORM RATINGS								
c <b>'AL</b> " us	IP20	77SN9P1	Momentary	SPST-N.O. Grounded	A	500 MA 120 VAC 100 VDC 10 Watts Max.		
<sup>1</sup> 6 ft 18/3 SVT wit	houtplug							

<sup>1</sup>6 ft. 18/3 SVT without plug



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### Nautilus

NEMA TYPE 1, 2, 4, 6, 6P & 13 UL Enclosure 1, 2, 4, 6, 6P & 13 EN 60529 Degree of Protection IP68 Meets IEC 60601-2-2

#### Dusttight • Watertight • Oiltight • Corrosion Resistant MILITARY GRADE DESIGN

#### **Materials of Construction:**

- Rugged aluminum casting is painted gray
- Piston type actuator sealed with O-rings
- 1/2"-14 N.P.T. threaded conduit entry.

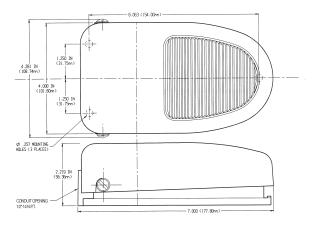
#### Features & Benefits:

- Electrical contacts are sealed in a "well"
- Corrosion resistant housing & components
- 3 mounting holes provided for rigid mounting to floor or equipment

#### **Options:**

- Non-skid basepads available
- Custom colors Special Order





Size (HxWxD):	2.25 x 4.28 x 7.00 ln.		
Weight:	2.50 lbs.		

A WARNING SPECIFICATIONS	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	NATIONAL STOCK NUMBER	CIRCUIT	FORM	ELECTRICAL RATINGS
c (U) us	IP68	WP-541-SC	Momentary	5930-00-833-7090	SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC 10 A 28 VDC <sup>1</sup> /2 A 125 VDC <sup>1</sup> /4 A 250 VDC
c <b>91</b> . us	IP68	WP-541-DC	Maintained	5930-004-2132-17	SPDT	С	15 A 125 VAC 10 A 250 VAC





#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Splash Resistant • Corrosion Resistant (Available) MEDIUM DUTY GENERAL PURPOSE DESIGN

#### **Materials of Construction:**

- Constructed of Cast Iron for long life
- Non-skid base pad
- Adjustable Strain relief connector
- Durable black finish .
- Model 632-DA can be used to control lighting
- Model 638-S features a cast aluminum housing painted Alert Orange with a splash resistant interior switch

#### **Features & Benefits:**

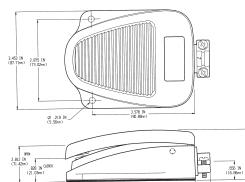
- **Proven Reliability**
- All maintained models offer "Push On-Push Off" action that insures long trouble-free performance
- 2 holes provided for rigid mounting to floor or equipment

#### **Options:**

- The wide treadle models offer a large seven inch target for the operator's foot (See "Clipper - Twin & Wide Treadle" on page 35 for details)
- Available protective vinyl cover that can be applied over our Clipper. This boot is available only in bright orange, and provides additional protection to the foot switch from limited amounts of liquid, dust, dirt, mud and snow (See "Accessories - Protective Boot" on page 77 for details)
- AirVal models available (See "Clipper Pneumatic AirVal" on page 54-55 for details)
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)

Size (HxWxD):	1.50 x 3.50 x 4.50 ln.			
Weight:	2.25 lbs.			





AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS	EN 60529	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS
∄ <b>(), () ()</b>	IP20	632-S	Momentary	SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC
₽) <b>(£</b> -	IP20	632-SC31	Momentary	SPST Wired N.O.	A	15 A 125 VAC <sup>3</sup> ⁄4 H.P. 125 VAC
®. ®. €	IP20	632-SC364	Momentary	SPST Wired N.O.	A	10 A 125-250 VAC <sup>1</sup> /2 H.P. 125-250 VAC
₩ <b>₩</b>	IP20	632-DC3A1	Maintained	SPST Wired N.O.	С	15 A 125 VAC <sup>3</sup> ⁄4 H.P. 125 VAC
ઊ(€	IP20	633-S	Momentary	SPDT DB <sup>3</sup>	Z	20 A 125-250 VAC <sup>3</sup> ⁄4 H.P. 125 VAC 1 H.P. 250 VAC
<b>911</b> us ( (	IP20	635-S	Momentary	DPDT	с	15 A 125 VAC
<b>91)</b> us ( (	IP20	636-S	Two Stage Momentary	Each Stage SPDT	С	10 A 250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC
\$ <b>@\$</b> ((	IP20	632-DA	Maintained	SPDT	с	20 A 125 VAC 10 A 250 VAC 1 1/2 H.P. 120-240 VAC
5 <b>91)</b> 05 ( <b>(</b>	IP20	634-DA	Maintained	DPDT	с	10 A 125-250 VAC <sup>1</sup> ⁄8 H.P. 125 VAC <sup>1</sup> ⁄4 H.P. 250 VAC
<b>911</b> us ( E	IP20	638-S	Momentary	SPDT	С	10 A 125-250 VAC
۵ (ال) IS (	IP21	638-SC38 <sup>2</sup>	Momentary	SPDT Wired N.O.	A	<sup>1</sup> /2 H.P. 125-250 VAC

Supplied with 8 ft. 14/3 cord and 3 prong series plug. Green lead grounded. <sup>2</sup>Supplied with 8 ft. 16/3 cord , wired N.O. with green lead grounded. 3DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line. 4Supplied with 6 ft. 18/3 cord.



29 Plaine Hill Road **POB 238** Woodstock, CT 06281-0238 USA

### **Clipper - Twin & Wide Treadle**

#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Splash Resistant (Available) MEDIUM DUTY GENERAL PURPOSE DESIGN

#### Materials of Construction:

- Constructed of Cast Iron for longlife
- Non-skid base pad

MD

- Adjustable Strain relief connector
- Durable black finish
- Model 632-DA can be used to control lighting
- Model 638-S features a cast aluminum housing painted Alert Orange with a splash resistant interior switch

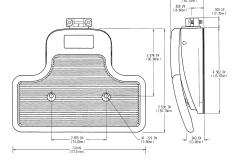
#### Features & Benefits:

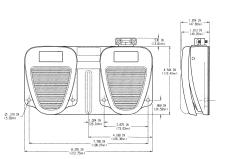
- Proven Reliability
- All maintained models offer "Push On-Push Off" action that insures long trouble-free performance
- Wide Treadle Models have 2 holes provided for rigid mounting to floor or equipment
- Twin Models have 4 holes provided for rigid mounting to floor or equipment
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once

#### **Options:**

- The wide treadle models offer a large seven inch target for the operator's foot
- Aluminum housing available for Twin Models
- AirVal models available (See "Clipper Twin & Wide Treadle Pneumatic AirVal" on page 54-55 for details)
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)

Twin			
Size (HxWxD):	1.78 x 8.38 x 4.25 ln.		
Weight:	5.00 lbs.		
Wide Treadle			
Size (HxWxD):	1.78 x 7.00 x 5.50 ln.		
Weight:	3.25 lbs.		





SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS
<b>₩\$</b> €(€	IP20	TWIN 632-S	Twin / Momentary	Each Side SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC
2 <b>91)</b> us ( (	IP20	TWIN 635-S	Twin / Momentary	Each Side DPDT	С	15 A 125 VAC 10 A 250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC
ŝ <b>₩®</b> (€	IP20	642-S	Wide Treadle / Momentary	SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC
:∰⊍s (€	IP20	643-S	Wide Treadle / Momentary	SPDT DB <sup>1</sup>	Z	20 A 125-250 VAC <sup>3</sup> ⁄4 H.P. 125 VAC 1 H.P. 250 VAC
5 <b>91)</b> us ( <b>(</b>	IP20	645-S	Wide Treadle / Momentary	DPDT	С	15 A 125 VAC
5 <b>91)</b> ∪5 ( €	IP20	646-S	Wide Treadle / Momentary 2-Stage	Each Stage SPDT	С	10 A 250 VAC 1 <sup>1</sup> ⁄2 H.P. 120-240 VAC
\$ <b>@@</b> ((	IP20	642-DA	Wide Treadle / Maintained	SPDT	с	20 A 125 VAC 10 A 250 VAC 11/2 H.P. 120-240 VAC





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#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Splash Resistant (Available) LOW PROFILE ERGONOMIC DESIGN

#### **Materials of Construction:**

- Constructed of cast aluminum cover and base
- Provided with a reversible strain relief clamp that accommodates a wide range of cable sizes
- Painted black

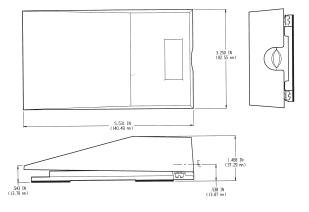
#### **Features & Benefits:**

- The low, sleek styling of this model reduces operator fatigue
  - Nonskid base pads

#### **Options:**

- 24" wide version available on special order
- AirVal Models available on special orders





Size (HxWxD):	1.25 x 3.25 x 5.50 ln.			
Weight:	1.00 lbs.			

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS EN 60529 Degree of Protection NUMBER DESCRIPTION CIRCUIT FORM RATINGS							
c ( U) us ( (	IP20	121-S	Momentary	SPDT		20 A 125-250 VAC 1 H.P. 125-250 VAC	
с <b>ЯЛ</b> из С Е	IP20	124-S	Momentary	DPDT	С	15 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	



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29 Plaine Hill Road POB 238 Woodstock, CT 06281-0238 USA



### Deluxe

#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Waterproof (Available) LARGE LOW PROFILE ERGONOMIC DESIGN

#### Materials of Construction:

- Constructed of Cast Aluminum
- Painted gray

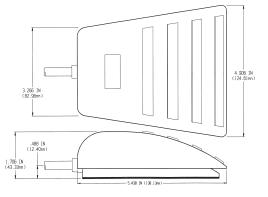
#### Features & Benefits:

- The parabolic curvature of the cover makes the Deluxe easy to operate without fatigue
- Full nonskid base pad

#### **Options:**

- Twin and triple models available special order
- Guarding available for Twin & Triple models





Size (HxWxD):	1.75 x 4.75 x 5.50 ln.
Weight:	1.00 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS	EN 60529						
c <b>AL</b> us	IP20	81-S	Momentary	SPDT	C	10 A 125-250 VAC	
c <b>M</b> us	IP20	85-S	Two Stage Momentary	Each Stage SPDT	С	<sup>1</sup> ⁄2 H.P. 125-250 VAC	



#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### LARGE LOW PROFILE MULTI-FUNCTION DESIGN

#### Materials of Construction:

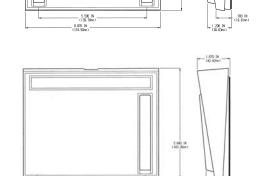
- Cover is molded from medium gray high impact polymeric material
- Base and treadles are made of a die cast zinc
- The cover tapers close to the floor in the front with a full five inches between the side treadle bars
- A Non-skid base pad provides a secure placement
- This multi-pedal foot switch should be considered when function, good looks and economy are required
- It incorporates a unique building block approach that allows the use of up to four basic SPDT snap switches
- SPECIAL VARIATIONS are available to the O.E.M. Special modifications include custom cordsets, nameplates, two stage operation, non operative cover, special circuits and a special translucent molded vinyl cover for added environmental protection against limited amounts of water and dirt
- Switch cover actuates separate function

#### Features & Benefits:

- Treadles are made of a die cast metal
- The cover tapers close to the floor in the front with a full five inches between the side treadle bars
- A Non-skid base pad provides a secure placement
- Supplied with internal adjustable Strain Relief for cord

#### **Options:**

- SPECIAL VARIATIONS are available to the O.E.M. Special modifications include custom cordsets, nameplates, two stage operation, non operative cover, special circuits and a special translucent molded vinyl cover for added environmental protection against limited amounts of water and dirt
- Available protective vinyl cover that can be applied over our Deluxe II. This cover is available only in Semi-clear, and provides additional protection to the foot switch from limited amounts of liquid, dust, dirt, mud and snow



imperfections and blemishes are inherent in dip molded parts and must be expected.
However, the basic environmental protection afforded is not affected.

The translucent vinyl cover is made by a dip molding process. Minor cosmetic

Size (HxWxD):	1.75 x 6.85 x 5.68 ln.
Weight:	2.00 lbs.

AWARNING	WARNING SEE PRODUCT WARNING ON PAGE 8							
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)         AGENCY         AGENCY         APPROVALS         CATALOG         Degree of Protection         DUBBER         DESCRIPTION         PEDALS         CIRCUIT         FORM         RATINGS							ELECTRICAL RATINGS	
		68-S3	Dual Treadle / Momentary	2 Pedals plus Cover	SPDT	С		
c <b>911</b> us ( E	IP20	68-S3N	Dual Treadle / Momentary	2 Pedals <sup>1</sup>	SPDT	С	10 A 125-250 VAC	
c <b>91</b> us ( E	IP20	68-S4N	Dual Treadle / Momentary	2 Pedals <sup>1</sup>	DPDT	С	<sup>1</sup> /2 H.P. 125-250 VAC	
c <b>W</b> us ( E	IP20	68-S2	Single Treadle / Momentary	1 Pedal plus Cover	SPDT	С		
<sup>1</sup> Cover non-opera	Cover non-operative with side treadle bars active.							



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# Aquiline<sup>®</sup> Momentary - Polymeric

#### **EN 60529 Degree of Protection IP20** (IP68 Upon Request) 971-SWNO210 & 971-SWNO210A are NEMA Type 1, 4X, 6 & 6P – UL Enclosure 1, 4X, 6 & 6P, and IP68

#### Watertight • Corrosion Resistant (Available) VERSATILE COMPACT DESIGN

#### **Materials of Construction:**

- SPDT, DPDT, Two-Stage, Momentary Operation
- Rustproof and corrosion proof polymeric material
- Raised ribs on treadle for positive traction during operation
- Integrated adjustable strain relief clamp accommodates cord sizes from .250 Dia. to .400 Dia.

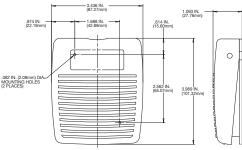
#### **Features & Benefits:**

- Flame retardant to 94-VI
- Maximum versatility, total performance
- Non-skid base pad
- 2 holes provided for rigid mounting to Floor or equipment

#### **Options:**

LD

- Custom colors, and color matching available with quantity orders
- Private Labeling
- Accessory base units available for configurations using multiple switches
- Stainless steel full guard (single) 522-K26 available (See "Accessories Guards" on page 77 for details)
- Supplied With Series Plug (See "Stock Cordsets with Molded Plug" on page 79 for details) unless otherwise noted
- Special variations built to functional customers' specifications are available on special order. Custom paint finishes, cordsets, nameplates and multi-pedal versions are available. Please contact LINEMASTER® for additional information
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)



Polymeric - Single						
Size (HxWxD):	1.16 x 3.44 x 4.00 ln.					
Weight:	3.60 oz.					

#### AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	COLOR	CIRCUIT	FORM	ELECTRICAL RATINGS	
c <b>₩</b> us (€	IP20	971-S	Polymeric / Momentary	Dark Gray	SPDT	С		
°¶¶us (€	IP20	971-SA	Polymeric / Momentary	Light Gray	SPDT	С		
° <b>91)</b> us (E	IP20	971-SB	Polymeric / Momentary	Blue	SPDT	С	15 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	
° <b>91)</b> us (€	IP20	971-SO	Polymeric / Momentary	Orange	SPDT	С		
° <b>¶N</b> us (€	IP20	971-SY	Polymeric / Momentary	Yellow	SPDT	С		
° <b>¶V</b> us (€	IP20	974-S	Polymeric / Momentary	Dark Gray	DPDT	С	15 A 125-250 VAC	
c <b>M</b> us (E	IP20	974-SA	Polymeric / Momentary	Light Gray	DPDT	С	<sup>1</sup> ⁄2 H.P. 125-250 VAC	
c <b>M</b> us (E	IP68	971-SWNO2101	Polymeric / Momentary	Dark Gray	SPST Wired N.O.	A		
c¶∭us (€	IP68	971-SWNO210A1	Polymeric / Momentary	Light Gray	SPST Wired N.O.	A	3 A 25 VAC	
c@Lus €€	IP20	971-SC26 <sup>2</sup>	Polymeric / Momentary	Dark Gray	SPDT Wired N.O.	A	10 A 125-250 VAC	
c@Lus €€	IP20	971-SC26A <sup>2</sup>	Polymeric / Momentary	Light Gray	SPDT Wired N.O.	A	<sup>1</sup> ⁄2 H.P. 125-250 VAC	

<sup>1</sup>Meets IP68 & is supplied with 10 ft. 18/2 cord without plug.





# LIGHT DUTY

#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Corrosion Resistant VERSATILE COMPACT DESIGN

#### Materials of Construction:

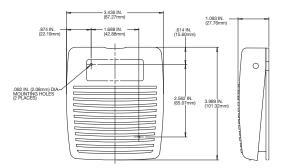
- SPST, Maintained Operation
- Rustproof and corrosion proof reinforced polymeric material
- Raised ribs on treadle for positive traction during operation
- Integrated adjustable strain relief clamp accommodates cord sizes from .250 Dia. to .400 Dia.

#### **Features & Benefits:**

- Flame retardant to 94-VI
- Maximum versatility, total performance
- Non-skid base pad
- 2 holes provided for rigid mounting to Floor or equipment

#### **Options:**

- Custom colors, and color matching available with quantity orders
- Private Labeling
- Accessory base units available for configurations using multiple switches
- Stainless steel full guard (single) 522-K26 available (See "Accessories Guards" on page 77 for details)
- Supplied With Series Plug (See "Stock Cordsets with Molded Plug" on page 79 for details) unless otherwise noted
- Special variations built to functional customers' specifications are available on special order. Custom paint finishes, cordsets, nameplates and multi-pedal versions are available. Please contact LINEMASTER® for additional information
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)



Polymeric - Single	
Size (HxWxD):	1.16 x 3.44 x 4.00 ln.
Weight:	3.60 oz.

	WARNING SEE PRODUCT WARNING ON PAGE 8 PECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG				FORM	ELECTRICAL RATINGS
° <b>¶1</b> us (€	IP20	971-DJ	Polymeric / Maintained	Black	SPST-NO	A	
c <b>AU</b> us	IP20	971-DC3J <sup>1</sup>	Polymeric / Maintained	Black	SPST-NO	A	12 A 1 H.P. 250 VAC 1/2 H.P. 125 VAC
° <b>M</b> , <sup>n2</sup> ( é	IP20	971-DC26J <sup>2</sup>	Polymeric / Maintained	Black	SPST-NO	A	
° <b>M</b> ″" (€	IP20	971-DC28J <sup>3</sup>	Polymeric / Maintained	Black	SPST-NO	A	
	Supplied with 8 ft. 14/3 cord with 3 prong series plug (Restricts use of foot switch assembly to 125 VAC Only). Plastic model is not grounded. Supplied with 6 ft. 14/2 cord, no ground.						

<sup>3</sup>Supplied with 8 ft. 14/2 cord, no ground.



#### EN 60529 Degree of Protection IP20

#### VERSATILE COMPACT DESIGN

#### Materials of Construction:

- SPDT, DPDT, Two-Stage, Momentary or Maintained Operation
- Rustproof and corrosion proof cast zinc cover and formed steel base
- Raised ribs on treadle for positive traction during operation
- Integrated adjustable strain relief clamp accommodates cord sizes from .250 Dia. to .400 Dia.

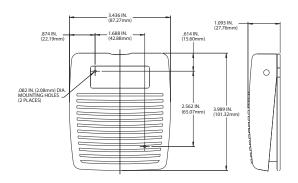
#### Features & Benefits:

- Maximum versatility, total performance
- Non-skid base pad
- 2 holes provided for rigid mounting to Floor or equipment
- Twin model has Electrical Interlock feature

#### **Options:**

- Custom colors, and color matching available with quantity orders
- Private Labeling
- Accessory base units available for configurations using multiple switches
- Stainless steel full guard (single) 522-K26 available (See "Accessories Guards" on page 77 for details)
- Supplied With Series Plug (See "Stock Cordsets with Molded Plug" on page 79 for details) unless otherwise noted
- Special variations built to functional customers' specifications are available on special order. Custom paint finishes, cordsets, nameplates and multi-pedal versions are available. Please contact us for additional information
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)

Single	
Size (HxWxD):	1.09 x 3.44 x 3.99 ln.
Weight:	13 oz.
Twin	
Size (HxWxD):	1.25 x 7.547 x 5.562
Weight:	2.5 lbs.



SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	COLOR	CIRCUIT	FORM	ELECTRICAL RAT- INGS
°₩″us (€	IP20	971-DJM	Die Cast Zinc / Maintained	Black	SPST-NO	A	
c <b>91</b> 1 us	IP20	971-DC3JM <sup>1</sup>	Die Cast Zinc / Maintained	Black	SPST-NO	A	12 A 1 H.P. 250 VAC 1/2 H.P. 125 VAC
° <b>₩</b> us (€	IP20	971-DC36JM <sup>2</sup>	Die Cast Zinc / Maintained	Black	SPST-NO	A	
₽ <b>₽</b> ¥us (€	IP20	971-DC38JM <sup>3</sup>	Die Cast Zinc / Maintained	Black	SPST-NO	A	
c <b>₩</b> us (€	IP20	971-SM	Die Cast Zinc / Momentary	Black	SPDT	С	
° <b>¶∐</b> us (€	IP20	972-S	Die Cast Zinc / Momentary 2-Stage	Black	SPDT Each Stage	С	15 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC
c <b>¶∐</b> us (€	IP20	974-SM	Die Cast Zinc / Momentary 2-Stage	Black	DPDT Each Stage	С	
cŲLus ⊂€	IP20	TWIN 971-SMC48⁴	Die Cast Zinc / Momentary	Black	SPDT Wired N.O.	A	13 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC

<sup>t</sup>Supplied with 6 ft. 14/3 cord, grounded. <sup>3</sup>Supplied with 8 ft. 14/3 cord, grounded. <sup>4</sup>Supplied with 8' 16/4 cord without plug. Green lead ground



Aquiline<sup>®</sup> - Metal

PATTENVIED

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### Compact

#### EN 60529 Degree of Protection IP20

#### Splash Resistant (Available Momentary Only) VERSATILE COMPACT DESIGN

#### Materials of Construction:

- Steel housing is painted Black
- Metal Mounting Plate spot welded to base on 491-SC36MP
- Twin Baseplate formed from cast aluminum
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental
  operation of both pedals at one time

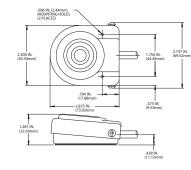
#### Features & Benefits:

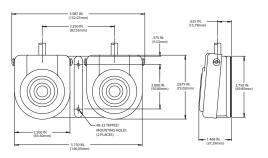
- Momentary & Maintained Models Non-Skid base pad for secure placement
- Compact in size and light in weight
- Supplied with internal adjustable strain relief
- Built for long life
- 2 Mounting Holes for Rigid Mounting to Floor or Equipment

#### **Options:**

- Rectangular mounting bracket is available for Compact models on special order. Bracket comes spot-welded to switch base and has two clearance holes for mounting
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)
- Airval models available (See "Compact Pnuematic Airval" on page 56 for details)

Single					
Size (HxWxD):	2.88 x 2.50 x 1.13 ln.				
Weight:	7.00 oz.				
Twin					
Size (HxWxD):	6.00 x 2.89 x 1.44 ln.				
Weight:	1.25 lbs.				
Mounting Bracket Model					
Size (HxWxD):	2.88 ln. x 3.50 x 1.29 ln.				
Weight:	8.00 oz.				





AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS	EN 60529		DESCRIPTION		FORM	ELECTRICAL RATINGS
c <b>≈1</b> 1 ∰ ( €	IP20	491-S	Single / Momentary	SPDT	С	
® <b>(</b>	IP20	491-SC36⁴	Single / Momentary	SPDT Wired N.O.	А	10 A 125-250 VAC <sup>1</sup> /2 H.P. 125-250 VAC
c¶Us ∰*	IP20	491-SC3 <sup>3</sup>	Single / Momentary	SPDT Wired N.O.	A	
c <b>91)</b> us ( E	IP20	492-S	Single / Momentary	SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC
: <b>91</b> 'us ∰ ( <del>(</del>	IP20	TWIN 491-S	Twin / Momentary	SPDT - Each Side	С	10 A 125-250 VAC
₩ <b>∰ ( (</b>	IP20	491-SC36MP <sup>4</sup>	Single / Momentary with Mounting Plate	SPDT Wired N.O.	А	<sup>1</sup> / <sub>2</sub> H.P. 125-250 VAC

<sup>1</sup>Supplied with 6 ft. 16/3 cord with 3 prong series plug. Green lead grounded. <sup>2</sup>Supplied with 6 ft. 18/3 cord without plug. Green lead grounded. <sup>3</sup>Supplied with 8 ft. 16/3 cord with 3 prong series plug. Green lead grounded. <sup>4</sup>Supplied with 6 ft. 16/3 cord without plug. Green lead grounded.











#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Splash Resistant (Available) LIGHT DUTY COMPACT DESIGN

#### **Materials of Construction:**

- Strong steel housing is painted black
- Two single models mounted on a steel base
- A divider bar between pedals which helps prevent accidental operation of both switches at one time
- All wiring between the two switches is concealed

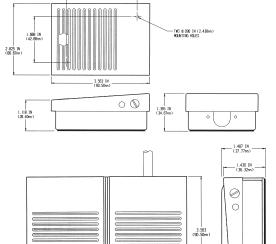
#### Features & Benefits:

- Nonskid base pad
- Designed to give a long economical service life
- Only one cord is brought out the right side eliminating the need for wire junctions & reducing wiring costs

#### **Options:**

LIGHT DUTY

- Triple Models Available
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)
- Rectangular mounting bracket is available for Hi-Treadlite models on special order
- Bracket comes spot-welded to switch base and has two clearance holes for mounting



2.625 IN

5.437 IN (138.10nn)

Single	
Size (HxWxD):	1.37 x 2.625 x 3.56 ln.
Weight:	10 oz.
Twin	
Size (HxWxD):	1.50 x 5.44 x 3.56 ln.
Weight:	1.5 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS	
<b>91)</b> US ( E	IP20	HT-52-S	Momentary	SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC	
cWus (€	IP20	HT-52-SC361	Momentary	SPST Wired N.O.	A	10 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125 VAC 1 H.P. 250 VAC	
ી (€	IP20	TWIN HT-52-S	Momentary	SPDT - Each Side	С	20 A 125-250 VAC 1 H.P. 125-250 VAC	

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1.184 IN

# Hi-Treadlite



### Treadlite II



#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Driptight • Dusttight • Watertight (Available) **COMPACT VERSATILE LOW PROFILE DESIGN**

#### **Materials of Construction:**

- Steel housing is painted black
- Two single models mounted on a twin base plate with wiring channel
- A divider bar between pedals which helps prevent accidental operation of both switches at one time

#### Features & Benefits:

- Incorporates a positive over center rocker type action
- Nonskid base pad and foot treadle pad
- 2 Holes provided for rigid mounting to floor or equipment
- The low profile and light pressure required to operate reduces operator fatigue

#### **Options:**

Single

- Special Twin, Triple & Quad baseplates with wiring channel available on special order Stainless Steel Model Available (See Treadlite II - Stainless Steel" on page 45 for details)
- Mounting Plate Available
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)

THE T-91-PS and T-91-PSNC ARE LOW POWER DEVICES AND MUST BE USED ONLY IN THOSE APPLICATIONS WHERE SUITABLE DESIGN CONSTRAINTS AND SAFETY PRECAUTIONS ARE MET.

Size (HxWxD):	1.00 x 2.63 x 3.50 ln.			
Weight:	7 oz.			
Twin with Wire Channel		Twin Without Wire Channel (Not Shown)		
Size (HxWxD):	1.38 ln. x 7.94 x 5.56	Size (HxWxD):	1.48 x 6.12 x 3.56 ln.	
Weight:	4.00 lbs.	Weight:	1.5 lbs.	

#### 

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	pecial variatio EN 60529 Degree of Protection	ns are available to the CATALOG NUMBER	O.E.M. on special order on the <b>DESCRIPTION</b>	e models listed below) CIRCUIT	FORM	ELECTRICAL RATINGS	
c <b>₽\)</b> us ∰• ( €	IP20	T-91-S	Single / Momentary	SPDT	С	15 A 125-250 VAC	
c <b>\$\$1</b> `us ∰ ( €	IP20	TWIN T-91-S <sup>9</sup>	Single / Momentary	SPDT Each Side	С	1/2 H.P. 125-250 VAC	
® <b>∰ ( €</b>	IP20	T-91-SC361	Single / Momentary	SPDT Wired N.O.	А	10 A 125-250 VAC	
DCE	IP20	T-91-SCEA <sup>7</sup>	Single / Momentary	SPDT Wired N.O.	А	<sup>1</sup> /2 H.P. 125-250 VAC	
<sup>®</sup> .€	IP20	T-91-SC36A <sup>2</sup>	Single / Momentary	SPDT Wired N.O.	А	15 A 125-250 VAC <sup>1</sup> /2 H.P. 125-250 VAC	
<b>®</b> •€€	IP20	T-91-SC3⁴	Single / Momentary	SPDT Wired N.O.	А	10 A 125 VAC <sup>1</sup> /2 H.P. 125 VAC	
\$∰•C€	IP20	T-91-SC3A⁵	Single / Momentary	SPDT Wired N.O.	А	15 A 125 VAC <sup>1</sup> ⁄2 H.P. 125 VAC	
c <b>₩1</b> us(€	IP20	T-91-PS <sup>6</sup>	Single / Momentary	SPDT Wired N.O.	А	3 A 30 VAC Max.	
c <b>FAL</b> us ( E	IP20	T-91-PSNC <sup>6</sup>	Single / Momentary	SPDT Wired N.C.	В	Class 2 Circuits Only	
DCE	IP20	T-91-SCE <sup>8</sup>	Single / Momentary	SPDT Wired N.O.	А	16 A 125-250 VAC	
<b>() () ()</b>	IP20	T-91-SE	Single / Momentary	SPDT	С	1/2 H.P. 125-250 VAC	
⊕ ∰ (€	IP20	TWIN T-91-SC48 <sup>3</sup>	Twin / Momentary	SPDT Wired N.O. Both Sides	А	13 A 125-250 VAC <sup>1</sup> /2 H.P. 125-250 VAC	

<sup>1</sup>Supplied with 6 ft. 18/3 cord without plug. Green lead grounded. <sup>2</sup>Supplied with 6 ft. 14/3 cord without plug. Green lead grounded. <sup>3</sup>Two T-91-S models mounted on a common steel baseplate, with a wiring channel & supplied with 8 ft. 16/4 cord without plug, Green lead grounded. 4Supplied with 6 ft. 18/3 cord with 3 prong series plug. Green lead grounded. Supplied with 8 ft. 14/3 cord with 3 prong series plug. Green lead grounded. Supplied with 8 ft. 22/1 audio cable with 2 contact .250 diameter phone plug, not grounded. 7Supplied with 2 meter 18/3 cord with brown, blue & green/yellow leads. 8Supplied with 2 meter 14/3 cord 9Two T-91-S models mounted on common cast aluminum base, no wiring Channel



### **Treadlite II - Stainless Steel**



#### EN 60529 Degree of Protection IP68 NEMA Type 1, 4X, 6, & 6P IP68 UL Enclosure 1, 4X, 6, & 6P

#### Driptight • Dusttight • Watertight • Corrosion Resistant (Available) COMPACT VERSATILE LOW PROFILE DESIGN

#### **Materials of Construction:**

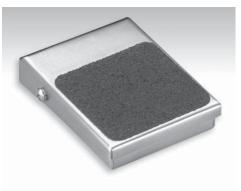
Stainless Steel housing with brushed finish

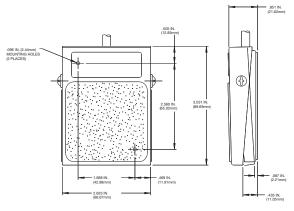
#### **Features & Benefits:**

- Nonskid base pad and foot treadle pad
- The low profile and light pressure required to operate reduces operator fatigue

#### **Options:**

Stainless Steel Full Guard Available (See "Accessories - Guards" on page 77 for details)





Size (HxWxD):	.85 x 2.63 x 3.50 ln.
Weight:	8.00 oz.

AWARNING SEE PRODUCT WARNING ON PAGE 8							
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS EN 60529 Degree of Protection NUMBER DESCRIPTION CIRCUIT FORM ELECTRICAL RATINGS							
c <b>FN</b> us	IP68	T-91-SWANOS <sup>1</sup>	Momentary	SPST-N.O.	A	3A 125-250 VAC	
c <b>FN</b> us	IP68	T-91-SWANO3S <sup>2</sup>	Momentary	SPST wired N.O.	A	3A 125 VAC	
c 🗫 us	IP68	T-91-SWANO38S <sup>3</sup>	Momentary	SPST wired N.O.	A	3A 125-250 VAC	
<sup>1</sup> Supplied without cord	<sup>1</sup> Supplied without cordset.						

<sup>2</sup>Supplied with 8 ft. 18/3 cord and 3-prong series plug, green lead grounded.

<sup>3</sup>Supplied with 8 ft. 18/3 cord without plug, green lead grounded.

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### Dolphin



NEMA Type 2, 4, 6 & 6P EN 60529 Degree of Protection IP68 Meets IEC 60601-2-2

#### Driptight • Dusttight • Watertight HIGH IMPACT LOW PROFILE OMNI-DIRECTIONAL DESIGN

#### **Materials of Construction:**

- Actuation from any direction with moderate pressure
- The cover and base is molded in a high impact polymeric compound
- Base includes mounting provisions

#### Features & Benefits:

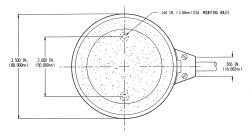
- Low profile to aide in elimination of fatigue
- A nonskid base pad
- Wired normally open, no ground

#### **Options:**

- Stainless Steel Weight Plate Available
- Custom Cable Available
- Available in RED in Production Quantities

**WARNING** INTENDED FOR INDOOR USE PRIMARILY TO PROVIDE A DEGREE OF PROTECTION AGAINST THE ENTRY OF WATER DURING OCCASIONAL TEMPORARY SUBMERSION AT A LIMITED DEPTH.





Size (HxWxD):	1.00 x 3.50 x 4.13 ln.
Weight:	9.00 oz.

1.000 IN. (25.400nn)		
1	j II	(11.125m)

AWARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS EN 60529 Degree of Protection NUMBER DESCRIPTION CIRCUIT FORM RATINGS								
c UL us	IP68	D41-SNO281	Momentary	SPST Wired N.O.	Δ	5 A Resistive 125 VAC 28 VDC 3 A General Purpose 125 VAC		

<sup>1</sup>Supplied with 8 ft. 18/2 cord without plug.



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### Premier



#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Splash Resistant (Available) LARGE LOW PROFILE OMNI-DIRECTIONAL DESIGN

#### Materials of Construction:

- Round Nickel Chrome Cover
- Heavy Gauge Steel Base plate
- Stain resistant black nitrile Nonskid Base Pad
- The cable shroud provides additional flex protection for the cable

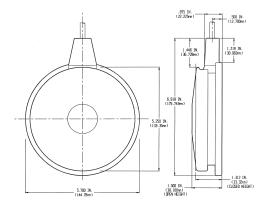
#### **Features & Benefits:**

- Designed for long life use
- Operates From Any Direction with moderate pressure
- Extended cable Flex Protection
- Cable shroud provides additional flex protection for tubing
- The internal reversible cable clamp accepts a wide range of cable sizes

#### **Options:**

- Custom paint finish available on cover
- AirVal models available (See "Premier Pneumatic AirVal" on page 52 for details)





Size (Dia. x H):	5.75 x 1.44 ln.
Weight:	1.75 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS EN 60529 Degree of Protection NUMBER DESCRIPTION CIRCUIT FORM RATINGS							
cℍusく€	IP20	P32-S	Momentary	SPDT	С	20 A 125-250 VAC 1 H.P. 125-250 VAC	
cŲLus ⊂ €	IP20	P31-SC361	Momentary	SPDT Wired N.O.	А	10 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	
10	)/2	nlug Croop load groupdad					

<sup>1</sup>Supplied with 6 ft. 18/3 cord without plug. Green lead grounded.

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### Gem-V & Gem-VK

#### NEMA Type 2 UL ENCLOSURE 2 (VK ONLY) EN 60529 Degree of Protection IP21 (IP68 Upon Request)

#### Driptight • Dusttight (VK ONLY) Corrosion Resistant COMPACT OMNI-DIRECTIONAL DESIGN

#### Materials of Construction:

- Mounted in a chrome plated heavy zinc die cast housing
- A full nonskid base pad
- A special vinyl cover gives added environmental protection against limited amounts of water and dirt
- The dip molded cover is bonded to the vinyl base pad of the foot switch

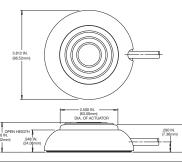
#### Features & Benefits:

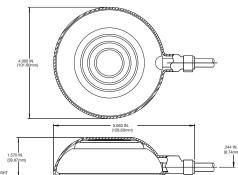
- Features a round black actuating cap
- Moderate pressure from any direction operates the switch
- Standard models supplied with cordset
- Wired normally open and grounded
- Ease of operation with foot or hand
- The cable entry boot is clinched tight to the cordset

#### **Options:**

- Special paint finish available
- Silk Screening available
- Special single wiring channel with or without side protectors available
- Twin version available
- European type foot switch is offered pre wired with 3 conductor cordset having brown, blue and green/yellow colored leads. It is a momentary contact and wired normally open with green/ yellow lead grounded to switch base

V Series	
Size (Dia. x H):	3.81 x 1.22 ln.
Weight:	1.00 lbs.
VK Series	
Size (Dia. x H):	4.00 x 1.38 ln.
Weight:	1.5 lbs.





AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	SENCY EN 60529 CATALOG ELECTR				ELECTRICAL RATINGS		
c UL us	IP21	GEM-VK3 <sup>1</sup>	Momentary / Vinyl Cover	SPST Wired N.O.	А	10 A 125 VAC <sup>1</sup> ⁄2 H.P. 125 VAC	
¢ŲLus€€	IP21	GEM-VK36 <sup>2</sup>	Momentary / Vinyl Cover	SPST Wired N.O.	А	10 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	
c <b>UL</b> ∪s ⊂ €	IP20	GEM-VCEA <sup>3</sup>	Momentary	SPST Wired N.O.	А	10 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	
с <b>ял</b> иs С Є	IP20	GEM-V2	Momentary	SPDT	С	15 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	
c UL us	IP20	GEM-V3 <sup>1</sup>	Momentary	SPST Wired N.O.	А	10 A 125 VAC <sup>1</sup> ⁄2 H.P. 125 VAC	
cUL)us 🤇 🤆	IP20	GEM-V36 <sup>2</sup>	Momentary	SPST Wired N.O.	А	10 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC	

<sup>1</sup>Supplied with 6 ft. 18/3 cord and 3 prong series plug. Green lead grounded. <sup>2</sup>Supplied with 6 ft. 18/3 cord without plug. Green lead grounded. <sup>3</sup>Supplied with 2 meter 18/3 brown, blue & green/yellow leads.









### Executive

#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Motion Control Device ROCKER ACTION LOW PROFILE DESIGN

#### Materials of Construction:

- Cover is a medium gray Die Cast Zinc material
- Mechanical Interlock-prevents both circuits from being operated at the same time
- Operates on the teeter-totter principle Pressure on one side opens or closes line, release of pressure returns switch to normal off position, pressure on other side opens or closes circuit, independent of first

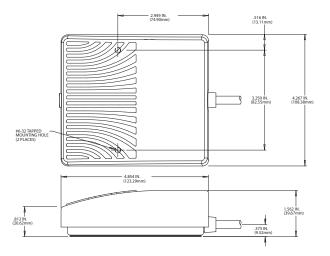
#### Features & Benefits:

- Non-skid Base pad
- Both sides can be wired normally open or normally closed
- All wiring connections are made internally with only a single cord being brought out
- Eliminates costly harness assemblies
- Offers real economy

#### **Options:**

- Twin, Triple, Quad & Quint versions available
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)





Size (HxWxD):	1.625 x 4.28 x 4.75 ln.
Weight:	1.25 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS Degree of Protection NUMBER DESCRIPTION CIRCUIT FORM RATINGS								
c <b>AL</b> us	IP20	72	Momentary	SPDT Each Side	С	10 A 125-250 VAC		
c <b>AU</b> us	IP20	74	Momentary	DPDT Each Side	С	1⁄2 H.P. 125-250 VAC		





#### EN 60529 Degree of Protection IP20

#### Motion Control Device ROCKER ACTION COMPACT DESIGN

#### Materials of Construction:

- Steel Housing
- Black finish
- Mechanical Interlock-prevents both circuits from being operated at the same time
- Operates on the teeter-totter principle
   Pressure on one side opens or closes line, release of pressure returns switch to normal off position, pressure on other side opens or closes circuit, independent of first

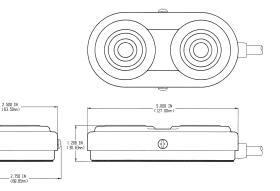
#### Features & Benefits:

- Non-skid Base pad
- Both sides can be wired normally open or normally closed
- All wiring connections are made internally with only a single cord being brought out
- Eliminates costly harness assemblies
- Offers real economy

#### **Options:**

- Twin version available
- Multiple cable entry locations available
- Mounting provisions can be added
- Custom labeling
- Splash resistant interior switch available





Size (HxWxD):	1.21 x 2.75 x 5.00 ln.
Weight:	10 oz.

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
AGENCY APPROVALS EN 60529 Degree of Protection CATALOG NUMBER DESCRIPTION CIRCUIT FORM RATINGS						
c <b>FLI</b> us	IP20	L-2-S	Momentary	SPDT Each Side	С	10 A 125-250 VAC <sup>1</sup> ⁄2 H.P. 125-250 VAC



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### Duplex

#### EN 60529 Degree of Protection IP20 UL avalable on Special Orders

#### Motion Control Device HEAL-TO-TOE ROCKER ACTION DESIGN

#### **Materials of Construction:**

- Die cast Aluminum housing
- Black finish
- Mechanical Interlock-prevents both circuits from being operated at the same time
- Operates on the teeter-totter principle
   Pressure on one side opens or closes line, release of pressure returns switch to normal off position, pressure on other side opens or closes circuit, independent of first

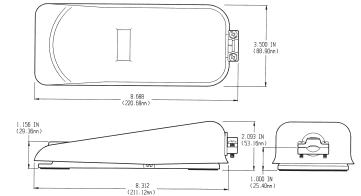
#### **Features & Benefits:**

- Non-skid Base pad
- Housing is pivoted in the center for easy heal-toe operation
- Both sides can be wired normally open or normally closed
- All wiring connections are made internally with only a single cord being brought out
- Adjustable strain relief connector that accommodates a wide range of cable sizes
- Eliminates costly harness assemblies
- Offers real economy

#### **Options:**

DPDT Available on Special Orders





Size (HxWxD):	2.09 x 3.50 x 8.31 ln.
Weight:	1.75 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS EN 60529 Degree of Protection NUMBER DESCRIPTION CIRCUIT FORM RATINGS								
N/A	IP20	476-S	Momentary	SPDT Each Side	С	15 A 125-250 VAC 1⁄2 H.P. 125-250 VAC		

Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668



### Premier - Pneumatic AirVal

#### Variable Pneumatic Control

#### LARGE LOW PROFILE OMNI-DIRECTIONAL DESIGN

#### Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.
- Round nickel chrome cover

#### **Features & Benefits:**

- Designed for long life operation
- Two-Way models do not exhaust back pressure .
- Stain resistant black nitrile Non-skid Base Pad .
- Operates from any direction .
- Extended tubing flex protection
- Cable shroud provides additional flex protection for tubing .

#### **Options:**

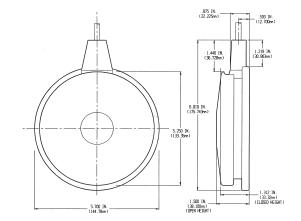
Special paint finish available



COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE. AWARNING COMPRESSED AND IS FORVERINGE TREE OF TO 150 P.S.I.



D



Size (DiaxH):	5.75 x 1.44 ln.
Weight:	1.75 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (S	SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
N/A	3P-30A2-S	3-Way Momentary	30 C.F.M.	25 C.F.M.	8 to 22 Pounds	Inside Housing		



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#### **Maintained/Momentary Pneumatic Control**

#### LARGE INDUSTRIAL DESIGN

#### **Materials of Construction:**

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- . Air exhausts around plunger
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.
- Robust cast iron housing

#### **Features & Benefits:**

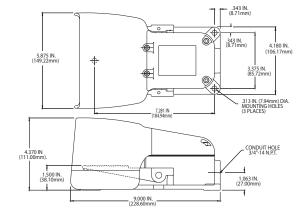
- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Full shield covering treadle
- 3 Holes provided for rigid mounting to floor or equipment

#### **Options:**

HD

- Hercules AirVal also available as a 3-way in either single or 2-stage versions on special order
- 2 Stage models available
- Momentary and maintained versions available

**AWARNING** COMPRESSED AIR IS POWERFUL – ALWAYS USE CARE. MAXIMUM LINE PRESSURE UP TO 150 P.S.I.



Size (HxWxD):	4.37 x 5.87 x 9.00 ln.
Weight:	8.75 lbs.

AWARNING s	AWARNING SEE PRODUCT WARNING ON PAGE 8							
SPECIFICATIONS (S	SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
						PORTS <sup>1</sup> /8-27 N.P.T.		
N/A	4H-30H2-SH	4-Way Momentary	30 C.F.M.	25 C.F.M.	19 Pounds	Exterior Housing		
N/A	4H-30H2-DH	4-Way Maintained	30 C.F.M.	25 C.F.M.	19 Pounds	Exterior Housing		



#### Variable/Momentary Pneumatic Control

#### **MEDIUM DUTY GENERAL PURPOSE DESIGN**

#### Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Operating temperature 0° to 131° F (-18° to +55°'C)
- . Rugged Cast Iron Housing

#### **Features & Benefits:**

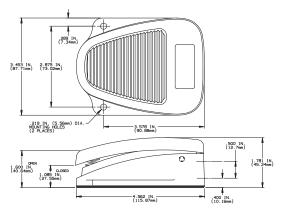
- Designed for long life operation
- Nonskid Base Pad
- Two-Way models do not exhaust back pressure
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.
- 2 holes provided for rigid mounting to floor or equipment

#### **Options:**

- 2-way, 3-way and 4-way models available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 & 77 for details)

WARNING COMPRESSED AIK IS POWERFUL - ALVAN S MAXIMUM LINE PRESSURE UP TO 150 P.S.I. COMPRESSED AIR IS POWERFUL – ALWAYS USE CARE.

2-Way and 3-Way	
Size (HxWxD):	1.78 x 3.45 x 4.56 ln.
Weight:	2.50 lbs.
4-Way	
Size (HxWxD):	1.78 x 3.45 x 4.56 ln.
Weight:	3.00 lbs.



AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
						PORTS <sup>1</sup> /8-27 N.P.T.	
N/A	2C-30A2-S	2-Way Momentary	30 C.F.M.	25 C.F.M.	10 Pounds	Interior Housing	
N/A	3C-30A2-S	3-Way Momentary	30 C.F.M.	25 C.F.M.	10 Pounds	Interior Housing	
N/A	4C-30F2-S	4-Way Momentary	30 C.F.M.	25 C.F.M.	19 Pounds	Exterior Housing	



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MD

### **Clipper Twin & Wide Treadle - Pneumatic AirVal**

#### Variable/Momentary Pneumatic Control

#### MEDIUM DUTY GENERAL PURPOSE DESIGN

#### **Materials of Construction:**

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-NO-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Operating temperature 0° to 131° F (-18° to +55°′C) .
- . **Rugged Cast Iron Housing**

#### **Features & Benefits:**

- Designed for long life operation
- Nonskid Base Pad
- Plunger can be depressed flush with valve body without damage to valve
- . Standard 1/8-27 N.P.T. input and output ports
- . Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.

#### **Options:**

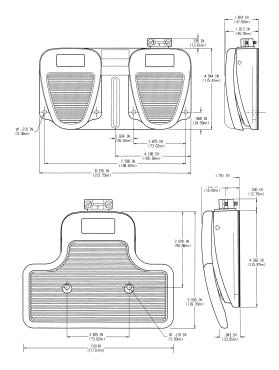
- Variable available on Special Order
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)



COMPRESSED AIR IS POWERFUL – ALWAYS USE CARE. AWARNING COMPRESSED AIR IS FOR THE OF THE AREA OF THE







Twin	
Size (HxWxD):	1.87 x 8.38 x 4.54 ln.
Weight:	4.75 lbs.
Wide Treadle	
Size (HxWxD):	1.78 x 7.00 x 4.56 ln.
Weight:	3.25 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)								
AGENCY APPROVALS	AIR FLOW AT 100 P.S.I.	EXHAUST AT 100 P.S.I.	OPERATING FORCE	PORTS <sup>1</sup> /8-27 N.P.T.				
N/A	TWIN 3C-30A2-S	3-Way Momentary Each Pedal	30 C.F.M.	25 C.F.M.	10 Pounds	Interior Housing		
N/A	3L-30A2-S	Wide Treadle 3-Way Momentary	30 C.F.M.	25 C.F.M.	8 Pounds	Interior Housing		

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### Compact - Pneumatic AirVal

#### **Momentary Pneumatic Control**

#### VERSATILE COMPACT DESIGN

#### **Materials of Construction:**

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- . Strong Steel Housing

#### Features & Benefits:

- Nonskid Base Pad
- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Plunger can be depressed flush with valve body without damage to valve
- . Standard 1/8-27 N.P.T. input and output ports
- . Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.

#### **Options:**

Single

Weight:

Weight:

Twin

Size (HxWxD):

Size (HxWxD):

- Twin Version Available
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for . details)

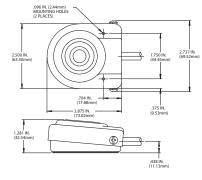


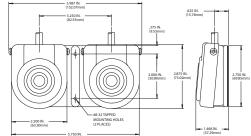
COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE. AWARNING CONTRESS OF THE AND THE AND THE AND THE ADDRESS OF THE AD



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WARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (	Special variations are ava	ilable to the O.E.M. on special order on t	<u>he models listed</u>	below)				
AGENCY APPROVALS	CATALOG NUMBER	DESCRIPTION	AIR FLOW AT 100 P.S.I.	EXHAUST AT 100 P.S.I.	OPERATING FORCE	PORTS <sup>1</sup> /8-27 N.P.T.		
N/A	2B-30A2-S	Single 2-Way Momentary	30 C.F.M.	25 C.F.M.	7 Pounds	Exterior Housing		
N/A	3B-30A2-S	Single 3-Way Momentary	30 C.F.M.	25 C.F.M.	7 Pounds	Exterior Housing		
N/A TWIN 3B-30A2-S 3-Way Momentary Each Side 30 C.F.M. 25 C.F.M. 7 Pounds Exterior Housing								



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1.28 x 2.74 x 2.88 ln.

1.47 x 6.00 x 2.88 ln.

.50 lbs.

1.50 lbs.

### **Classic - Pneumatic AirVal**



#### Variable/Momentary Pneumatic Control

#### LONG TREADLE THROW DESIGN

#### **Materials of Construction:**

- Variable Flow design
- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Versatility And Good Looks
- **Cast Aluminum Housing**

#### **Features & Benefits:**

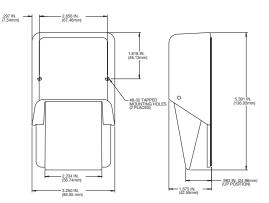
- Nonskid Base Pad
- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.

#### **Options:**

- 2-way, 3-way & Variable
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)



**AWARNING** COMPRESSED AIR IS POWERFUL – ALWAYS USE CARE. MAXIMUM LINE PRESSURE UP TO 150 P.S.I.



Size (HxWxD):	1.68 x 3.25 x 5.39 ln.
Weight:	Weight: 1.13 lbs.

WARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY CATALOG AIR FLOW AT EXHAUST OPERATING PORTS NUMBER DESCRIPTION 100 P.S.I. AT 100 P.S.I. FORCE N.P.T.						PORTS <sup>1</sup> /8-27 N.P.T.	
N/A	2E-30A2-S	2-Way Momentary	30 C.F.M.	NONE	2 <sup>1</sup> /2 Pounds	Interior Housing	
N/A	3E-30A2-S	3-Way Momentary	30 C.F.M.	25 C.F.M.	2 <sup>1</sup> /2 Pounds	Interior Housing	
N/A	2E-20V2-S	2-Way Variable Momentary	20 C.F.M.	NONE	2 <sup>1</sup> /2 Pounds	Interior Housing	
N/A	3E-20V2-S	3-Way Variable Momentary	20 C.F.M.	6 C.F.M.	2 <sup>1</sup> /2 Pounds	Interior Housing	

POB 238





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### Air-Seal - Air

#### EN 60529 Degree of Protection IPXX Master Actuator EN 60529 Degree of Protection IP00 Snap Switch

#### Momentary/Maintained AirSwitch • Isolated Electric Snap Switch COMPACT VERSATILE DESIGN

#### **Materials of Construction:**

- Strong Steel Housing
- Long Life Air bulb actuator mounted in Housing
- Remotely located air operated Electric Snap Switch
- Supplied with a 10 foot 1/8" ID PVC tubing connecting the foot pedal to the remote air switch
- The tubing is connected at the foot switch end using a molded on strain relief grommet providing superior pull out protection

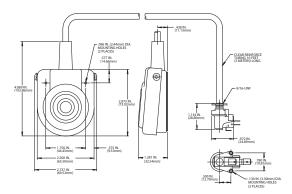
#### **Features & Benefits:**

- Remote switch equipped with a 9/16" U.N.F. bulkhead mount
- Available in either momentary or maintained SPDT versions
- Provides versatility in applications
- Isolating the electrically live snap switch from the floor
- Offers environmental protection from short or shock
- 2 holes provided for rigid Mounting to floor or equipment

#### **Options:**

- Momentary or Maintained models available
- Mounting Plate Available
- Black tubing available
- Twin model available on special order
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)





Size (HxWxD):	1.28 x 2.74 x 2.88 ln.
Weight:	.50 lbs.

WARNING SEE PRODUCT WARNING ON PAGE 8								
SPECIFICATIONS (S	Special variatio	ns are available to the O	E.M. on special order on the mo	dels listed belo	ow)			
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	OPERATING TEMPERATURE RANGE	ELECTRICAL RATINGS	
° <b>M</b> '''s ( E	IP XX	41SH12	Momentary	CDDT		10°F to 120°F <sup>1</sup>	20 A 125-250 VAC 1 H.P. 125 VAC	
° <b>₩</b> °°¢€	IP XX	41DH12	Maintained	SPDT		10 F to 120 F	2 H.P. 250 VAC	

The operating temperature range will vary with different lengths of tubing. Please consult the factory for details.



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### Vanguard - Air



#### EN 60529 Degree of Protection IPXX Master Actuator EN 60529 Degree of Protection IP00 Snap Switch

#### Momentary/Maintained AirSwitch • Isolated Electric Snap Switch ERGONOMIC VERSATILE DESIGN

#### **Materials of Construction:**

- Molded PVC bulb
- Designed with isolated electrical airswitch
- Combines a foot operated air bulb and a remotely located electric snap switch
- Brass fittings
- Actuating Bulb supplied with two grommet mounting holes (*Standard Only*)

#### **Features & Benefits:**

- Easy to operate by hand or foot
- Up to 30 foot range using PVC tubing
- Isolates operation from electrically live switch
- Offers environmental protection from short or shock
- Designed for long life trouble free operation
- Simple field replacement of components
- Application versatility
- Ease of interfacing

#### **Options:**

- Air foot switches are also available in the Premier and Dolphin housings, as well as, a hand operated version
- Aluminum Baseplate
- DPDT Model available
- Clear reinforced tubing available

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235 K 235 K 135 Gene 135 Gene 13

Actuating Bulb				
Size (HxWxD):	1.26 x 4.59 x 2.77 ln.			
Weight:	.20 lbs.			
Actuating Hand Bulb				
Size (HxWxD):	1.20 x 2.12 x 1.75 ln.			
Weight:	.15 lbs.			
Snap Switch				
Size (HxWxD):	1.00 x .78 x .50 ln.			
Weight:	.15 lbs.			

AWARNING s	AWARNING SEE PRODUCT WARNING ON PAGE 8							
SPECIFICATIONS (S	SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	OPERATING TEMPERATURE RANGE	ELECTRICAL RATINGS	
с <b>ЯЛ</b> иs ( Є	N/A	81SH12	Standard Momentary	SPDT	C	10°F to 120°F <sup>2</sup>	20 A 125-250 VAC 1 H.P. 125 VAC	
c <b>91)</b> us ( E	N/A	81DH12	Standard Maintained	5501	U U	10 F to 120 F	2 H.P. 250 VAC	
° <b>M</b> . ° E	N/A	PBSH12 <sup>1</sup>	Hand Bulb Momentary	SPDT	С	10°F to 120°F <sup>2</sup>	20 A 125-250 VAC 1 H.P. 125 VAC 2 H.P. 250 VAC	
<sup>1</sup> Special Order Only <sup>2</sup>	The operating to	emperature range will vary v	with different lengths of tubing. Please	consult the fact	ory for det	ails.		

Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668





#### EN 60529 Degree of Protection IP20

#### Rustproof • Corrosion Resistant SPEED CONTROL DEVICE

#### **Materials of Construction:**

- Optional SPDT auxiliary off/on switch
- Supplied with dual cordsets, single series plug or custom modified for the O.E.M.
- Polymeric material will not rust or corrode

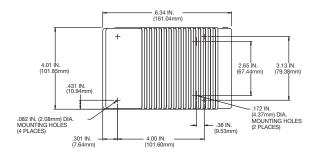
#### **Features & Benefits:**

- Variable control of small fractional horsepower Universal AC/DC motors only, leaving hands free
- Half wave in the variable speed mode, full wave at full speed
- Standard color is black; custom colors may be quoted on large O.E.M. orders
- 2 holes provided for rigid mounting to floor or equipment

#### **Options:**

- Steel Weight plate available
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)





Size (HxWxD):	2.25 x 4.00 x 6.34 ln.
Weight:	1.21 lbs.

2.25 IN. (57.15mm)
-----------------------

AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)					
AGENCY APPROVALS EN 60529 Degree of Protection NUMBER DESCRIPTION CORDSET(S) ELECTRICAL RATINGS					
c UL us	IP20	980-SC3		6' 18/3 SVT with 3-prong plug 1' 18/3 SVT with mating receptacle	6 A 125 VAC
c UL us	IP20	981-SC36	Momentary	6' 18/3 SVT with outer jacket stripped back 1' 18/3 SVT with outer jacket stripped back	4 A 250 VAC



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#### NEMA Type 1, 2, 4 & 13 EN 60529 Degree of Protection IP56 (IP68 Upon Request)

#### Driptight • Dusttight • Watertight • Oiltight NO SHIELD

#### **Materials of Construction:**

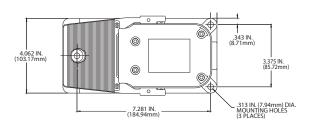
- Treadle, cover and housing constructed from cast iron for strength and durability
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps
   125 250)/05 con be added to the control
- 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke

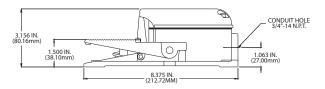
#### **Features & Benefits:**

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want

#### **Options:**

- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other potentiometer values are available
  upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)





Size (HxWxD):	3.16 x 4.06 x 8.38 ln.
Weight:	8.00 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8						
SPECIFICATIONS (S	pecial variatio	ns are available to the O	.E.M. on special order on the r	nodels listed below)			
Replace xx in C	atalog Nun	nber with value of P	otentiometer in Ohms.	(i.e. 500-N-5K)			
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT		ELECTRICAL RATINGS	
c <b>RL</b> us	IP56	500-N-xx	Momentary	-	-		
c <b>'RL</b> " us	IP56	500-AN-xx	Momentary	1 Auxiliary SPDT Contact	С	15A 125-250 VAC	



### **Hercules - Potentiometer - Full Shield**

#### NEMA Type 1, 2, 4 & 13 EN 60529 Degree of Protection IP56 (IP68 Upon Request)

#### Driptight • Dusttight • Watertight • Oiltight STANDARD FULL SHIELD

#### **Materials of Construction:**

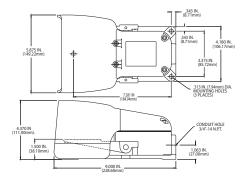
- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke

#### **Features & Benefits:**

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want

#### **Options:**

- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)



Size (HxWxD):	4.37 x 5.88 x 9.00 ln.
Weight:	8.00 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8							
	SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
Replace xx in C	atalog Num	<u>ber with value of P</u>	otentiometer in Ohms.	(i.e. 500-H-5K)			
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS	
c <b>AL</b> us	IP56	500-H-xx	Momentary	-	-		
c <b>FN</b> us	IP56	500-AH-xx	Momentary	1 Auxiliary SPDT Contact	С	15A 125-250 VAC	
c <b>91)</b> us	IP56	500-A2H-xx	Momentary	2 Auxiliary SPDT Contacts	С	15A 125-250 VAC	
c <b>FN</b> us	IP56	500-A3H-xx	Momentary	3 Auxiliary SPDT Contacts	С	15A 125-250 VAC	





HD

### Hercules - Potentiometer - O Shield

#### NEMA Type 1, 2, 4 & 13 EN 60529 Degree of Protection IP56 (IP68 Upon Request)

#### Driptight • Dusttight • Watertight • Oiltight OVERSIZED SHIELD

#### **Materials of Construction:**

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange

HD

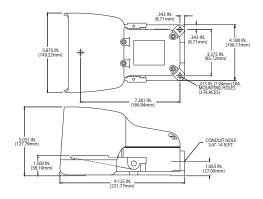
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke

#### **Features & Benefits:**

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want

#### **Options:**

- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other potentiometer values are available
  upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)



Size (HxWxD):	5.03 x 5.88 x 9.13 ln.
Weight:	8.00 lbs.

	AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)						
Replace xx in C	atalog Num	nber with value of P	otentiometer in Ohms.	(i.e. 500-HO-5K)			
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT		ELECTRICAL RATINGS	
c <b>FN</b> us	IP56	500-HO-xx	Momentary	-	-		
c <b>AL</b> us	IP56	500-AHO-xx	Momentary	1 Auxiliary SPDT Contact	С	15A 125-250 VAC	





### Hercules - Potentiometer - OX Shield

#### NEMA Type 1, 2, 4 & 13 EN 60529 Degree of Protection IP56 (IP68 Upon Request)

#### Driptight • Dusttight • Watertight • Oiltight EXTRA OVERSIZED SHIELD

#### **Materials of Construction:**

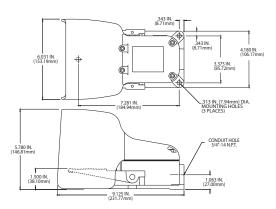
- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke

#### Features & Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want

#### **Options:**

- Special Dual 1/2"-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)



Size (HxWxD):	5.78 x 6.03 x 9.13 ln.
Weight:	8.00 lbs.

AWARNING SEE PRODUCT WARNING ON PAGE 8						
SPECIFICATIONS (S	pecial variatio	ns are available to the O	.E.M. on special order on the n	nodels listed below)		
Replace xx in C	atalog Num	nber with value of P	otentiometer in Ohms. (	i.e. 500-HOX-5K)		
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT		ELECTRICAL RATINGS
c <b>AL</b> us	IP56	500-HOX-xx	Momentary	-	_	
c 🔊 us	IP56	500-AHOX-xx	Momentary	1 Auxiliary SPDT Contact	С	15A 125-250 VAC



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### Varior - Potentiometer



#### EN 60529 Degree of Protection IP20

#### Variable Control Potentiometer LONG TREADLE THROW LARGE FOOTPRINT DESIGN

#### **Materials of Construction:**

- Steel housing electro-coated black finish
- Complete with full treadle pad and nonskid base pad
- Spring return pedal action on momentary models
- Adjustable friction pad design on maintained models
- Maximum resistance must be specified when ordering

#### Features & Benefits:

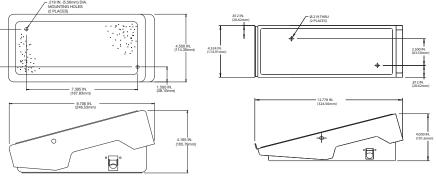
- Retrofits most welding equipment with a simple receptacle selection
- For environments where a non-watertight housing is suitable
- 2 holes provided for rigid mounting to floor or equipment
   Heel rest offered on "OH" models

#### **Options:**

- Custom cable lengths available
- Varior foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other
  potentiometer values are available upon request or by special order. Please contact the office for availability and pricing.

### ESAB • HOBART • LINCOLN • MILLER WELDING EQUIPMENT REPLACEMENT FOOT CONTROLS

Standard		_
Size (HxWxD):	4.17 x 4.50 x 9.71 ln.	2.500 IN. (63.50mm
Weight:	4.00 lbs.	
Industrial		
Size (HxWxD):	4.20 x 4.50 x 11.90 ln.	
Weight:	4.00 lbs.	



NOTE: Contact LINEMASTER<sup>®</sup> for replacement foot controls for your ESAB<sup>®</sup>, Hobart<sup>®</sup>, Lincoln<sup>®</sup> or Miller<sup>®</sup> welding equipment.

AWARNING SEE PRODUCT WARNING ON PAGE 8							
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
Replace xx in Catalog Number with value of Potentiometer in Ohms. (i.e. 09ASXP-5K)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CORDSET			
c <b>RL</b> us	IP20	09ASXP-xx	Momentary	Supplied with a 6 ft. 18/4 cordset without plug. Wired three leads to			
c <b>RL</b> 'us	IP20	09ARXU-xx	Maintained	potentiometer and green lead to ground.			
c <b>RV</b> us	IP20	09ASAC-xx	Momentary	Supplied with 6 ft. 18/6 cordset without plug, with auxiliary switch set to			
c <b>AL</b> us	IP20	09ARAC-xx	Maintained	operate at the beginning of treadle stroke and wired N.O. Three leads to potentiometer and green lead to ground.			
c <b>AL</b> us	IP20	0HASAC-xx	Momentary				
c <b>FL</b> us	IP20	0HASAA-1K	Momentary	Supplied with 25' 18/6 cordset with 14 pin plug compatible with Hobart <sup>®</sup> & Miller <sup>®</sup>			
c <b>PL</b> <sup>*</sup> us	IP20	0HASAB-10K	Momentary	Supplied with 25' 18/6 cordset with 6 pin plug compatible with Lincoln <sup>®</sup>			
c <b>RL</b> us	IP20	0HASAD-10K	Momentary	Supplied with 30' 18/6 cordset with 14 pin plug compatible with ESAB*			

Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668

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### **Throttle Controls - Assemblies & Enclosures**



#### EN 60529 Degree of Protection

#### Electronic Throttle Control CUSTOM APPLICATION SPECIFIC DESIGN

#### **Materials of Construction:**

- Steel housing electro-coated black finish
- Weather Resistant Components
- Complete with full treadle pad and nonskid base pad
- Spring return pedal action on momentary models
- Adjustable friction pad design on maintained models
- Maximum resistance must be specified when ordering
- Custom Mounting Configurations
- Custom Arm Configurations
- Custom Linkage Configurations

#### Features & Benefits:

- Retrofit installations
- For environments where a non-watertight housing is suitable
- Rigid mounting to floor or equipment
- Heel rest offered

#### **Options:**

- Auxiliary Switch(es) Available
- Rotary Potentiometer Available
- Hall Effect Circuit output available
- Custom cable lengths available
- Varior foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing

Introducing LINEMASTER<sup>®</sup> Throttle Controls. There are numerous applications for these controls, including use in various types of electric vehicles where accurate control of speed is required. LINEMASTER<sup>®</sup> offers a rugged construction for long life, ergonomic friendly designs and ease of operation. If you have an application that requires a throttle control, please contact our Customer Service Department for details.

Assemblies	
Size (HxWxD):	Application Specific
Weight:	Application Specific
Enclosures	
Size (HxWxD):	4.20 x 4.50 x 11.90 ln.
Weight:	4.00 lbs

#### **AWARNING** SEE PRODUCT WARNING ON PAGE 8

This device is of an application specific design. Please Contact LINEMASTER® for additional Information 1-860-974-1000





## Slim-Line



#### EN 60529 Degree of Protection IP20 (IP68 Upon Request)

#### Driptight • Dusttight • Watertight • Rust Proof • Corrosion Resistant SMALL LIGHTWEIGHT LOW PROFILE DESIGN

#### **Materials of Construction:**

- Cover & Base formed from Light Gray (PMS 427C) ABS Polymeric Material
- Non-glare finish
- Silver Alloy contacts
- SPDT, DPDT, Two-Stage, Momentary Operation
- Integrated adjustable strain relief clamp accommodates cord sizes from .250 Dia. to .400 Dia

#### Features & Benefits:

- Maximum versatility, total performance in a small package
- Rustproof and corrosion Resistant
- Mounting holes provided for rigid mounting to floor and or equipment
- Non-Skid Feet
- Raised Dimples on treadle for positive traction during operation
- 10A 125-250 VAC rating Designed to meet UL, CSA & CE requirments

#### **Options:**

- Custom colors and color matching available with quantity orders
- Fully submersible in water (IP68 Only)
- Twin & Triple models available
- Accessory base units available for configurations using multiple switches
- Heavy gauge steel guard available (See "Accessories Guards" on page 76 & 77 for details)
- Custom connectivity options including Universal Serial Bus (USB)
- Custom cabeling available
- 3A 125-250 VAC & 5A 125-250 VAC ratings available

Single		
Size (HxWxD):	1.05 x 2.50 x 3.48 ln.	
Weight:	3.7 oz.	
Twin		
Size (HxWxD):	2.0 x 11.75 x 6.0 ln.	
Weight:	3.25 lbs.	
Triple		
Size (HxWxD):	2.5 x 17.0 x 6.0 ln.	
Weight:	11 lbs.	

#### @ 0 0 $\langle \mathbf{0} \rangle$ 0 6 IN (3.4 TING HOLES 2 PLACES $^{\odot}$ Ο

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This device is of a	an application sp	pecific design. Please	Contact LINEMASTER® for addit	tional Information: 1-860-	974-1000	
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	CIRCUIT	FORM	ELECTRICAL RATINGS
<b>M</b> us ( E	IP20	SL1-S	Single Pedal/Momentary	SPDT	С	
<b>91</b> <sup>us</sup> ( E	IP20	SL2-S	Single Pedal/Momentary	SPDT - 2 Stage	С	10A 125-250 VAC
<b>91</b> °us ( E	IP20	SL4-S	Single Pedal/Momentary	DPDT	С	
° <b>N)</b> ""	IP68	SL1-SWBNO210 <sup>1</sup>	Single Pedal/Momentary	SPDT	С	
<b>91</b> <sup>us</sup> ( E	IP68	SL2-SWBNO410 <sup>2</sup>	Single Pedal/Momentary	SPDT - 2 Stage	С	5A 125-250 VAC
с е	IP68	SL4-SWANO410 <sup>2</sup>	Single Pedal/Momentary	DPDT	С	3A 125-250 VAC
₽ <b>₽</b> ₽°°° ( €	IP68	SL4-SWBNO310 <sup>3</sup>	Single Pedal/Momentary	DPDT	С	EA 125 2501/16
<b>91</b> <sup>us</sup> ( <del>(</del>	IP68	SL4-SWBNO410 <sup>2</sup>	Single Pedal/Momentary	DPDT	С	5A 125-250 VAC

1 Supplied with 10 ft., 2 conductor, 18 awg cord 2 Supplied with 10 ft., 4 conductor, 18 awg cord 3 Supplied with 10 ft., 3 conductor, 18 awg cord

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#### EN 60529 Degree of Protection IP68 FCC

#### Driptight • Dusttight • Watertight • Oiltight

#### Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange

#### Features & Benefits:

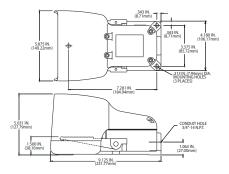
- Removes clutter of wires under foot
- IP68 fully submersible in water
- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement
  of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- Heavy duty weather resistant construction for harsh environments
- Momentary actuation Contacts: single pole, single throw, up to 16 amp service
- Available in up to 3 switch functions
- Multiple systems may be used in the same vicinity at the same time
- 40 foot range of RF Transmission
- 250 hours of battery life at 50% duty cycle
- 3 (AA) batteries required for Transmitter
- 3 holes provided for rigid mounting to the floor or equipment
- Available for US and European service

#### **Options:**

 Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield

Introducing LINEMASTER<sup>®</sup>s RF Wireless Hercules foot switch. LINEMASTER<sup>®</sup> offers the RF Wireless Hercules as a application specific design. If you have an application that requires a throttle control, please contact our Customer Service Department for details.

FULL COVER GUARD MODEL				
Size (HxWxD):	4.37 in x 5.88 in x 9.00 in			
Weight:	8.00 lbs.			
OVERSIZED COVER GUARD MODEL				
Size (HxWxD):	5.03 in. x 5.88 in. x 9.13 in.			
Weight:	8.00 lbs.			
OX COVER GUARD MODEL				
Size (HxWxD):	5.78 in. x 6.03 in. x 9.13 in.			
Weight:	8.00 lbs.			



AWARNING SEE PRODUCT WARNING ON PAGE 8							
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)							
AGENCY APPROVALS	EN 60529 Degree of Protection	CATALOG NUMBER	DESCRIPTION	STAGE	CIRCUIT		ELECTRICAL RATINGS
This device is of an application specific design. Please Contact LINEMASTER® for additional Information 1-860-974-1000							



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### **Infrared Wireless Digital - Single**

#### **NEMA Type**

Classified to IEC/UL 60601.1 Classified to Can/CSA C22.2 No. 60601.1 EN 60529 Degree of Protection IP68 (Transmitter Only) EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2 Food & Drug Administration (FDA) 510K Clearance

#### Driptight • Dusttight • Watertight • Oiltight • Rust Proof • Corrosion Resistant DIGITAL IR WIRELESS DEVICE

#### **Materials of Construction:**

- Switch Functions: Maximum combinations of 5
- Up to 4 systems can be operating at the same time in the same room
- Mode change switch available
- Transmitter battery life: 200 hours @ 50% duty cycle typical
- Power Consumption (Transmitter): Stand-by 100ua
- Standard Power Requirements (Receiver): 6VDC @ 200ma (other voltages optional)
- Transmitter low battery indicator
- Receiver output: SPST relay, 0.5 amp contacts; SPDT relays optional
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Protective Dual Layer Signal eliminates cross talk

#### Features & Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required plug and go
- Submersible transmitter for easy cleaning

#### **Options:**

- Protective bag available for easy clean-up
- Battery Powered Receiver optional



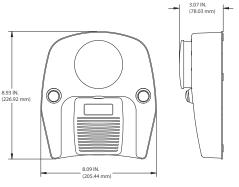






Transmitter (Switch)				
Size (HxWxD):	3.07 x 8.09 x 8.93 ln.			
Weight:	3.7 lbs. with batteries			
Receiver (A/C)				
Size (HxWxD):	2.75 x 5.00 x 3.50 ln.			
Weight:	.45 lbs.			
Receiver (D/C)				
Size (HxWxD):	5.50 x 5.25 x 4.50 ln.			
Weight:	1.7 lbs.			







PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

#### **AWARNING** SEE PRODUCT WARNING ON PAGE 8

This device is of an application specific design. Please Contact LINEMASTER® for additional Information: 1-860-974-1000

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### **Infrared Wireless Digital - Twin**

### **NEMA Type**

Classified to IEC/UL 60601.1 Classified to Can/CSA C22.2 No. 60601.1 EN 60529 Degree of Protection IP68 (Transmitter Only) EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2 Food & Drug Administration (FDA) 510K Clearance

#### Driptight • Dusttight • Watertight • Oiltight • Rust Proof • Corrosion Resistant **DIGITAL IR WIRELESS DEVICE**

#### **Materials of Construction:**

- Switch Functions: Maximum combinations of 5
- Up to 4 systems can be operating at the same time in the same room
- Mode change switch available
- Transmitter battery life: 200 hours @ 50% duty cycle typical
- Power Consumption (Transmitter): Stand-by 100ua
- Standard Power Requirements (Receiver): 6VDC @ 200ma (other voltages optional)
- Transmitter low battery indicator
- . Receiver output: SPST relay, 0.5 amp contacts; SPDT relays optional
- . Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Protective Dual Layer Signal eliminates cross talk

#### **Features & Benefits:**

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required – plug and go
- Submersible transmitter for easy cleaning

#### **Options:**

Weight:

Weight:

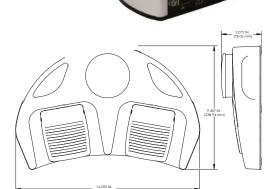
Weight:

Receiver (A/C) Size (HxWxD):

Receiver (D/C) Size (HxWxD):

- Protective bag available for easy clean-up
- **Battery Powered Receiver optional**

USB
510K CLEARANCE



### NARNIN

Transmitter (Switch) Size (HxWxD):

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#### **AWARNING** SEE PRODUCT WARNING ON PAGE 8

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3.07 x 14.00 x 10.00 ln.

5.50 lbs. with batteries

2.75 x 5.00 x 3.50 ln.

5.50 x 5.25 x 4.50 ln.

.45 lbs.

1.7 lbs.

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## **Infrared Wireless Digital - Triple**

#### **NEMA Type**

Classified to IEC/UL 60601.1 Classified to Can/CSA C22.2 No. 60601.1 EN 60529 Degree of Protection IP68 (Transmitter Only) EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2 Food & Drug Administration (FDA) 510K Clearance

#### Driptight • Dusttight • Watertight • Oiltight • Rust Proof • Corrosion Resistant DIGITAL IR WIRELESS DEVICE

#### **Materials of Construction:**

- Switch Functions: Maximum combinations of 5
- Up to 4 systems can be operating at the same time in the same room
- Mode change switch available
- Transmitter battery life: 200 hours @ 50% duty cycle typical
- Power Consumption (Transmitter): Stand-by 100ua
- Standard Power Requirements (Receiver): 6VDC @ 200ma (other voltages optional)
- Transmitter low battery indicator
- Receiver output: SPST relay, 0.5 amp contacts; SPDT relays optional
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Protective Dual Layer Signal eliminates cross talk

#### Features & Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required plug and go
- Submersible transmitter for easy cleaning

#### **Options:**

- Protective bag available for easy clean-up
- Battery Powered Receiver optional

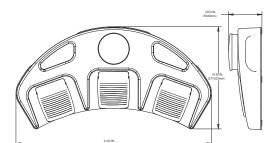






Transmitter (Switch)				
Size (HxWxD):	3.07 x 21.00x 11.00 ln.			
Weight:	7.50 lbs. with batteries			
Receiver (A/C)				
Size (HxWxD):	2.75 x 5.00 x 3.50 ln.			
Weight:	.45 lbs.			
Receiver (D/C)				
Size (HxWxD):	5.50 x 5.25 x 4.50 ln.			
Weight:	1.7 lbs.			





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#### AWARNING SEE PRODUCT WARNING ON PAGE 8

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### **Infrared Wireless Linear - Single**

#### NEMA Type

Classified to IEC/UL 60601.1 Classified to Can/CSA C22.2 No. 60601.1 EN 60529 Degree of Protection IP68 (Transmitter Only) EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2

#### Driptight • Dusttight • Watertight • Oiltight LINEAR IR WIRELESS DEVICE

#### Materials of Construction:

- Switch Functions: Maximum combinations of 5, up to 3 linear and 3 digital switch functions
- Up to 4 systems can be operating at the same time in the same room
- Transmitter battery life: 150-200 hours @ 50% duty cycle typical
- Power Consumption (Transmitter): Stand-by 250ua
- Standard Power Requirements (Receiver): 12VDC @ 200ma
- Transmitter low battery indicator
- Uses industry standard AA Alkaline batteries
- Range: Typically 40 feet
- Linear receiver output voltage is customer specified with 12VDC maximum output (other voltages optional)
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Exceptional linear control smooth and responsive
- New custom designed foot pedal
- Uses Hall Effect sensors: High reliability, No mechanical interface, High linearity, No dead spots
- Submersible transmitter for easy cleaning
- Eliminates the need for cords
- Retro-fits most existing equipment
- No product calibration required plug and go

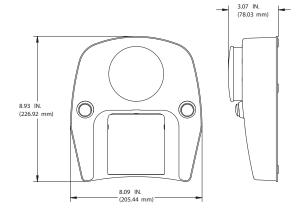
#### **Features & Benefits:**

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required plug and go
- Submersible transmitter for easy cleaning

#### **Options:**

Protective bag available for easy clean-up

Transmitter (Switch)					
Size (HxWxD):	3.07 x 8.09 x 8.93 ln.				
Weight:	3.70 lbs. with batteries				
Receiver					
Size (HxWxD):	2.75 x 5.00 x 3.50 ln.				
Weight:	.45 lbs.				





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#### AWARNING SEE PRODUCT WARNING ON PAGE 8

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### **Infrared Wireless Linear - Twin**

**NEMA Type** 

Classified to IEC/UL 60601.1 Classified to Can/CSA C22.2 No. 60601.1 EN 60529 Degree of Protection IP68 (Transmitter Only) EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2

#### Driptight • Dusttight • Watertight • Oiltight LINEAR IR WIRELESS DEVICE

#### **Materials of Construction:**

- Switch Functions: Maximum combinations of 5, up to 3 linear and 3 digital switch functions
- Up to 4 systems can be operating at the same time in the same room
- Transmitter battery life: 150-200 hours @ 50% duty cycle typical
- Power Consumption (Transmitter): Stand-by 250ua
- Standard Power Requirements (Receiver): 12VDC @ 200ma
- Transmitter low battery indicator
- Uses industry standard AA Alkaline batteries
- Range: Typically 40 feet
- Linear receiver output voltage is customer specified with 12VDC maximum output (other voltages optional)
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Exceptional linear control smooth and responsive
- New custom designed foot pedal
- Uses Hall Effect sensors: High reliability, No mechanical interface, High linearity, No dead spots
- Submersible transmitter for easy cleaning
- Eliminates the need for cords
- Retro-fits most existing equipment
- No product calibration required plug and go

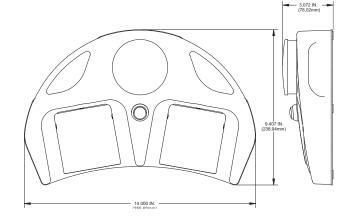
#### **Features & Benefits:**

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required plug and go
- Submersible transmitter for easy cleaning

#### **Options:**

Protective bag available for easy clean-up

Transmitter (Switch)			
Size (HxWxD):	3.07 x 14.00 x 10.00 ln.		
Weight:	5.5 lbs. with batteries		
Receiver			
Size (HxWxD):	2.75 x 5.00 x 3.50 ln.		
Weight:	.45 lbs.		



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#### AWARNING SEE PRODUCT WARNING ON PAGE 8

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## Infrared Wireless Linear - Triple

# LIGHT DUTY

### NEMA Type

Classified to IEC/UL 60601.1 Classified to Can/CSA C22.2 No. 60601.1 EN 60529 Degree of Protection IP68 (Transmitter Only) EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2

#### Driptight • Dusttight • Watertight • Oiltight LINEAR IR WIRELESS DEVICE

#### **Materials of Construction:**

- Switch Functions: Maximum combinations of 5, up to 3 linear and 3 digital switch functions
- Up to 4 systems can be operating at the same time in the same room
- Transmitter battery life: 150-200 hours @ 50% duty cycle typical
- Power Consumption (Transmitter): Stand-by 250ua
- Standard Power Requirements (Receiver): 12VDC @ 200ma
- Transmitter low battery indicator
- Uses industry standard AA Alkaline batteries
- Range: Typically 40 feet
- Linear receiver output voltage is customer specified with 12VDC maximum output (other voltages optional)
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Exceptional linear control smooth and responsive
- New custom designed foot pedal
   Uses Hall Effect sensors: High reliability, No mechanical interface, High linearity, No dead spots
- Submersible transmitter for easy cleaning
- Eliminates the need for cords
- Retro-fits most existing equipment
- No product calibration required plug and go

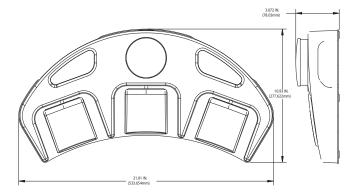
#### Features & Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required plug and go
- Submersible transmitter for easy cleaning

#### **Options:**

Protective bag available for easy clean-up

Transmitter (Switch)			
Size (HxWxD):	3.07 x 20.50 x 11.00 ln.		
Weight:	7.5 lbs. with batteries		
Receiver			
Size (HxWxD):	2.75 x 5.00 x 3.50 ln.		
Weight:	.45 lbs.		





PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

#### AWARNING SEE PRODUCT WARNING ON PAGE 8

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## **Accessories - Shields**

#### FULL SHIELD CATALOG NUMBER: 534-Z24

- Cast Aluminum Alloy construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Entire foot switch is covered
- Accepts wide range of foot switch models

Size (HxWxD):	4.33 x 5.91 x 8.72 ln.
Weight:	2 lb.

#### "O" SHIELD CATALOG NUMBER: 534-A25

- Cast Aluminum Alloy construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Entire foot switch is covered
- Accepts wide range of foot switch models

Size (HxWxD):	4.97 x 5.91 x 8.72 ln.
Weight:	2.25 lb.

#### "OX" SHIELD CATALOG NUMBER: 534-B25

- Cast Aluminum Alloy construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Entire foot switch is covered
- Accepts wide range of foot switch models

Size (HxWxD):	5.78 x 5.91 x 8.72 ln.
Weight:	2.50 lb.

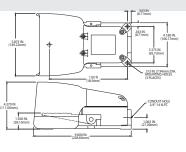


#### AWARENESS COVER CATALOG NUMBER: 522-U37

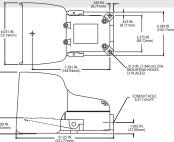
- Alerts you to the location of the foot switch
- Watch for tripping hazards
- Accepts wide range of foot switch models
- Resistant to impact
- Ergonomic design to accommodate most footwear
- Non-corrosive material
- Exceptional value and quality
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Opening is large and easy to access
- Versatile and Lightweight
- Entire foot switch is covered

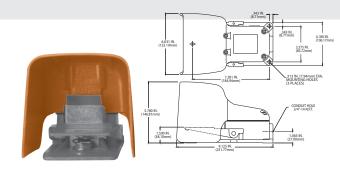
Size (HxWxD):	5.72 x 6.05 x 5.28 ln.
Weight:	8.5 oz.







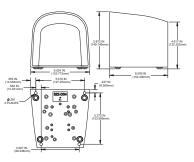




### Accessories - Awareness Cover







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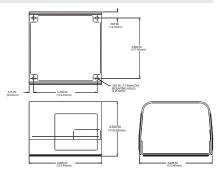
## **Accessories - Guards**



### FULL GUARD CATALOG NUMBER: 522-B14

- Heavy gage rolled steel and welded construction
- Resistant to impact .
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models





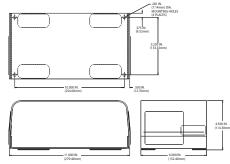
Size (HxWxD):	4.5 x 6.0 x 6.0 ln.
Weight:	4 lbs.

#### **FULL TWIN GUARD**

#### CATALOG NUMBER: 522-B12

- Heavy gage rolled steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models



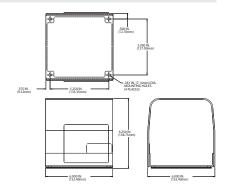


Size (HxWxD):	4.5 x 11.0 x 6.0 ln.
Weight:	7 lbs.

#### SINGLE OVERSIZED GUARD CATALOG NUMBER: 522-F28

- Heavy gage rolled steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models





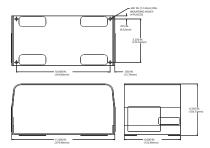
Size (HxWxD):	6.25 x 6.0 x 6.0 ln.
Weight:	5 lbs.

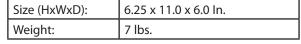
### **OVERSIZED TWIN GUARD**

#### CATALOG NUMBER: : 522-D28

- Heavy gage rolled steel and welded construction .
- Resistant to impact
- Opening designed to easily accommodate protective
- footwear
- Standard color is high visibility alert orange Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models

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29 Plaine Hill Road **POB 238** Woodstock, CT 06281-0238 USA

Call: (860) 974-1000 Fax: (860) 974-0691 Fax Toll Free (US Only): (800) 974-3668

### Accessories - Guards



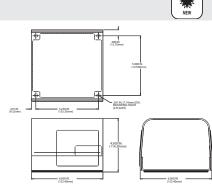
#### FULL GUARD STAINLESS STEEL CATALOG NUMBER: 522 - K26

- Heavy gage Brushed Stainless Steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Special variations available in production quantities

4 lbs.

- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models

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#### MEDICAL GUARD

Size (HxWxD):

Weight:

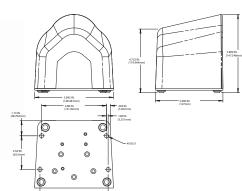
CATALOG NUMBER: 997-Z26

Cast Aluminum Housing with steel base plate construction

4.5 x 6.0 x 6.0 ln.

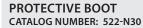
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models





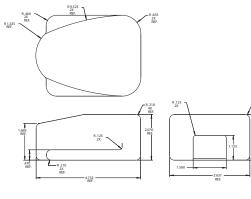
Size (HxWxD):	5.5 x 5.0 x 5.85 ln.
Weight:	3 lbs.

### **Accessories - Protective Boot**



- Plastisol PVC material in bright orange
- Easy to apply over Clipper & Clipper 88 foot switches.
- No special tools required
- Prevents materials in wet or dirty environments from entering the housing
- Not available for wide-treadle models.
   Note: Requires Modification when used with
- Full Guard. Please contact factory for details.





Size (HxWxD):	2.07 x 4.74 x 3.64 ln.
Weight:	3.1 oz.

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## **Cord Information**

Custom cordset service is a specialty at LINEMASTER<sup>\*</sup>, that is offered to the Original Equipment Manufacturer on a direct basis. Special cordsets are available to the O.E.M. as a separate item or as part of a complete foot switch assembly.

LINEMASTER<sup>®</sup> will manufacture special cordsets to the Original Equipment Manufacturer's specifications. Whether it be with one of our molded-on plugs or an attached type connector by another manufacturer, we will be happy to submit a quotation. We will also use any cable, as specified by the customer. If you have requirements for a special cordset, please consider LINEMASTER<sup>®</sup> as your source and give us your complete specifications.

The selection of an interfacing connector should not precede the selection of the cable. The abuse factor may require that a heavier cable construction type be selected that can be accommodated in a desired interfacing connector. A small size connector may be desirable, but not at the price of unnecessary field problems due to an unsuitable cable selection.

Another design consideration is that the cable be provided with a suitable strain relief where the cable enters the foot switch housing. For most non-watertight applications, LINEMASTER<sup>®</sup> offers a high quality, molded on, cable strain relief grommet. When adjustable, two screw, cable clamps are used, a flexible bushing can be added over the cable, when required to give added cable strain relief or flex protection. In watertight applications, a properly sized, watertight, cable strain relief connector should be specified to maintain the integrity of the watertight seal where the cable enters the foot switch housing.

Cord Type	Jacket Material	AWG Size	Electrical Rating In Amperes	UL/CSA Dia. Range (IN)	Applications		
		18-2	10	.280315	Sound equipment, small motors, tools,		
		18-3	10	.300335	medical & dental equipment, office machines, tape recorders, and other		
300 Volt	SJT-plastic SJO-neoprene	18-4	7	.325365	small appliances. Widely used on foot switches.		
500 VOIL	SJTO-plastic	16-2	13	.305340			
		16-3	13	.325360	SJO (Neoprene) or SJTO (Plastic) cord is used where cord must resist oil, acid,		
		16-4	10	.350395	and grease.		
	SVT-plastic	18-2	10	.220255	Office equipment (dictating machines) and other light duty requirements.		
300 Volt	· · ·	18-3	10	.230265	SVO (Neoprene) or SVTO (Plastic) cord is used where cord must resist oil, acid,		
		18-4	7	.250290	and grease.		
		18-2	10	.340385			
		18-3	10	.360400	Heavy duty service when subjected to		
		18-4	7	.385430	extra hard usage, heavy tools, medical & dental equipment, and other heavy duty		
	ST-plastic	16-2	13	.365410	applications.		
600 Volt	SO-neoprene	16-3	13	.385430	SO (Neoprene) or STO (Plastic) cord is used where cord must resist oil, acid,		
	STO-plastic	16-4	10	.410460	and grease.		
		14-2	18	.495550	Note: ST (Plastic) cord is slightly smaller in diameter than SO (Neoprene) or S		
		14-3	18	.520575	(Rubber) cord.		
		14-4	13	.560620			



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### **Stock Cordsets with Molded Plug**

Do you want to receive your LINEMASTER<sup>®</sup> foot switch complete with a cordset attached?

Do you have a requirement for a special cordset assembly?

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LINEMASTER<sup>\*</sup> will manufacture special cordsets to the Original Equipment Manufacturer's specifications. Whether it be with one of our molded-on plugs or an attached type connector by another manufacturer, we will be happy to submit a quotation. We will also use any cable, as specified by the customer. If you have requirements for a special cordset, please consider LINEMASTER<sup>\*</sup> as your source and give us your complete specifications. The selection of an interfacing connector should not precede the selection of the cable. The abuse factor may require that a heavier cable construction type be selected that can be accommodated in a desired interfacing connector. A small size connector may be desirable, but not at the price of unnecessary field problems due to an unsuitable cable selection.

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						Bol	d Copy Ind	licates Stock Iter
		Catalog Number	Lgth (ft.)	Gauge	Material	Color	Max. Cable Dia. (IN)	Compatible Socket
YOUR EQUIPMENT 3 PRONG		SF-524-M	6	18-3	SJT	Black	.314	Any Standard 3 Prong 125 VAC Wall Receptacle
		SF-515-P34	8	18-3	SJT		.312	
L TO EQUIPMENT BEING TURNED ON & OFF BY THE FOOT SWITCH OR OTHER CONTROL.	<b>():</b>	SF-536-P	8	16-3	SJT		.331	
		SF-522-Q17	8	14-3	SJT		.355	
SLEEVE- SHIELD TIP- CONDUCTOR 		SF-965-JJ	8	22-1	PVC Jacket Shielded Audio	Black	.315	Any Standard Contact .250 dia. Miniature phor plug receptacl
SLEEVE- SHIELD TIP- CONDUCTOR 		SF-515-D16	8	22-1	PVC Jacket Shielded Audio	Black	.150	Any Standard Contact .140 dia. Miniature phor plug receptacl
SLEEVE- SLEEVE SLEEVE TIP SLEEVE TIP SLEEVE TIP SLEEVE TIP SLEEVE TIP SLEEVE SHIELD TIP SLEEVE SLEEVE TIP SLEEVE TIP SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE TIP SLEEVE TIP SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE SLEEVE TIP SLEEVE S		SF-515-A10	8	22-1	PVC Jacket Shielded Audio	Black	.150	Any Standard Contact .097 dia. Miniature phor plug receptacl

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## IP Ratings

EN 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers) and moisture. This classification system utilizes the letters "IP" ("Ingress Protection") followed by two or three digits. (A third digit is sometimes used. An "x" is used for one of the digits if there is only one class of protection; i.e. IPX4 which addresses moisture resistance only.)

### **Degrees of Protection - First Digit**

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

- 0 No special protection
- 1 Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50mm in diameter.
- 2 Protection against fingers or other object not greater than 80mm in length and 12mm in diameter.
- 3 Protection from entry by tools, wires, etc., with a diameter of thickness greater than 1.0mm.
- 4 Protection from entry by solid objects with a diameter or thickness greater than 1.0mm
- 5 Protection from the amount of dust that would interfere with the operation of the equipment.
- 6 Dust tight.

### **Degrees of Protection - Second Digit**

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)

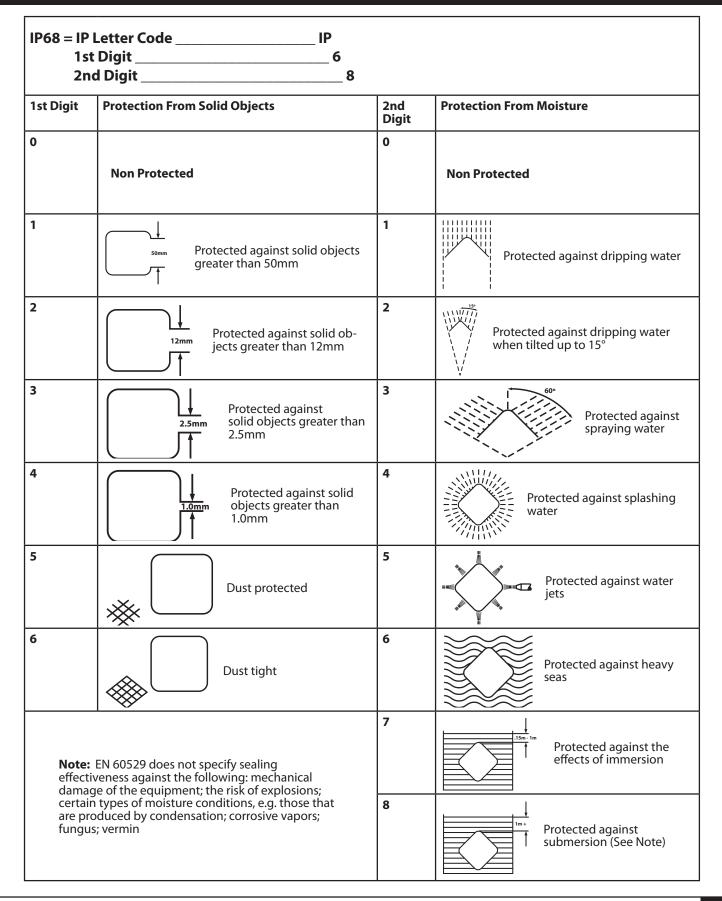
- 0 No special protection
- 1 Protection from dripping water.
- 2 Protection from vertically dripping water.
- 3 Protection from sprayed water.
- 4 Protection from splashed water.
- 5 Protection from water projected from a nozzle
- 6 Protection against heavy seas, or powerful jets of water.
- 7 Protection against immersion.
- 8 Protection against complete, continuous submersion in water. Submersion depth and time must be specified by the end user. The requirement must be more onerous than IP67

### The IP Code Symbols

The chart at the right illustrates the use of special symbols in the IP classification system. In the "1st digit" column, not the grid-like symbols net to numbers 5 and 6. In the "2nd digit" column numbers 3-8 are symbolized by teardrop shaped symbols, sometimes enclosed in a box or a triangle, sometimes unenclosed (#7-8). These symbols can be placed on equipment to illustrate the IP protection provided.



## **IP** Ratings



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## **AGENCY MARKINGS & APPROVALS**

Symbol	Country	Description
( <b>+</b> )	Switzerland	SEV Accepted Schweizerischer Electrotechnischer Verein (SEV) is the certification agency for Switzerland. The recognized association for Swiss standards is the Swiss Standards Association (SEV). The SEV has adopted IEC standards almost without exception. The SEV mark molded into a plug or connector indicates that a product has been tested and approved for use in Switzerland. All products to be sold in Switzerland must bear this mark.
AP	Europe	AP Marked For anesthesia products utilized in anesthesia areas apply special requirements. For these extremely sensible range of use we offer control devices suitable as approved anesthesia product for surgical applications (class AP). This is documented with the AP mark. On medical equipment, to mark a category AP equipment complying with IEC Publication 601 which also specifies the way in which this symbol has to be used.
CE	Europe	CE MARKED CE Marking on a product is a manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation, in practice by many of the so-called Product Directives.
	Canada	CSA Certified A CSA mark on its own, without indicators, means that the product is certified primarily for the Canadian market, to the applicable Canadian standards. If a product has features from more than one area, (e.g. electrical equipment with fuel burning features), the mark indicates compliance to all applicable Standards.
D	Denmark	DEMKO Recognized Component UL International Demko A/S certificate and the D-Mark The D-Mark signals to consumers, retailers, insurers and authorities that a reputable, independent third-party and European National Certification body has tested the product to appropriate international, electrical safety standards. The D-Mark is a voluntary safety mark registered and provided by UL-Demko. It has been in use for more than 70 years and is a familiar symbol to consumers as well as retailers and manufacturers in Europe.
	Germany	TUV BAUART TÜV is NRTL (Nationally Recognized Testing Laboratory) and SCC certified, providing a full suite of services, including CE Marking assistance, electromagnetic compatibility (EMC), electrical & mechanical testing, and many additional global conformity assessment services that help companies gain product compliance to enter individual country markets.
	United States	UL Mark / UL Listing Mark This is one of the most common UL Marks. If a product carries this Mark, it means UL found that representative samples of this product met UL's safety requirements. These requirements are primarily based on UL's own published Standards for Safety. This type of Mark is seen commonly on appliances and computer equipment, furnaces and heaters, fuses, electrical panelboards, smoke and carbon monoxide detectors, fire extinguishers and sprinkler systems, personal flotation devices like life jackets and life preservers, bullet resistant glass, and thousands of other products.
cUUus	United States & Canada	UL Mark for Canada and the United States C-UL US Listing Mark UL introduced this new Listing Mark in early 1998. It indicates compliance with both Canadian and U.S. requirements. The Canada/U.S. UL Mark is optional. UL encourages those manufacturers with products certified for both countries to use this new, combined Mark, but they may continue using separate UL Marks for the United States and Canada.
<b>AI</b> ®	United States	UL Recognized Component Mark Recognized Component Mark This is a mark consumers rarely see because it is specifically used on component parts that are part of a larger product or system. These components may have restrictions on their performance or may be incomplete in construction. The Component Recognition marking is found on a wide range of products, including some switches, power supplies, printed wiring boards, some kinds of industrial control equipment and thousands of other products.
c <b>FL</b> ® us	United Sates & Canada	UL Recognized Component Mark for Canada and the United States Recognized Component Mark for Canada and the United States This new UL Recognized Component Mark, which became effective April 1, 1998, may be used on components certified by UL to both Canadian and U.S. requirements. Although UL had not originally planned to introduce a combined Recognized Component Mark, the popularity of the Canada/U.S. Listing and Classification Marks among clients with UL certifications for both Canada and the United States has led to the new Mark.
WEEE	International	Symbol for WEEE Compliance The WEEE Directive 2002/96/EC, was issued by the European Union in 2003 to minimize the impact of electrical and electronic equipment on the environment throughout their life cycle including when they become waste. It makes producers of WEEE responsible for financing the collection, treatment, recycling and recovery of electrical and electronic equipment waste. Equipment includes, but is not limited to, information technology and telecommunications equipment, household appliances, lighting equipment, electrical and electronic tools, etc. European Union member countries are in the process of implementing measures to comply with this directive.
RoHS	International	RoHS RoHS stands for Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment. In conjunction with the WEEE directive, the European Union issued directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment. In summary, this directive bans or in some situations limits the following toxic chemicals after the 1st of July 2003: lead, mercury, cadmium, Hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).
510K CLEARANCE	United States	Food & Drug Administration US Federal Government agency whose mission is "to promote and protect the public health by helping safe and effective products reach the market in a timely way, and monitoring products for continued safety after they are in use."



## **Glossary of Terms**

Circuit	British Main Wiring Name	American Main Wiring Name	Description	Symbol	IEC 60617
SPST	One Way	Two Way	Single Pull Single Throw A simple on-off switch: The two terminals are either connected together or not connected to anything.	<u> </u>	
SPDT	Two Way	Three Way	<b>Single Pull Double Throw</b> A simple changeover switch: C (Common) is connected to L1 or to L2.	L1COM	$\int \int $
DPST	Double Pole	Double Pole	<b>Double Pull Single Throw</b> Equivalent to two SPST switches controlled by a single mechanism	0,0, 0,0,	- C
DPDT			<b>Double Pull Double Throw</b> Equivalent to two SPDT switches controlled by a single mechanism: A is connected to B and D to E, or A is connected to C and D to F.		407
TPDT			Triple Pull Double Throw	ĺ	
Switches wi	th larger numbers o	of poles or throws	can be described by replacing the "S" or "D" with a number or in some ca	ases the letter T (for t	riple).

EXAMPLE OF CIRCUIT DESCRIPTIONS						
CIRCUIT	TREADLE UP	TREADLE DOWN	CIRCUIT	TREADLE UP	TREADLE DOWN	
SPDT	• •		SPDT DB (Double Break)	• •	• •	

Term	Description
DB	Double Break
NC	Normally Closed In normally closed (N.C) contact blocks, the contacts are "at rest" in the closed (on) position, allowing current to pass through. The contacts open only when the plunger goes down and separates them.
NO	Normally Open Normally open (N.O) means that contacts are "at rest" in the open (off) position, and current does not pass through. The contacts close only when the plunger goes down and forces them together.
МВВ	Make before Break In a multi-throw switch, the new contact is made before the old contact is broken. This is known as make-before-break, and ensures that the moving contact never sees an open circuit.
BBM	Break before Make In a multi-throw switch , the old contact is broken before the new one is made. This is known as break-before-make, and ensures that the two fixed contacts are never shorted to each other.
Hall Effect Sensor	A Hall Effect sensor is a transducer that varies its output voltage in response to changes in magnetic field. Hall sensors are used for proximity switching, positioning, speed detection, and current sensing applications.
Maintained	Press - on, Press again - off. When a maintained action switch is actuated, the contacts move to transfer the circuits to the second set of contacts. No change takes place with the contacts when the operator removes his or her foot even though the actuator, treadle or cover, has returned to the original position. When the operator actuates the switch a second time, the contacts returns to the original position.
Momentary	Press - on, release - off. When a momentary action switch is actuated, the actuating device, treadle or cover, and contacts move to transfer the circuits to a second set of contacts. When the actuating force is removed, the actuating device and the contacts return to the original position.
Reed Switch	The reed switch is an electrical switch operated by an applied magnetic field. It was invented at Bell Telephone Labs in 1936 by W. B. Elwood. It consists of a pair of contacts on ferrous metal reeds in a hermetically sealed glass envelope. The contacts may be normally open, closing when a magnetic field is present, or normally closed and opening when a magnetic field is applied.
Variable	The present popular usage of the term potentiometer (or 'pot' for short) describes an electrical device which has a user-adjustable resistance. Usually, this is a three-terminal resistor with a sliding contact in the center (the wiper). If all three terminals are used, it can act as a variable voltage divider. If only two terminals are used (one side and the wiper), it acts as a variable resistor.

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### **COMMITMENT TO QUALITY**



### **MISSION STATEMENT**

Linemaster Switch Corporation's mission is to provide a superior foot switch at an affordable price without compromise.

### **QUALITY POLICY**

Linemaster Switch Corporation's goal is to bring high quality reliable products to market that will earn customer loyalty. We will accomplish this through our commitment to the following quality goals and objectives:

- Ensure products meet or exceed their internal and external requirements.
- Continually monitor the quality of our customer interactions, with the intent to improve our customer's total experience.
- Establish and maintain quality requirements for the supplier, partners, and contractors and hold them accountable to comply.
- To comply with global and regulatory requirements that are applicable; and
- To add value and growth for the corporation, community and to our customers.

Linemaster's management is responsible for providing leadership to ensure that our policy and objectives are conveyed, understood and implemented throughout the organization.

### **COMMITMENT STATEMENT**

Linemaster is committed to continuously improving the effectiveness of the quality management system through the establishment and monitoring of relevant quality goals and metrics throughout the organization. We will strive for the improvement of product quality, the reduction in quality cost, and the increase in productivity and efficiency. Basic principle is that all departments and individuals have responsibilities in ensuring that their job is done correctly and the product is built right the first time and every time thereafter. Our program emphasizes preventive efforts and systems

We endorse the concepts, policies, and elements described in the system, and will monitor the performance throughout the organization and through periodic reviews of the quality management system by Linemaster management.

Q1-5 Rev A



## NOTES

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