



## Highlights

- **NEW!** Remote Text Display panel
- **NEW!** 4 built-in analog inputs
- **NEW!** 4 built-in 5Khz high-speed inputs
- **NEW!** Extended memory (200 function blocks)
- **NEW!** Brighter, higher contrast and controllable backlit LCD
- **NEW!** Extended retentive data memory
- **NEW!** Up to 50 text message displays (only 10 in FL1D)
- **NEW!** Simple arithmetic functions
- **NEW!** Three memory and battery cartridges
- **NEW!** WindLGC 6.0 programming software
- **NEW!** USB programming cable
- **See back page for part numbers and pricing**

*The new SmartRelay brochure is now available on the ILC.*



## New FL1E SmartRelays take it up a notch!

SmartRelays have always been a low-cost, easy-to-use solution for simple control tasks. Now with the new fifth-generation FL1E, customers get even more flexibility and convenience with added functionality. Advances include hardware improvements, upgraded software and an optional external text display panel.

Improvements in the hardware include two added built-in analog inputs (four total), as well as two additional built-in fast counter analog inputs (four total). Extended memory, up to 200 memory blocks, is a 50% increase from previous models, and extended retentive data memory is three times larger. Not to mention, there are four new accessories. Three new cartridges including memory, battery and combined memory/battery, and a new USB programming cable. Plus a brighter LCD with higher contrast makes it even easier to read bar graphs or text.

WindLGC 6.0 makes programming fast and easy. Upgrades include four new function keys, special function blocks, and control of the backlight for both the FL1E and external text display panel. WindLGC upgrades and demo are now available at [www.IDEC.com/downloads](http://www.IDEC.com/downloads).

With an optional external text display panel, customers can now connect to any FL1E SmartRelay via a left-side interface. Customers can display the same message text as the FL1E or select different information to be displayed. For example, the FL1E may show operation information, while the text display shows service information.

IDEC SmartRelays meet industry standard approvals including cULus, CE, C-tick and ABS (American Bureau of Shipping). Plus they are FM approved for Class 1 Div 2 hazardous locations, and Lloyd's Register.

It's safe to say we all want to work smarter not harder, while also saving money. With IDEC SmartRelays, it's easy. These all-in-one controllers are easy-to-use and require less space in your customer's control cabinet, which is basically money in their pocket. These days that's something we can all use!

For more information on the FL1E SmartRelay including a datasheet, sales brochure, user's manual, CAD drawings, Powerpoint presentation and more, visit [www.IDEC.com/smartrelay](http://www.IDEC.com/smartrelay) or download a Launch kit at our distributor site, [www.IDEC.com/distributor](http://www.IDEC.com/distributor).

## External Text Display

With a backlit LCD (128 x 64 pixels) for easy viewing, the FL1E text display panel can show up to 50 message blocks and is capable of displaying 4x12 characters. A scrolling feature allows up to 24 character messages across the screen. Plus this intuitive visual interface supports analog values such as level sensor, flow rate, rpm, counts, temperature and more, on horizontal and vertical bar graphs. Six predefined cursor keys make screen navigation and data

entry, along with four user defined function buttons configurable to your desired equipment operation.

The FL1E text display panel is IP65 and NEMA 4/4X rated for indoor wash down environments, as well as being certified with industry standard agency approval: cULus and FM Class 1 Div 2.



## Hardware Upgrade Highlights

- **Up to 4 built-in analog inputs** 0-10V DC can now be utilized (I1, I2, I7 and I8 can be configured as AI1-AI4) compared with just 2 in the existing FL1D series. This means added convenience and cost savings for your customers.
- **Up to 4 built-in fast inputs** at a maximum of 5kHz can now be utilized compared with just 2 at 2kHz in the existing FL1D series. Most of our competitors only offer up to 2 high speed inputs at maximum of 2kHz.
- **Up to 200 function blocks** can be implemented in the FL1E programming. That's a 50% increase compared

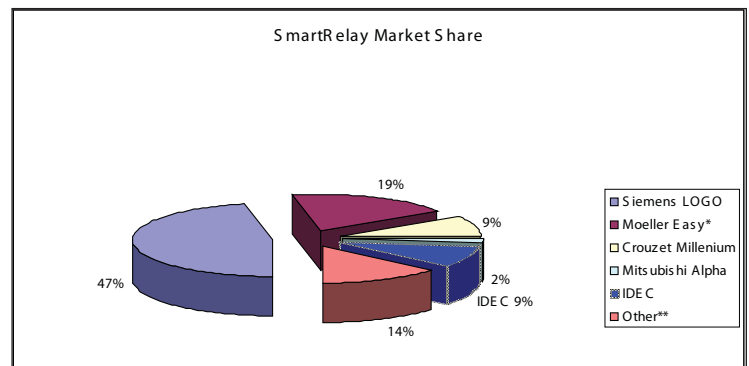
with the FL1D series. The end results is more flexibility, power and control for your customers.

- **Brighter and higher contrast LCD screen** makes it easier to view and program the FL1E. Plus the backlight can be controlled through the user's program or permanent ON/OFF.
- **Up to 50 text messages** can be displayed on the FL1E base modules or the new Text Display panel making it easy for customers to see all the information they need.

## Market Information

The U.S. intelligent (smart) relays market is constantly growing as more and more machine builders realize the effectiveness and ease-of-use of this type of product.

What makes the SmartRelay appealing is its simple programming, minimal wiring, fast installation and economical pricing. Machine builders are currently the main users, but the largest growing market is building automation applications such as lighting, access and environmental controls. **Currently, IDEC holds approximately 9-10% of the market share, but our target is 15-20% of the market share over the next 2-3 years.**



\*Moeller Easy included Allen Bradley Pico and ABB Entrellec.

\*\*Other included Omron Zen, Telemecanique Zelio, and others.

**Cross Reference Part Numbers**

IDEC SmartRelay	Siemens LOGO!	Moeller Easy	Allen Bradley Pico	Crouzet Millenium	Telemecanique Zelio	Omron Zen	Mitsubishi Alpha
FL1E-B12RCA	6ED1 052-2HB00-0BA6	EASY512-AB-RCX; EASY719-AB-RCX	1760-L12NWN-ND; 1760-L18NWN-EXND	88970024; 88970034	SR2E121B; SR2E201B	-	-
FL1E-B12RCC	6ED1 052-2FB00-0BA6	EASY512-AC-RCX; EASY719-AC-RCX	1760-L12AWA-ND; 1760-L18AWA-EXND	88970023; 88970033	SR2D101FU; SR2E121FU; SR2E121FU; SR2D201FU; SR2E201FU	ZEN-10C3AR-A-V2; ZEN-20C3AR-A-V2	-
FL1E-B12RCE	6ED1 052-2MD00-0BA6	EASY512-DA-RCX; EASY512-DC-RCX; EASY719-DA-RCX; EASY719-DC-RCX	1760-L12BWB-ND; 1760-L12DWD-ND; 1760-L18BWB-EXND; 1760-L18DWD-EXND	88070021; 88970031	SR2D101BD; SR2E121BD; SR2D201BD; SR2E201BD	ZEN-10C3DR-D-V2; ZEN-20C3DR-D-V2	-
FL1E-H12RCA	6ED1 052-1HB00-0BA6	EASY512-AB-RC; EASY719-AB-RC	1760-L12NWN; 1760-L18NWN-EX	88970044; 88970054	SR2B121B; SR2B201B; SR3B101BB	-	-
FL1E-H12RCC	6ED1 052-1FB00-0BA6	EASY512-AC-R; EASY512-AC-RC; EASY719-AC-RC	1760-L12AWA; 1760-L12AWA-NC; 1760-L18AWA; 1760-L18AWA-EX	88970043; 88970053	SR2A101FU; SR2B121FU; SR2A201FU; SR2B201FU; SR3B101FU	ZEN-10C1AR-A-V2; ZEN-20C1AR-A-V2; ZEN-10C2AR-A-V2; ZEN-20C2AR-A-V2	AL2-10MR-A; AL2-14MR-A
FL1E-H12RCE	6ED1 052-1MD00-0BA6	EASY512-DA-RC; EASY512-DC-R; EASY512-DC-RC; EASY719-DA-RC; EASY719-DC-RC	1760-L12BWB; 1760-L12BWB-NC; 1760-L12DWD; 1760-L18BWB-EX; 1760-L18DWD-EX	88970041; 88970045; 88970051; 88970055	SR2B121JD; SR2B201JD; SR2A101BD; SR2B121BD; SR2A201BD; SR2B201BD; SR3B101BD	ZEN-10C1DR-D-V2; ZEN-20C1DR-D-V2; ZEN-10C2DR-D-V2; ZEN-20C2DR-D-V2	AL2-10MR-D; AL2-14MR-D
FL1E-H12SND	6ED1 052-1CC00-0BA6	EASY512-DC-TC; EASY721-DC-TC	1760-L12BBB; 1760-L20BBB-EX	88970042; 88970052	SR2B122BD; SR2B202BD; SR3B102BD	ZEN-10C1DT-D-V2; ZEN-20C1DT-D-V2; ZEN-10C2DT-D-V2; ZEN-20C2DT-D-V2	-

**Competitor Comparison**

Company	IDEC SmartRelay	Siemens LOGO!	Moeller Easy700	Allen Bradley Pico	Crouzet Millenium	Telemecanique Zelio	Omron Zen	Mitsubishi Alpha
Maximum I/O	50	50	40	40	40	40	44	28
Available Voltages	12/24 VDC 24 VAC/DC 100-240 VAC/DC	12/24 VDC 24 VAC/DC 100-240 VAC/DC	12 VDC 24 VAC 24 VDC 100-240 VAC	12 VDC 24 VAC 24 VDC 100-240 VAC	12 VDC 24 VAC 24 VDC 100-240 VAC	12 VDC 24 VAC 24 VDC 100-240 VAC	12 - 24 VDC 100-240 VAC	24 VDC 100-240 VAC
Built-in Analog Inputs	4 (0-10 VDC)	4 (0-10 VDC)	2 (0-10 VDC)	2 (0-10 VDC)	4 (0 - 10 VDC)	4 (0 - 10 VDC)	2 (0 - 10 VDC)	8 (0 - 10 VDC)
Built-in Fast Inputs	4 (5 kHz)	4 (5 kHz)	2 (1 kHz)	2 (1 kHz)	2 (1 kHz)	2 (1 kHz)	None	2 (1 kHz)
Controllable backlit LCD	Yes	Yes	No	No	No	No	No	No
Optional Remote Text Display	Yes	Yes	No	No	No	No	No	No
Relay Contacts Rating	10A	10A	8A	8A	8A	8A	8A	8A
Class 1 Div 2	Yes	Yes	Yes	Yes	No	No	Yes	No
Approvals	cULus, CE, FM, ABS, Lloyds, C-tick	cULus, CE, FM, ABS, Lloyds, C-tick	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE	cULus, CE	cULus, CE
List Price	\$125 - \$160	\$135 - \$180	\$178 - \$208	\$160 - \$340	\$150 - \$230	\$135 - \$320	\$100 - \$185	\$145 - \$285



### New FL1E Base Modules



Part Numbers		Rated Voltage	Input Signal	Input Type	Output Type	With Clock	List Price
With LCD Display	FL1E-H12RCE	12/24V DC	DC	PNP	Relay	Yes	\$155
	FL1E-H12SND	24V DC			Transistor Source	—	\$140
	FL1E-H12RCA	24V AC/DC	AC/DC	NPN/PNP	Relay	Yes	\$155
	FL1E-H12RCC	100-240V AC/DC					PNP
Without LCD Display	FL1E-B12RCE	12/24V DC	DC	PNP	Relay	Yes	\$125
	FL1E-B12RCA	24V AC/DC	AC/DC	NPN/PNP			\$125
	FL1E-B12RCC	100-240V AC/DC					PNP

### New Text Message Display



Part Number	Rated Voltage	Description	List Price
FL1E-RD1	12 VDC, 24 VAC/DC	FL1E SmartRelay Text Display	\$249

### Communication Modules



Part Numbers	Module	Input Power	Total I/O	List Price
FL1B-CL1C12	LonWORKS® Communication Module	24V AC/DC	Input: 16 points Analog Input: 8 points Output: 12 points	\$350
FL1B-CAS2	AS-Interface Communication Module	30V DC	Input: 4 points Output: 4 points	\$150

\*LonWorks® is a registered trademark of Echelon

### I/O Expansion Modules



Part Numbers	Module	Rated Voltage	Input Type	Output Type	Total I/O	List Price
FL1B-M08B2R2	Combination I/O	12/24V DC	PNP	Relay	8 (4 in/4 Out)	\$68
FL1B-M08B1S2		24V DC		Transistor		\$68
FL1B-M08C2R2		100-240V AC/DC	NPN/PNP	Relay		\$70
FL1B-M08D2R2		24V AC/DC				\$70
FL1B-J2B2	Analog Input	12/24V DC	0-10V, 4-20mA	—	2 (2 in/0 Out)	\$100
FL1D-K2B2	Analog Output	24V DC	—	0-10V	2 (0 in/2 Out)	\$150

### New Starter Kits & Accessories



Part Numbers	Description	List Price	
Starter Kits	SMARTSTART-BAC-E	FL1E-B12RCC, WindLGC software and programming cable	\$179
	SMARTSTART-BDC-E	FL1E-B12RCE, WindLGC software, programming cable, and simulator switch	\$179
	SMARTSTART-HAC-E	FL1E-H12RCC, WindLGC software and programming cable	\$199
	SMARTSTART-HDC-E	FL1E-H12RCE, WindLGC software, programming cable, and simulator switch	\$199
Accessories	FL9Y-LP1CDW	WindLGC 6.0 programming software	\$79
	FL1A-PC1	SmartRelay Serial programming cable	\$79
	FL1E-PC2	SmartRelay USB programming cable (direct)	\$150
	FL1E-PM4	FL1E SmartRelay memory cartridge	\$25
	FL1E-PB1	FL1E SmartRelay battery cartridge	\$39
	FL1E-PG1	FL1E SmartRelay memory and battery combination cartridge	\$69
	FC4A-USB	Serial to USB converter	\$35
	FL9Y-B1090-0	FL1E SmartRelay user's manual	\$0
FL1B-Y1371-SW8	8-pt simulator switch, used with 12-24VDC, 24VDC base module only	\$60	

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