
















Selector Chart For Power Entry Modules

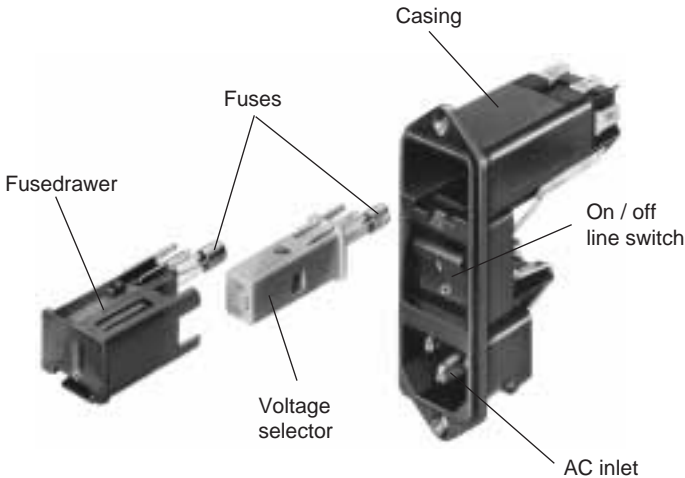
For power entry modules with line filter, see page 49					
	Series / page number	CMF, page 31	KP, page 32	KP, page 32	KP, page 32
AC inlet	• low current	•	•	inlet / outlet	•
Fuseholder (5 x 20mm)			•		
On/off line switch	•	•			•
Voltage selector					

					
Series / page number	KEA, page 36	6200, page 35	GSF2, page 35	0040, page 37	KEC, page 38
AC inlet	•	•	•	•	•
Fuseholder (5 x 20mm)	•	•	• fuse clips	•	
Fuseholder (5 x 20mm or 1/4 x 1 1/4")					•
On/off line switch					
Voltage selector	•step				• step

					
Series / page number	KD, page 39	KE, page 41	KG, page 42	8843, page 44	FELCOM, page 45
AC inlet	•	•	•	•	with or without outlet
Fuseholder (5 x 20mm)					with / without fuseholder
Fuseholder (5 x 20mm or 1/4 x 1 1/4")	•	•	•	•	
On/off line switch	•		•	with or without switch	with or without switch
Voltage selector	• step	• series/parallel	• series/parallel	• series/parallel	

About Power Entry Modules

Power entry modules integrate several component functions, thus reducing panel space, parts count, and assembly time. For instance, the CG series integrates a total of five components including RFI filter, IEC 320 inlet, 1- or 2-pole fuseholder for 1/4 x 1/4" or 5 x 20 mm fuses, series/parallel or DPDT voltage selector, and a remote or integral on/off line switch. The remote switch further reduces assembly time by eliminating the wiring between the front panel, on/off switch, and the rear power entry module. Tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1 and DIN/VDE 0750 part 1 can be satisfied by specifying medical fusedrawer ordering data.



Options

- Options for most power entry modules include: ac inlet without ground terminal for protection class II equipment; various terminal types, including all solder or quick-connect for Line and Neutral with solder for Ground; non-standard internal connection wiring; red or green neon lighted switch; Bowden units for customer supplied remote switch activation rods;
- Series KE, KG, CE and CG: ac inlet without ground terminal for protection class II equipment available in 2-pole only.
 - Voltage selector markings available other than those listed in the charts.
 - Rivet mount modules available for series 6200, 6202, 6205 and 6220.
 - Felcom series 64 and 54 modules available in custom configurations.

Accessories

For insulation cover and cord retaining clamp ordering data, see page 27. For KE, KG, CE or CG voltage selector wiring cable, see page 43. For cordsets, see pages xx-xx.

Materials

Casing and fusedrawer:

MultiFit modules KP, CMF thermoplastic PA 6.6 (UL 94V-O)
 KEA, KEC/KFC, fiberglass reinforced thermoplastic
 KD/CD, KE/CE, KG/CG PETP (UL 94V-O)

KEB I & II, KFA, thermoplastic PA 6.6 (UL 94V-O)
 6200-6220, 5200-5220, 0040 thermoplastic, polyester (UL 94V-O)
 8843

Inlet prongs:

MultiFit KP, CMF tin-plated brass
 KEB/KFB I, 8843, 0040, KEA/KFA, KEC/KFC, KD/CD, KE/CE, KG/CG nickel-plated brass
 KEB/KFB I & II nickel- and tin-plated brass

Terminals:

MultiFit KP, CMF tin-plated brass
 KEC/KFC, KD/CD, KE/CE, KG/CG, Felcom 54/64, 6200/6220, 5200/5220 tin-plated brass
 KEB/KFB I & II, KFA silver- and tin-plated brass
 8843, 0040 nickel-plated brass

Power Dissipation

Max. power dissipation values are listed on the individual pages. See pages 3-5 for additional shock safety and power dissipation guidelines and data.

Voltage Selection Charts For Fusedrawers

Selection Chart for Series KEA, KFA

(KFA available with 3 positions max.)

Fusedrawer Order Numbers	Voltage markings / terminal markings			
	1	2	3	4
KEA, KFA				
4301.XXXX.01 *	110	150	220	—
4301.XXXX.02	120	—	240	—
4301.XXXX.03	110	—	220	—
4301.XXXX.04	115	—	220	—
4301.XXXX.05	110	—	230	—
4301.XXXX.06	115	—	230	—
4301.XXXX.07	100	110	220	240
4301.XXXX.08	100	120	220	240
4301.XXXX.09	110	—	117	—
4301.XXXX.10	220	—	240	—
4301.XXXX.11	120	220	240	—
4301.XXXX.12	110	220	240	—
4301.XXXX.13	115	220	240	—
4301.XXXX.14	—	—	—	—
4301.XXXX.15	100	120	220	—
4301.XXXX.16	50Hz	—	60Hz	—
4301.XXXX.17	220	—	110	—
4301.XXXX.18	110	240	220	—
4301.XXXX.19	117	220	240	—
4301.XXXX.20	100	110	127	230
4301.XXXX.21	110	120	220	—
4301.XXXX.22	110	220	230	—
4301.XXXX.23	100	115	220	240
4301.XXXX.24	115	230	240	—

* Standard version

Selection Chart for Series KEC, KFC, KD, CD

(KFC available with 3 positions max.)

Fusedrawer Order Numbers	Voltage markings / terminal markings					
	1	2	3	4	5	6
KEC, KFC						
KD, CD						
4303.XXXX.00	—	—	—	—	—	—
4303.XXXX.01 *	100	120	220	240	—	—
4303.XXXX.02	110	150	220	—	—	—
4303.XXXX.03	110	—	220	—	—	—
4303.XXXX.04	110	220	240	—	—	—
4303.XXXX.05	115	—	230	—	—	—
4303.XXXX.06	117	220	240	—	—	—
4303.XXXX.07	100	117	220	—	—	—
4303.XXXX.08	110V	—	220V	—	—	—
4303.XXXX.09	220	—	240	—	—	—
4303.XXXX.10	115	220	240	—	—	—
4303.XXXX.11	110	120	220	240	—	—
4303.XXXX.12	115	230	240	—	—	—
4303.XXXX.13	100	110	220	240	—	—
4303.XXXX.14	100	117	220	240	—	—
4303.XXXX.15	100	115	230	—	—	—
4303.XXXX.16	100	120	230	240	—	—
4303.XXXX.17	115	120	230	240	—	—
4303.XXXX.18	115	—	240	—	—	—
4303.XXXX.19	220	120	240	230	—	—
4303.XXXX.20	100	120	230	—	—	—
4303.XXXX.21	100	—	220	—	—	—
4303.XXXX.22	100	120	220	230	—	—
4303.XXXX.23	100	110	120	—	—	—

* Standard version

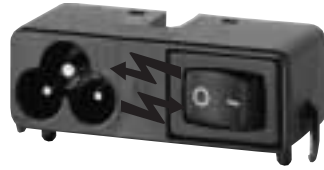
For More Information

Contact Schurter at the numbers listed below for non-standard part numbers and order minimums, or for any other questions you may have regarding options, accessories, materials or power dissipation.

CMF Low Current AC Inlet with On / Off Line Switch



NEW



Switch on left or right of AC inlet



Shown with rear insulation cover

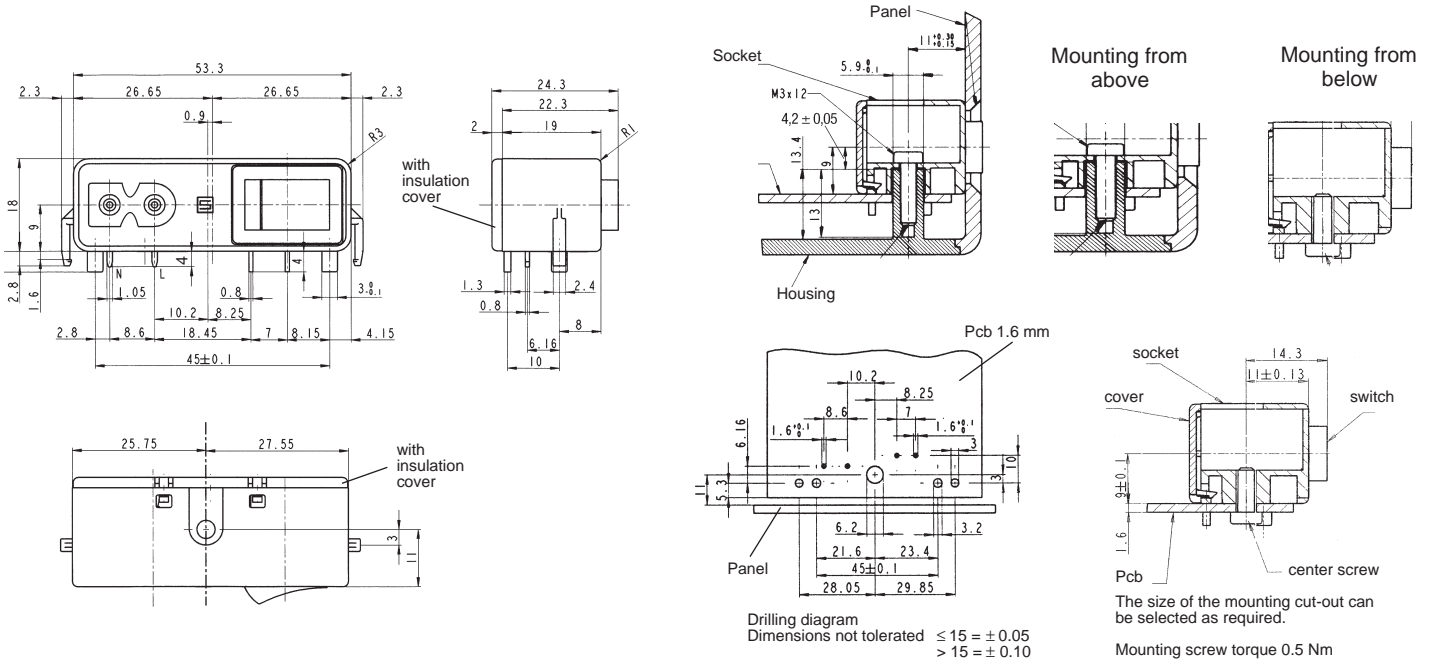
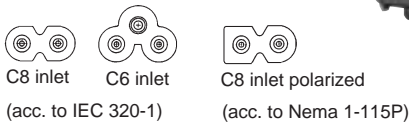


MULTIFIT

- Miniature power entry module with integral 1-pole on/off line switch
- For cold connections 65°C, Protection Class I or II
- Pcb mount with snap-in stabilizing feet; center screw mounts to housing, or to pcb from above or below
- Body designed to protrude through panel opening
- SPST switch, 40A inrush maximum
- Electrical connections between mains inlet and switch done on the pcb
- Resistance to vibration according to IEC 68-2-6/Fc
- Rear insulation cover protects against inadvertent electrical contact
- For materials, options and accessories, see page 30
- For inlet/switch with 10A rating, see KEB on page 34
- For international cordsets, see page 26

UL recognition 2.5A/250V File #E96454
 CSA certification 2.5A/250V File #LR38456
 VDE approval 2.5A/250V File #93511
 SEMKO approval 2.5A/250V } File numbers on request
 SEV approval 2.5A/250V }

7A, 250V UL/CSA version available; contact factory for pricing and order minimum



Order Numbers

CMF	Appl. inlet C8	Appl. inlet polarized	Appl. inlet C6	Cover mounted	Rocker switch with inscript.0-I	Mounting from above	Mounting from below
CMF1.1111.12				•	•	•	
CMF1.1011.12				•	•	•	
CMF1.1131.12				•	•		•
CMF1.1031.12				•	•		•
CMF2.1111.12				•	•	•	
CMF2.1011.12				•	•	•	
CMF2.1131.12				•	•		•
CMF2.1031.12				•	•		•
CMF3.1112.12				•	•	•	
CMF3.1012.12				•	•	•	
CMF3.1132.12				•	•		•
CMF3.1032.12				•	•		•

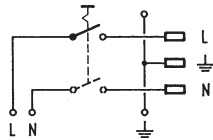
KP Pcb Mount, Snap-in or Screw-on • AC Inlet • AC Outlet • On / off Line Switch Fuseholder for 5 x 20mm Fuses



NEW

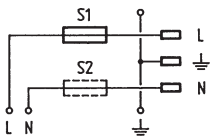


AC inlet / switch

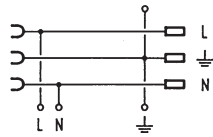


Medical Fusedrawer

AC inlet / fuseholder



AC inlet / outlet



MULTIFIT

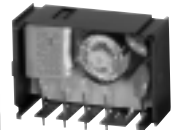
- Power entry module with line switch, fuseholder or inlet/outlet
- For "cold" connections 65° C, Protection Class I.
- Pcb mount with snap-in or screw-on feet (self-tapping M3 screws provided, \varnothing 3 x 8mm)
- Panel mount from rear or "sandwich" between top and bottom / side to side panels
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 5 x 20mm fuses
- Integral 1-pole SPST on/off line switch or 2-pole DPST switch (70A/3-4ms in-rush max.; 10,000 cycles lifetime)
- Insulation cover in back protects against inadvertent electric contact
- Ground terminal solder/quick-connect .187 x .032" (4.8 x 0.8mm) or .250 x .032" (6.3 x 0.8mm)
- 0.5 Nm screw torque required for screw-on type
- Max. power dissipation 3.2 watts (1-pole fusing) or 5 watts (2-pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb} , see page 5.
- For materials, options and accessories please see page 30
- For inlets with piggy-back fuse clips see GSF, page 13-14

		Inlet / switch		Inlet / outlet	
UL	recognition	10A/250V ¹⁾	File #E96454	10A/250V	File #E103791
CSA	certification	10A/250V ¹⁾	File #LR38456	10A/250V	File #LR38456
VDE	approval	10A/250V ²⁾	File #83482	10A/250V	File #83482
SEMKO	approval	10A/250V ²⁾		10A/250V	} File numbers on request
SEV	approval	10A/250V ²⁾		10A/250V	

¹⁾ 10A/250V approval with 1/2 HP; 10A/125V approval with 1/3 HP
²⁾ 4A inductive load

		Inlet / fuseholder	
UL	recognition	10A/250V	File #E93617
CSA	certification	10A/250V	File #LR38456
VDE	approval	10A/250V	File #83482
SEMKO	approval	10A/250V	} File numbers on request
SEV	approval	10A/250V	

Optional "back-pack" filter
(see KPF, pg. 55)



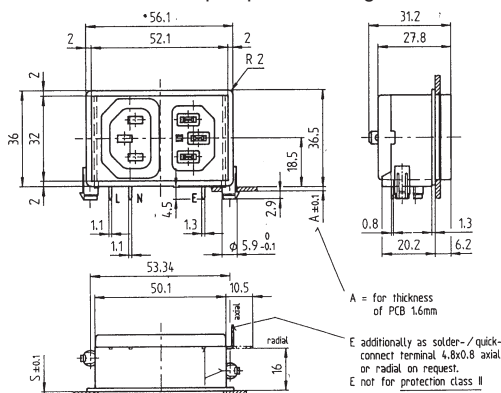
Optional "back-pack" surge protector (see KPS, pg. 55)



Cascading multi-function design streamlines packaging

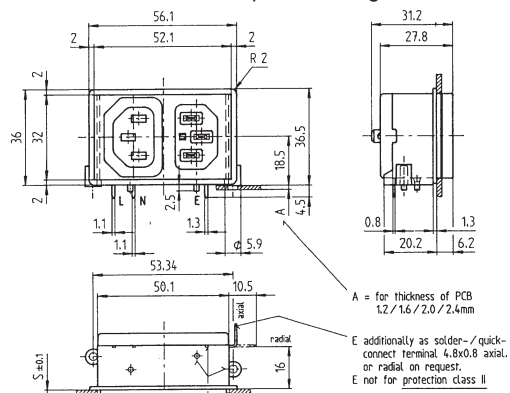
Standards: IEC 320/C14/F; IEC 127-6; EN 60320; EN 60127-6. Fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.

Snap-in pcb mounting



see next page for drilling diagram and panel cut-out

Screw-on pcb mounting



see next page for drilling diagram and panel cut-out

KEB AC Inlet with On / Off Line Switch



- Power entry module with integral 1-pole or 2-pole on/off line switch
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front
- SPST switch 60A in-rush max., unlighted(black) or lighted(red)
- DPST switch 35A in-rush max., unlighted(black) or lighted(red or green)
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- For materials, options and accessories please see page 30
- For KEB with line filter, please see KFB on page 56



KEB 1-pole

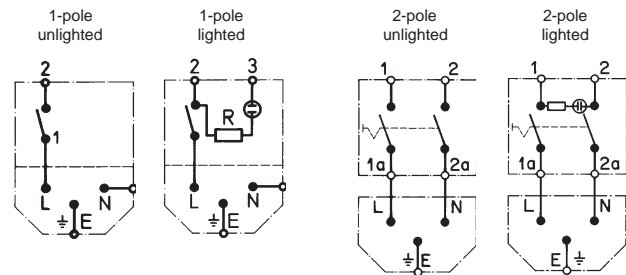


KEB 2-pole

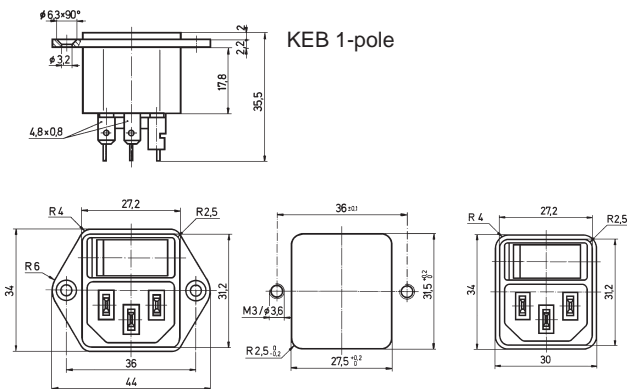
UL recognition 10A/250V¹ File #E96454
 CSA certification 10A/250V¹ File #LR38456
 VDE approval 10A/250V² File #3461, expert report
 SEMKO approval 10A/250V² } File numbers on request
 SEV approval 10A/250V²
 CS certification 10A/250V

¹⁾ 6A/250V with lighted DPST switch

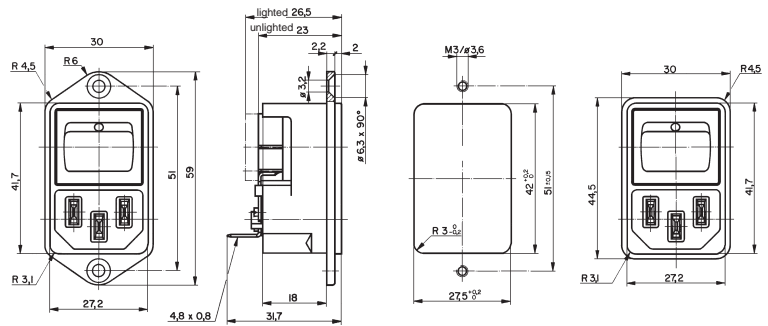
²⁾ 3A inductive load SPST; 4A inductive load DPST



Standards: UL498; CSAC22.2182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320



KEB 2-pole

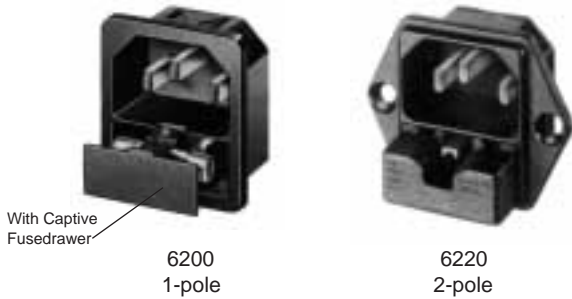


± 0.1 mm panel thickness tolerance required with snap-in modules

Order Numbers

KEB			
1-pole switch	2-pole switch	Switch color / rating	Mounting
4302.0001	4302.2001	unlighted / 250V	Screw-on
4302.0002	4302.2002		Snap-in, 1.5mm panel thickness
4302.0003	4302.2003		Snap-in, 2.0mm panel thickness
4302.0004	4302.2004		Snap-in, 2.5mm panel thickness
4302.0101	4302.2101	red lighted/ 250V	Screw-on
4302.0102	4302.2102		Snap-in, 1.5mm panel thickness
4302.0103	4302.2103		Snap-in, 2.0mm panel thickness
4302.0104	4302.2104		Snap-in, 2.5mm panel thickness
4302.0121	4302.2141	red lighted/ 125V (1-pole) green lighted/ 250V (2-pole)	Screw-on
4302.0122	4302.2142		Snap-in, 1.5mm panel thickness
4302.0123	4302.2143		Snap-in, 2.0mm panel thickness
4302.0124	4302.2144		Snap-in, 2.5mm panel thickness

6200 / 6220 AC Inlet with 5 x 20mm Fuseholder

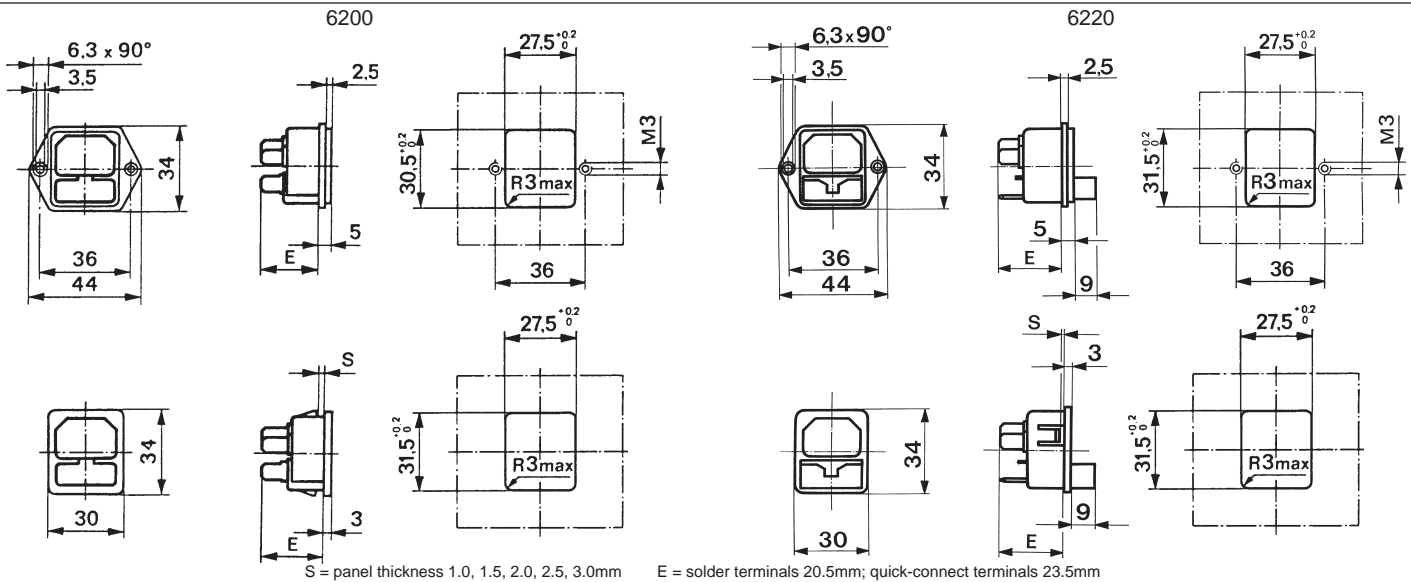
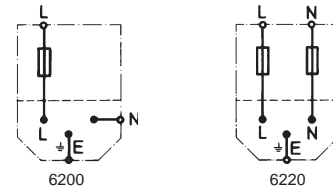


- Power entry module with 1-pole (6200) or 2-pole (6220) fuseholder. 1-pole fuseholder has spare fuse compartment (Class I only).
- For "cold" connections 65° C, Protection Class I or Class II (6202)
- Screw mount from front or rear, or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 5 x 20mm fuses
- Quick-connect terminals .187" x .032" (4.8 x 0.8mm) or .250" x .032" (6.3 x 0.8mm); or solder terminals .138" x .032" (3.5 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 1.7 watts(6200) and 3.1 watts(6220) according to IEC 127-6. For additional values P_v in function of T_{amb} , see page 5
- For materials, options and accessories please see page 30
- For 6200/6220 with line filter, please see 5200/5220 on page 57
- For inlets with piggy-back fuse clips see GSF, pg. 13-14

**Plug Removal
Necessary for
Fuse Replacement**

UL recognition 10A/250V File #E96317
 CSA certification 10A/250V File #LR38456
 VDE approval 10A/250V File #2324, expert report
 SEMKO approval 10A/250V } File numbers on request
 SEV approval 10A/250V }

Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14/C18; EN 60320. 6200 fusedrawer meets requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers (type)

Note: Casing and fusedrawer combined. To order fuses, please see page 102

6200, 1-pole fusing					6220, 2-pole fusing		Terminal Type
Screw-on		Snap-in			Screw-on	Snap-in	
Class I	Class II	Class I (w/o internal connections)	Class I	Class I (w/o internal connections)	Class I	Class I	
6200.2100 6200-21	6202.2100* 6202-21	6205.2100* 6205-21	6200.41XX 6200-41/...	6205.41XX* 6205-41/...	6220.2100 6220-21	6220.51XX 6220-51/...	solder .138" x .032" (3.5 x 0.8mm)
6200.2200 6200-22	6202.2200* 6202-22	6205.2200* 6205-22	6200.42XX 6200-42/...	6205.42XX* 6205-42/...	6220.2200 6220-22	6220.52XX 6220-52/...	quick-connect .187" x .032" (4.8 x 0.8mm)
6200.2300 6200-23	6202.2300* 6202-23	6205.2300* 6205-23	6200.43XX 6200-43/...	6205.43XX* 6205-43/...	6220.2300 6220-23	6220.53XX 6220-53/...	quick-connect .250" x .032" (6.3 x 0.8mm)

XX = panel thickness 1.0, 1.5, 2.0, 2.5, 3.0mm (e.g. 6200.4110 = 1.0mm)

To order rivet mount type, change the fifth digit in the part number from a "2" to a "9" (e.g. 6200.9100, 6202.9100). Contact Schurter for order minimum.

* Contact Schurter for order minimum

KEA AC Inlet with 5 x 20mm Fuseholder

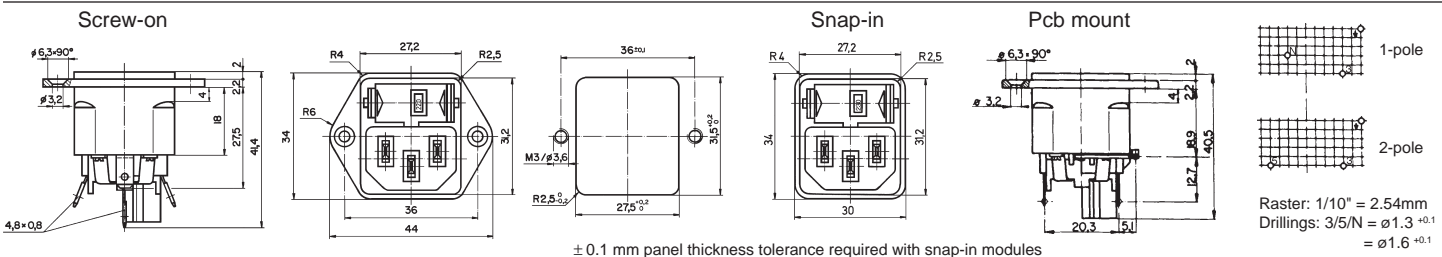
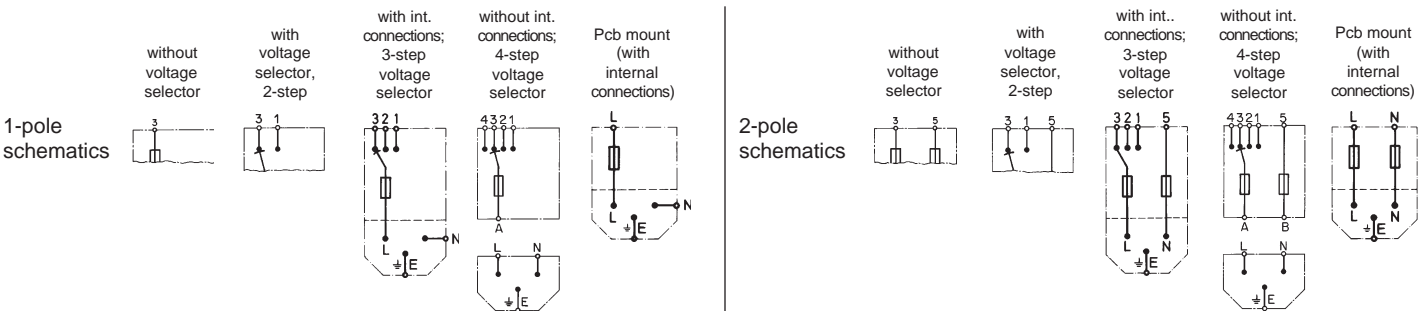


Plug Removal Necessary for Fuse Replacement

- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 5 x 20mm fuses (plug removal necessary for fuse replacement)
- Optional voltage selector with 2-4 step switch positions
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm) or pcb terminals
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 3.5 watts (2 pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb} , see page 5.
- For materials, options and accessories please see page 30
- For KEA with line filter, please see KFA on page 58
- For inlet with piggy-back fuse clips see GSF, pg. 13-14

UL recognition	10A/250V	File #E93617
CSA certification	10A/250V	File #LR38456
VDE approval	10A/250V	File #1996, expert report
SEMKO approval	10A/250V	File numbers on request
SEV approval	10A/250V	

Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320. Medical fusedrawers meet tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1. U.S. Patented.



Order Numbers

Note: Casing and fusedrawer must be ordered separately. To order fuses, please see page 102

KEA w/o voltage selector		KEA with voltage selector		KEA pcb mnt., w/o volt. selector		Voltage Selector	Internal Connections	Mounting
1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing			
4301.0521	4301.0501	4301.0021	4301.0001	4301.3211	4301.3201	2-3 pos., (n/a pcb type)	with	Screw-on
4301.0522	4301.0502	4301.0022	4301.0002	4301.3212	4301.3202			Snap-in, 1.5mm panel thickness
4301.0523	4301.0503	4301.0023	4301.0003	4301.3213	4301.3203			Snap-in, 2.0mm panel thickness
4301.0524	4301.0504	4301.0024	4301.0004	4301.3214	4301.3204			Snap-in, 2.5mm panel thickness
Part numbers without internal connections on request		4301.2061	4301.2041	Part numbers without internal connections on request		3-4 pos., (n/a pcb type)	without	Screw-on
		4301.2062	4301.2042					Snap-in, 1.5mm panel thickness
		4301.2063	4301.2043					Snap-in, 2.0mm panel thickness
		4301.2064	4301.2044					Snap-in, 2.5mm panel thickness

Fusedrawer					
Voltage markings / terminal markings: 1 2 3 4		5 x 20mm 1-pole black	2-pole black	1-pole + spare fuse-case	2-pole black, with shorting bar in the neutral side
With voltage selector: see selector chart on page 30 for .XX	Standard	4301.1214.XX	4301.1014.XX	4301.2814.XX	4301.3536.XX
	Medical *	4301.1224.XX	4301.1024.XX	4301.2824.XX	4301.3537.XX
Without voltage selector	Standard	4301.1405	4301.1401	4301.1409	4301.1413
	Medical *	4301.1407	4301.1403	4301.1411	4301.1415

* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

0040 AC Inlet with 5 x 20mm Fuseholder



Note: Not recommended for new designs. Refer to KEA (pg. 36), GSF (pg. 13/14) or 6220 (pg. 35)



Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14/C18; EN 60320

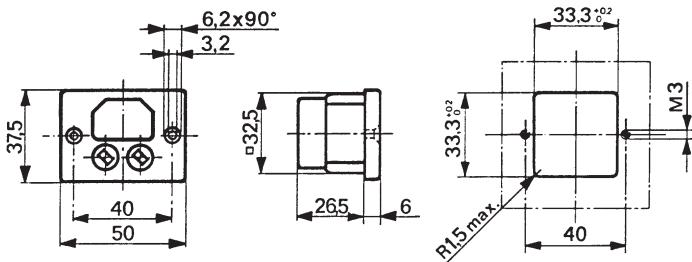
- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I or II
- Screw mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 5 x 20mm fuses
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- 0.5 Nm torque required for M3 screws
- Max. power dissipation 2.4 watts (2-pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb} , see page 5
- For materials, options and accessories please see page 30
- For inlet with piggy-back fuse clips see GSF, page 13-14

UL recognition	10A/250V	File #E93617
CSA certification	10A/250V	File #LR38456
VDE approval	6A/250V	File #19397
SEMKO approval	10A/250V	File numbers on request
SEV approval	10A/250V	

Order Numbers (type)

Note: Casing and fuseholder combined. To order fuses, please see page 102.

Series 0040			
Class I	Class II	Color/Fusing	Terminal Type
0040.5000.2	0040.5015	black/2-pole	solder
8843-2.SP.FL.4/3.60	8842-2.SP.FL.4/3.60		.138" x .032" (3.5 x 0.8mm)
0040.5001.2		grey/2-pole	quick-connect
8843-2.SP.FL.4/3.64			.187" x .032" (4.8 x 0.8mm)
0040.5012		black/1-pole	quick-connect
8843-2.SP.U.FL.4/3.60			.250" x .032" (6.3 x 0.8mm)



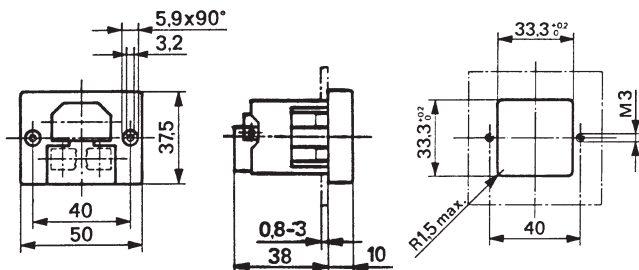
8843 AC Inlet • Interchangeable Fuseholders for 1/4 x 1 1/4" or 5 x 20mm Fuses



Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320. U.S. Patented.

- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front (0.8-3.0mm panel thickness)
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1 1/4" or 5 x 20mm fuses
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm) or solder .138 x .032" (3.0 x 0.8mm).
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 5.5 watts (2 pole fusing, unfiltered) according to IEC 127-6. For additional values P_v in function of T_{amb} , see page 6
- For materials, options and accessories please see page 30
- For 8843 with line filter, please see 8843 on page 59
- For inlet with piggy-back fuse clips see GSF, page 13-14

UL recognition	10A/250V	File #E96317
CSA certification	10A/250V	File #LR38456
VDE approval	10A/250V	File #3157, expert report
SEMKO approval	10A/250V	File numbers on request
SEV approval	10A/250V	



Order Numbers (type) Note: Casing and fuseholders must be ordered separately. To order fuses, please see page 102.

Casing					
8843		8843		8843	
1-pole fusing	2-pole fusing	Terminals		Mounting	Fuseholder inserts* (2 inserts must be ordered for 2-pole fusing)
8843.0351 (8843-351.60)	8843.0361 (8843-361.60)	Solder .138" X .032" (3.0 x 0.8mm)		Screw-on	8843.0901 1/4 x 1 1/4"
8843.0353 (8843-353.60)	8843.0363 (8843-363.60)	Quick-connect .187" x .032" (4.8 x 0.8mm)		Screw-on	8843-901.60 (6.3x32mm)
8843.0451 (8843-451.60)	8843.0461 (8843-461.60)	Solder .138" X .032" (3.0 x 0.8mm)		Snap-in, 0.8-3.0mm panel thickness	8843.0902 for 5 x 20mm
8843.0453 (8843-453.60)	8843.0463 (8843-463.60)	Quick-connect .187" x .032" (4.8 x 0.8mm)		Snap-in, 0.8-3.0mm panel thickness	8843-902.60

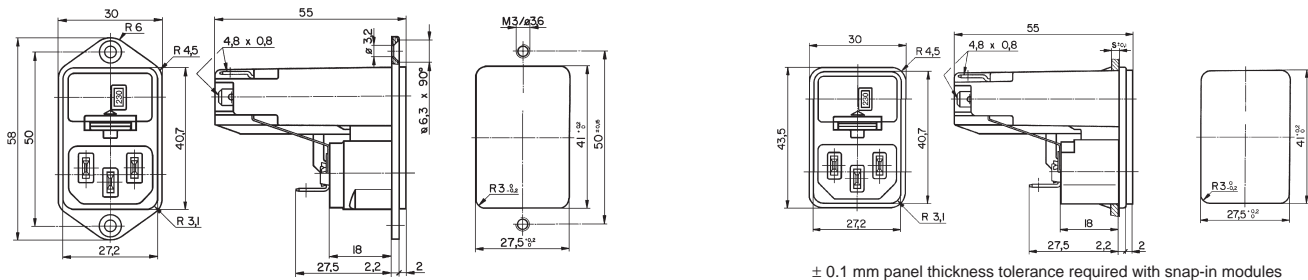
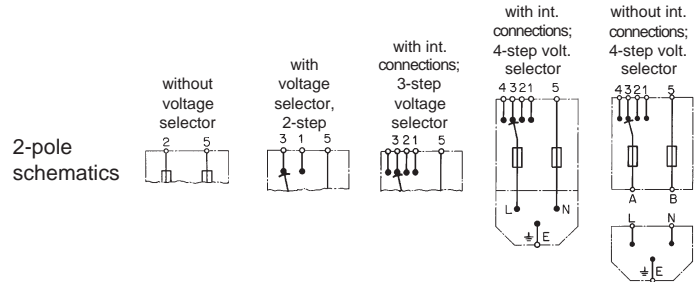
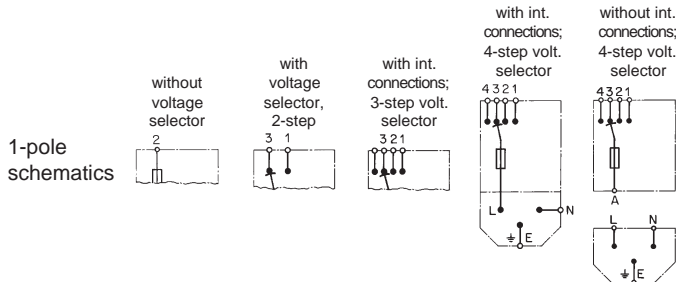
KEC AC Inlet • Interchangeable Fuseholders for 1/4 x 1/4" or 5 x 20mm Fuses



- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1/4" or 5 x 20mm fuses
- Optional voltage selector with 2-4 step switch positions
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 5.5 watts (2 pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb}, see page 5
- For materials, options and accessories please see page 30
- For KEC with line filter, please see KFC on page 60
- For inlet with piggy-back fuse clips see GSF, pg. 13-14

UL recognition	15A/250V	File #E93617
CSA certification	16A/250V	Single pole File #LR38456
certification	10A/250V	Double pole File #LR38456
VDE approval	10A/250V	File #1996, expert report
SEMKO approval	10A/250V	} File numbers on request
SEV approval	10A/250V	

Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320. Medical fusedrawers meet tool-only accessibility requirements of medical standards IEC 601-1; BS5724 part 1, DIN/VDE 0750 part 1. U.S. Patented.



Order Numbers

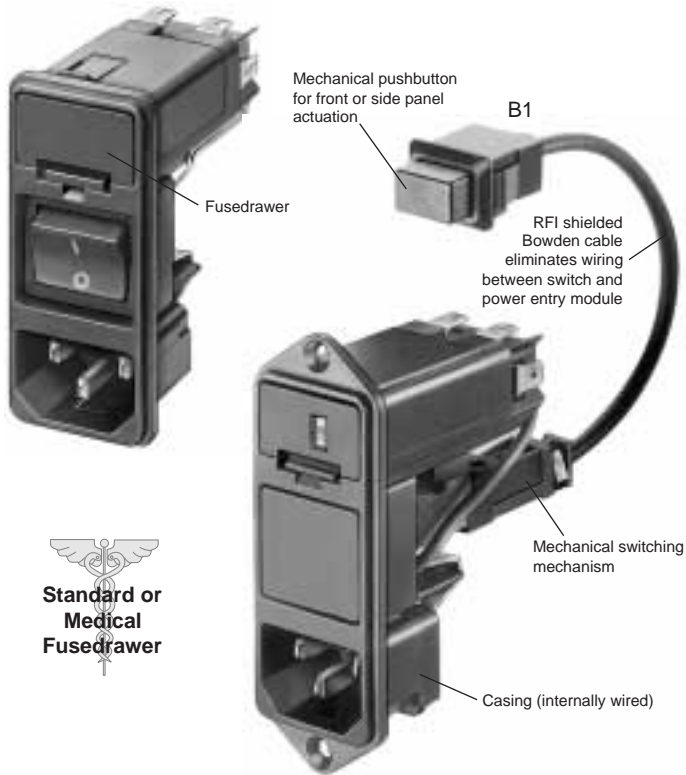
Note: Casing and fusedrawer must be ordered separately. To order fuses, please see page 102.

KEC w/o voltage selector, with internal connections		KEC with voltage selector, with internal connections		KEC with voltage selector, without internal connections		Voltage Selector	Mounting
1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing		
4303.0031	4303.0001	4303.0091	4303.0061	4303.1091	4303.1061	3-4 pos.	Screw-on
4303.0032	4303.0002	4303.0092	4303.0062	4303.1092	4303.1062		Snap-in, 1.5mm panel thickness
4303.0033	4303.0003	4303.0093	4303.0063	4303.1093	4303.1063		Snap-in, 2.0mm panel thickness
4303.0034	4303.0004	4303.0094	4303.0064	4303.1094	4303.1064		Snap-in, 2.5mm panel thickness
		4303.0211	4303.0181	4303.1211	4303.1181	2 pos.	Screw-on
		4303.0212	4303.0182	4303.1212	4303.1182		Snap-in, 1.5mm panel thickness
		4303.0213	4303.0183	4303.1213	4303.1183		Snap-in, 2.0mm panel thickness
		4303.0214	4303.0184	4303.1214	4303.1184		Snap-in, 2.5mm panel thickness

Fusedrawer							
Voltage markings / terminal markings: 1 2 3 4	5 x 20mm 1-pole black	2-pole black	2-pole black, with shorting bar in the neutral side	1/4" x 1-1/4" (6.3 x 32mm) 1-pole grey	2-pole grey	2-pole grey, with shorting bar in the neutral side	
With voltage selector: see selector chart on page 30 for .XX	Standard 4303.2114.XX	4303.2014.XX	4303.2036.XX	4303.2814.XX	4303.2714.XX	4303.2736.XX	Black on request
	Medical * 4303.2124.XX	4303.2024.XX	4303.2037.XX	4303.2824.XX	4303.2724.XX	4303.2737.XX	
	Standard 4303.2406	4303.2401	4303.2411	4303.2907	4303.2902	4303.2912	
Without voltage selector	Medical * 4303.2408	4303.2403	4303.2413	4303.2909	4303.2904	4303.2914	

* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

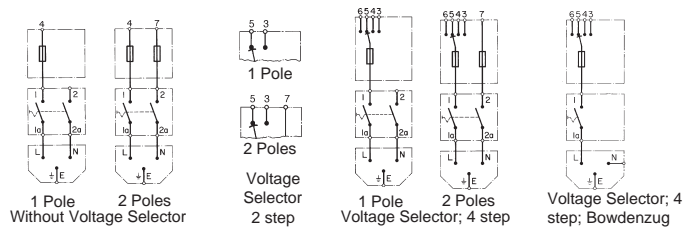
KD AC Inlet • On/off Line Switch – Integral or Remote • Voltage Selector • Interchangeable Fusedrawers for 1/4 x 1/4" or 5 x 20mm Fuses



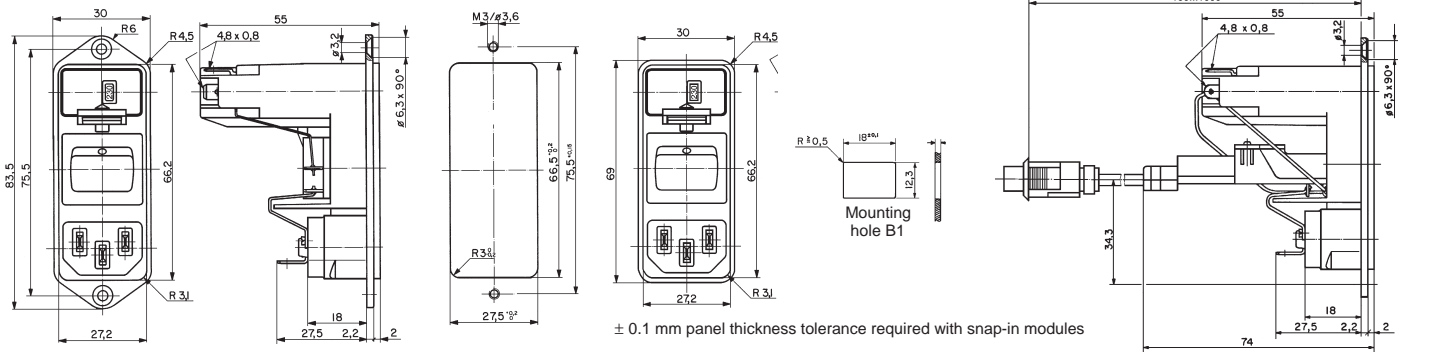
- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1/4" or 5 x 20mm fuses
- Integral DPST on/off line switch (35A in-rush max.) or DPST switch with remote mechanical pushbutton (64A in-rush max.; 10,000 cycles lifetime)
- Optional voltage selector with 2-4 step switch positions
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 5.5 watts (2 pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb}, see page 5
- For materials, options and accessories please see page 30
- For KD with line filter, please see CD on page 61

		without Bowden cable	with Bowden cable	
UL	recognition	10A/250V	6A/250V ¹⁾	File #E93617
CSA	certification	10A/250V ²⁾	6A/250V ¹⁾	File #LR38456
VDE	approval	10A/250V ³⁾	10A/250V ^{3,4)}	File #1996, expert report File numbers on request
SEMKO	approval	10A/250V ³⁾	6A/250V ³⁾	
SEV	approval	10A/250V ³⁾	6A/250V ³⁾	

¹⁾ 8A/125V ²⁾ 6A/250V with lighted switch ³⁾ 4A inductive load ⁴⁾ 6A max. switch rating



Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320. Medical fusedrawers meet tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1. U.S. Patented.



Order Numbers

Important Note: Casing, fusedrawer and Bowden cable must be ordered separately. To order fuses, please see page 102.

Casing						
KD without Bowden cable		KD with Bowden cable		Voltage Selector	Mounting	Bowden Cable
1-Pole fusing	2-Pole fusing	1-Pole fusing	2-Pole fusing			
KD13.1101.151	KD14.1101.151	KD11.4199.151	KD14.4199.151	without	screw-in	Bowden cables are supplied in standard or custom lengths Please see page 40 for ordering instructions
KD13.1101.105	KD14.1101.105	KD11.4199.105	KD14.4199.105	without	snap-in, for 1.5mm panel	
KD13.1101.107	KD14.1101.107	KD11.4199.107	KD14.4199.107	without	snap-in, for 2.0mm panel	
KD13.1101.109	KD14.1101.109	KD11.4199.109	KD14.4199.109	without	snap-in, for 2.5mm panel	
KD13.4101.151	KD14.4101.151	KD11.4199.151	KD14.4199.151	2-4 positions	screw-in	
KD13.4101.105	KD14.4101.105	KD11.4199.105	KD14.4199.105	2-4 positions	snap-in, for 1.5mm panel	
KD13.4101.107	KD14.4101.107	KD11.4199.107	KD14.4199.107	2-4 positions	snap-in, for 2.0mm panel	
KD13.4101.109	KD14.4101.109	KD11.4199.109	KD14.4199.109	2-4 positions	snap-in, for 2.5mm panel	

Fusedrawer							
Voltage markings / terminal markings: 3 4 5 6	5 x 20mm		2-pole black, with shorting bar in the neutral side	1/4" x 1-1/4" (6.3 x 32mm)		2-pole grey, with shorting bar in the neutral side	
	1-pole black	2-pole black		1-pole grey	2-pole grey		
With voltage selector: see selector chart on page 30 for .XX	Standard	4303.2114.XX	4303.2014.XX	4303.2036.XX	4303.2814.XX	4303.2714.XX	Black on request
	Medical *	4303.2124.XX	4303.2024.XX	4303.2037.XX	4303.2824.XX	4303.2724.XX	
Without voltage selector	Standard	4303.2406	4303.2401	4303.2411	4303.2907	4303.2902	4303.2912
	Medical *	4303.2408	4303.2403	4303.2413	4303.2909	4303.2904	

* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

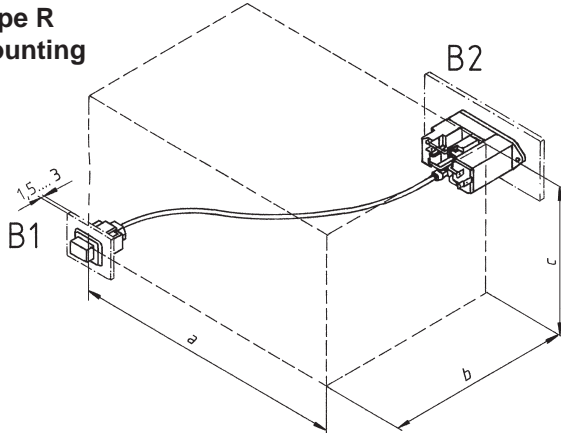
Bowden Cable



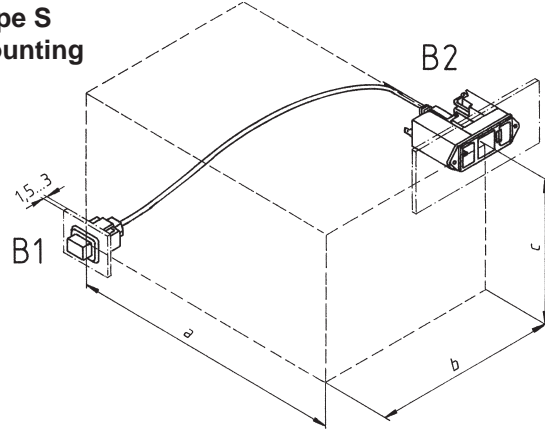
Ordering Data

Custom Cable Lengths (please specify dimensions according to mounting illustrations)

Type R Mounting



Type S Mounting



Power entry module mounted parallel to switch

Specify dimensions a, b & c in mm (center of mounting hole B1, outer surface to center of mounting hole B2, outer surface).

R	a/	b/	c/
----------	----	----	----

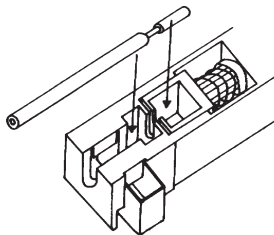
Power entry module mounted 90° to switch

Specify dimensions a, b & c in mm (center of mounting hole B1, outer surface to center of mounting hole B2, outer surface).

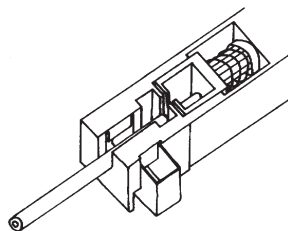
S	a/	b/	c/
----------	----	----	----

Please allow 4-6 weeks delivery for custom cable sample. For a standard cable sample, use order number 886.0101. Note: carefully observe Bowden cable limitations as described in the Technical Data section below. For optimum switch actuation, the length of the traction cable must be specified according to Schurter's catalog specifications.

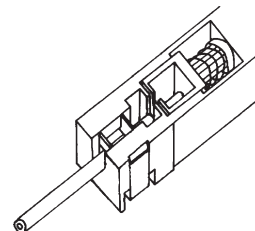
Assembly Instructions



1. Drop Bowden barrel into seat of switch



2. Slide clamp around cable



3. Bowden cable locked into assembly

Technical Data

Remote Actuator Technology

The remote actuator cable assembly consists of a wire cable inside of a plastic insulated spiral wire casing.

Identifying a proper routing of the cable assembly is important. Deviations from line to line placement will require bends in the cable with resulting losses in the overall assembly. These inefficiencies show up as friction losses and lost motion.

Frictional losses are increases in actuation force due to losses in the assembly. Lost motion is an undesirable difference between the input end of the assembly and the output end.

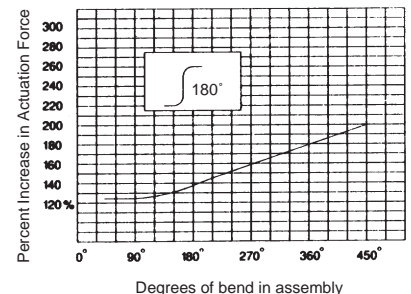
The principal element of lost motion is backlash and deflection.

Backlash is caused by the wire cable moving inside the casing with the change in direction of motion. It is the function of clearance between the wire cable and casing, plus the number of degrees of bend in the cable assembly. Deflection of the cable assembly, while usually low, can be minimized by anchoring the casing.

This is especially true in those applications of cable assemblies with long lengths and/or large degrees of bend in the system.

All of these losses and resulting inefficiencies can be reduced by the equipment designer through minimizing the total degrees of bend in the assembly. Because of the number of variables effecting proper operation of any remotely actuated switch assembly, it is important that the ordering instructions shown above be used to determine proper cable length and to provide samples for customer approval. Consult figure for minimum information required to describe cable assembly application.

"Courtesy of ITT Schadow"

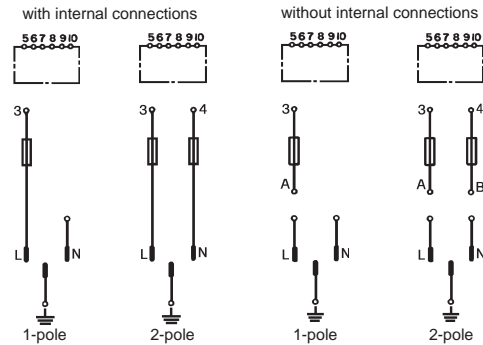


KE AC Inlet • Series Parallel Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1/4" or 5 x 20mm Fuses



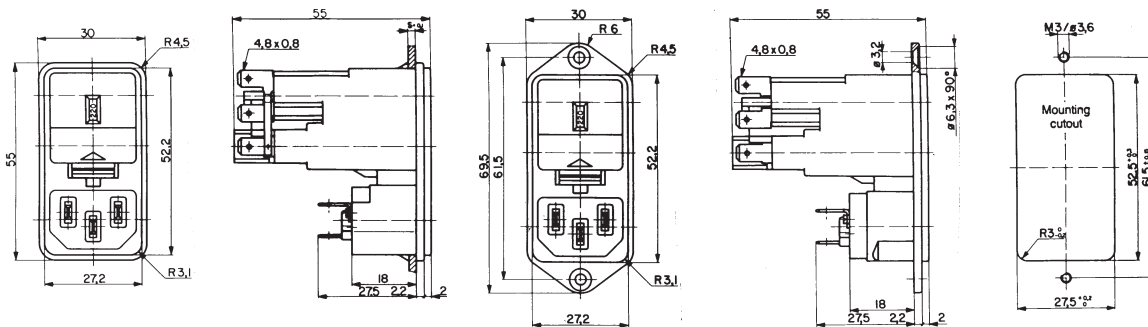
- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1/4" or 5 x 20mm fuses
- Voltage selector with series parallel connections; with 4, 3, or 2 switch positions or usable as a 2-pole changeover switch
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 5.5 watts (2 pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb}, see page 5
- For materials, options and accessories please see page 30
- For KE with line filter, please see CE on page 62

UL	recognition	15A/250V	File #E93617
CSA	certification	12A/250V	1-Pole fusing, file #LR38456
		10A/250V	2-Pole fusing, file #LR38456
VDE	approval	10A/250V	File #3189, expert report
SEMKO	approval	10A/250V	} File numbers on request
SEV	approval	10A/250V	



Optional accessory cable for voltage selector wiring shown on page 43

Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320. Fusedrawers meet tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



± 0.1 mm panel thickness tolerance required with snap-in modules

Order Numbers

Three order numbers are needed to specify the KE, complete with casing, voltage selector insert and fusedrawer. For example:

1. KE10.6100.151 = Casing for screw mounting with internal connections and 2-pole protection
2. 4305.0048.01 = Voltage Selector Insert with markings 100, 120, 220, 240
3. 4305.0001 = Fusedrawer with 2-pole protection for 5 x 20mm fuses

Casing

KE with internal connections		KE without internal connections		Mounting
1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing	
KE16.5100.151	KE10.6100.151	KE15.1100.151	KE10.2100.151	Screw on
KE16.5100.105	KE10.6100.105	KE15.1100.105	KE10.2100.105	Snap-in, 1.5mm panel thickness
KE16.5100.107	KE10.6100.107	KE15.1100.107	KE10.2100.107	Snap-in, 2.0mm panel thickness
KE16.5100.109	KE10.6100.109	KE15.1100.109	KE10.2100.109	Snap-in, 2.5mm panel thickness

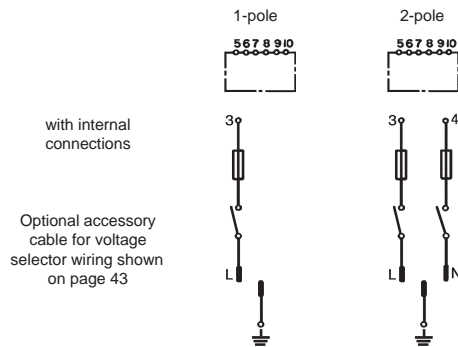
Order numbers for voltage selector insert and fusedrawer shown on pg 43. To order fuses, please see page 102.

KG AC Inlet • On/off Line Switch – Integral or Remote • Series Parallel Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1 1/4" or 5 x 20mm Fuses

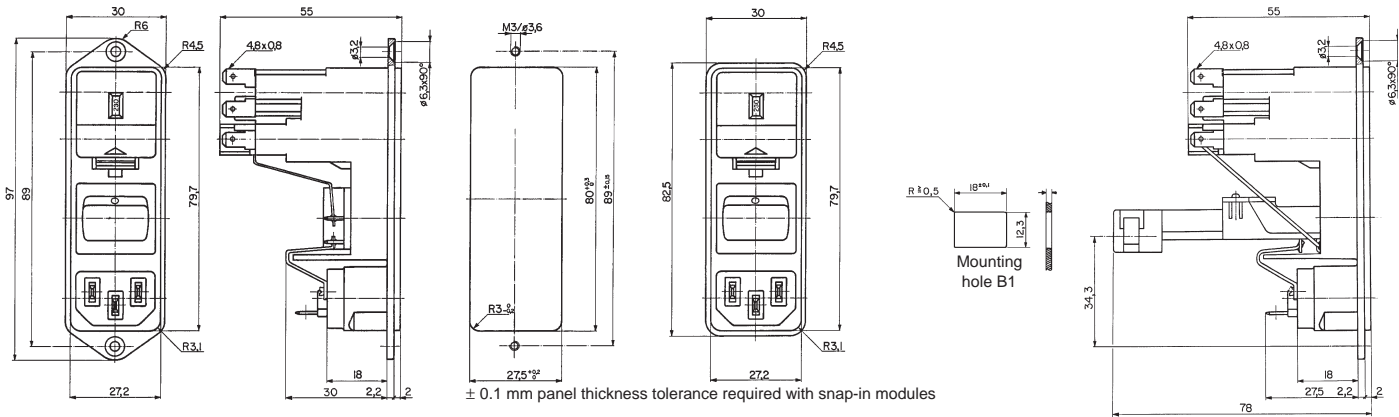


- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw mount from front or rear, or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1 1/4" or 5 x 20mm fuses
- Integral DPST on/off line switch (35A in-rush max.) or DPST switch with remote mechanical pushbutton (64A in-rush max.; 10,000 cycles lifetime)
- Voltage selector with series parallel connections, with 4, 3, or 2 switch positions or usable as a 2-pole changeover switch
- Quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation 5.5 watts (2 pole fusing) according to IEC 127-6. For additional values P_v in function of T_{amb} , see page 5
- For materials, options and accessories please see page 30
- For KG with line filter, please see CG on page 63

		without Bowden cable	with Bowden cable	
UL recognition		10A/250V	6A/250V ¹⁾	File #E93617 File #LR38456 File #3772, expert report File numbers on request
CSA certification		10A/250V	6A/250V ¹⁾	
VDE approval		10A/250V ²⁾	6A/250V	
SEMKO approval		10A/250V ²⁾	6A/250V	
SEV approval		10A/250V ²⁾	6A/250V	
		¹⁾ 8A/125V	²⁾ 4A inductive load	



Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320. Fusedrawers meet tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers

- Three order numbers are needed to specify the KG, complete with casing, voltage selector insert and fusedrawer. For example:
1. KG10.6101.151 = KG for screw mounting with 2-pole protection
 2. 4305.0048.01 = Voltage Selector Insert with markings 100, 120, 220, 240
 3. 4305.0001 = Fusedrawer with 2-pole protection for 5 x 20mm fuses

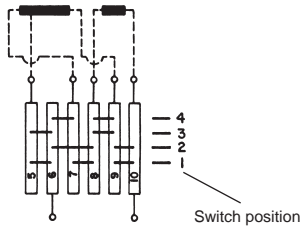
Casing				Mounting	Bowden Cable
KG without Bowden cable 1-pole fusing	KG without Bowden cable 2-pole fusing	KG with Bowden cable 1-pole fusing	KG with Bowden cable 2-pole fusing		
KG16.5101.151	KG10.6101.151	KG15.6199.151	KG10.6199.151	Screw on	Bowden Cables are supplied in standard or custom lengths. Please see page 33 for ordering instructions.
KG16.5101.105	KG10.6101.105	KG15.6199.105	KG10.6199.105	Snap-in, 1.5mm panel thickness	
KG16.5101.107	KG10.6101.107	KG15.6199.107	KG10.6199.107	Snap-in, 2.0mm panel thickness	
KG16.5101.109	KG10.6101.109	KG15.6199.109	KG10.6199.109	Snap-in, 2.5mm panel thickness	

Order numbers for voltage selector insert and fusedrawer shown on pg 43. To order fuses, please see page 102.

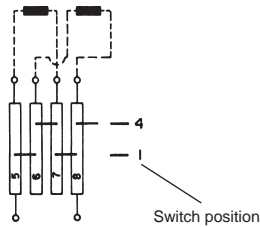
KE, KG, CE, CG Voltage selector insert, fusedrawer and accessory cable



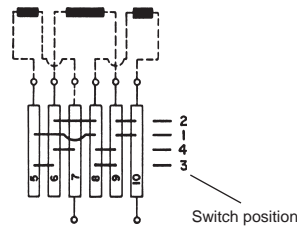
Voltage Selector Systems No. 1-4



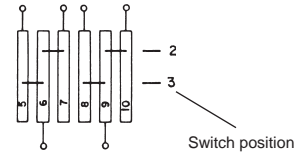
System No. 1
2 separate windings,
one with a tap
3 or 4 switch positions



System No. 2
2 separate windings
2 switch positions



System No. 3
3 separate windings
3 or 4 switch positions



System No. 4
DPDT

Voltage Selector Insert Order Numbers



Order Number	Voltage selector System No.	Voltage markings/switch position				Schematic	Switch position
		1	2	3	4		
*4305.0048.00	1, 2	without markings					
*4305.0048.01	1	100	120	220	240		
*4305.0048.03	2	110 220					
*4305.0048.05	2	115 230					
4305.0048.08	1	130	110	240	220		
4305.0048.09	2	120 240					
4305.0048.10	1	100	115	230			
4305.0048.11	2	230 110					
4305.0048.13	2 (special: .05 stand.)	230 115					
4305.0048.14	2 (special: .05 stand.)	220 110					
4305.0048.15	1	240	230	220	200		
4305.0048.17	—	115 230					
4305.0048.18	1	100 220					
**4305.0056.05	2	115 230					
4305.0050.00	3	without markings					
4305.0050.02	3	130	110	240	220		
4305.0050.04	3	110 240 220					
4305.0050.06	3	150	110	220			
4305.0050.12	3	130	115	240	230		
4305.0049.00	4	without markings					
4305.0049.07	4	220 011					
4305.0049.17	4	115 230					
4305.0049.19	4	230 011					

*Most common voltage. Other voltages and custom voltages require longer lead times and are subject to minimum order quantity.

**Insert is specially designed to block positions 2 and 3.

Fusedrawer Order Numbers* (to order fuses, please see page 102.)

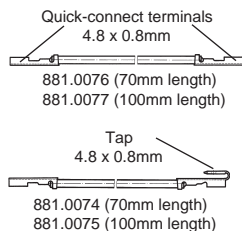


5 x 20mm 1-pole black	2-pole black	2-pole black, w/shorting bar in the neutral side	6.3 x 32mm (1/4 x 1 1/4") 1-pole grey	2-pole grey	2-pole grey, w/shorting bar in the neutral side
4305.0006	4305.0001	4305.0021	4305.0017	4305.0012	4305.0027

* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

Accessory Cable Order Numbers

The accessory cable is optional for voltage selector wiring. Connections must be made by the customer. Strand = 1.5mm². Note: To guarantee the minimum air and creepage distances, use taps for the following terminals only:
3/4 or N for KE/CE
2/3/4 or N for KG/CG (concerns voltage selector systems 1, 2 or 3)



Power entry modules type	Voltage selector System No. 1	Voltage selector System No. 2 and 3	Voltage selector System No. 4
KE/CE 1-pole	881.0075 881.0076	881.0074 881.0075	881.0076 881.0077
KE/CE 2-pole	881.0074 881.0076	2x 881.0074	2x 881.0076
KG/CG 1-pole	881.0075 881.0076	881.0074 881.0075	881.0076 881.0077
KG/CG 2-pole	881.0074 881.0076	2x 881.0074	2x 881.0076

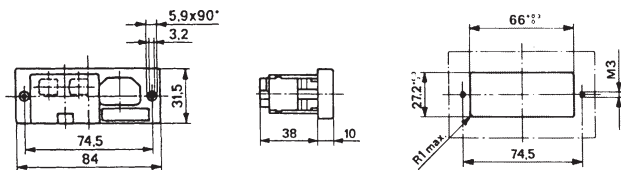
8843 AC Inlet • Series Parallel Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1 1/4" or 5 x 20mm Fuses



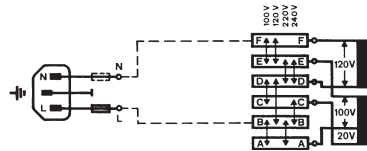
Note: Not recommended for new designs. Refer to KE, page 41.

- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw-on or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1 1/4" or 5 x 20mm fuses (plug removal necessary for fuse replacement)
- Voltage selector with series parallel connections, 4 switch positions
- Solder terminals .118 x .032" (3.0 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation according to IEC 127-6 on request. (For information, see page 5).

UL	recognition	10A/250V	File #E93617
CSA	certification	10A/250V	File #LR38456
VDE	approval	10A/250V	File #2096, expert report
SEMKO	approval	10A/250V	} File numbers on request
SEV	approval	10A/250V	



Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320

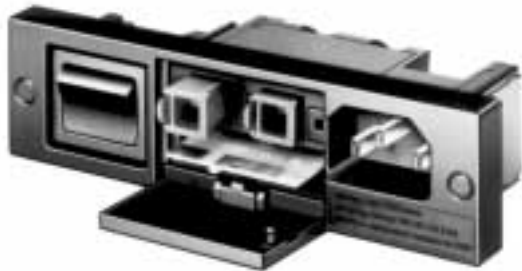


Order Numbers (type)

Note: Casing and fuseholders must be ordered separately. To order fuses, please see page 102.

8843 casing without switch	1-pole fusing	2-pole fusing	Mounting	Fuseholder Inserts* (order 2 inserts for 2-pole casing)
8843.1751 (8843-1.751.60)		8843.1761 (8843-1.761.60)	Screw on	8843.0901 for 1/4 x 1 1/4" (8843-901.60) (6.3x32mm)
8843.1451 (8843-1.451.60)		8843.1461 (8843-1.461.60)	Snap-in	8843.0902 for 5 x 20mm (8843-902.60)

8843 AC Inlet • On/Off Line Switch • Series Parallel Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1 1/4" or 5 x 20mm Fuses



Note: Not recommended for new designs. Refer to KG, page 42.

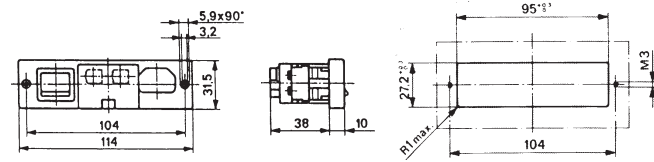
- Power entry module with 1-pole or 2-pole fuseholder
- For "cold" connections 65° C, Protection Class I.
- Screw-on or snap-in mount from front
- Single or double pole shocksafe fuseholder according to IEC 65/VDE 0860 for 1/4 x 1 1/4" or 5 x 20mm fuses (plug removal necessary for fuse replacement)
- DPST on/off line switch
- Voltage selector with series parallel connections, 4 switch positions
- Solder terminals .118 x .032" (3.0 x 0.8mm)
- 0.5 Nm torque required for M3 screws for screw-on type
- Max. power dissipation according to IEC 127-6 on request. (For information, see page 5).

UL	recognition	10A/250V	File #E93617
CSA	certification	10A/250V	File #LR38456
VDE	approval	10A/250V	File #2096, expert report
SEMKO	approval	10A/250V	} File numbers on request
SEV	approval	10A/250V	

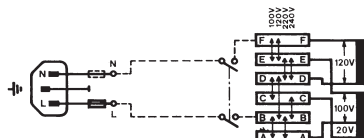
Order Numbers (type)

Note: Casing and fuseholders must be ordered separately. To order fuses, please see page 102.

8843 casing with switch	1-pole fusing	2-pole fusing	Mounting	Fuseholder Inserts* (order 2 inserts for 2-pole casing)
8843.4851 (8843-4.851.60)		8843.4861 (8843-4.861.60)	Screw on	8843.0901 for 1/4 x 1 1/4" (8843-901.60) (6.3x32mm)
8843.4451 (8843-4.451.60)		8843.4461 (8843-4.461.60)	Snap-in	8843.0902 for 5 x 20mm (8843-902.60)



Standards: UL 498; CSA C22.2/182.3; DIN/VDE 0625; SEMKO 9320; IEC 320/C14; EN 60320



FELCOM® Series 64 Power Entry Modules



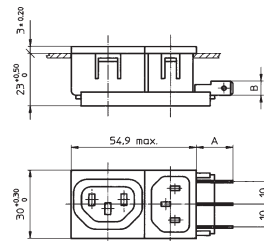
For "cold" conditions, 65° C. Protection class I.
Standards: EN 60320; IEC 320/C14/F; DIN/VDE 0625; SEMKO 9320; CSA C22.2/182.3; UL 498. U.S. Patented



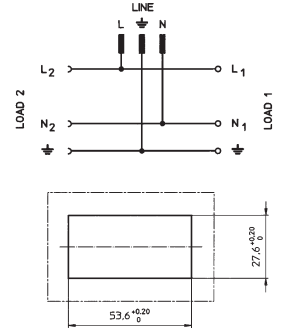
6421.005X.XX



- AC inlet/outlet
- See page 32 for KP inlet/outlet combination power entry module, which can also be mounted horizontally



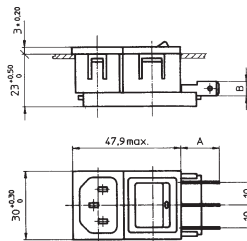
A = solder terminals 13.4mm or quick-connect terminals 17.0mm



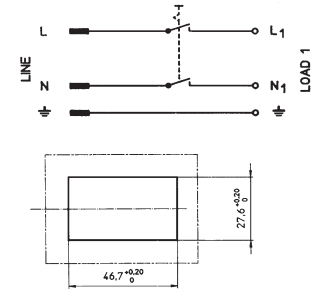
6422.005X.XX



- AC inlet
- On/off switch
- See page 32 for KP inlet/outlet combination power entry module, which can also be mounted horizontally



A = solder terminals 13.4mm or quick-connect terminals 17.0mm

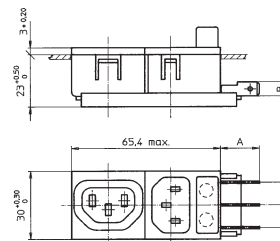


6423.0X5X.XX

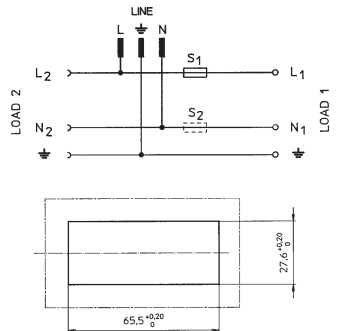


- AC inlet/outlet
- Fuseholder

 **Plug Removal Necessary for Fuse Replacement**



A = solder terminals 13.4mm or quick-connect terminals 17.0mm

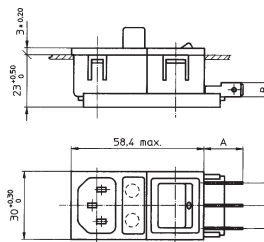


6424.0X5X.XX

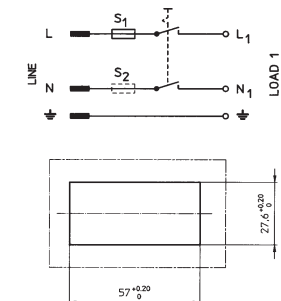


- AC inlet
- Fuseholder
- On/off switch

 **Plug Removal Necessary for Fuse Replacement**



A = solder terminals 13.4mm or quick-connect terminals 17.0mm



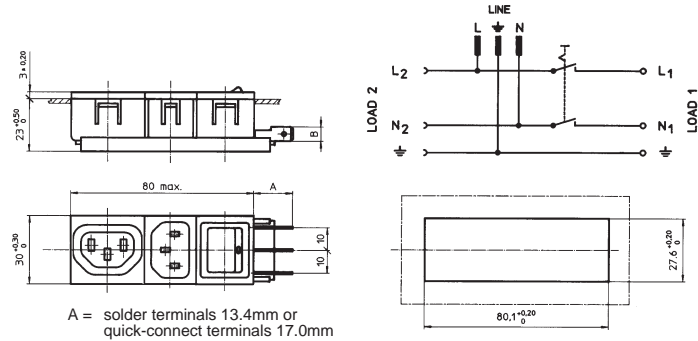
see next page for technical data and ordering instructions

FELCOM® Series 64 Power Entry Modules, cont'd



6431.005X.XX

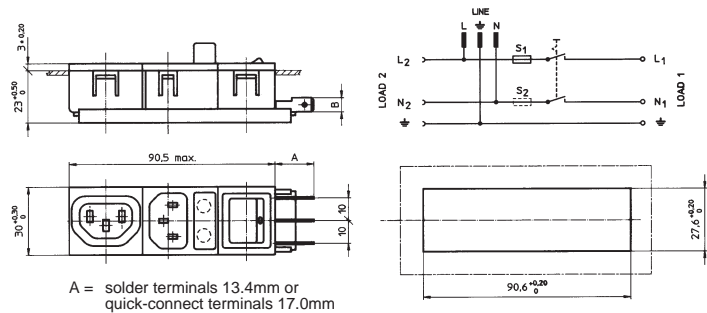
- AC inlet/outlet
- On/off switch



6432.0X5X.XX

- AC inlet/outlet
- Fuseholder
- On/off switch

Plug Removal Necessary for Fuse Replacement



- Snap-in mounting for 1mm – 3mm panel thickness
- Single or double pole shock-safe fuseholder for 5 x 20mm fuses (plug removal necessary for fuse replacement)
- DPST on/off line switch (non-illuminated)
- Solder terminals .138 x .032" (3.5 x 0.8mm) or quick-connect terminals .250 x .032" (6.3 x 0.8mm)
- Individual component modules are soldered on a printed circuit board, fully insulated from the rear
- Shallow depth behind the panel (23mm)
- IEC 320 inlet according to EN 60320, IEC 320/C14
- IEC 320 outlet according to EN 60320, IEC 320/F
- Body: thermoplastic
- Terminals: brass, tin-plated
- Max. power dissipation values on request (see pg 5 for [more information](#)).
- For Felcom with **line filter**, please see Felcom 54 on page 64

Options:

- Other combinations available on request. Contact Schurter, Inc. for part numbers and minimum order requirements.
- For cord **retaining clamp**, see page 27
- For mating IEC 320 **inlet plugs** 4300.0602/0606, see page 23
- For mating IEC 320 **outlet plugs** 4300.0407/0411, see page 22
- For **fuses**, see page 102

Approvals:

UL	recognition	10A/250V	File #E103791
CSA	certification	10A/250V	File #LR38456
VDE	approval	10A/250V	File #3946, expert report
SEMKO	approval	10A/250V	} File numbers on request
SEV	approval	10A/250V	

Order Numbers:

64 XX . 0 X 5 X . X X

Snap-in panel thickness

- 10 = 1.0 mm
- 12 = 1.2 mm
- 15 = 1.5 mm
- 20 = 2.0 mm
- 25 = 2.5 mm
- 30 = 3.0 mm

Terminals

- 51 = Solder terminals .138 x .032" (3.5 x 0.8mm)
- 53 = quick-connect terminals .250 x .032" (6.3 x 0.8mm)

Fuseholder

- 00 = without fuseholder
- 01 = single pole, for 5 x 20mm fuse
- 02 = double pole, for 5 x 20mm fuses

Standard combinations

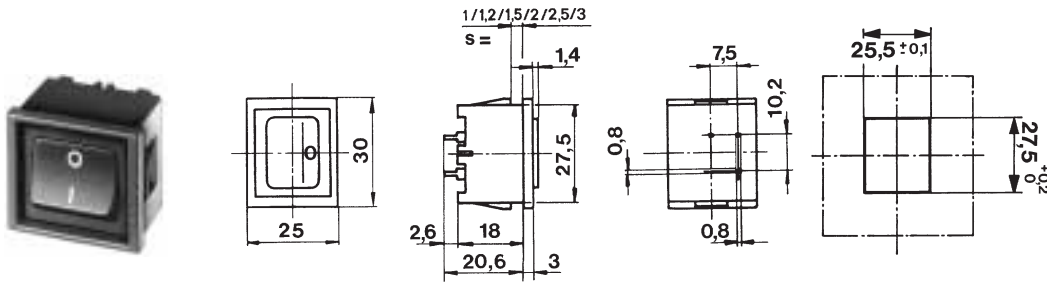
- 21 = IEC 320 inlet/outlet
- 22 = IEC 320 inlet, switch
- 23 = IEC 320 inlet/outlet, fuseholder
- 24 = IEC 320 inlet, fuseholder, switch
- 31 = IEC 320 inlet/outlet, switch
- 32 = IEC 320 inlet/outlet, fuseholder, switch

Base model

FELCOM® Individual Components For PCB Mounting

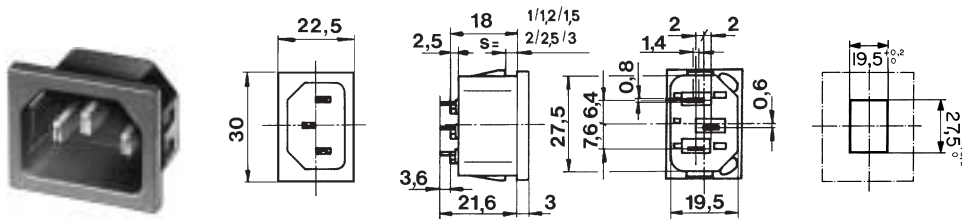


On/off switch – non-illuminated, double pole, single throw (DPST)



Order No.	Panel Thickness
6050.5510	s = 1.0 mm
6050.5512	s = 1.2 mm
6050.5515	s = 1.5 mm
6050.5520	s = 2.0 mm
6050.5525	s = 2.5 mm
6050.5530	s = 3.0 mm

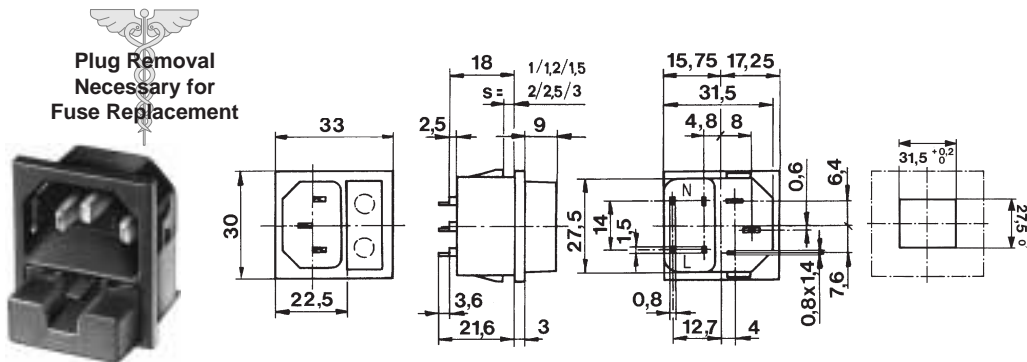
IEC 320 inlet



Order No.	Panel Thickness
6150.5510	s = 1.0 mm
6150.5512	s = 1.2 mm
6150.5515	s = 1.5 mm
6150.5520	s = 2.0 mm
6150.5525	s = 2.5 mm
6150.5530	s = 3.0 mm

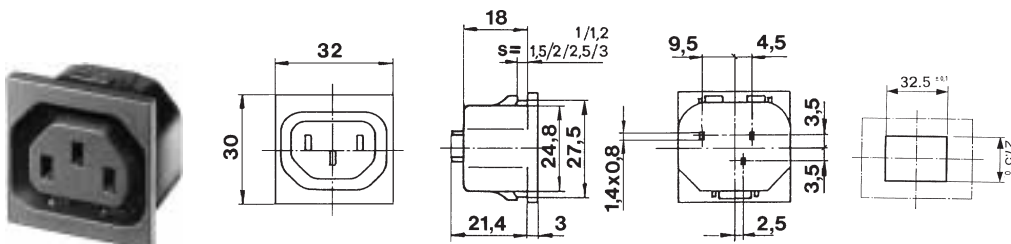
IEC 320 inlet and shocksafe fuseholder – single or double pole, for 5 x 20mm fuses

Plug Removal
Necessary for
Fuse Replacement



Order No.	1-pole	2-pole	Panel Thickness
6250.5510		6255.5510	s = 1.0 mm
6250.5512		6255.5512	s = 1.2 mm
6250.5515		6255.5515	s = 1.5 mm
6250.5520		6255.5520	s = 2.0 mm
6250.5525		6255.5525	s = 2.5 mm
6250.5530		6255.5530	s = 3.0 mm

IEC 320 outlet



Order No.	Panel Thickness
6650.4510	s = 1.0 mm
6650.4512	s = 1.2 mm
6650.4515	s = 1.5 mm
6650.4520	s = 2.0 mm
6650.4525	s = 2.5 mm
6650.4530	s = 3.0 mm

About Shock Safety for Fuseholders and Power Entry Modules

Miniature Fuses

Miniature Fuses are protective devices for electrically powered apparatus, small motors, measuring instruments, semiconductors, or assembled circuits. They protect against damage and destruction as a result of unacceptable current loads and short circuits. According to VDE 0820 and IEC 257, miniature fuses consist of a fuseholder, a fuse, and possibly a bayonet-type cap (fuse carrier). A distinction is made between open and closed types. The particular advantage of the closed designs is that there is less risk of electrical shock both in normal use and while changing the fuse.

Fuseholder Contact Protection According To IEC 529 Test Finger

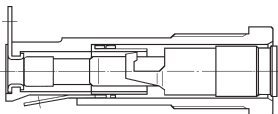


Fig.1
Closed fuseholder

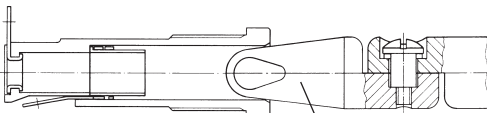


Fig.2
Open fuseholder

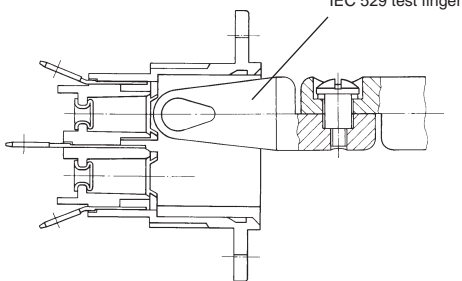


Fig.3
Open fuseholder portion of power entry module

Fig.2 and 3
It is not possible to touch any live parts on the SCHURTER fuseholder when the fuse carrier is extracted.

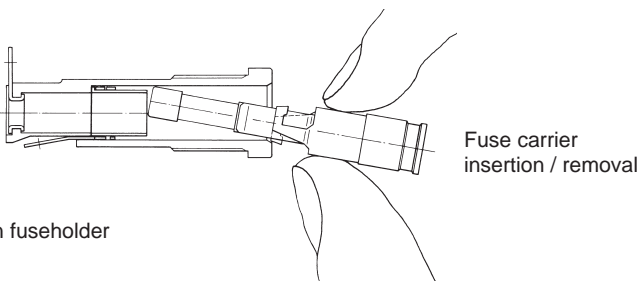


Fig.4
Open fuseholder

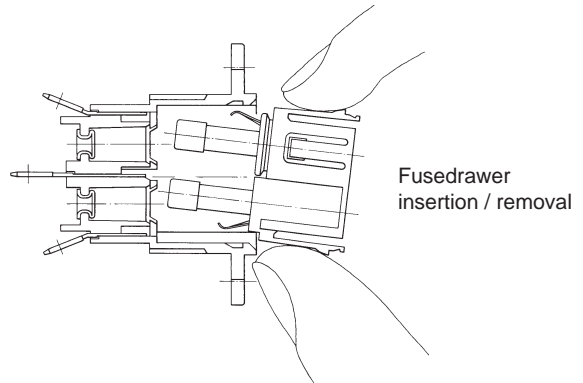
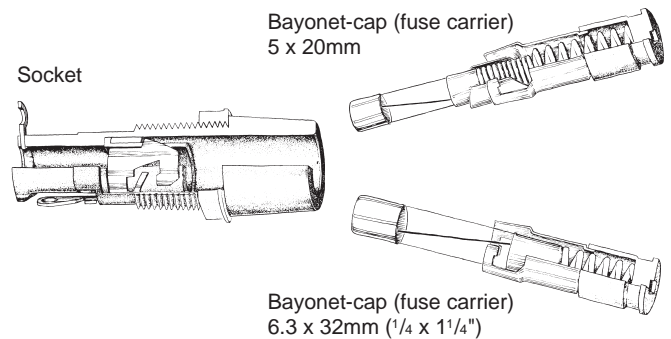


Fig.5
Open fuseholder portion of power entry module

Fig.4 and 5
When a 5 x 20 mm or 6.3 x 32 mm (1/4 x 1-1/4") fuse is inserted or replaced, neither the fuse nor the fuse carrier can come in contact with any live parts.

Contact System

On conventional fuseholders (bayonet system), momentary discontinuity frequently occurs when the fuse carrier is pushed. Circuit interruptions of this kind can mean that stored data on computers, etc., can be erased. But with the SCHURTER contact system, movements in an axial direction prevent circuit interruptions.



Fuseholder Contact Protection According to IEC 529 Test Probe



Live parts are completely inaccessible to a probe measuring 1mm in diameter and 100mm in length (See the FBS series, page 86).

About Shock Safety For Power Entry Modules, continued

Extra-Safe Medical Fuse Drawers for Power Entry Modules

For added safety, extra-safe fuse drawers are available for the SCHURTER line of power entry modules (with and without mains filters). The drawer can only be removed with the aid of a tool (e.g. screwdriver) so that opening by hand is virtually impossible. With the KEA series, it is also necessary to pull out the mains outlet first. Only then can the drawer be removed from the socket. Extra-safe fuse drawers are able to satisfy the following standards and international specifications: Appliance standard IEC 601-1, BS 5724 part 1, and DIN/VDE 0750 part 1 (suitable for medical applications).

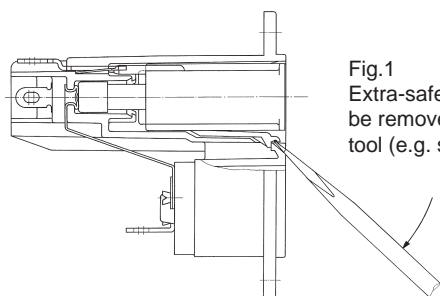


Fig.1
Extra-safe fusedrawer can only be removed with the aid of a tool (e.g. screwdriver)

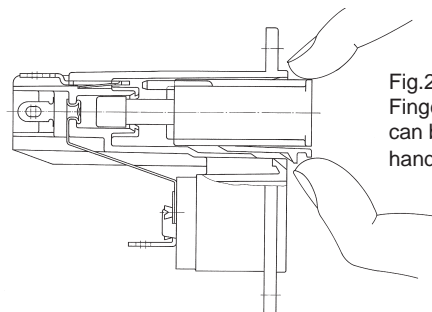


Fig.2
Fingergrip fusedrawer can be removed by hand

About Power Dissipation

Power dissipation is the product of voltage drop multiplied by rated current. Power dissipation generates heat. High in-rush and/or higher operating temperatures can become a problem. Too much heat may lead to melting of the plastic, contact problems, premature failure of the fuse, etc. Therefore, suitable fuseholders/power entry modules must be selected not only by desired function and application specific requirements, but also by the amount of power dissipation through the area holding the fuse.

Current ratings for fuseholders/power entry modules vary widely from agency to agency, due to different methods used for temperature rise testing. For the specifier, it is important to know that the temperature rise testing is performed at UL and CSA using dummy inserts in place of actual fuses. European test agencies, however, rely on IEC methods that reflect more realistic field conditions. Current ratings provided by the test agency should always be observed. However, it is imperative that attention also be given to the maximum permissible power dissipation values provided by the manufacturer when selecting a fuseholder/power entry module.

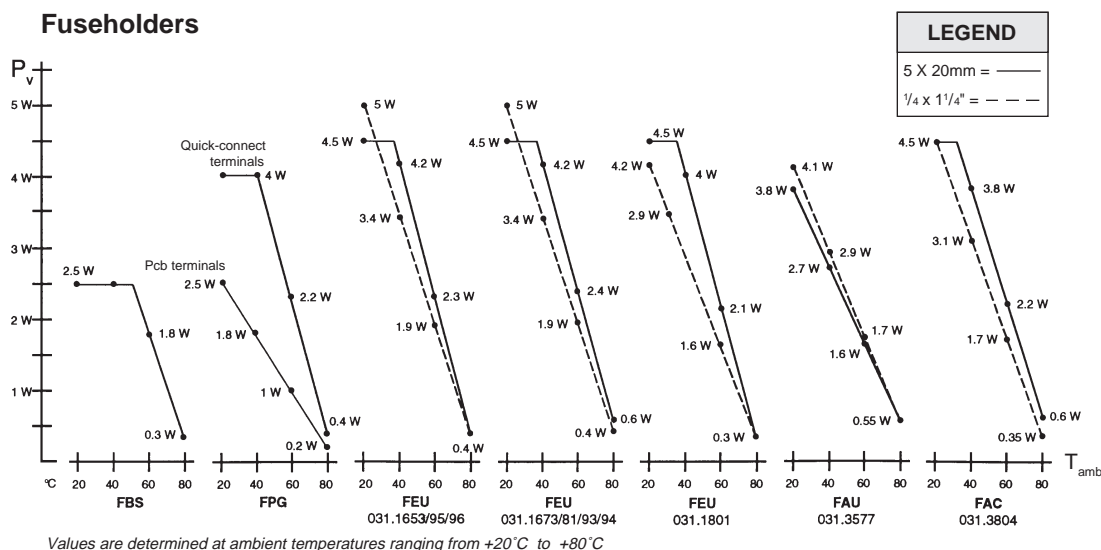
For further clarification, please refer to the following excerpt from IEC 257 amendment 2, as shown below:

- Depending upon the type of fuse-link applied in the holder and the possible prolonged overloads of this fuse-link, the contributions to the actual power dissipation in the holder produced by the contact resistances and the fuse-link may vary considerably.
- Certain types of miniature fuse-links, covered by IEC Publication 127-2, especially the quick-acting type with high breaking capacity, may sustain overloads at a level of 1.7 to 2.1 times rated current for a considerable period of time. The application of such fuse-links in closed fuseholders can under those circumstances result in temperature rises of the holder and its accessible parts, beyond the limits e.g. given in IEC Publication 65: Safety Requirements For Mains Operated Electronic and Related Apparatus For Household and Similar Use.

Attention should therefore be given to the possibility of a dangerous situation arising out of such overloads.

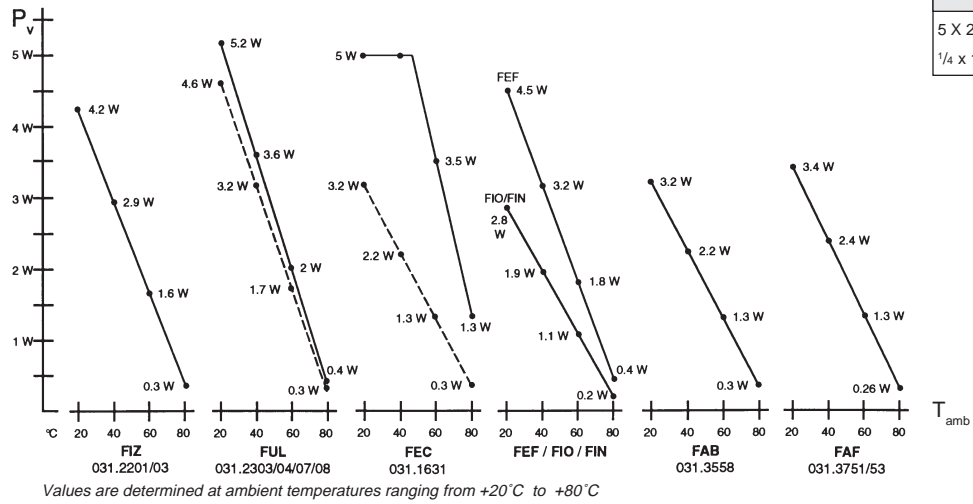
MAXIMUM POWER DISSIPATION VALUES

Ambient temperature +23°C (±0.1) according to IEC 127-6



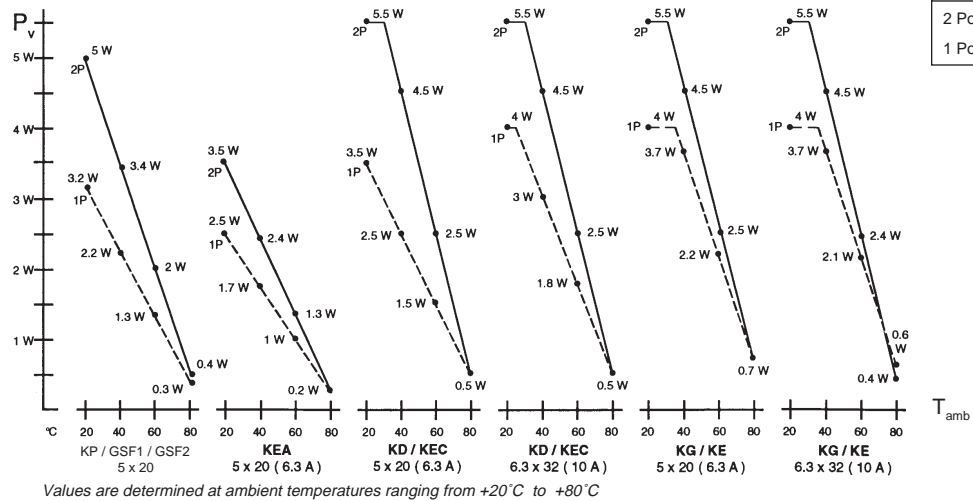
About Power Dissipation, continued

Fuseholders



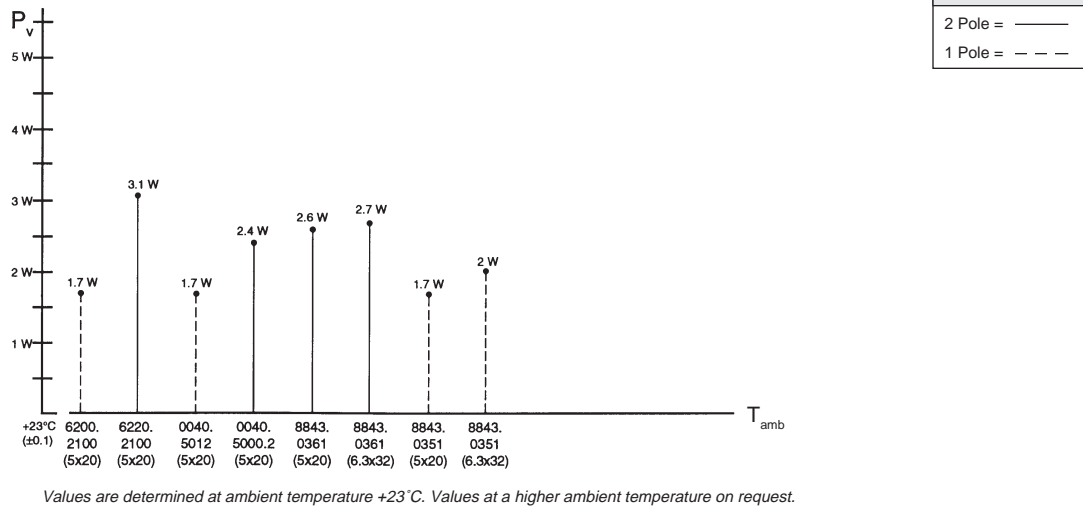
LEGEND	
5 X 20mm =	—
1/4 x 1 1/4" =	- - -

Power Entry Modules



LEGEND	
2 Pole =	—
1 Pole =	- - -

Power Entry Modules

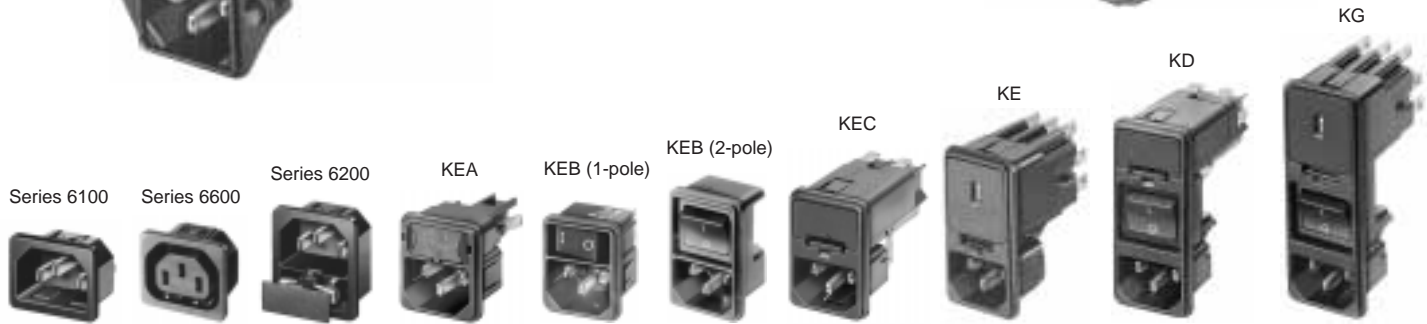


LEGEND	
2 Pole =	—
1 Pole =	- - -

Accessories For AC Inlets, Plugs and Power Entry Modules



Insulation Cover for AC Inlets, Outlets and Power Entry Modules



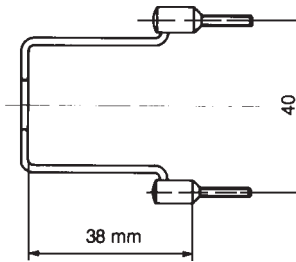
Technical Data:

- Material: flexible plastic PVC
- Surface resistance: $7.8 \times 10^8 \Omega$ at 23° C, 63% humidity
- Easily mountable from back side
- Oxygen Index Rating: 30 (tested by Cookson Labs)
Based on the Oxygen Index Rating, material qualifies for UL 94V-O

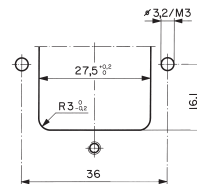
Order Numbers

Series	Order No.	Series	Order No.
KEA (except pcb mount type)	0859.0047	KG / CG with or without bowden cable	0859.0109
KEB (1-pole) all part numbers	0859.0047	CD with or without bowden cable	0859.0077
KEB (2-pole) all part numbers	0859.0075	CE all part numbers	0859.0108
KEC / KFC all part numbers	0859.0072	Series 6100 / 6102 / 6110 / 6120	0859.0048
KD with or without bowden cable	0859.0074	Series 6200 / 6202 / 6220 / 6600	0859.0047
KE all part numbers	0859.0076		

Cord Retaining Clamp (to prevent loosening or accidental removal)



0888.0001
Clamp with hexnuts



Drawing for 0888.0004/0005
only: Clamp with hexnuts

For filter type:
nominal size +0.5mm

Selection Chart for Cord Retaining Clamp

Select desired inlet and plug. Match corresponding number to legend at right to identify retaining clamp order number.

Inlet \ Plug	Plug																								
	KEA snap-in	KEA / KFA screw-on	KEB I snap-in	KEB I / KFB I screw-on	KEB II / KFB II	KEC / KFC	KD / CD	KE / CE	KG / CG	KFS / KFX	FELCOM 54 / 64	5100 screw-on	5110 screw-on	5200 screw-on	5220 screw-on	6100 screw-on	6100 snap-in	6110 screw-on	6110 snap-in	6200 screw-on	6200 snap-in	6220 screw-on	6220 snap-in	6600 screw-on	
4300.0602	3	2	3	2	3	3	3	3	3	1	3	1	1	2	2	1	3			2	3	2	3		
4300.0603																		4	5						
4300.0407																									6

	Order No.
1	0888.0001
2	0888.0004
3	0888.0005
4	0888.0015
5	0888.0016
6	0888.0017

PLUGS AC Inlets for Cable Connections



- For "cold" connections 65°C, Protection Class I
- AC inlet plugs with straight or 90° cable entry
- Max. wire size 18 AWG (1.0 mm²)
- Disassemble plug for cable connection
- Material: thermoplastic, UL 94V-O
Prongs and terminals: brass, tin-plated



4300.0407



4300.0411

4300.0407 / .0411:

UL	recognition	10A/250V	File #E96454
CSA	certification	10A/250V	File #LR74853
VDE	approval	10A/250V	File #95403,expert report
SEV	approval	10A/250V	File number on request

4300.0401:

UL	recognition	10A/250V	File #E96454
CSA	certification	10A/250V	File #LR70111
SEV	approval	6A/250V	File number on request

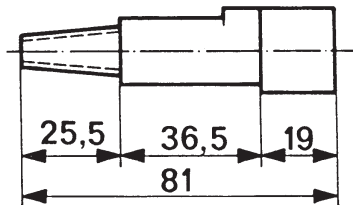
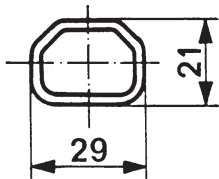


4300.0401

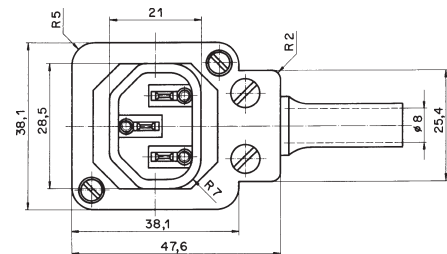


Standards: EN 60320;
IEC 320/E

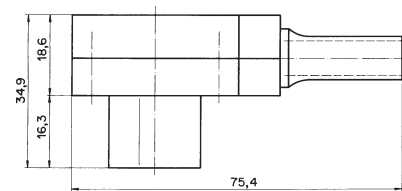
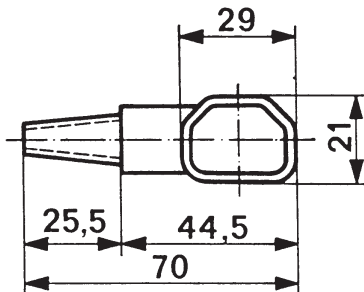
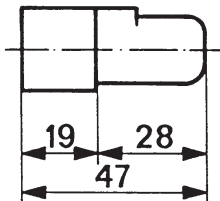
4300.0407



4300.0401



4300.0411



Order Numbers (type)

Inlet plug	Cable Entry
4300.0407 (8143)	straight (in plug axis)
4300.0411 (8143.A)	angled (90° to plug axis)
4300.0401 (P685)	angled (90° to plug axis)

PLUGS AC Outlets for Cable Connections



- For "hot" or "cold" connections 120°C or 65°C, Protection Class I
- AC outlet plugs with straight or 90° cable entry

4300.0602 / .0606 / .0609 (65°C):

- Max. wire size 18 AWG (1.0 mm²)
- Disassemble plug for cable connection
- Material: thermoplastic, UL 94V-O (4300.0609 UL 94V-2)
- Contact material: brass, nickel-plated

		<u>4300.0602</u>	<u>4300.0606 / 0609</u>
UL	recognition	10A/250V * File #E96454	File #E96454
CSA	certification	10A/250V * File #LR70111	File #LR70111
VDE	approval	10A/250V File #63826	File #69635
SEMKO	approval	10A/250V } File	} File
SEV	approval	10A/250V } numbers	
			on request

*4300.0609: 15A/125V, 10A/250V UL, CSA

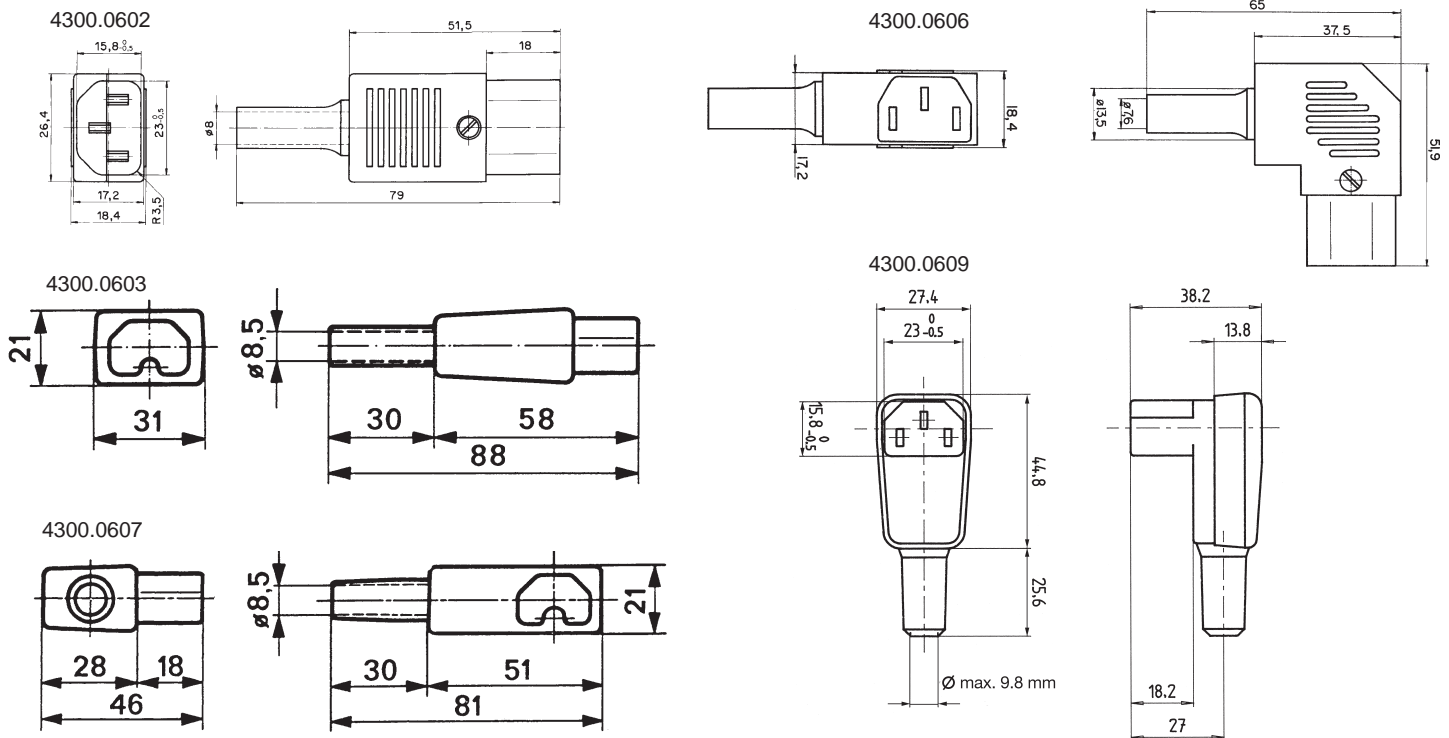
4300.0603 / .0607 (120°C):

- Max. wire size 16 AWG (1.5 mm²)
- Disassemble plug for cable connection
- Material: thermoplastic, UL 94V-2
- Contact material: brass

UL	listing	15A/250V	File #E96454
CSA	certification	15A/250V	File #LR38456
VDE	approval	10A/250V	File #73759
SEMKO	approval	10A/250V	} File
SEV	approval	10A/250V	
OVE	approval	10A/250V	on request








Standards: EN60320; IEC 320/C13/C15













Order Numbers (type)

Outlet plug, 65°C		Outlet plug, 120°C		Cable Entry
4300.0602	(P587)	4300.0603	(8943.W)	straight (in plug axis)
4300.0606	(P587SE)	4300.0607	(8943.L.W)	angled (90° to plug axis)
4300.0609	(SF0430)			angled (90° to plug axis)

Selector Chart for Power Entry Modules with Line Filter

For power entry modules without filter, see page 29	<i>Snap in or screw mount</i>	NEW EMI shield	NEW Filter or surge protector		
					
Series / page number	KFS/5100, page 52	GRF4, page 53/54	KPF / KPS, page 55	KFB, page 56	KFB, page 56
Rated current / voltage	1A – 10A / 250V	1A – 10A / 250V	1A – 10A / 250V	1A – 6A / 250V	1A – 6A / 250V
AC inlet	•	•	• with or without outlet	•	•
Fuseholder (5 x 20mm)			• optional		
On/off line switch			• optional	•	•

					
Series / page number	5200, page 57	5220, page 57	KFA, page 58	8843, page 59	KFC, page 60
Rated current / voltage	1A – 6A / 250V	1A – 6A / 250V	1A – 6A / 250V	1A – 10A / 250V	1A – 6A / 250V
AC inlet	•	•	•	•	•
Fuseholder (5 x 20mm)	•	•	•		
Fuseholder (5 x 20mm or 1/4 x 1 1/4" fuses)				•	•
Voltage selector			• step		• step

				 <i>Felcom</i>	 <i>RFI filter only</i>
Series / page number	CD, page 61	CE, page 62	CG, page 63	Felcom, page 64	Filter only, page 64
Rated current / voltage	1A – 6A / 250V	1A – 6A / 250V	1A – 6A / 250V	1A – 6A / 250V	1A – 6A / 250V
AC inlet	•	•	•	• with or without outlet	
Fuseholder (5 x 20mm)				optional	
Fuseholder (5 x 20mm or 1/4 x 1 1/4" fuses)	•	•	•		
On/off line switch	•		•	optional	
Voltage selector	• step	• series/parallel	• series/parallel		

About Line Filters

Field of Application

The increasing use of electronic circuitry in many technical fields made it necessary to protect these sensitive control systems from external interference. For this purpose, special mains filters have been developed. These filters eliminate or minimize interference to guarantee the function of electronic equipment.

Possible Interference

In practice, mains interference can be divided into four categories:

- A. Fluctuation of the mains voltage (magnetic stabilizer).
- B. Harmonic wave interference in the frequency range 100 Hz-2 kHz (selective harmonic filter type).
- C. Transient interference signals in the frequency range up to 300 MHz (low pass filter type)
- D. Sinusoidal interference signals in the frequency range up to 1 GHz (broad band, low pass filter type)

From a practical point of view, the main types of interference are those in the last two categories, C and D, superimposed upon the mains. Such interference may adversely affect or even destroy electronic circuits.

Function of the Mains Filter

An optimum rated mains filter can readily perform a double function (Fig.1).

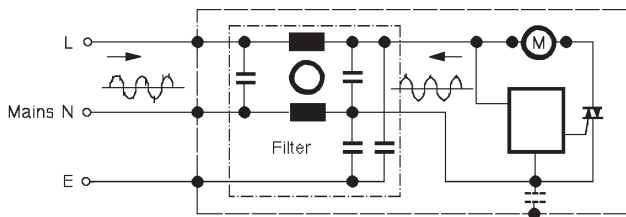


Fig. 1. Double function of a mains filter, acts in both directions.

Function 1

The filter protects the electronic control circuit from voltage spikes on the mains input that can be generated by, for instance, electromechanical switches and relays.

Function 2

The same filter also acts in the opposite direction. These can attenuate interference variables to such an extent that the admissible level of interference can be attained.

Filter Construction and Combination

SCHURTER mains filters are always available together with standard appliance inlets, or with a combination of inlet, fuse holder, switch and voltage selector. Following criterion are of essential importance:

a) Radio interference suppression capacitors

All SCHURTER filters are equipped with radio interference suppression capacitors, either Class X or Class Y, according to international standards requirements of IEC. As a rule, they are self healing metal-paper types, which are tested according to the standards of the major user countries, and which are accepted as noise suppression capacitors.

Class X capacitors have unlimited capacity for those applications in which a failure caused by a short circuit cannot result in a dangerous electrical shock.

Class Y Capacitors are intended for an operation voltage $V_{eff} = 250$ V with increased electrical and mechanical safety and limited capacity.

b) Leakage current according to IEC 335.T. 1

The leakage current of a device is mainly determined by the capacitance value of the Y-capacitor. According to international standards IEC 335-1 and VDE 0700 T.1., the following regulations with respect to leakage current can be assumed:

For electrical household appliances

Portable appliances	to Protection class I	0.75 mA
Stationary motor appliances *	to Protection class I	3.5 mA
Stationary heating appliances	to Protection class I	5 mA
Appliances	to Protection class II	0.25 mA
Unshielded appliances		5 mA
Others		3.5 mA

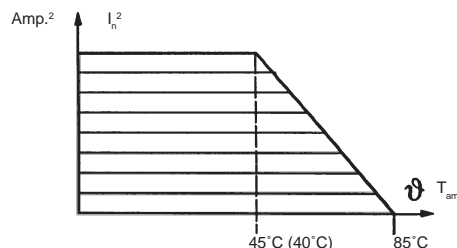
* Stationary appliances fixed or weighing in excess of 18 kg (without carrying handle)

For other applications

Ref.	Analytical	Medical	EDV	Calculators	Instruments
UL	0.5 mA (UL 1262)	0.1 mA (UL 544)	5.0 mA (UL 478)	5.0 mA (UL 114)	5.0 mA (UL 1244)
IEC	-	0.1 mA (IEC 62A)	3.5 mA (IEC 435)	0.5 mA (IEC 380)	3.5 mA (IEC 348)

c) Rated voltage U_n ; Rated current I_n

For each filter type, the rated voltage and the rated current are specified in the technical data sheet. The indicated rated currents refer to the full load (I_n) at an ambient temperature of 45°C. At higher temperatures, the allowable maximum rated current decreases linearly to 0 amp at a temperature of 85°C.



Permissible working current as a function of ambient temperature

d) Insertion transmission loss (asymm., and symm.)

In the case of asymmetric measurement, the line and neutral conductors are measured together with respect to earth (Fig. 2).

About Line Filters, continued

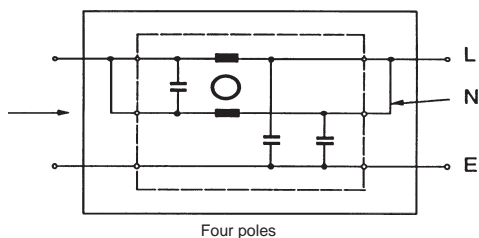


Fig. 2. Asymmetric measurement: line (L) and neutral (N) are measured together with respect to earth (E).

In the case of symmetric measurement, the insertion transmission loss is measured between the line and neutral through a balancing transformer. The earth wire is not used (Fig. 3).

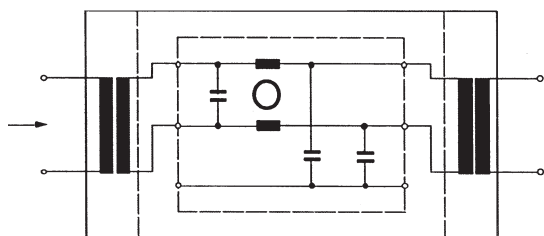


Fig. 3. Four pole network with integrated balanced transformer for the measurement of insertion transmission loss in the symmetrical case.

e) Measurement method

The insertion transmission loss D is defined as that loss which is developed when a four pole network is inserted into an existing set-up, having a surge impedance Z . Using the assumption that the LHS as well as the RHS terminal impedance of the four pole network are of the same real value, the insertion transmission loss and the overall loss are the same.

The insertion transmission loss, calculated in decibels, can be obtained as follows:

$$D = 20 \log \frac{U_G}{2 U_2}$$

In practice, the substitution method is used exclusively. Its main advantage is that the absolute value of the voltage needs not to be known (Fig. 5).



Fig. 4. Four pole network with real termination

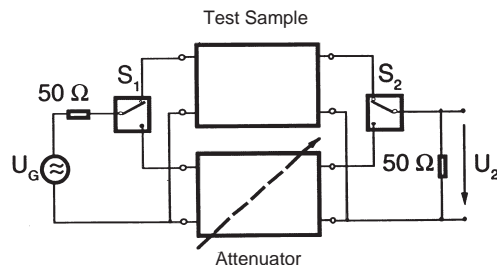


Fig. 5. Substitution method for measurement of insertion transmission loss

f) Dielectric strength

To date the dielectric strength has been tested according to the Y-capacitor specification. VDE 0563 T.3 specifies this test as per the following table:

Capacitor	Type test	
Class X	Ceramic and foil capacitors	$U_p \sim = 4.3 U_n$
	Self healing capacitors (MP)	$U_p \sim = 2.15 U_n$
Class Y	All capacitors	$U_p \sim = 1500 V$
	Between plate and case	$U_p \sim = 2 U_n + 1500V$
	Impulse voltage test	in Germany none

Standards and Approvals

SCHURTER mains filters according to international quality standards are approved or in test at all major laboratories such as UL, CSA, VDE, SEMKO, SEV and DEMKO.

The following mains filters qualify for use in equipment according to IEC 950, IEC 664 Installation Category I & II: KFS, KFB, KFA, KFC, CD, CE and CG.

Development and Manufacturing

All SCHURTER mains filters are designed and developed in cooperation with a major filter manufacturer, ensuring that technical as well as quality requirements are optimally fulfilled. Parts for the mains filters with appliance plugs are manufactured both by Schurter and our mains filter partner. The know-how of both partners can thus be used for the benefit of the product performance.

Consulting, Laboratory Tests

If you have a particular application not mentioned in this catalog, feel free to contact SCHURTER at one of the numbers listed below. We can perform technical tests and if necessary, also specific laboratory measurements. The measurements can either be simulated or performed directly on your equipment.

KFS / KFX / 5100 / 5110 Line Filter with AC Inlet



KFS / KFX
Recommended for IEC 950
equipment requirements

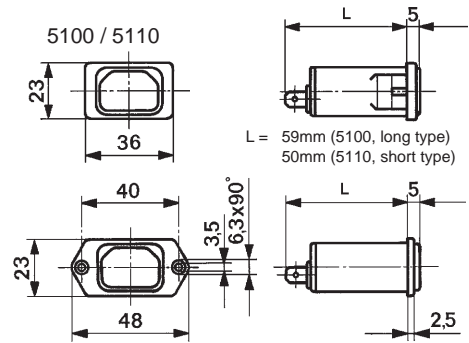
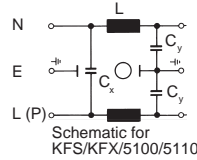
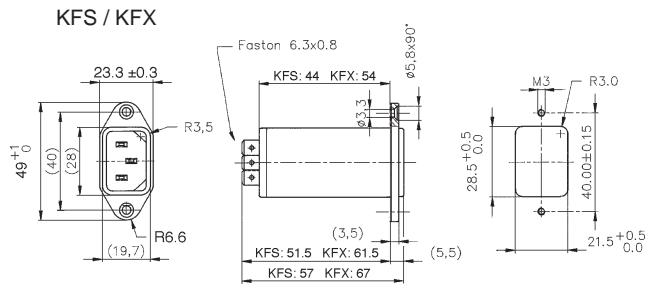


5100 / 5110
**Standard or
Medical Filter**

- For cold connections 65° C, Protection Class I
- KFS/KFX qualifies for use in equipment with safety requirements acc. to IEC 950, IEC 664 Installation Category I & II (KFS) and III (KFX)
- Screw mount from front or rear, or snap-in mount from front
- Quick-connect terminals .250 x .032" (6.3 x 0.8mm)
- 0.5 Nm torque required for M3 screws
- For attenuation graphs, see page 66
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For ac inlets without RFI filter, see page 8

UL recognition 1A-10A/250V * File #E72928
 CSA certification 1A-10A/250V * File #LR72559¹⁾ / LR97784-1²⁾
 VDE approval 1A-10A/250V * File #58824¹⁾ / 53155²⁾
 SEMKO approval 1A-10A/250V * } File numbers
 SEV approval 1A-10A/250V * } on request
 *5100 Series rated only 1A-6A ¹⁾ KFS/KFX ²⁾ 5100/5110

Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320



Order Numbers

KFS / KFX with standard RFI filter		In (A)	Un (V)	Max. leak. curr. @ 250V/50 Hz	Cx2 (nF)	Cx1 (nF)	Cy (nF)	L(mH) +50/-30%	Test voltage L, N E L N	Surge voltage immunity
KFS	KFX	Tamb 45° C *								
4300.5051	4300.5061	1	up to 250V max. 50/60 Hz	< 0.5 mA	47 (KFS only)	47 (KFX only)	2 x 2.2	2 x 10	2000V DC 2 sec.	1700V DC 2 sec.
4300.5052	4300.5062	2		< 0.5 mA			2 x 2.2	2 x 4		
4300.5053	4300.5063	4		< 0.5 mA			2 x 2.2	2 x 1.5		
4300.5054	4300.5064	6		< 0.5 mA			2 x 2.2	2 x 0.8		
4300.5055	4300.5065	10		< 0.5 mA			2 x 2.2	2 x 0.16		

VDE Tamb 40° C; values of fuses (time-lag): Isi ≤ In

5100 / 5110 with standard RFI filter		In (A)	Un (V)	Max. leakage curr. @ 250V/50 HZ	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage L, N E L N		
5100 (long type)		Tamb 40° C								
Screw-on	Snap-in 0.8-3.0mm									
5100.0133.1	(5100-1-33)	5100.0143.1 (5100-1-43)	1A	up to 250V max. 50/60 Hz	<0.5mA	47	2.2	11	2700V DC 2 sec.	1075V DC 2 sec.
5100.0233.1	(5100-2-33)	5100.0243.1 (5100-2-43)	2A	<0.5mA	47	2.2	4			
5100.0433.1	(5100-4-33)	5100.0443.1 (5100-4-43)	4A	<0.5mA	47	2.2	1.6			
5100.0633.1	(5100-6-33)	5100.0643.1 (5100-6-43)	6A	<0.5mA	47	2.2	0.7			
5110 (short type)										
Screw-on	Snap-in 0.8-3.0mm									
5110.0133.1	(5110-1-33)	5110.0143.1 (5110-1-43)	1A	up to 250V max. 50/60 Hz	<0.5mA	33	2.2	4	2700V DC 2 sec.	1075V DC 2 sec.
5110.0333.1	(5110-3-33)	5110.0343.1 (5110-3-43)	3A	<0.5mA	33	2.2	0.8			
5110.0633.1	(5110-6-33)	5110.0643.1 (5110-6-43)	6A	<0.5mA	33	2.2	0.3			
5110.1033.1	(5110-10-33)	5110.1043.1 (5110-10-43)	10A	<0.5mA	33	2.2	0.17			

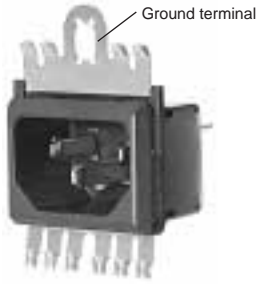
Values of fuses (time-lag): Isi ≤ In : Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

5100 / 5110 with medical RFI filter (low leakage)		In (A)	Un (V)	Max. leakage curr. @ 250V/50 HZ	Cx2 (nF)	L (mH)	Test voltage L, N E L N		
5100 (long type)		Tamb 40° C							
Screw-on	Snap-in 0.8-3.0mm								
5100.0133.3	(5100-1-33B)	5100.0143.3 (5100-1-43B)	1A	up to 250V max. 50/60 HZ	<5µA	47	11	2700V DC 2 sec.	1075V DC 2 sec.
5100.0233.3	(5100-2-33B)	5100.0243.3 (5100-2-43B)	2A	<5µA	47	4			
5100.0433.3	(5100-4-33B)	5100.0443.3 (5100-4-43B)	4A	<5µA	47	1.6			
5100.0633.3	(5100-6-33B)	5100.0643.3 (5100-6-43B)	6A	<5µA	47	0.7			
5110 (short type)									
Screw-on	Snap-in 0.8-3.0mm								
5110.0133.3	(5110-1-33B)	5110.0143.3 (5110-1-43B)	1A	up to 250V max. 50/60 HZ	<5µA	33	4	2700V DC 2 sec.	1075V DC 2 sec.
5110.0333.3	(5110-3-33B)	5110.0343.3 (5110-3-43B)	3A	<5µA	33	0.8			
5110.0633.3	(5110-6-33B)	5110.0643.3 (5110-6-43B)	6A	<5µA	33	0.3			
5110.1033.3	(5110-10-33B)	5110.1043.3 (5110-10-43B)	10A	<5µA	33	0.17			

GRF Line Filter with AC Inlet and EMI Shield

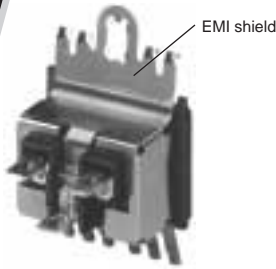


GRF4 with filter



Back view - GRF2 without filter

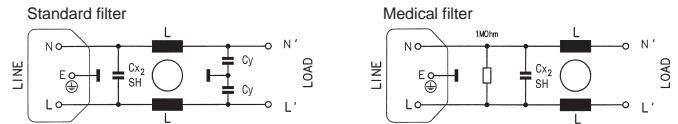
NEW



Standard or Medical Filter

- For cold connections 65° C, Protection Class I. Qualifies for use in equipment acc. to IEC 950.
- Metal shield safeguards equipment against radiated EMI (electromagnetic interference). The force of its "claws" against the enclosure reinforces contact and ensures continuity in the path to ground.
- Shielded inlet with RFI filter (GRF4) or without filter (GRF2, pg. 12)
- New snap-in design for rear panel mounting – allows terminals to be pre-wired before mounting (see diagrams below)
- Solder/quick-connect terminals .187 x .032" (4.8 x 0.8mm)
- For attenuation graphs, see page 54 and 71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For ac inlets without RFI filter, see page 8

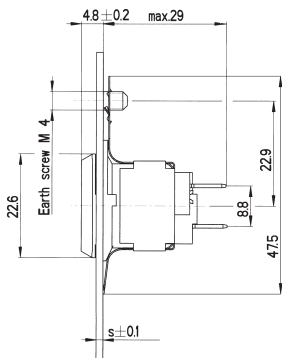
	GRF2	GRF4 (500mA-15A/250V)
UL recognition	15A/250V File #E96454	File#E72928
CSA certification	15A/250V File #LR38456	File#LR701867
VDE approval	10A/250V File #100875	File#102348
SEMKO approval	10A/250V File numbers on request	File numbers on request
SEV approval	10A/250V File numbers on request	File numbers on request



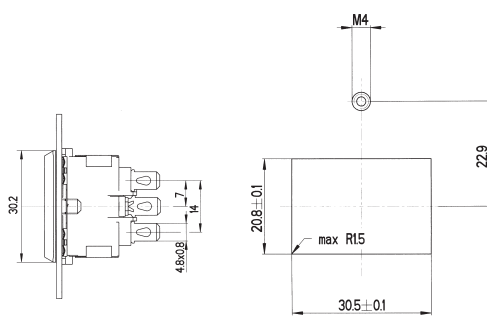
Standards: UL 1283; CSA C22.2/8; IEC 320/C14; EN 60320; EN133200

Technical Drawings

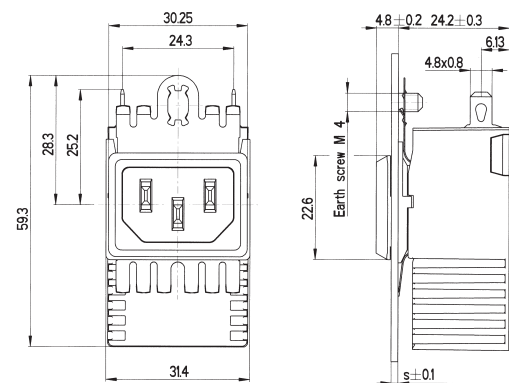
GRF2 (without filter)



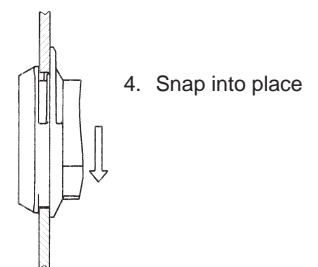
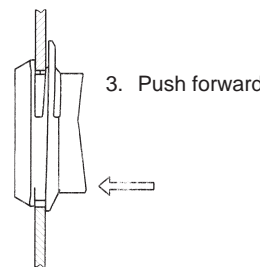
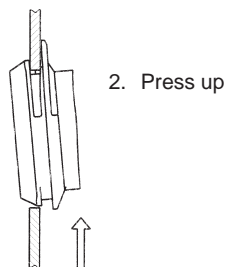
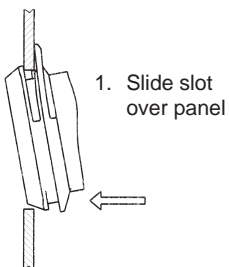
Mounting cut-out



GRF4 (with filter)



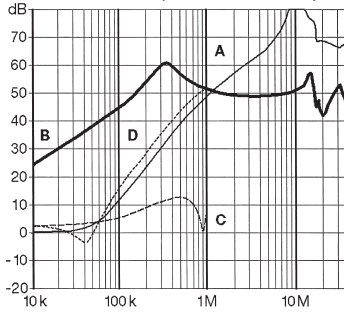
Mounting Instructions



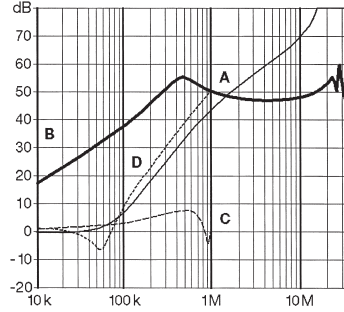
Attenuation Graphs (see page 71 for medical graphs)

Attenuation Loss: - - - - - symmetrical (differential mode): Line to line ——— asymmetrical (common mode): Line to ground

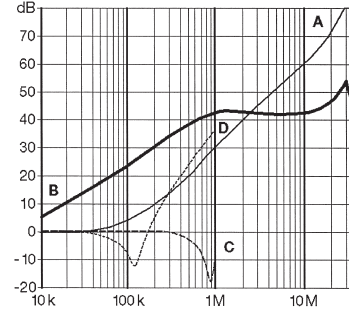
500mA A = 50/50 Ω sym. C = 0.1/100 Ω sym.
B = 50/50 Ω asym. D = 100/0.1 Ω sym.



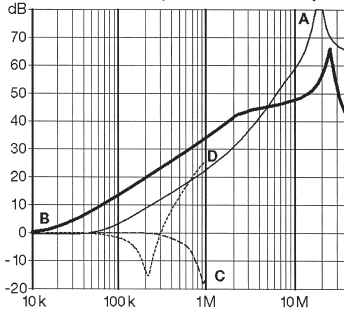
1A A = 50/50 Ω sym. C = 0.1/100 Ω sym.
B = 50/50 Ω asym. D = 100/0.1 Ω sym.



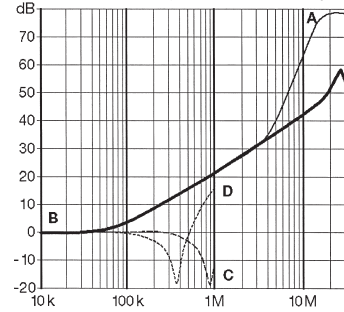
3A A = 50/50 Ω sym. C = 0.1/100 Ω sym.
B = 50/50 Ω asym. D = 100/0.1 Ω sym.



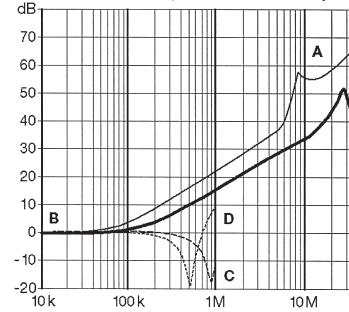
6A A = 50/50 Ω sym. C = 0.1/100 Ω sym.
B = 50/50 Ω asym. D = 100/0.1 Ω sym.



10A A = 50/50 Ω sym. C = 0.1/100 Ω sym.
B = 50/50 Ω asym. D = 100/0.1 Ω sym.



15A A = 50/50 Ω sym. C = 0.1/100 Ω sym.
B = 50/50 Ω asym. D = 100/0.1 Ω sym.



Order Numbers

GRF4 with standard RFI filter

Order numbers	Mounting	I_n (A) T_{amb} 40°C	U_n (V)	Max. leakage curr. @ 230V/50 HZ	Cx_2 (nF)	Cy (nF)	L(2X) (mH)	Test voltage			
								L	N	E	L N
GRF4.0411.013	1.5mm panel thickness (other panel thicknesses available on request)	500mA	up to 250V max. 50/60 HZ	<0.5mA	100	2.2	24	2kV 50Hz 2 sec.			.76kV 50Hz 2 sec.
GRF4.0412.013		1A		<0.5mA	100	2.2	12				
GRF4.0413.013		3A		<0.5mA	100	2.2	2.5				
GRF4.0416.013		6A		<0.5mA	100	2.2	0.78				
GRF4.0417.013		10A		<0.5mA	100	2.2	0.225				
GRF4.0419.013		15A		<0.5mA	100	2.2	0.075				

GRF4 with medical RFI filter (low leakage)

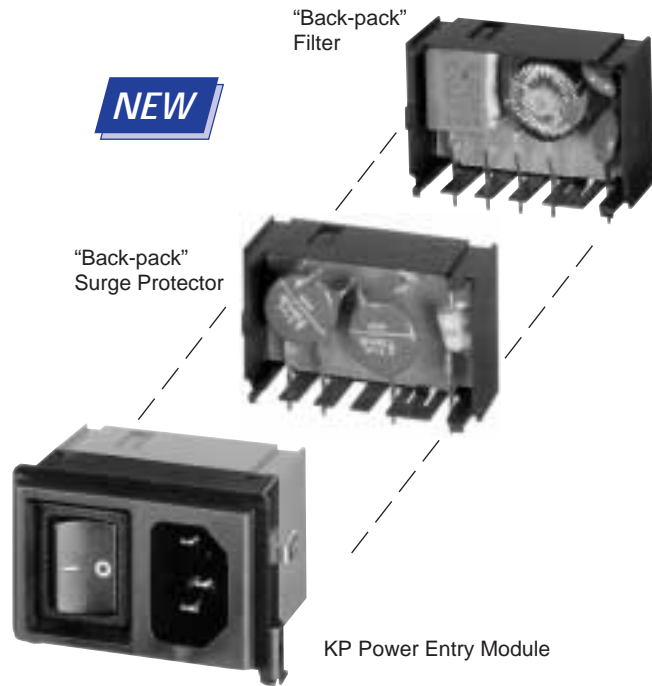
Order numbers	Mounting	I_n (A) T_{amb} 40°C	U_n (V)	Max. leakage curr. @ 120V/60 HZ	Cx_2 (nF)	Cy (nF)	L(2X) (mH)	Test voltage			
								L	N	E	L N
GRF4.0021.013	1.5mm panel thickness (other panel thicknesses available on request)	500mA	up to 250V max. 50/60 HZ	< 5μA	100	-	24	2.5kV 50Hz 2 sec.			.76kV 50Hz 2 sec.
GRF4.0022.013		1A		< 5μA	100	-	12				
GRF4.0023.013		3A		< 5μA	100	-	2.5				
GRF4.0026.013		6A		< 5μA	100	-	0.78				
GRF4.0027.013		10A		< 5μA	100	-	0.225				
GRF4.0029.013		15A		< 5μA	100	-	0.075				

GRF2 (without filter)

Ground through metal shield and terminals	Ground through metal shield only	Panel thickness	Terminals
GRF2.0312.11	GRF2.0212.11	1.2 mm	solder/quick-connect 4.8 x 0.8mm
GRF2.0315.11	GRF2.0215.11	1.5 mm	
GRF2.0320.11	GRF2.0220.11	2.0 mm	

unlocking accessory tool: part number 0696.0131

KPF / KPS Pcb Mount RFI / EMI Filter and Surge Protector

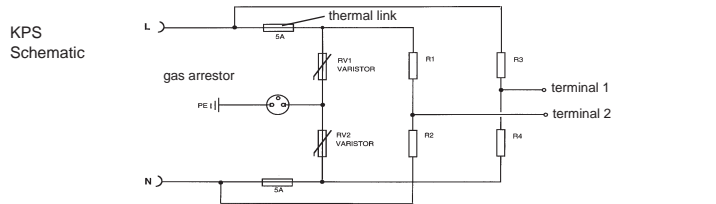
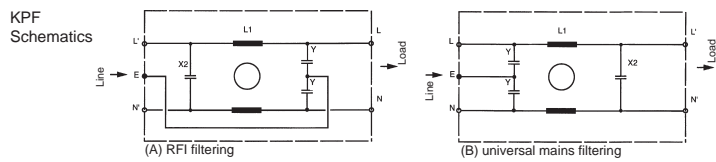


- For "cold" connections 65° C, Protection Class I
- Pcb mount "back-pack" filter (KPF) and/or surge protector (KPS) snaps onto rear of KP power entry module (ordered separately, page 32)
- Electrical connections between the filter(s) and power entry module are to be made individually on the pcb (see layout proposal below)
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered KP, see page 32

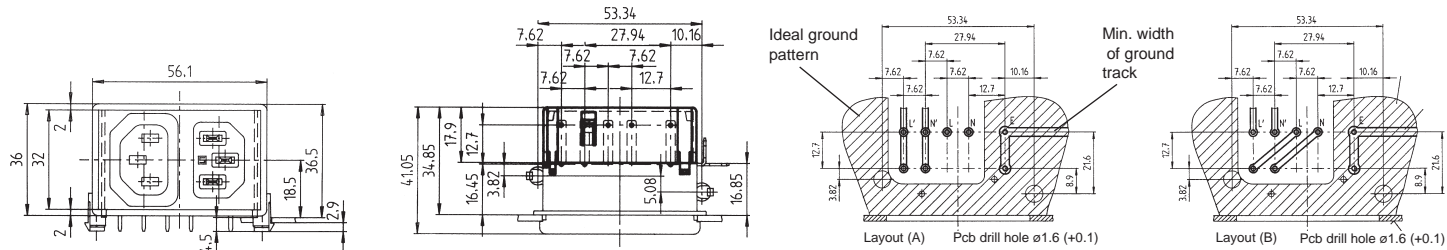
UL recognition 1A-6A/250V, File #E72928
 CSA certification 1A-6A/250V, File #LR97784
 VDE approval 1A-6A/250V, File #87448
 * (8A-10A pend.)

KPF * Pending
 KPS 250V Pending
 File #LR38456
 Re. File #6667

KPS125V Pending
 File #LR38456



Standards:
 Filterfit: UL1283; CSA C22.2; DIN/VDE 0565 part 3
 Surgefit: CSA C22.2; DIN/VDE 0675 part 6



Order Numbers

FILTERFIT with standard RFI filter							
Order No.	In (A) Tamb 40° C	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage L,N E L N
KPF 1.1	1A	up to 250V max. 50 / 60 Hz	< 0.5 mA	100	2.2	10	2700V DC 2 Sec. 1075V DC 2 sec.
KPF 2.1	2A		< 0.5 mA	100	2.2	4	
KPF 4.1	4A		< 0.5 mA	100	2.2	2	
KPF 6.1	6A		< 0.5 mA	100	2.2	1	
KPF 8.1	8A		< 0.5 mA	100	2.2	.06	
KPF 0.1	10A		< 0.5 mA	100	2.2	.04	

FILTERFIT with medical RFI filter (low leakage) *							
Order No.	In (A) Tamb 40° C	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cy (nF)	L (mH)	Test voltage L,N E L N	
KPF 1.3	1A	up to 250V max. 50 / 60 Hz	< 5 µA	2.2	10	2700V DC 2 Sec. 1075V DC 2 sec.	
KPF 2.3	2A		< 5 µA	2.2	4		
KPF 4.3	4A		< 5 µA	2.2	2		
KPF 6.3	6A		< 5 µA	2.2	1		
KPF 8.3	8A		< 5 µA	2.2	.06		
KPF 0.3	10A		< 5 µA	2.2	.04		

* 1A-10A medical filters approvals pending

SURGEFIT for surge protection		
KPS 1.1	250V	
KPS 2.1	125V	

KFB Line Filter • AC Inlet • On / Off Line Switch



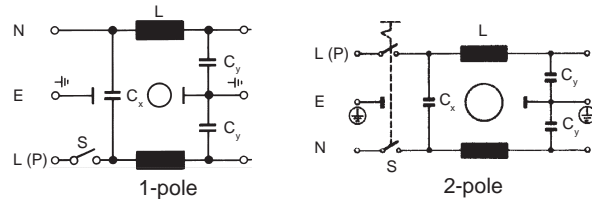
KFB 1-pole

KFB 2-pole

- For cold connections 65° C, Protection Class I. Qualifies for use in equipment according to IEC 950, IEC 664 Installation Category I & II.
- Screw mount from front or rear
- Quick-connect terminals .250 x .032 (6.3 x 0.8mm)
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered KEB, page 34

UL	recognition	1A-6A/250V	File #E72928
CSA	certification	1A-6A/250V	File #LR72559
VDE	approval	1A-6A/250V*	File #58823
SEMKO	approval	1A-6A/250V*	File numbers on request
SEV	approval	1A-6A/250V*	

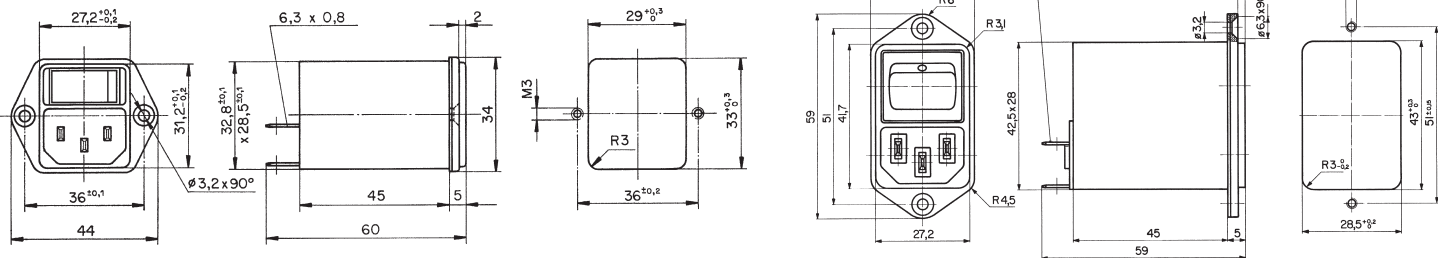
*SPST 4A & 6A has 3A inductive load
DPST 6A has 4A inductive load



Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320

KFB 1-pole

KFB 2-pole



Order Numbers

Casing with standard RFI filter		In (A) Tamb 45°C*	Switch color	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage		
KFB 1-pole switch	2-pole switch								L, N	E	L N
4302.5001	4302.5311	1A	unlighted (lighted red or green on request)	up to 250V max. 50 / 60 Hz	< 0.5 mA	68	2.2	10	2 kV 50 Hz 2 sec.	1625V DC 2 sec.	
4302.5002	4302.5312	2A			< 0.5 mA	68	2.2	4			
4302.5003	4302.5313	4A			< 0.5 mA	68	2.2	1.5			
4302.5004	4302.5314	6A			< 0.5 mA	68	2.2	0.8			

* VDE Tamb 40°C; Values of fuses (time-lag): I_{si} ≤ I_n ; Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Casing with medical RFI filter (low leakage)

KFB 2-pole switching	In (A) Tamb 45°C*	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	L (mH)	Test voltage		
						L, N	E	L N
4302.5331	1A	up to 250V max. 50 / 60 Hz	< 5 μA	68	10	2 kV 50 Hz 2 sec.		1625V DC 2 sec.
4302.5333	2A		< 5 μA	68	4			
4302.5335	4A		< 5 μA	68	1.5			
4302.5337	6A		< 5 μA	68	0.8			

* VDE Tamb 40°C

5200 / 5220 Line Filter • AC Inlet • 5 x 20mm Fuseholder



5200
1-pole, with captive fuse drawer

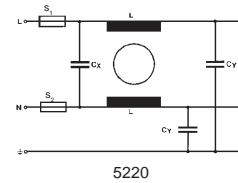
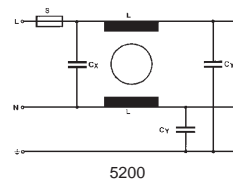
5220
2-pole

Plug Removal Necessary for Fuse Replacement

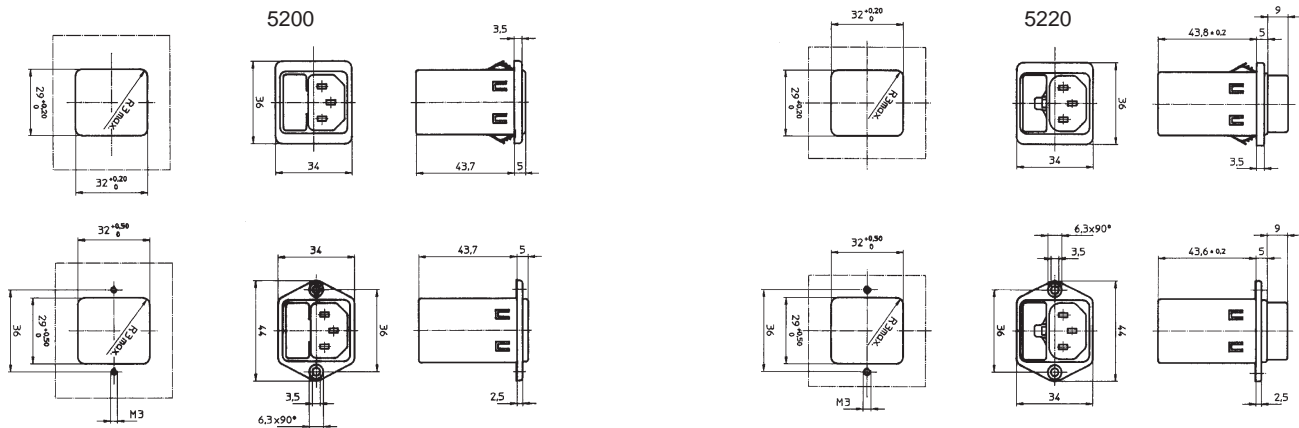
(standard or medical filter available)

- For cold connections 65° C, Protection Class I
- Quick-connect terminals .250 x .032" (6.3 x 0.8mm)
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered 6200 / 6220, page 35

UL recognition	1A-6A/250V	File #E72928
CSA certification	1A-6A/250V	File #LR97784-1
VDE approval	1A-6A/250V*	File #53155 File numbers on request
SEMKO approval	1A-6A/250V*	
SEV approval	1A-6A/250V*	



Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320. 5200 fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers (type)

Note: Casing and fuseholders combined for Series 5200 and 5220. To order fuses, please see page 102.

Casing with standard RFI filter

5200, 1-pole		Snap-in(0.8-3.0mm)	In (A) Ta 40°C	Un (V)	Max. leakage curr. @250V/50Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage		
Screw-on									L	N	
5200.0123.1	(5200-1-23)	5200.0143.1	(5200-1-43)	1A	up to 250V max. 50/60 Hz	< 0.5 mA	47	2.2	11	2700V DC 2 sec.	1075V DC 2 sec.
5200.0223.1	(5200-2-23)	5200.0243.1	(5200-2-43)	2A		< 0.5 mA	47	2.2	4		
5200.0423.1	(5200-4-23)	5200.0443.1	(5200-4-43)	4A		< 0.5 mA	47	2.2	1.6		
5200.0623.1	(5200-6-23)	5200.0643.1	(5200-6-43)	6A		< 0.5 mA	47	2.2	0.7		
5220, 2-pole		Snap-in(0.8-3.0mm)	In (A)	Un (V)	Max. leakage curr. @250V/50Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage		
Screw-on									L	N	
5220.0123.1	(5220-1-23)	5220.0143.1	(5220-1-43)	1A	up to 250V max. 50/60 Hz	< 0.5 mA	47	2.2	11	2700V DC 2 sec.	1075V DC 2 sec.
5220.0223.1	(5220-2-23)	5220.0243.1	(5220-2-43)	2A		< 0.5 mA	47	2.2	4		
5220.0423.1	(5220-4-23)	5220.0443.1	(5220-4-43)	4A		< 0.5 mA	47	2.2	1.6		
5220.0623.1	(5220-6-23)	5220.0643.1	(5220-6-43)	6A		< 0.5 mA	47	2.2	0.7		

Values of fuses (time-lag): I_{sl} ≤ I_n : Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Casing with medical RFI filter (low leakage)

5200, 1-pole		Snap-in 0.8-3.0mm	In (A) Tamb 40°C	Un (V)	Max. leakage curr. @250V/50 Hz	Cx2 (nF)	L (mH)	Test voltage		
Screw-on								L	N	
5200.0123.3	(5200-1-23B)	5200.0143.3	(5200-1-43B)	1A	up to 250V max. 50/60 HZ	<5µA	47	11	2700V DC 2 sec.	1075V DC 2 sec.
5200.0223.3	(5200-2-23B)	5200.0243.3	(5200-2-43B)	2A		<5µA	47	4		
5200.0423.3	(5200-4-23B)	5200.0443.3	(5200-4-43B)	4A		<5µA	47	1.6		
5200.0623.3	(5200-6-23B)	5200.0643.3	(5200-6-43B)	6A		<5µA	47	0.7		
5220, 2-pole		Snap-in 0.8-3.0mm	In (A)	Un (V)	Max. leakage curr. @250V/50 Hz	Cx2 (nF)	L (mH)	Test voltage		
Screw-on								L	N	
5220.0123.3	(5220-1-23B)	5220.0143.3	(5220-1-43B)	1A	up to 250V max. 50/60 HZ	<5µA	47	11	2700V DC 2 sec.	1075V DC 2 sec.
5220.0223.3	(5220-2-23B)	5220.0243.3	(5220-2-43B)	2A		<5µA	47	4		
5220.0423.3	(5220-4-23B)	5220.0443.3	(5220-4-43B)	4A		<5µA	47	1.6		
5220.0623.3	(5220-6-23B)	5220.0643.3	(5220-6-43B)	6A		<5µA	47	0.7		

KFA Line Filter • AC Inlet • Voltage Selector • Fuseholder for 5 x 20mm Fuses



- For cold connections 65° C, Protection Class I. Qualifies for use in equipment according to IEC 950, IEC 664 Installation Category I & II.
- Quick-connect terminals .250 x .032" (6.3 x 0.8mm) without voltage selector; .187 x .032" (4.8 x 0.8mm) with voltage selector
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered KEA, page 36

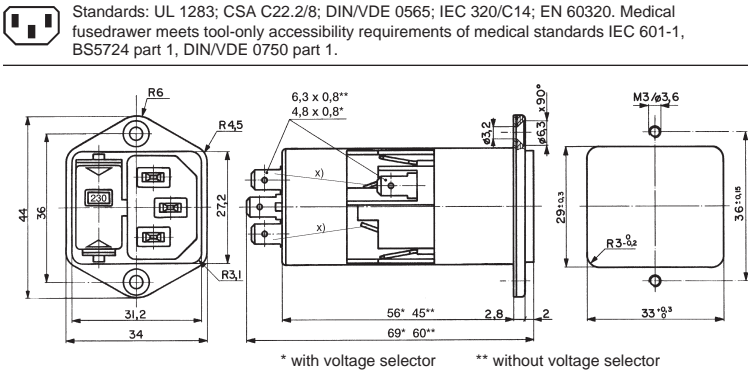
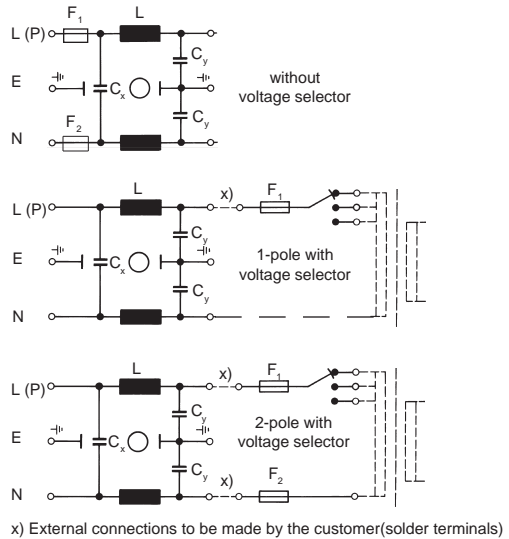
UL	recognition	1A-6A/250V	File #E72928 File #LR72559 File #58823 File numbers on request
CSA	certification	1A-6A/250V	
VDE	approval	1A-6A/250V	
SEMKO	approval	1A-6A/250V	
SEV	approval	1A-6A/250V	



**Plug Removal
Necessary for
Fuse Replacement**

(standard or medical filter available)

Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320. Medical fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers

Note: Casing and fusedrawer must be ordered separately. To order fuses, please see page 102.
If casing and fusedrawer with combined part number is preferred, please see series 5200/5220, page 57.

Casing with standard RFI filter									
KFA 1-pole fusing	2-pole fusing	Voltage selector	In (A) Tamb 45°C*	Un (V)	Max. leakage current @ 250V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage L, N E L N
4301.5011	4301.5001	without	1A	up to 250V max. 50 / 60 Hz	< 0.5 mA	68	2.2	10	2 kV 50 Hz 2 sec. 1625V DC 2 sec.
4301.5012	4301.5002	without	2A		< 0.5 mA	68	2.2	4	
4301.5013	4301.5003	without	4A		< 0.5 mA	68	2.2	1.5	
4301.5014	4301.5004	without	6A		< 0.5 mA	68	2.2	0.8	
4301.5051	4301.5041	2-3 pos.	1A		< 0.5 mA	68	2.2	10	
4301.5052	4301.5042	2-3 pos.	2A		< 0.5 mA	68	2.2	4	
4301.5053	4301.5043	2-3 pos.	4A		< 0.5 mA	68	2.2	1.5	
4301.5054	4301.5044	2-3 pos.	6A		< 0.5 mA	68	2.2	0.8	

* VDE Tamb 40°C; Values of fuses (time-lag): Isi ≤ In : Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Casing with medical RFI filter (low leakage)									
KFA, 2-pole fusing w/o voltage selector	KFA, 2-pole fusing with voltage selector	Voltage Selector	In (A) Tamb 45°C*	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	L (mH)	Test voltage L, N E L N	
	4301.5241	2-3 pos.	1A	up to 250V max. 50 / 60 Hz	< 5 µA	68	10	2 kV 50 Hz 2 sec. 1625V DC 2 sec.	
4301.5203	4301.5243	2-3 pos.	2A		< 5 µA	68	4		
4301.5205	4301.5245	2-3 pos.	4A		< 5 µA	68	1.5		
	4301.5247	2-3 pos.	6A		< 5 µA	68	0.8		

* VDE Tamb 40°C

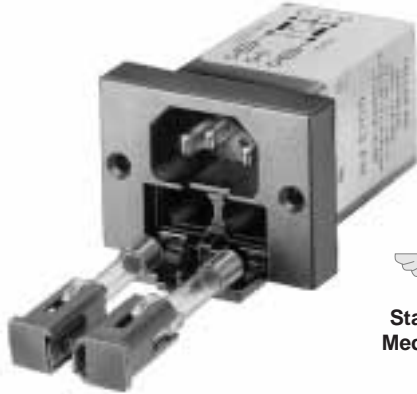
Fusedrawer					
Voltage markings / terminal markings: 1 2 3 4		5 x 20mm 1-pole black	2-pole black	1-pole + spare fuse-case	2-pole black, with shorting bar in the neutral side
With voltage selector: see selector chart on page 30 for .XX	Standard	4301.1214.XX	4301.1014.XX	4301.2814.XX	4301.3536.XX
	Medical *	4301.1224.XX	4301.1024.XX	4301.2824.XX	4301.3537.XX
Without voltage selector	Standard	4301.1405	4301.1401	4301.1409	4301.1413
	Medical *	4301.1407	4301.1403	4301.1411	4301.1415

* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

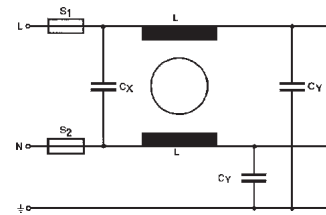
8843 Line Filter • AC Inlet • Interchangeable Fusedrawer for 1/4 x 1 1/4" or 5 x 20mm Fuses



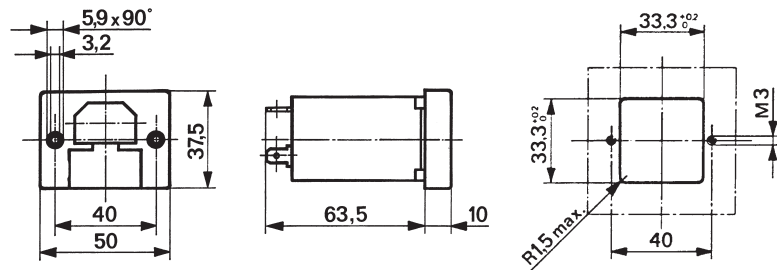
- For cold connections 65° C, Protection Class I
- Quick-connect terminals 250 x .032" (6.3 x 0.8mm)
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered 8843, see page 37



UL	recognition	1A-10A/250V	File #E72928
CSA	certification	1A-10A/250V (standard filter only)	File #LR97784
VDE	approval	1A-10A/250V	File #32561
SEV	approval	1A-10A/250V	File number on request



Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320



Order Number (type)

Note: Casing and fuseholders must be ordered separately. To order fuses, please see page 102.

Casing with standard RFI filter

8843 2-pole fusing	In (A) Ta 40°C	Un (V)	Max. leakage curr. @ 250V / 50Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage		Fuseholder inserts (2 inserts must be ordered for 2-pole fusing)
							L, N	E L N	
8843.8123.1 (8843.N1.140.60)	1A	up to 250V max. 50/60 Hz	< 0.5 mA	47	2.2	11	2700V DC 2 sec.	1075V DC 2 sec.	8843.0901 for 1/4 x 1 1/4" (8843-901.60) (6.3x32mm)
8843.8323.1 (8843.N3.140.60)	3A		< 0.5 mA	47	2.2	1.6			
8843.8623.1 (8843.N6.140.60)	6A		< 0.5 mA	47	2.2	0.8			8843.0902 for 5 x 20mm (8843-902.60)
8843.8923.1 (8843.N10.140.60)	10A		< 0.5 mA	47	2.2	0.4			

Values of fuses (time-lag): Isi ≤ In : Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Casing with medical RFI filter (low leakage)

8843 2-pole fusing	In (A) Ta 40°C	Un (V)	Max. leakage curr. @ 250V / 50Hz	Cx2 (nF)	L (mH)	Test voltage		Fuseholder inserts (2 inserts must be ordered for each casing)
						L, N	E L N	
8843.8123.3 (8843.N1.144.60)	1A	up to 250V max. 50/60 Hz	< 5 µA	47	11	2700V DC 2 sec.	1075V DC 2 sec.	8843.0901 for 1/4 x 1 1/4" (8843-901.60) (6.3x32mm)
8843.8323.3 (8843.N3.144.60)	3A		< 5 µA	47	1.6			
8843.8623.3 (8843.N6.144.60)	6A		< 5 µA	47	0.8			8843.0902 for 5 x 20mm (8843-902.60)
8843.8923.3 (8843.N10.144.60)	10A		< 5 µA	47	0.4			

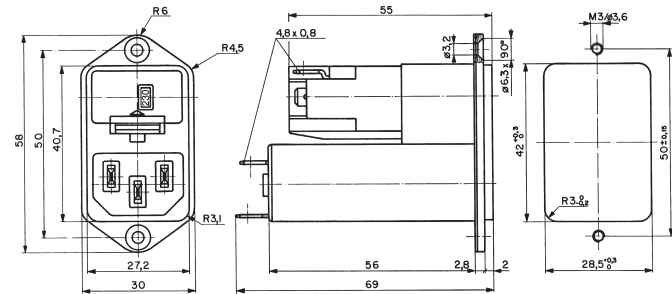
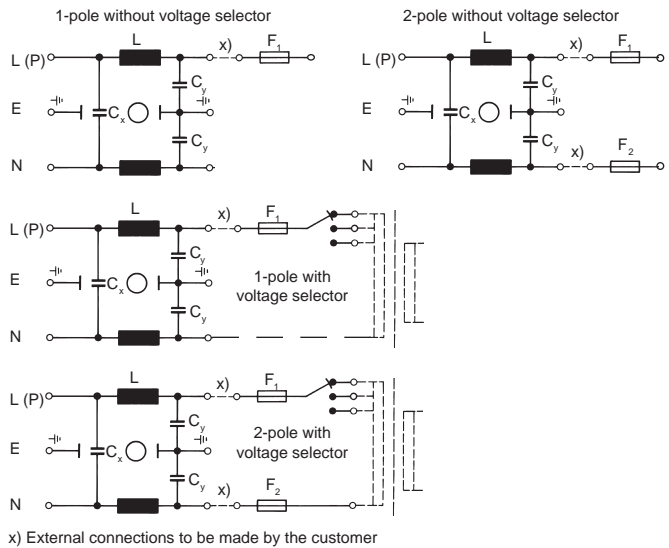
KFC Line Filter • AC Inlet • Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1/4" or 5 x 20mm Fuses



- For cold connections 65° C, Protection Class I. Qualifies for use in equipment acc. to IEC 950, IEC 664 Installation Category I & II.
- Screw mount from front or rear
- Optional voltage selector with 2-3 step switch positions max.
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered KEC, page 38

UL	recognition	1A-6A/250V	File #E72928
CSA	certification	1A-6A/250V	File #LR72559
VDE	approval	1A-6A/250V	File #58823
SEMKO	approval	1A-6A/250V	} File numbers on request
SEV	approval	1A-6A/250V	
CS	certification	1A-4A/250V	

Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320. Medical fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers

Note: Casing and fusedrawer must be ordered separately. To order fuses, please see page 97-128.

Casing with standard RFI filter

KFC	Voltage selector	In (A) Tamb 45°C*	Un (V)	Max. leakage current @ 250V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage L,N E L N
4303.5011	without	1A	up to 250V max. 50 / 60 Hz	< 0.5 mA	68	2.2	10	2 kV 50 Hz 2 sec.
4303.5012	without	2A		< 0.5 mA	68	2.2	4	
4303.5013	without	4A		< 0.5 mA	68	2.2	1.5	
4303.5014	without	6A		< 0.5 mA	68	2.2	0.8	
4303.5031	2-3 pos. max.	1A		< 0.5 mA	68	2.2	10	
4303.5032	2-3 pos. max.	2A		< 0.5 mA	68	2.2	4	
4303.5033	2-3 pos. max.	4A		< 0.5 mA	68	2.2	1.5	
4303.5034	2-3 pos. max.	6A		< 0.5 mA	68	2.2	0.8	

* VDE Tamb 40°C; Values of fuses (time-lag): $I_{si} \leq I_n$: Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Casing with medical RFI filter (low leakage)

KFC	Voltage Selector	In (A) Tamb 45°C*	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	L (mH)	Test voltage L,N E L N
4303.5221	2-3 pos.	1A	up to 250V max. 50 / 60 Hz	< 5 μ A	68	10	2 kV 50 Hz 2 sec.
4303.5223	2-3 pos.	2A		< 5 μ A	68	4	
4303.5225	2-3 pos.	4A		< 5 μ A	68	1.5	
4303.5227	2-3 pos.	6A		< 5 μ A	68	0.8	

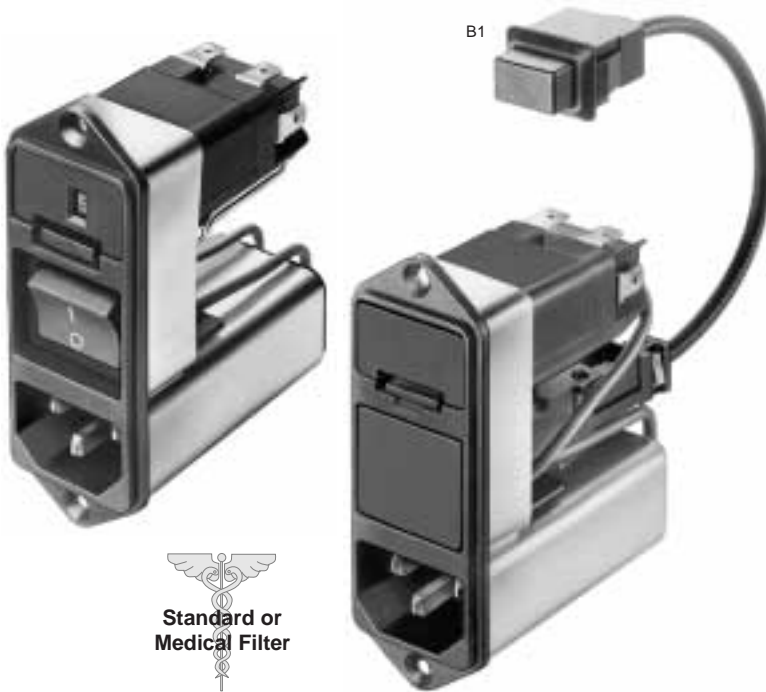
* VDE Tamb 40°C

Fusedrawer

Voltage markings / terminal markings: 1 2 3 4	5 x 20mm		2-pole black, with shorting bar in the neutral side	1/4" x 1-1/4" (6.3 x 32mm)		2-pole grey, with shorting bar in the neutral side	Black on request
	1-pole black	2-pole black	1-pole grey	2-pole grey			
With voltage selector: see selector chart on page 30 for .XX	Standard	4303.2114.XX	4303.2014.XX	4303.2036.XX	4303.2814.XX	4303.2714.XX	4303.2736.XX
	Medical *	4303.2124.XX	4303.2024.XX	4303.2037.XX	4303.2824.XX	4303.2724.XX	4303.2737.XX
Without voltage selector	Standard	4303.2406	4303.2401	4303.2411	4303.2907	4303.2902	4303.2912
	Medical *	4303.2408	4303.2403	4303.2413	4303.2909	4303.2904	4303.2914

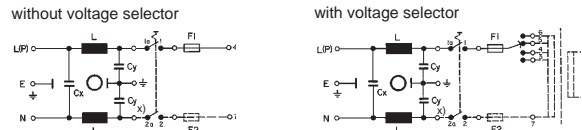
* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

CD Line Filter • AC Inlet • On/off Line Switch – Integral or Remote • Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1 1/4" or 5 x 20mm Fuses



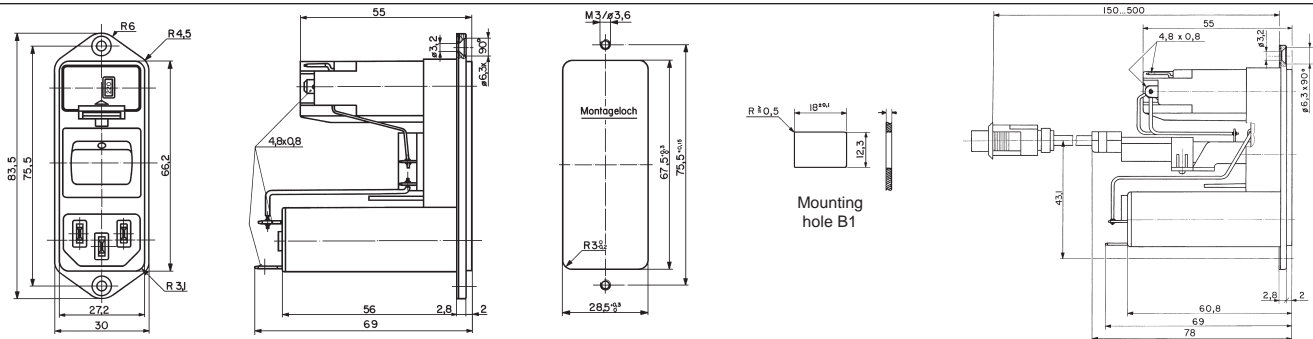
- For cold connections 65° C, Protection Class I. Qualifies for use in equipment acc. to IEC 950, IEC 664 Installation Category I & II.
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered KD, page 39

UL recognition	1A-6A/250V	File #E72928
CSA certification	1A-6A/250V	File #LR72559
VDE approval	1A-6A/250V*	File #58823/24
SEMKO approval	1A-6A/250V*	File numbers on request
SEV approval	1A-6A/250V* *4A inductive load	



x) external connections for 1-pole to be made by the customer

Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320. Medical fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers

Note: Casing, fusedrawer and Bowden cable must be ordered separately. See page 102 for fuses.

Casing with standard RFI filter													
CD with Bowden cable		CD without Bowden cable		Voltage Selector	In, Ta 45°C*	Un (V)	Max. Leakage Curr. @ 250 V/50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage		Bowden Cable
1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing								L, N E	L N	
CD11.4599.151	CD14.4199.151	CD11.1501.151	CD14.1101.151	without	1A	up to 250V max. 50/60 Hz	< 0.5 mA	68	2.2	10	2kV 50Hz 2 sec.	1625V DC 2 sec.	Bowden cables are supplied in standard or custom lengths. Please see pg 40 for ordering instructions
CD21.4599.151	CD24.4199.151	CD21.1501.151	CD24.1101.151	without	2A		< 0.5 mA	68	2.2	4			
CD31.4599.151	CD34.4199.151	CD31.1501.151	CD34.1101.151	without	4A		< 0.5 mA	68	2.2	1.5			
CD41.4599.151	CD44.4199.151	CD41.1501.151	CD44.1101.151	without	6A		< 0.5 mA	68	2.2	0.8			
CD11.4599.151	CD14.4199.151	CD11.4501.151	CD14.4101.151	2-4 pos.	1A		< 0.5 mA	68	2.2	10			
CD21.4599.151	CD24.4199.151	CD21.4501.151	CD24.4101.151	2-4 pos.	2A		< 0.5 mA	68	2.2	4			
CD31.4599.151	CD34.4199.151	CD31.4501.151	CD34.4101.151	2-4 pos.	4A		< 0.5 mA	68	2.2	1.5			
CD41.4599.151	CD44.4199.151	CD41.4501.151	CD44.4101.151	2-4 pos.	6A		< 0.5 mA	68	2.2	0.8			

* VDE Tamb 40°C; Values of fuses (time-lag): Isi ≤ In ; Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Casing with medical RFI filter (low leakage)											
CD without Bowden cable 2-pole fusing	CD with Bowden cable 2-pole fusing	Voltage selector	In (A) Ta 45°C*	Un (V)	Max. leakage current @ 250V/50Hz	C (nF)	L (mH)	Test voltage		Bowden cable	
								L, N E	L N		
CDG4.4101.151	CDG4.4199.151	2-4 positions	1	up to 250V max. 50/60 Hz	< 5 µA	68	10	2 kV 50 Hz 2 sec.	1625V DC 2 sec.	Bowden cables are supplied in standard or custom lengths. Please see page 40 for ordering instructions.	
CDA4.4101.151	CDA4.4199.151		2		< 5 µA	68	4				
CDC4.4101.151	CDC4.4199.151		4		< 5 µA	68	1.5				2
CDE4.4101.151	CDE4.4199.151		6		< 5 µA	68	0.8				2

Fusedrawer							
Voltage markings / terminal markings: 3 4 5 6	5 x 20mm		2-pole black, with shorting bar in the neutral side		1/4" x 1-1/4" (6.3 x 32mm)		2-pole grey, with shorting bar in the neutral side
	1-pole black	2-pole black	1-pole grey	2-pole grey			
With voltage selector: see selector chart on page 30 for .XX	Standard	4303.2114.XX	4303.2014.XX	4303.2036.XX	4303.2814.XX	4303.2714.XX	4303.2736.XX
	Medical *	4303.2124.XX	4303.2024.XX	4303.2037.XX	4303.2824.XX	4303.2724.XX	4303.2737.XX
Without voltage selector	Standard	4303.2406	4303.2401	4303.2411	4303.2907	4303.2902	4303.2912
	Medical *	4303.2408	4303.2403	4303.2413	4303.2909	4303.2904	4303.2914

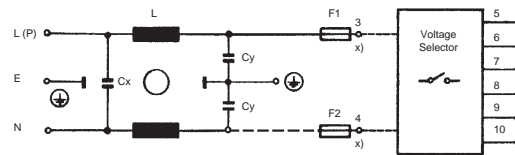
* Meets tool-only accessibility requirements of medical standards IEC 601-1, BS 5724 part 1, DIN/VDE 0750 part 1

CE Line Filter • AC Inlet • Series Parallel Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1/4" or 5 x 20mm Fuses



- For cold connections 65° C, Protection Class I. Qualifies for use in equipment according to IEC 950, IEC 664 Installation Category I & II.
- For attenuation graphs, see pages 66-71
- For general information on filters, see page 50
- For materials, options and accessories, see page 30
- For further description see unfiltered KE, page 41

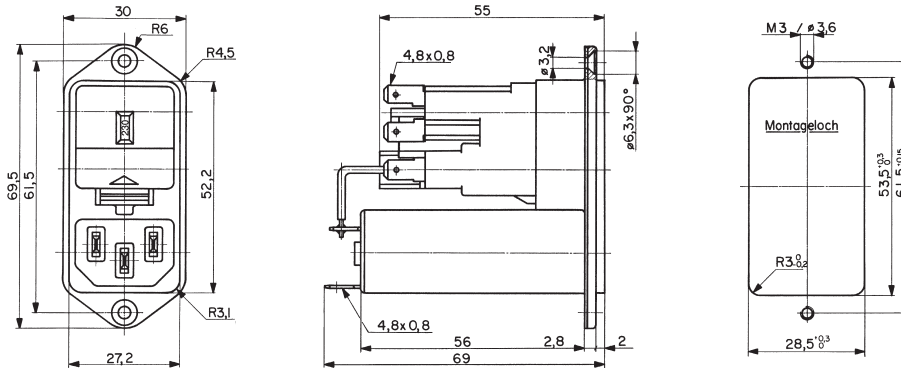
UL	recognition	1A-6A/250V	File #E72928
CSA	certification	1A-6A/250V	File #LR72559
VDE	approval	1A-6A/250V	File #58824
SEMKO	approval	1A-6A/250V	} File numbers on request
SEV	approval	1A-6A/250V	



x) Connections to be made by customer

Optional accessory cable for voltage selector wiring shown on page 43

Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320. Fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers

Three order numbers are needed to specify the CE, complete with casing, voltage selector insert and fusedrawer. For example:

1. CE10.6100.151 = Casing for screw mounting with internal connections and 2-pole protection
2. 4305.0048.01 = Voltage Selector Insert with markings 100, 120, 220, 240
3. 4305.0001 = Fusedrawer with 2-pole protection for 5 x 20mm fuses

Casing with standard RFI filter

CE with internal connections		In (A) Tamb 45° C*	Un (V)	Max. leakage current @ 250V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage	
1-pole fusing	2-pole fusing							L, N	E L N
CE16.5100.151	CE10.6100.151	1A	up to 250V max. 50/60 Hz	< 0.5 mA	68	2.2	10	2 kV 50 Hz 2 sec.	1625V DC 2 sec.
CE26.5100.151	CE20.6100.151	2A		< 0.5 mA	68	2.2	4		
CE36.5100.151	CE30.6100.151	4A		< 0.5 mA	68	2.2	1.5		
CE46.5100.151	CE40.6100.151	6A		< 0.5 mA	68	2.2	0.8		

* VDE Tamb 40°C; Values of fuses (time-lag): $I_{si} \leq I_n$; Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Order numbers for voltage selector inserts and fusedrawers shown on page 43.

Casing with medical RFI filter (low leakage)

CE	Voltage Selector	In (A) Tamb 45° C*	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	L (mH)	Test voltage	
2-pole fusing							L,N	E L N
CEG0.6100.151	series-parallel	1A	up to 250V max. 50 / 60 Hz	< 5 µA	68	10	2 kV 50 Hz 2 sec.	1625V DC 2 sec.
CEA0.6100.151	series-parallel	2A		< 5 µA	68	4		
CEC0.6100.151	series-parallel	4A		< 5 µA	68	1.5		
CEE0.6100.151	series-parallel	6A		< 5 µA	68	0.8		

* VDE Tamb 40°C

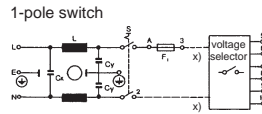
Order numbers for voltage selector inserts and fusedrawers shown on page 43.

CG Line Filter • AC Inlet • On/off Line Switch – Integral or Remote • Series Parallel Voltage Selector • Interchangeable Fusedrawer for 1/4 x 1 1/4" or 5 x 20mm Fuses

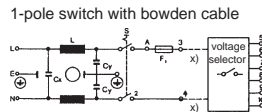
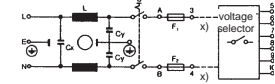


- For cold connections 65° C, Protection Class I. Qualifies for use in equipment according to IEC 950, IEC 664 Installation Category I & II.
- For attenuation graphs, see pages 66-71
- For materials, options and accessories, see page 30
- For further description see unfiltered KG, page 42

UL recognition 1A-6A/250V File #E72928
 CSA certification 1A-6A/250V File #LR72559
 VDE approval 1A-6A/250V File #58824
 SEMKO approval 1A-6A/250V } File numbers on request
 SEV approval 1A-6A/250V }

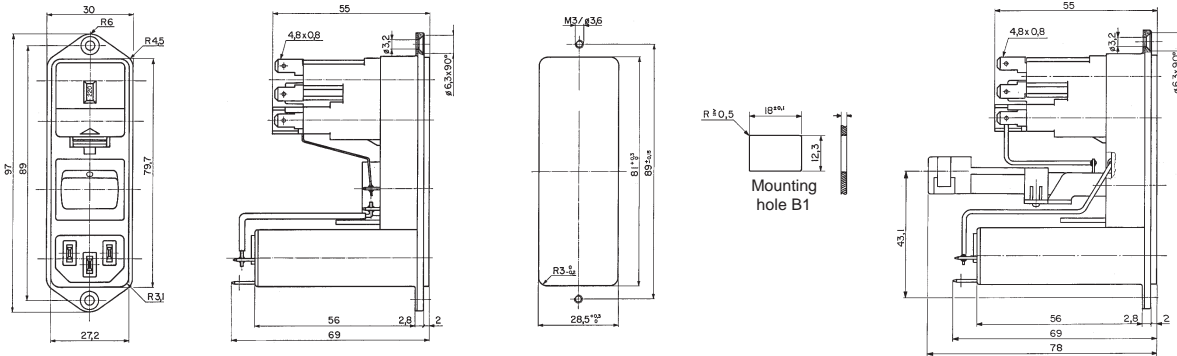


2-pole switch with or without bowden cable



x) Connections to be made by customer
 Optional accessory cable for voltage selector wiring shown on page 43

Standards: UL 1283; CSA C22.2/8; DIN/VDE 0565; IEC 320/C14; EN 60320. Fusedrawer meets tool-only accessibility requirements of medical standards IEC 601-1, BS5724 part 1, DIN/VDE 0750 part 1.



Order Numbers

Three order numbers are needed to specify the CG, complete with casing, voltage selector insert and fusedrawer. For example:

1. CG10.6101.151 = Casing for screw mounting with internal connections and 2-pole protection
2. 4305.0048.01 = Voltage Selector Insert with markings 100, 120, 220, 240
3. 4305.0001 = Fusedrawer with 2-pole protection for 5 x 20mm fuses

Casing with standard RFI filter

CG without Bowden cable	CG with Bowden cable	In (A)	Un (V)	Max. leakage current @ 250V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage L, N E L N	
1-pole fusing	2-pole fusing	1-pole fusing	2-pole fusing	Ta 45°C*					
CG16.5101.151	CG10.6101.151	CG15.6199.151	CG10.6199.151	1A	up to 250V	68	2.2	10	2 kV 50Hz DC 2 sec.
CG26.5101.151	CG20.6101.151	CG25.6199.151	CG20.6199.151	2A	max. 50/60 Hz	68	2.2	4	
CG36.5101.151	CG30.6101.151	CG35.6199.151	CG30.6199.151	4A		68	2.2	1.5	
CG46.5101.151	CG40.6101.151	CG45.6199.151	CG40.6199.151	6A		68	2.2	0.8	

* VDE Tamb 40°C; Values of fuses (time-lag): I_{si} ≤ I_n; Operable at 400 Hz (increase leakage current by factor 8 at 250V and 4 at 125V)

Order numbers for voltage selector insert and fusedrawer shown on page 43.

Bowden Cables are supplied in standard or custom length. Please see page 40 for ordering instructions.

Casing with medical RFI filter (low leakage)

CG w/o Bowden Cable	CG w/Bowden Cable	Voltage Selector	In (A)	Un (V)	Max. leakage current @ 250 V / 50 Hz	Cx2 (nF)	L (mH)	Test voltage L, N E L N
2-pole fusing	2-pole fusing		Tamb 45°C*					
CGG0.6101.151	CGG0.6199.151	series-parallel	1A	up to 250V	< 5 µA	68	10	2 kV 50 Hz DC 2 sec.
CGA0.6101.151	CGA0.6199.151	series-parallel	2A	max. 50 / 60 Hz	< 5 µA	68	4	
CGC0.6101.151	CGC0.6199.151	series-parallel	4A		< 5 µA	68	1.5	
CGE0.6101.151	CGE0.6199.151	series-parallel	6A		< 5 µA	68	0.8	

* VDE Tamb 40°C

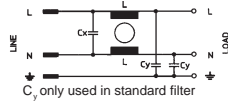
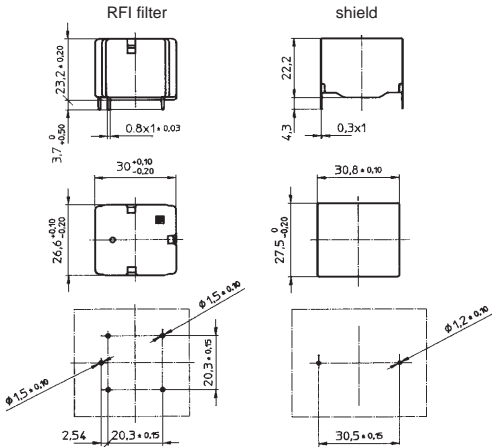
Order numbers for voltage selector inserts and fusedrawers shown on page 43.

FELCOM® Series 54 Power Entry Modules with Line Filter



RFI Filter for pc board mounting

- Used on the Felcom
- Shield available separately (German silver)
- Filter built according to UL 1283; CSA C22.2/8; DIN/VDE 0565
- For attenuation graphs, see pages 66-71



Standards: EN 60320; IEC 320/C14/F; DIN/VDE 0625; SEMKO 9320; CSA C22.2/8; UL 1283. U.S. Patented.

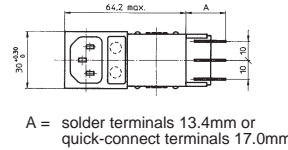
Series 5500 Order no.	Filter type	In (A) Tamb 40°C	Un (V)	Max. leakage current at 250V / 50 Hz	Cx2 (nF)	Cy (nF)	L (mH)	Test voltage			
								L	N	E	L N
5500.0155.1	standard	1	up to 250V max. 50 / 60 Hz	< 0.5 mA	47	2.2	11	2700 V DC 2 sec.			1075 VDC 2 sec.
5500.0255.1	standard	2		< 0.5 mA	47	2.2	4				
5500.0455.1	standard	4		< 0.5 mA	47	2.2	1.6				
5500.0655.1	standard	6		< 0.5 mA	47	2.2	0.7				
5500.0155.3	medical	1		< 5 µA	47	-	11				
5500.0255.3	medical	2		< 5 µA	47	-	4				
5500.0455.3	medical	4	< 5 µA	47	-	1.6					
5500.0655.3	medical	6	< 5 µA	47	-	0.7					
5500.0001	shield										



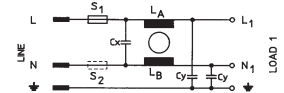
Plug removal necessary for fuse replacement

5411.XX5X.XXX

- IEC 320 inlet
- Fuseholder
- RFI filter (1, 2, 4, or 6A)
- See page 32, for KP inlet / fuseholder/ filter combination, which can also be mounted horizontally



A = solder terminals 13.4mm or quick-connect terminals 17.0mm

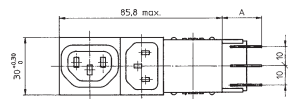


Mounting hole: 63^{+0.2} x 27.6^{+0.2} mm

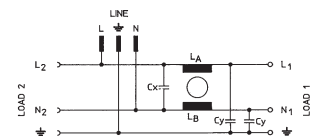


5421.X05X.XXX

- IEC 320 inlet/outlet
- RFI filter (1, 2, 4, or 6A)
- See page 32, for KP inlet / fuseholder/ filter combination, which can also be mounted horizontally



A = solder terminals 13.4mm or quick-connect terminals 17.0mm



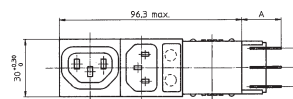
Mounting hole: 85.9^{+0.2} x 27.6^{+0.2} mm



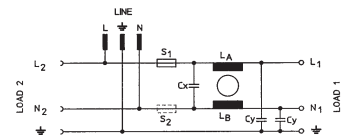
Plug removal necessary for fuse replacement

5423.XX5X.XXX

- IEC 320 inlet/outlet
- Fuseholder
- RFI filter (1, 2, 4, or 6A)



A = solder terminals 13.4mm or quick-connect terminals 17.0mm



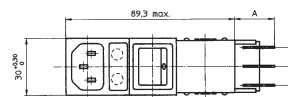
Mounting hole: 96.4^{+0.2} x 27.6^{+0.2} mm



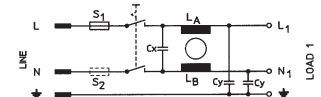
Plug removal necessary for fuse replacement

5424.XX5X.XXX

- IEC 320 inlet
- Fuseholder
- On/off switch
- RFI filter (1, 2, 4, or 6A)



A = solder terminals 13.4mm or quick-connect terminals 17.0mm



Mounting hole: 87.9^{+0.2} x 27.6^{+0.2} mm

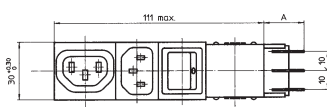
see next page for technical data and ordering instructions

FELCOM® Series 54 Power Entry Modules with Line Filter, cont'd

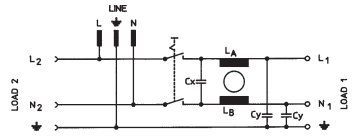


5431.X05X.XXX

- IEC 320 inlet/outlet
- On/off switch
- RFI filter (1, 2, 4, or 6A)



A = solder terminals 13.4mm or quick-connect terminals 17.0mm



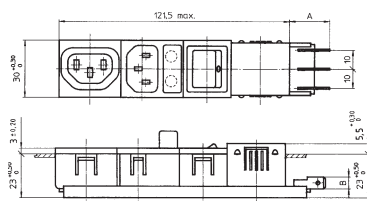
Mounting hole: 111.1^{+0.2} x 27.6^{+0.2} mm



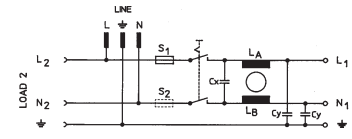
5432.XX5X.XXX

- IEC 320 inlet/outlet
- Fuseholder
- On/off switch
- RFI filter (1, 2, 4, or 6A)

Plug removal necessary for fuse replacement



A = solder terminals 13.4mm or quick-connect terminals 17.0mm



Mounting hole: 121.6^{+0.2} x 27.6^{+0.2} mm

- For cold connections 65° C, Protection Class I
- Filter version of Felcom® Series 64 modules
 - Nominal current at 40° C: 1, 2, 4 or 6A / 250V, 50 Hz
 - Leakage current: < 0.5mA / 250V or < 5μA / 250V (for medical applications)
- Snap-in mounting for 1mm – 3mm panel thickness
- Single or double pole shock-safe fuseholder for 5 x 20mm fuses (plug removal necessary for fuse replacement)
- DPST on/off line switch (non-illuminated)
- Solder terminals .138 x .032" (3.5 x 0.8mm) or quick-connect terminals .250 x .032" (6.3 x 0.8mm)
- Individual component modules are soldered on a printed circuit board, fully insulated from the rear
- Shallow depth behind the panel (23mm)
- IEC 320 inlet according to EN 60320, IEC 320/C14
- IEC 320 outlet according to EN 60320, IEC 320/F
- Body: thermoplastic
Terminals: brass, tin-plated
- Max. power dissipation values on request (see page 5 for more information)
- For attenuation graphs, see page 66-71
- For general information on filters, see pages 50

Options:

- Other combinations available on request. Contact Schurter, Inc. for part numbers and minimum order requirements.
- For individual FELCOM® components, see page 47
- For FELCOM® without filter, see page 45
- For cord retaining clamp, see page 27
- For mating IEC 320 inlet plugs 4300.0602/0606, see page 23
- For mating IEC 320 outlet plugs 4300.0407/0411, see page 22
- To order fuses, see page 102

- Approvals: (1, 2, 4, 6A/250V)
- | | | |
|-------|---------------|---------------------------|
| UL | recognition | File #E72928 |
| CSA | certification | File #LR97784-1 |
| VDE | approval | File #68313 |
| SEMKO | approval | } File numbers on request |
| SEV | approval | |

Order Numbers:

5 4 X X . X X X X . X X X

5	4	X	X	.	X	X	X	.	X	X	X

Type of RFI filter
1 = standard
3 = medical

Snap-in panel thickness
10 = 1.0 mm
12 = 1.2 mm
15 = 1.5 mm
20 = 2.0 mm
25 = 2.5 mm
30 = 3.0 mm

Terminals
51 = Solder terminals .138 x .032" (3.5 x 0.8mm)
53 = quick-connect terminals .250 x .032" (6.3 x 0.8mm)

Fuseholder
0 = without fuseholder
1 = single pole, for 5 x 20mm fuse
2 = double pole, for 5 x 20mm fuses

RFI filter
1 = 1 amp
2 = 2 amp
4 = 4 amp
6 = 6 amp

Standard combinations
11 = IEC 320 inlet, fuseholder, filter
21 = IEC 320 inlet/outlet, filter
23 = IEC 320 inlet/outlet, fuseholder, filter
24 = IEC 320 inlet, fuseholder, switch, filter
31 = IEC 320 inlet/outlet, switch, filter
32 = IEC 320 inlet/outlet, fuseholder, switch, filter

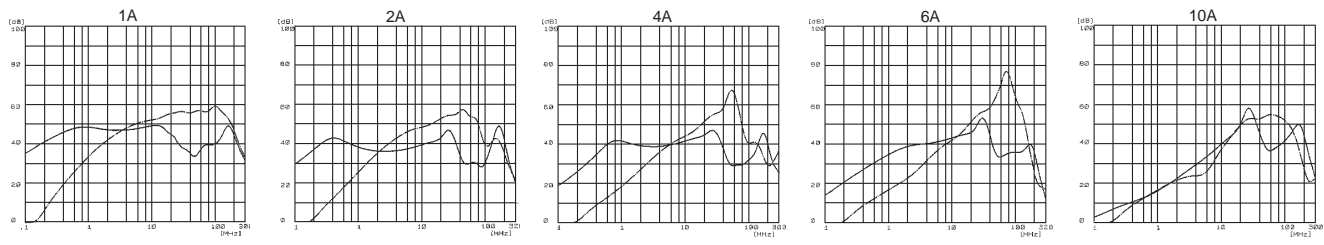


Base model

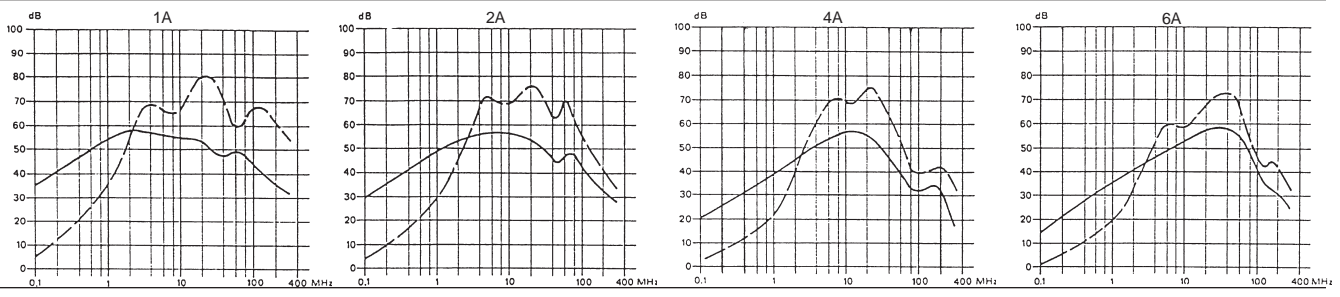
Attenuation Loss – Standard Filters

----- symmetrical (differential mode): Line to line ——— asymmetrical (common mode): Line to ground

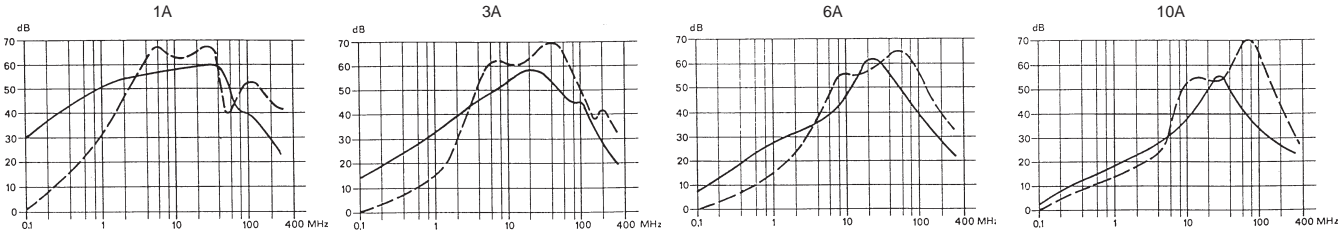
KFS / KFX
page 52



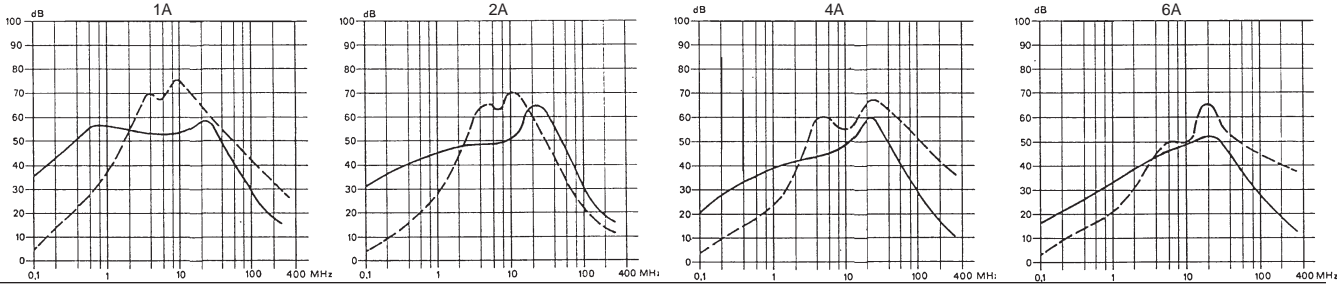
5100
page 52



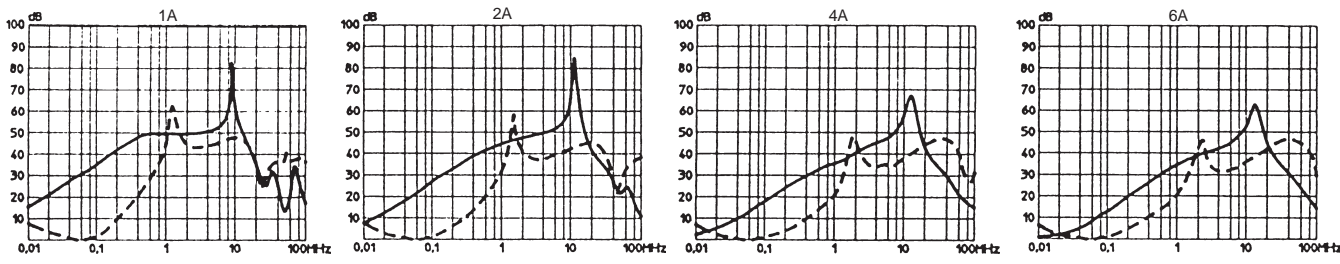
5110
page 52



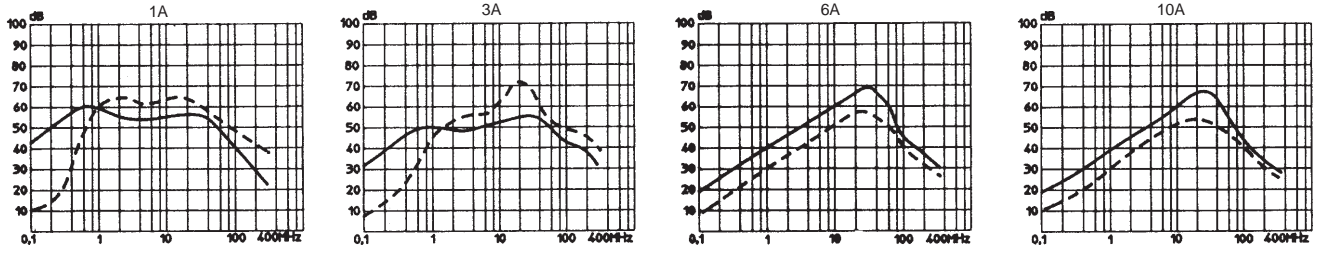
5200 / 5220
page 57



5500
page 64

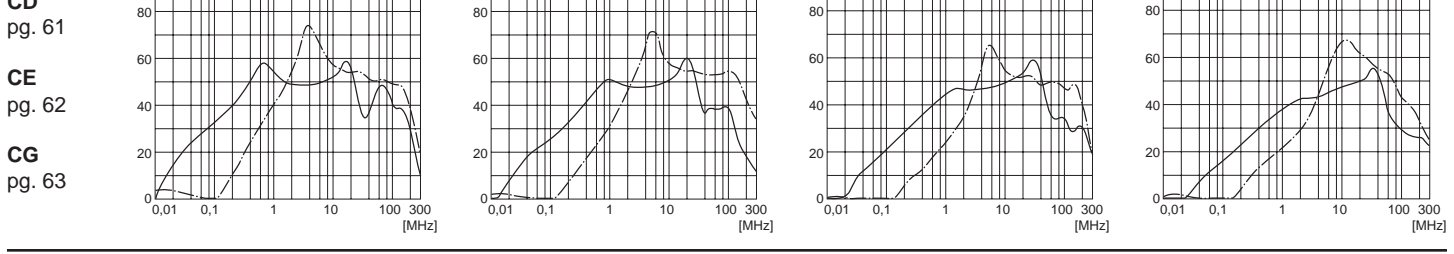
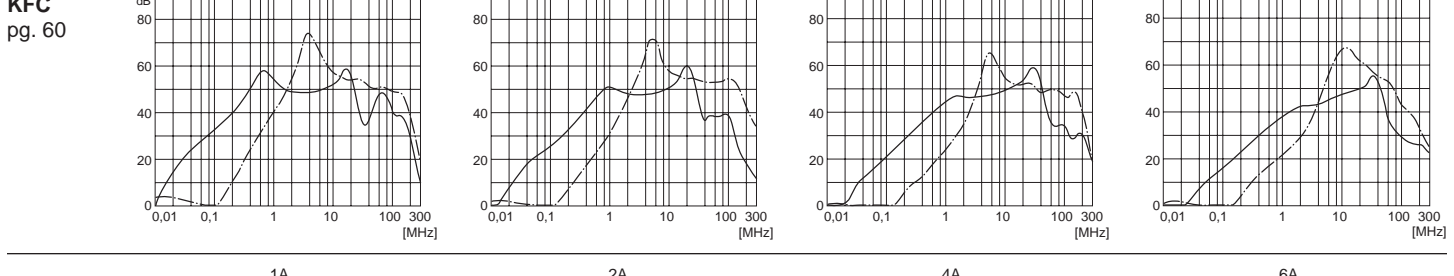
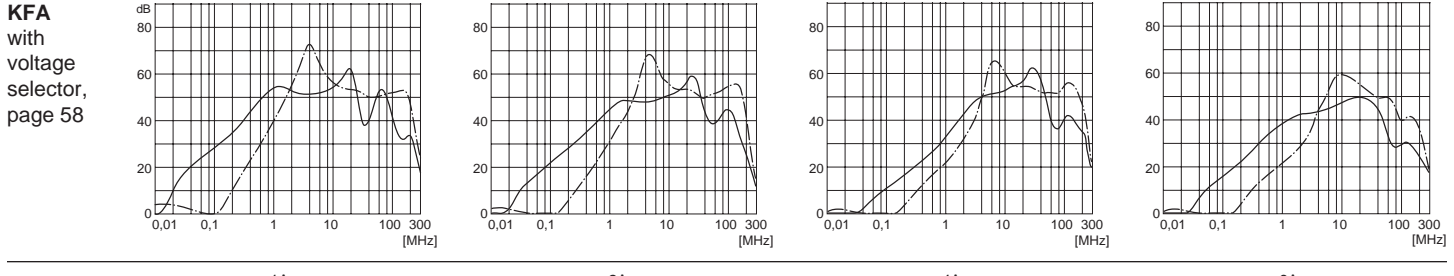
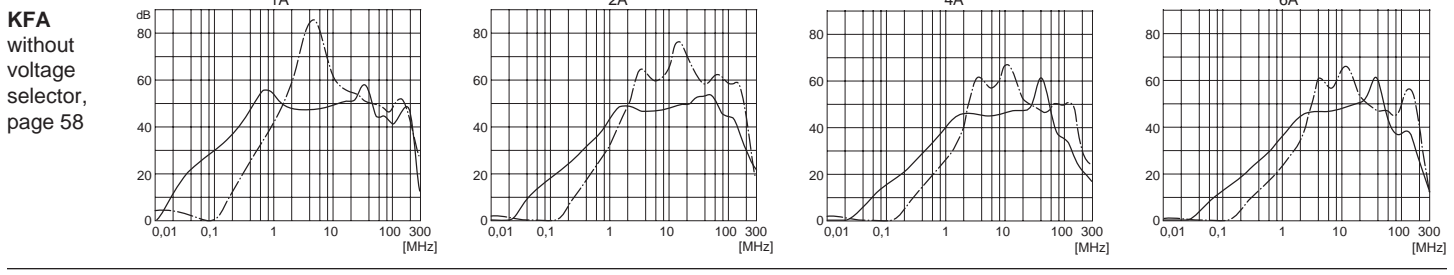
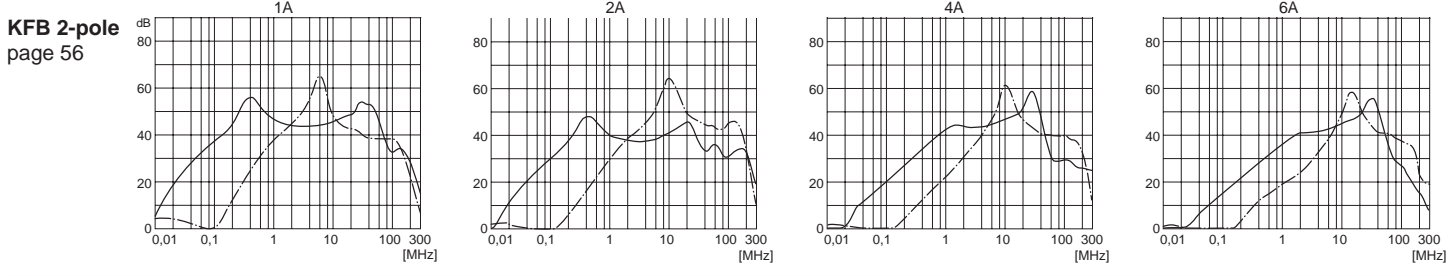
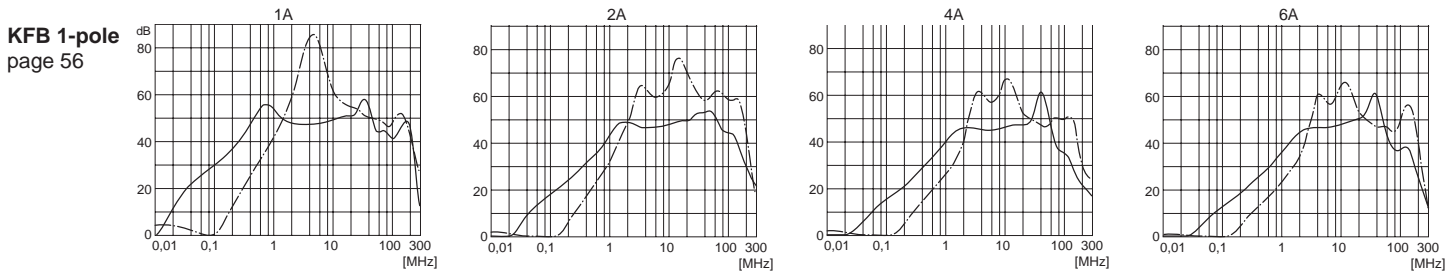


8843
page 59



Attenuation Loss – Standard Filters, continued

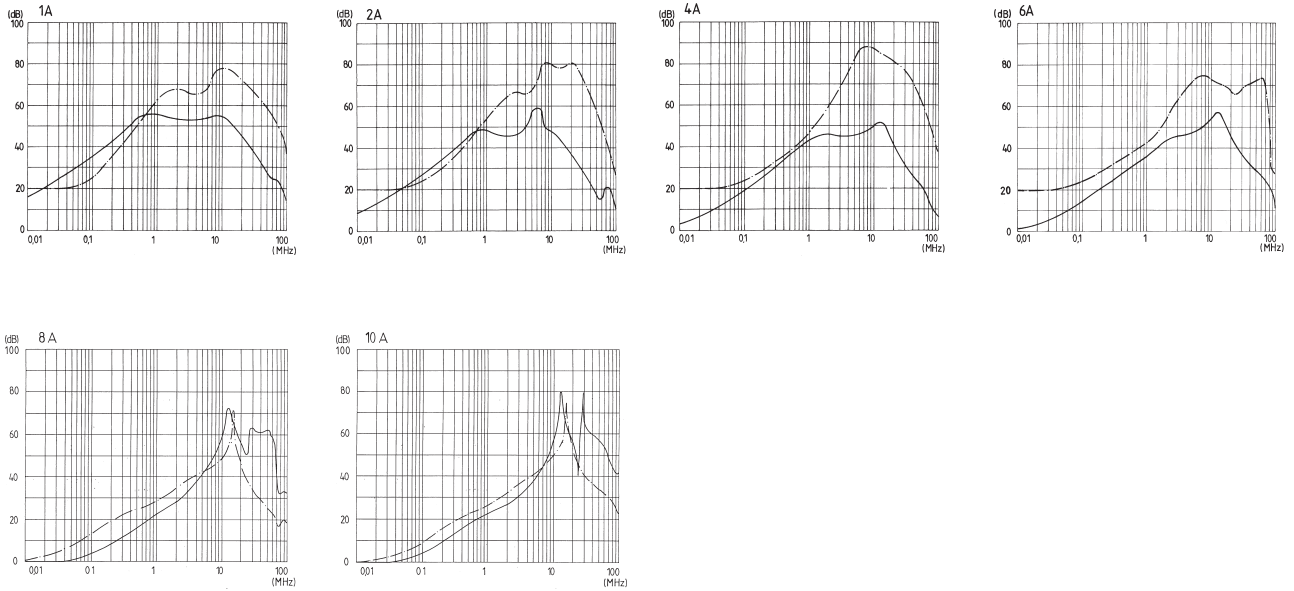
----- symmetrical (differential mode): Line to line ——— asymmetrical (common mode): Line to ground



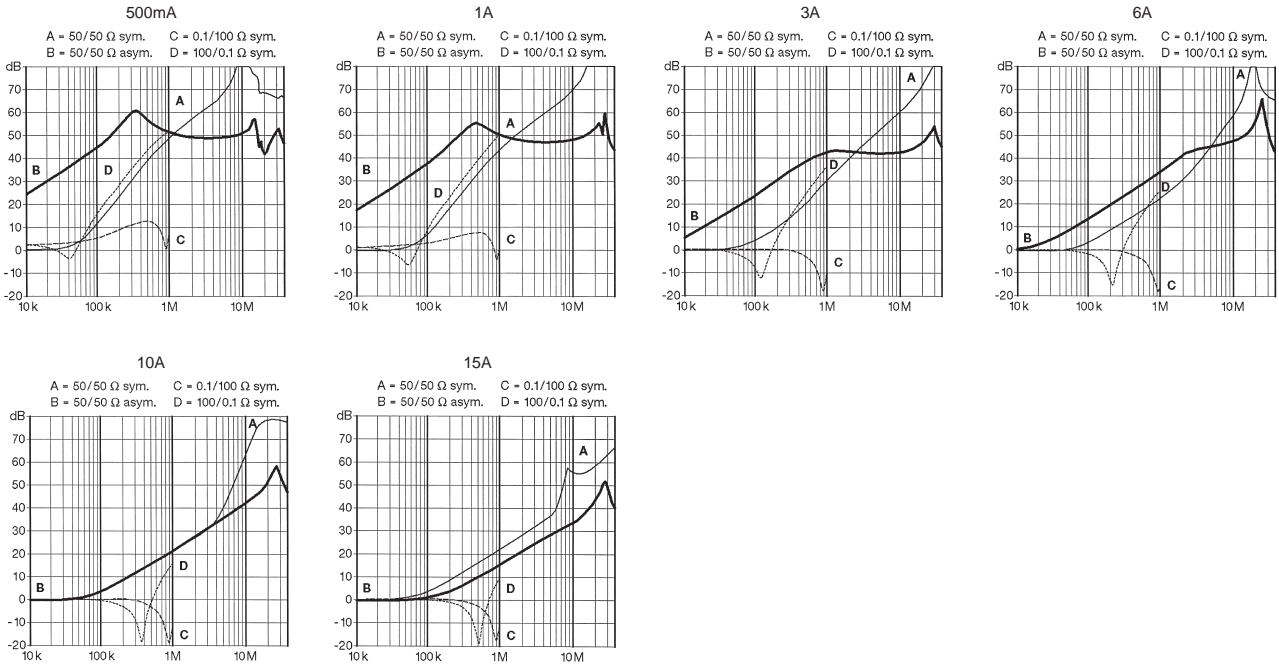
Attenuation Loss – Standard Filters

----- symmetrical (differential mode): Line to line ——— asymmetrical (common mode): Line to ground

KPF
page 55



GRF
page 53/54



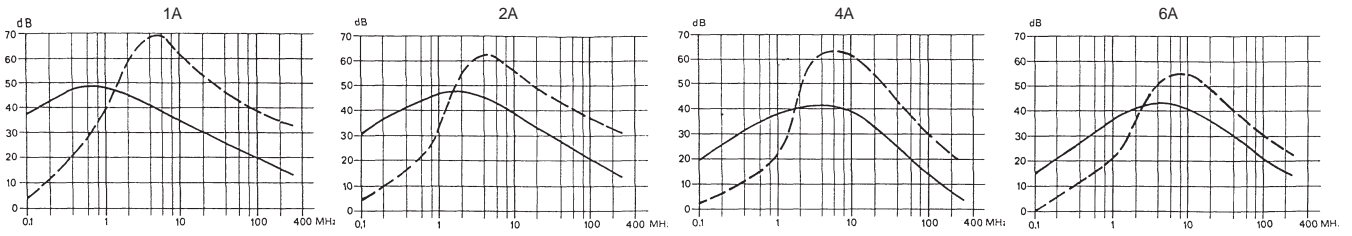


Attenuation Loss – Medical Filters

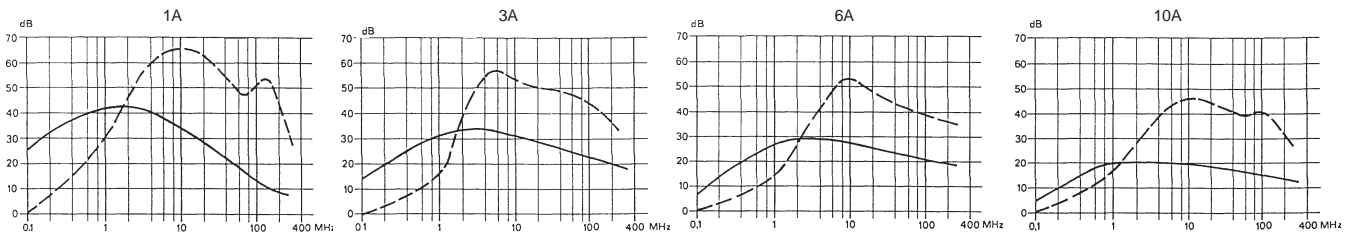
----- symmetrical (differential mode): Line to line

———— asymmetrical (common mode): Line to ground

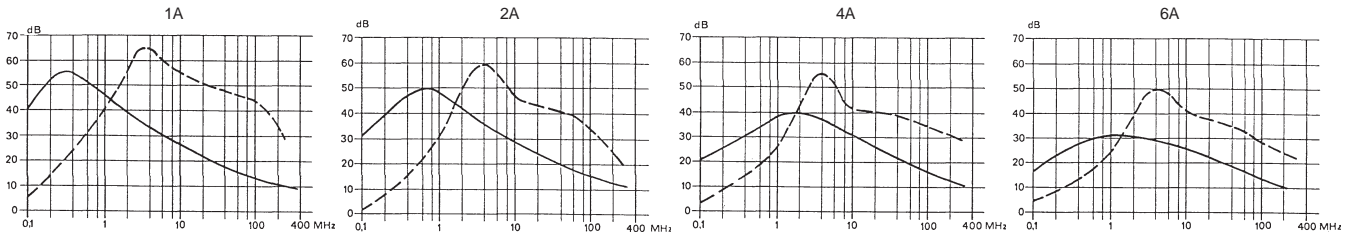
5100
page 52



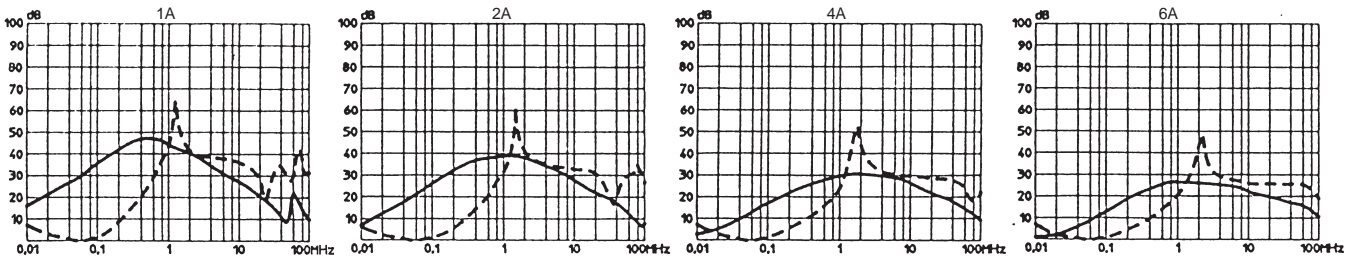
5110
page 52



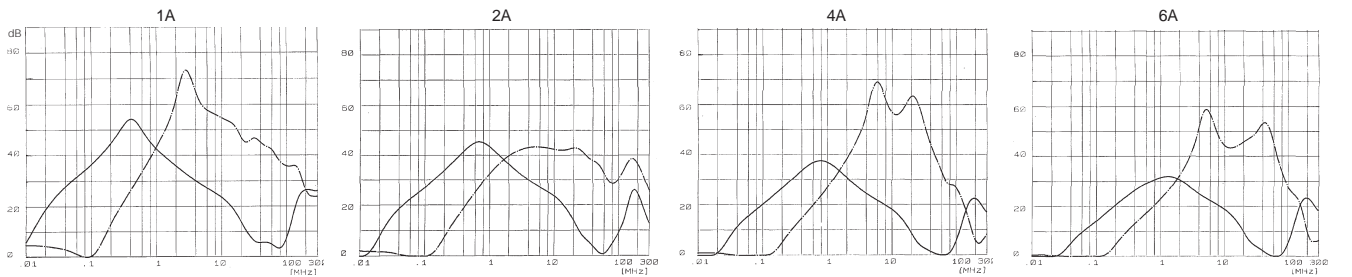
5200 / 5220
page 57



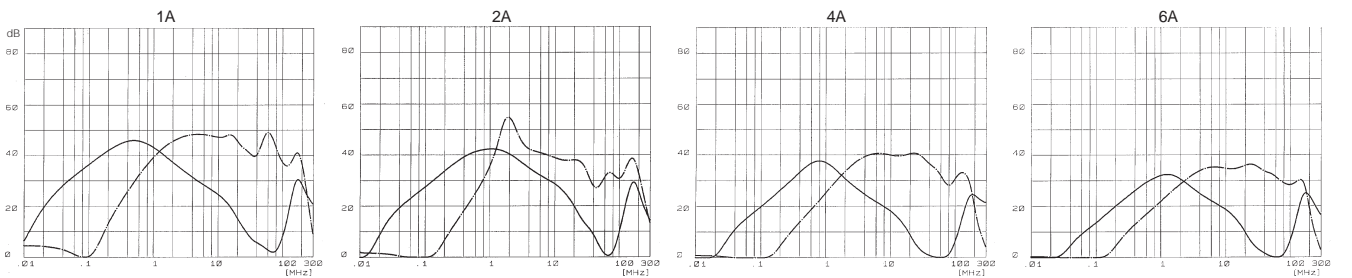
5500
page 64



KFB 1-pole
page 56



KFB 2-pole
page 56



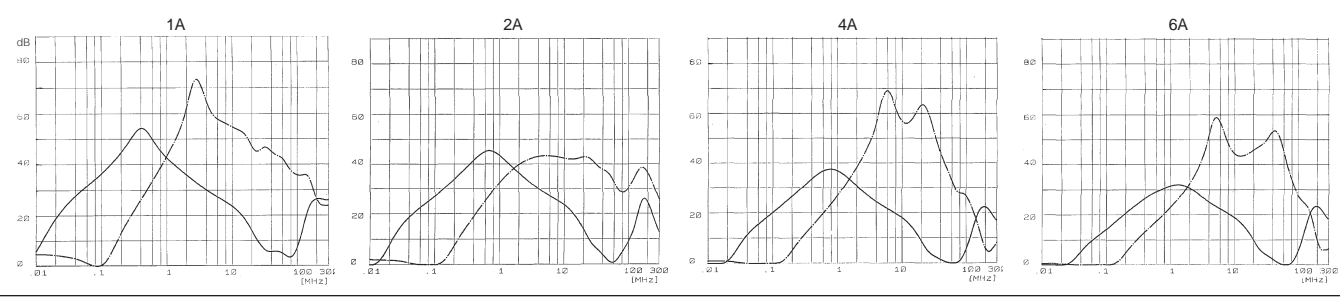


Attenuation Loss – Medical Filters, continued

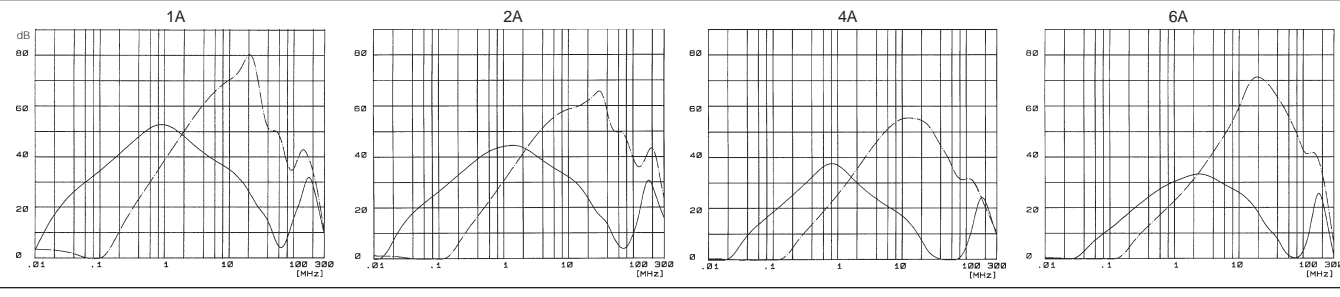
----- symmetrical (differential mode): Line to line

———— asymmetrical (common mode): Line to ground

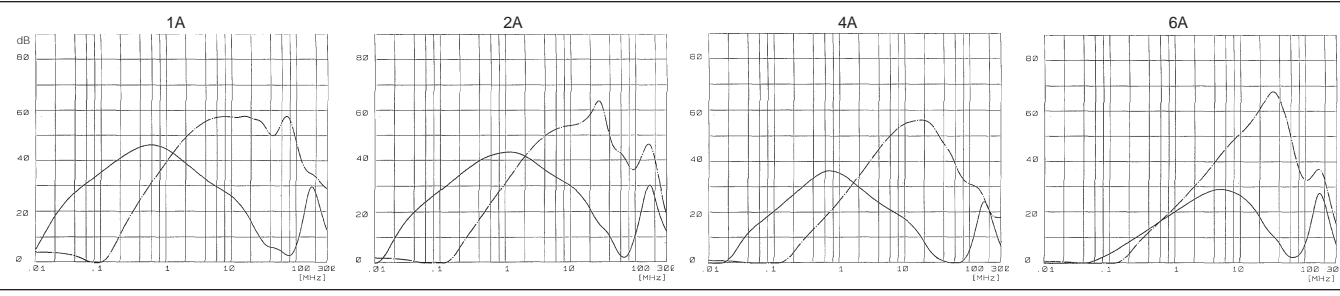
KFA
without
voltage
selector,
page 58



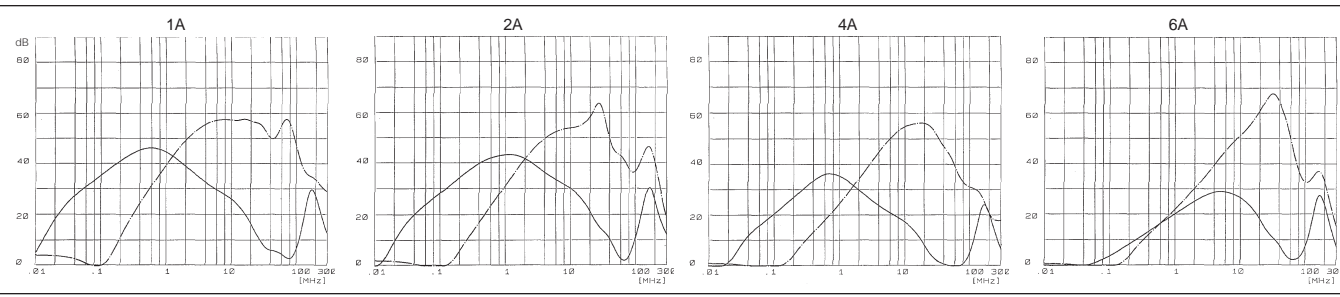
KFA
with
voltage
selector
page 58



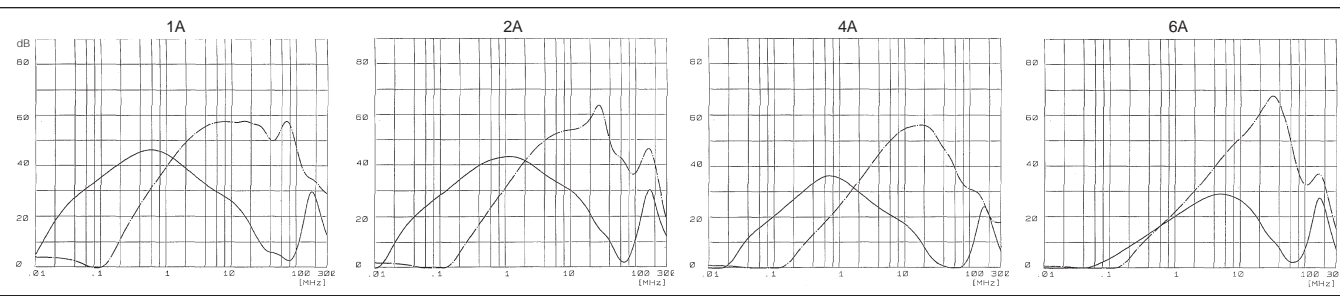
KFC
page 60



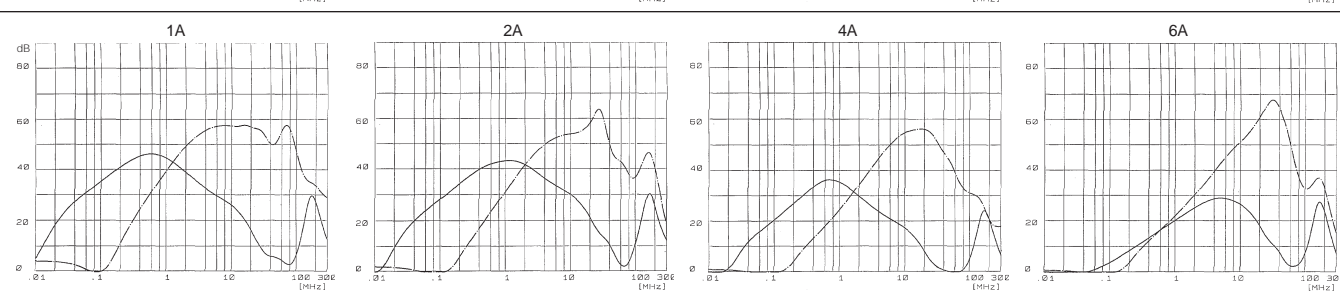
CD
page 61



CE
page 62



CG
page 63



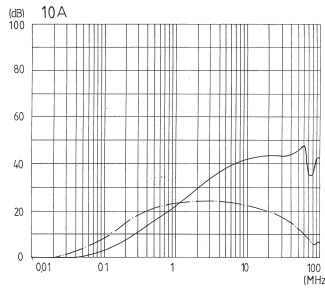
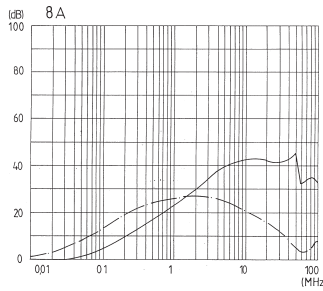
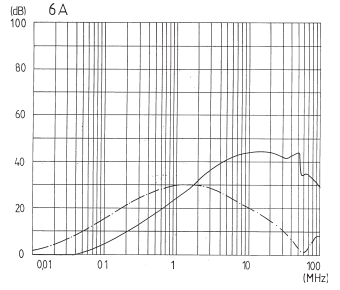
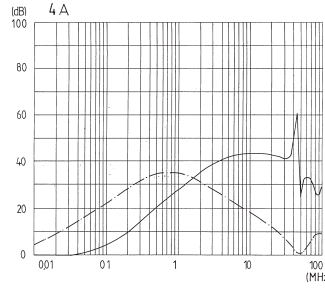
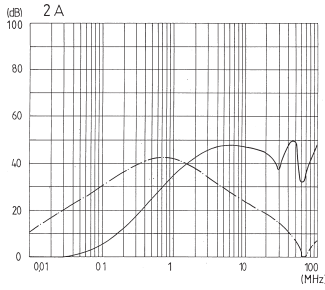
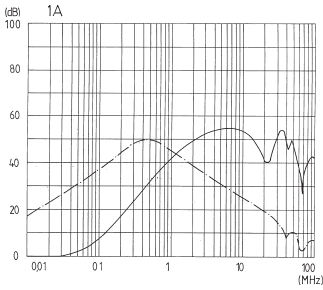


Attenuation Loss – Medical Filters, continued

----- symmetrical (differential mode): Line to line

———— asymmetrical (common mode): Line to ground

KPF
page 55



GRF
page 53/54

