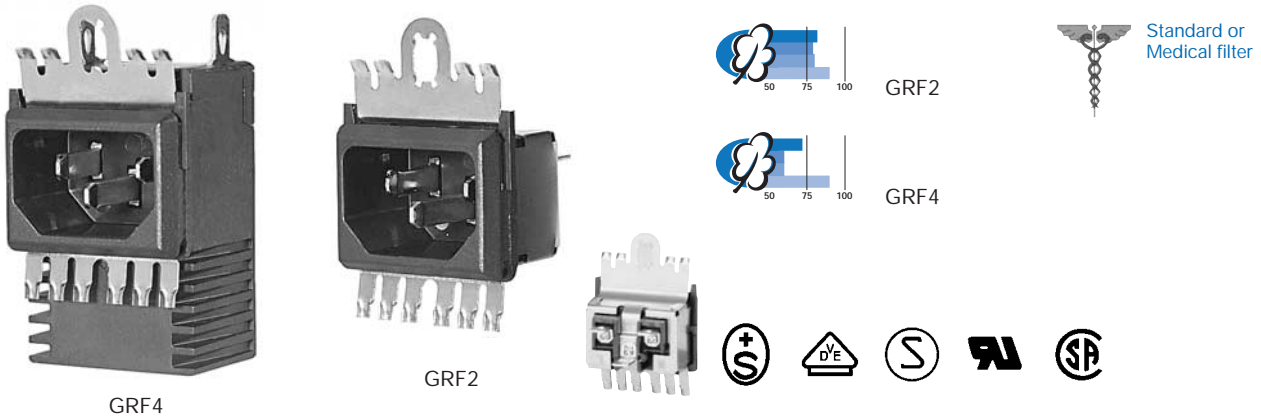


**Power entry module Types GRF2, GRF4**

- Panel mount: snap-in, rear-side
- GRF2: Appliance inlet with EMC-shield
- GRF4: Appliance inlet with line filter and EMC-shield



**Characteristics of type GRF4:**

- Time saving “Lock and Shield” snap-in design
- Innovative EMC-shielding with flexible steel segments for an excellent contact to the panel
- Qualified for use in equipment according to IEC/EN 60950

**Characteristics of type GRF2:**

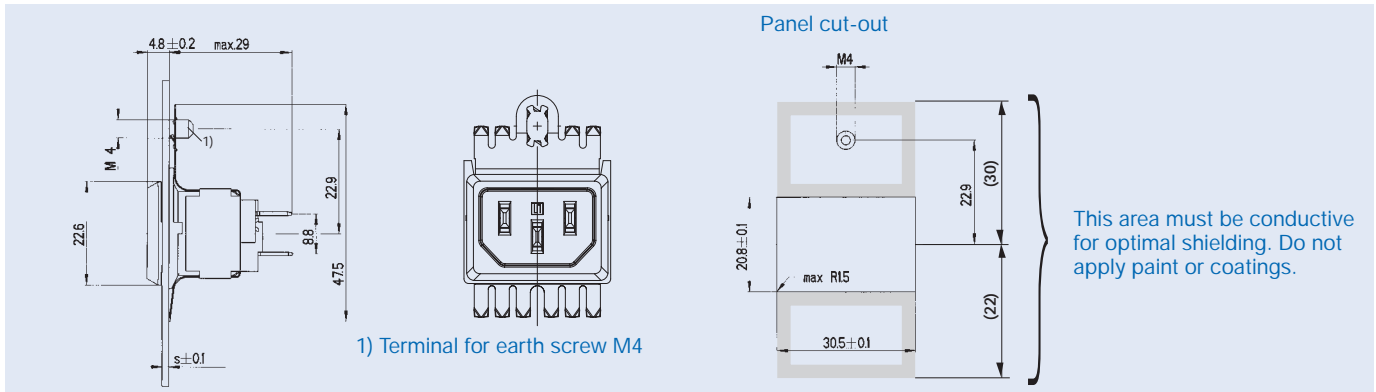
- Same like GRF4, but without line filter

**Technical data**

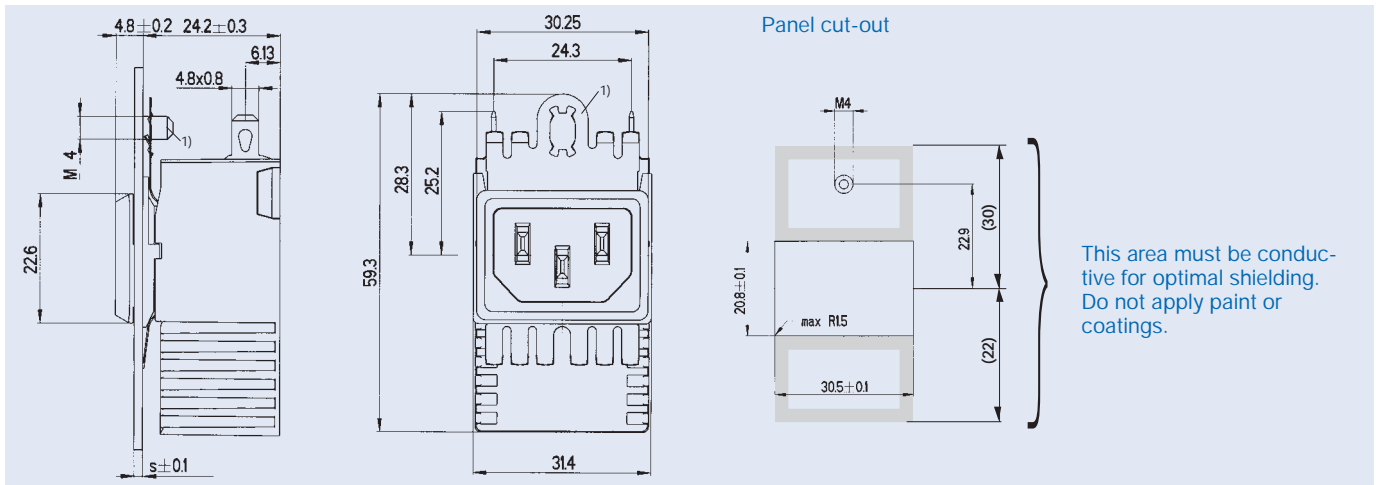
Rated voltage		125/250 VAC; 50/60 Hz
Rated currents	GRF4	0,5–10 A; @T <sub>a</sub> 40 °C; SEV, VDE, Semko
	GRF2	0,5–15 A; @T <sub>a</sub> 40 °C; UL, CSA 10 A; SEV, VDE, Semko 15 A; UL, CSA
Leakage current, Standard		< 0,5 mA (250 V/60 Hz)
Medical		< 5 µA (250 V/60 Hz)
Test voltage (2 sec)		1,7 kVDC between L-N 2,7 kVDC between L/N-PE
Allowable ambient air temperatures T <sub>a</sub>		-25 °C to +85 °C
Climatic category		25/085/21 acc. to IEC/EN 60068-1
Degree of protection (front-side)		IP 40 acc. to IEC 60529
Protection class		suitable for equipment with prot. cl. I, acc. to IEC 61140
Terminals		solder-/quick-connect 4,8 x 0,8 mm
Panel thickness s	GRF4	standard 1,5 mm (1,2/2 mm on request)
	GRF2	1,2/1,5/2 mm
Materials: Housing/cover		Thermoplastic, black, UL94 V-0
Appliance-inlet		acc. to IEC/EN 60320-1/C14, Protection class I, pin-temperature 70 °C (cold condition)
Line filter, standard and medical		acc. to IEC 60939, EN 133 200, UL 1283, CSA C 22.2 no. 8 Technical details see page 202

Patents in U.S. (No. 5, 690, 512) and in further countries

Dimensions



Dimensions GRF4



Mounting instructions

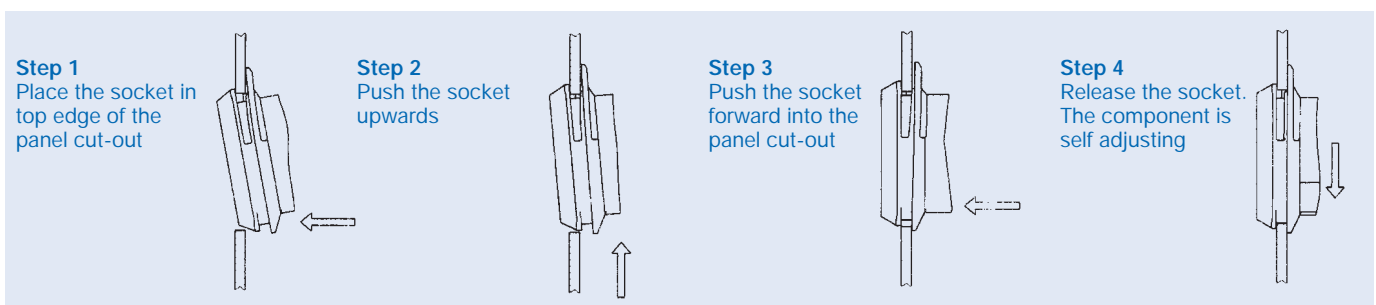
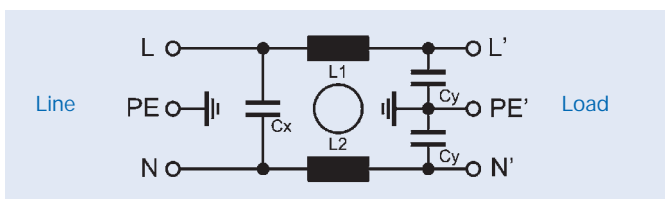
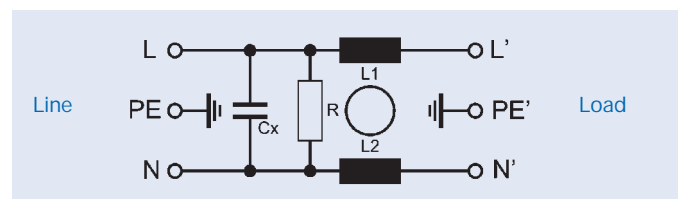


Diagram GRF4  
Standard version



Medical version



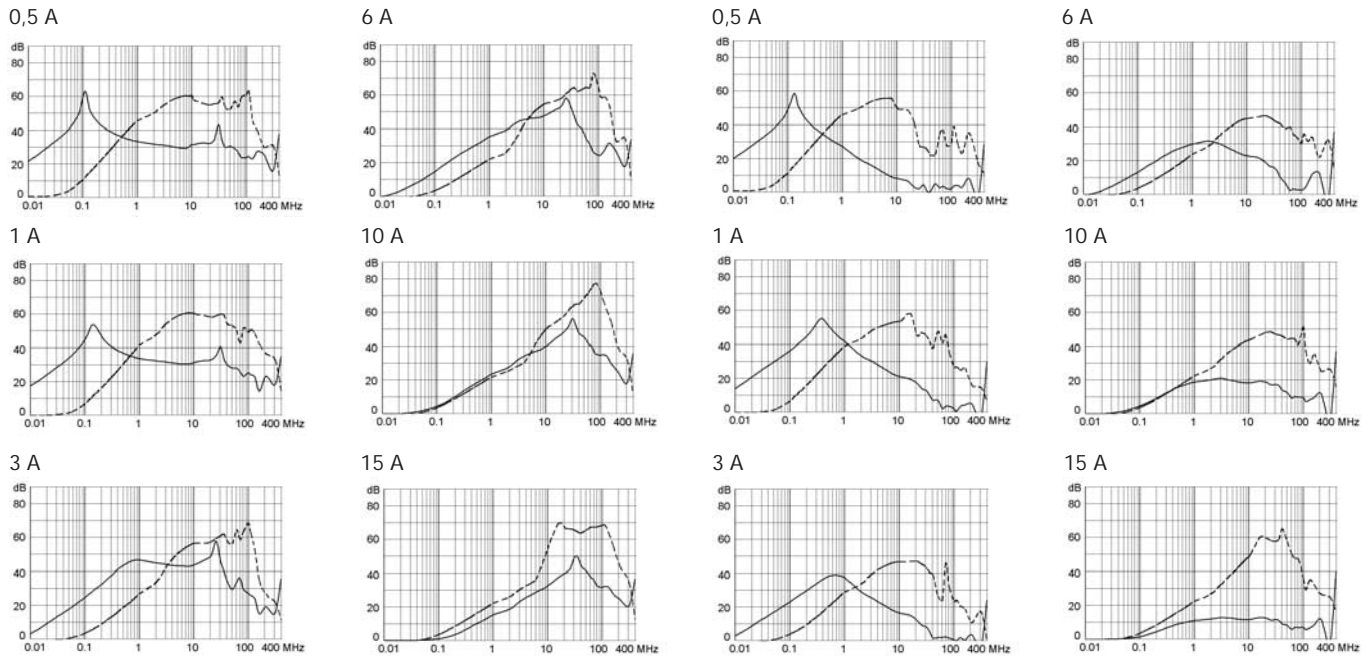
Technical data of filter-components

Rated current (A)	Filter-Type	Inductance L1/L2 (mH)	Capacitance		R (MΩ)
			CX (nF)	CY (nF)	
0,5	Standard	2 x 24	100	2 x 2,2	-
1		2 x 12			
3		2 x 2,5			
6		2 x 0,78			
10		2 x 0,225			
15		2 x 0,075			
0,5	Medical	2 x 24	100	-	1
1		2 x 12			
3		2 x 2,5			
6		2 x 0,78			
10		2 x 0,225			
15		2 x 0,075			

Attenuation loss

Standard version  
 differential mode .....  
 common mode \_\_\_\_\_

Medical version



Order Numbers

Type	Order no	Rated current	Filter-Type	Additional ground terminal	Panel thickness s		
					1,2 mm	1,5 mm	2,0 mm
GRF2	GRF2.0312.11	10/15 A	without	**)	•	•	•
	GRF2.0315.11				•	•	•
	GRF2.0320.11				•	•	•
	GRF2.0212.11	10/15 A	without	**)	•	•	•
	GRF2.0215.11				•	•	•
	GRF2.0220.11				•	•	•
GRF4	GRF4.0411.013	0,5 A	Standard	**)	}*)	•	}*)
	GRF4.0412.013	1 A				•	
	GRF4.0413.013	3 A				•	
	GRF4.0416.013	6 A				•	
	GRF4.0417.013	10 A				•	
	GRF4.0419.013	15 A				•	
	GRF4.0021.013	0,5 A	Medical	**)	}*)	•	}*)
	GRF4.0022.013	1 A				•	
	GRF4.0023.013	3 A				•	
	GRF4.0026.013	6 A				•	
	GRF4.0027.013	10 A				•	
	GRF4.0029.013	15 A				•	

\*) on request \*\*) solder-/quick-connect 4,8 x 0,8 mm