

**Connectors according to DIN 41612 / IEC 60603-2**  
**Technical specifications**

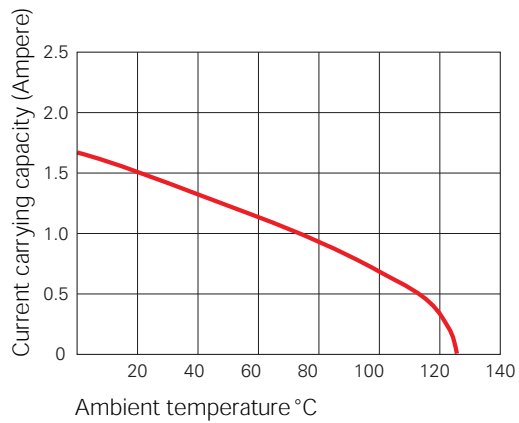
## Technical specifications

Types according to IEC 60603-2		B, B/2, B/3	C, C/2, C/3	D	E	F	G	H		VME 64x	
Inverted type			R, R/2, R/3								
Maximum no. of contacts		64/32/20	96/48/30	32	48	48	64	11	15	160	
Contact row designation of male and female connectors		a b	a b c	a c	a c e	z b d	z b d f	b	z d	z a b c d a b c   z d	
Operating temperature range		-55 °C to +125 °C						-65 °C to +125 °C		-55 °C to +125 °C	
Creepage (K) and clearance (L) in mm	Within a row	K	1.2 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	8.0 mm	8.0 mm	1.2	1.0
		L	1.2 mm	3.0 mm	1.6 mm	1.6 mm	4.5 mm	4.5 mm	1.2	1.0	
	Between the rows	K	1.2 mm	3.0 mm	3.0 mm	3.0 mm	8.0 mm	8.0 mm	1.2	1.2	
		L	1.2 mm	3.0 mm	1.6 mm	1.6 mm	4.5 mm	4.5 mm	1.2	1.2	
Max. operating current at ambient temperature	I		See diagrams on page 81								
	+ 20 °C		1.5 A	5.6 A				15 A		1.5 A	
	+ 70 °C		1.1 A	4.0 A				11 A		1.1 A	
	+ 100 °C		0.7 A	2.5 A				8 A		0.7 A	
Test voltage, 50 Hz, 1 minute											
Contact/contact	V <sub>rms</sub>	1000 V	1550 V	1550 V	1550 V	3100 V	1000 V				
Contact/ground	V <sub>rms</sub>	1550 V	1550 V	2500 V	2500 V	3100 V	1550 V				
Contact resistance	R	< 20 mΩ	< 15 mΩ				< 8 mΩ		20 mΩ	< 30 mΩ	
Insulation resistance	R	> 10 <sup>8</sup> MΩ								10 <sup>4</sup> MΩ	
Durability according to DIN EN 60603-2	Performance level I = 500 mating cycles									500 mating cycles	
	Performance level II = 400 mating cycles									250 mating cycles	
	Performance level III = 50 mating cycles									–	
Engaging and separating force for the complete, fully equipped connector	F	64 contacts < 60 N 96 contacts < 90 N	< 40 N	< 60 N	< 75 N	< 100 N	< 80 N	< 90 N	160 N		
		32 contacts < 30 N 48 contacts < 45 N									
		20 contacts < 18 N 30 contacts < 28 N									
Separating force per contact (test measuring device)	F	> 0.15 N				> 0.2 N			> 0.15 N		
Design female contact	Double contact										
Insulator material	PBT glass filled, UL 94 V-0 PC fiber-glass reinforced, not combustible acc. to UL 94 V-1 PA glass filled, UL 94 V-0										
Environment/approvals	RoHS compliant/UL (file: E130314)										

**\* Note on press-fit technology:**

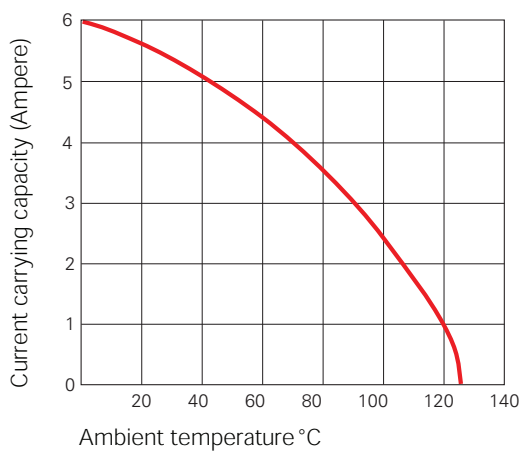
Printed circuit boards with flame protection FR-4 or FR-6 are permissible up to a temperature of 115 °C. The press-fit standard IEC 60352-5 only specifies the press-fit connection up to an working temperature of 85 °C. For working temperatures that exceed 85 °C, it is recommended that the press-fit connection is qualified application-specific by ept.

## Derating diagrams



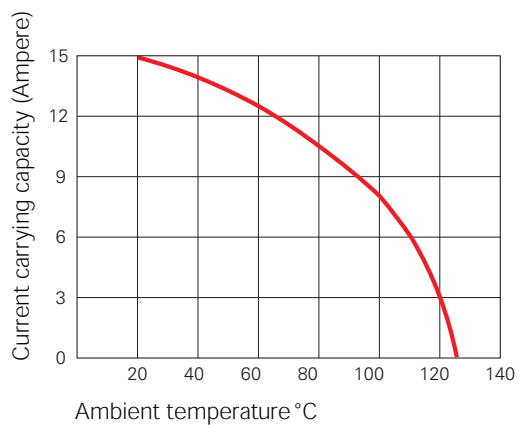
### Type B, C, R

20°C	1.5 A
70°C	1.1 A
100°C	0.7 A



### Type D, E, F, G

20°C	5.6 A
70°C	4.0 A
100°C	2.5 A



### Type H11

20°C	15 A
70°C	11 A
100°C	8 A