

DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics



	Standard	B, B/2, B/3, C, C/2, C/3, Q, Q/2, Q/3, R, R/2, R/3, CD, RD, TE, E80, E160, ECC	M
Number of Pins		20, 30, 32, 48, 64, 80, 96, 128, 160	6, 24, 42, 60, 78
Technical data			
Climate Category	DIN EN 60068-1 test b	55/125/56	55/125/56
Temperature range		-55/125 °C	-55/125 °C
Current rating	IEC60512 test 5b	Ambient temperature 20 °C 2.0 A 70 °C 1.6 A 100 °C 1.0 A	Ambient temperature 20 °C 2.0 A 70 °C 1.6 A 100 °C 1.0 A
Clearance and creepage distance		contact - contact 1.2 mm contact - ground 1.8 mm contact - ground 1.6 mm (clearance)	contact - contact 1.2 mm contact - ground 3.0 mm contact - ground 2.5 mm (clearance)
CTI value	IEC 60112	225 (Standard and THR) 250 (Inverted Versions)	225
Voltage rating	IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664
Dielectric strength	IEC 60512	contact - contact 1000 V _{rms} contact - ground 1550 V _{rms}	contact - contact 1000 V _{rms} contact - ground 1550 V _{rms}
Contact resistance	IEC 60512 test 2a	< 20 mΩ	< 20 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 ⁴ MΩ	> 10 ⁴ MΩ
Vibration sine	IEC 60512 test 6d	10 – 2000 Hz 20 g	10 – 2000 Hz 20 g
Contact interruption (while vibration test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Shock halvesine	IEC 60512 test 6c	50 g 11 ms	50 g 11 ms
Contact interruption (while shock test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	Class 1: 500 mating cycles Class 2: 400 mating cycles	Class 1: 500 mating cycles Class 2: 400 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	20 cont.: 18 N max. 30 cont.: 28 N max. 32 cont.: 30 N max. 48 cont.: 45 N max. 64 cont.: 60 N max. 96 cont.: 90 N max. 128 cont.: 100 N max. 160 cont.: 110 N max.	6 cont.: 5 N max. 24 cont.: 22 N max. 42 cont.: 40 N max. 60 cont.: 57 N max. 78 cont.: 74 N max. With special contacts max. 100 N
Gauge retention force per contact	IEC 60512 test 16e	> 0.15 N	> 0.15 N

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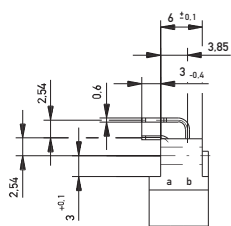
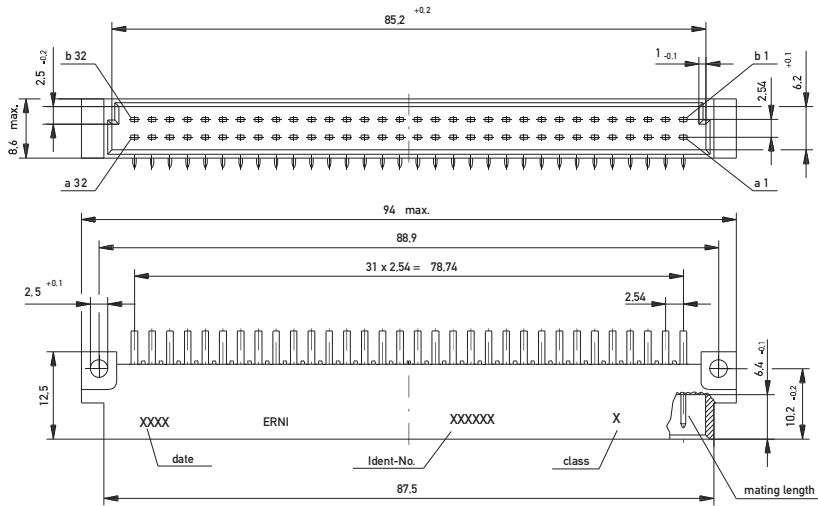
Standard	B, B/2, B/3, C, C/2, C/3, Q, Q/2, Q/3, R, R/2, R/3, CD, RD, TE, E80, E160, ECC	M
Number of Pins	20, 30, 32, 48, 64, 80, 96, 128, 160	6, 24, 42, 60, 78
Process-conditions		
Solder temperature max.	IEC 68-2-20	
Hand soldering temperature max.	3.5 s at 350 °C	3.5 s at 350 °C
Dip soldering temperature max.	10 s at 260 °C	10 s at 260 °C
Reflow soldering temperature max.	10 s at 260 °C (THR versions)	
Warning	Soldering of pressfit connectors not recommended.	Soldering of pressfit connectors not recommended.
Materials		
Housing: Plastic material (symbol)	PBT GF PA 46 GF (THR)	PBT GF
CTI value	IEC 60112 225 (Standard and THR) 250 (Inverted Versions)	225
UL flame rating	UL 94 V-0	UL 94 V-0
UL file	E47960 (Standard and THR) E41938 (Inverted Versions)	E47960
Contact and mating area		
Base material	Cu alloy	Cu alloy
Plating	Gold plated	Gold plated
Termination area		
Base material	Cu alloy	Cu alloy
Solder, pressfit and THR	Sn	Sn
Environment compatibility		
Recycling	no flame-retardent additives, no toxic additives, allows easy recycling	
Product-approval and customer specific tests		
UL	E84703	E84703
CSA	LR62504	LR62504

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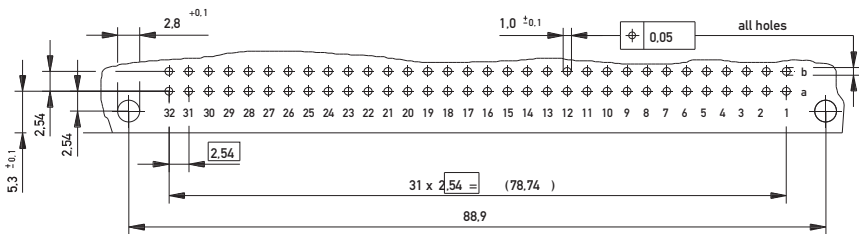
Type B Male



Dimensional Drawing Solder



PCB drillhole pattern


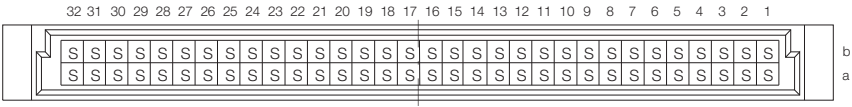
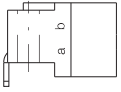
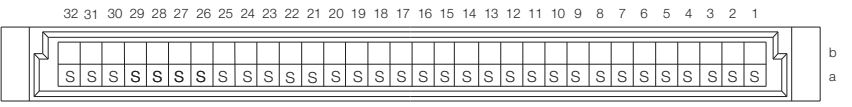
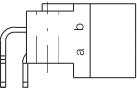
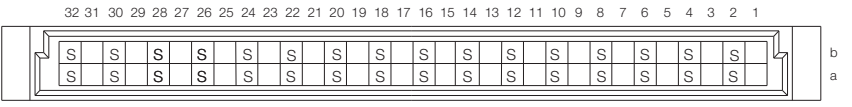
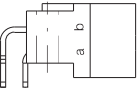
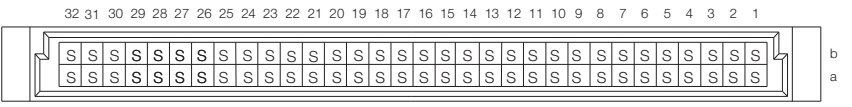


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Type B Male



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number	
							
	64	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013130
							
	32	Solder	3 mm	0.6 x 0.6 mm	1	–	533208
	32	Solder	3 mm	0.6 x 0.6 mm	2	–	533408
32	Solder with Clip	3 mm	0.6 x 0.6 mm	2	–	043606	
							
	32	Solder	3 mm	0.6 x 0.6 mm	1	–	533207
32	Solder	3 mm	0.6 x 0.6 mm	2	–	533407	
							
	64	Solder	3 mm	0.6 x 0.6 mm	1	–	533206
	64	Solder	3 mm	0.6 x 0.6 mm	2	–	533406
64	Solder with Clip	3 mm	0.6 x 0.6 mm	2	–	023545	

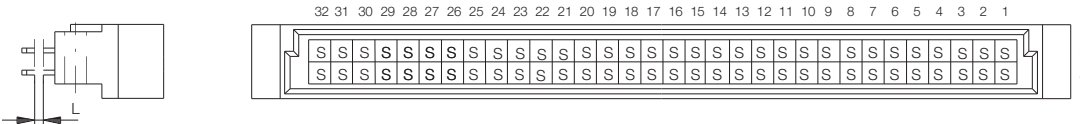
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Type B Male



Ordering Information

No. of Pins Termination Term. Length Pin Dimensions Class Pressfit Zone Part Number

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Solder	3.8 mm	0.6 x 0.6 mm	1	-	414377
	Solder	3.8 mm	0.6 x 0.6 mm	2	-	414378
	Solder	12 mm	0.6 x 0.6 mm	1	-	414379
	Solder	12 mm	0.6 x 0.6 mm	2	-	414380