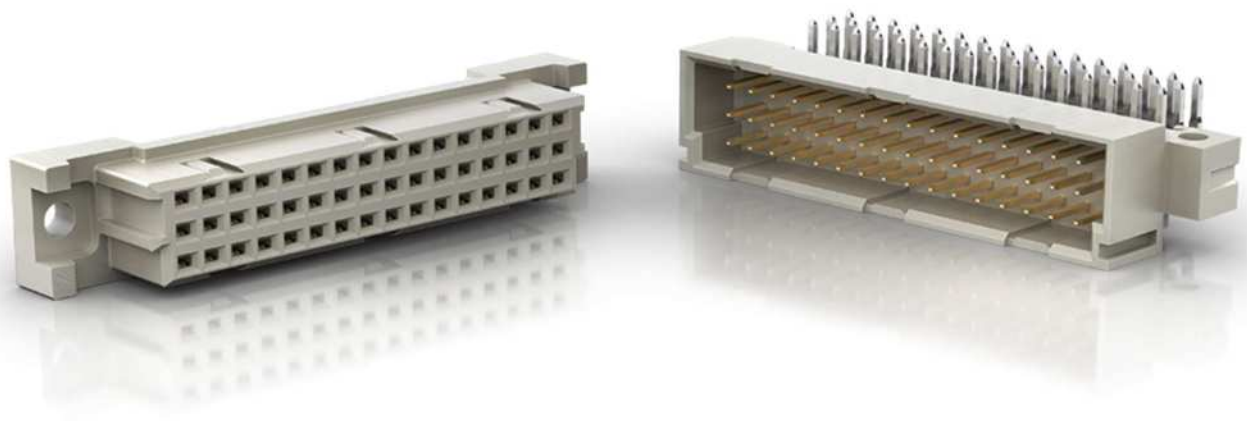


DIN 41612

Connectors and Completions



General information

The DIN 41612/IEC 60603-2 connector family consists of 13 basic sizes and many complementary versions. It was developed for use in 19" rack systems in accordance with **DIN 41494 / IEC 60297**. The large number of different sizes and the efficient connection techniques have made it possible to install these connectors for in extremely wide range of applications.

Typical areas of application:

- Connection between plug-in card and back-panel wiring
- Connection between two PCB's arranged one above the other
- Connection to peripheral equipment with connector housings as accessories
- As periphery connectors for external interfaces from the wiring side

Main features

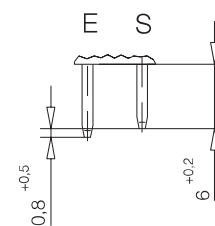
- Separable printed circuit board connectors
 - International approvals, such as UL or CSA
 - 13 connector sizes with the same plug-in and mounting conditions
 - Additional connector sizes complementing the DIN 41612/IEC 60603-2 such as half or tripled sizes
 - Different coding systems available
 - Up to 160 contacts per connector
 - Two to five row connectors possible
 - Various termination types available
 - 2.54 mm (0.1") basic pitch
 - Early mate/late break contacts available on request
 - Wide range of accessories
 - Complete interface system available
 - All female connectors mentioned in this data sheet have **dual sided female contact spring**.
- This contact principle offers a max. security in contacting and remaining contact resistance in extreme situations.

Early mate/late break

For the connectors size B, C, Q, R, D, E and F 0.8 mm early mate/late break male contacts can be loaded in any position in rows a, b, c, d, e and z.

The early mate/late break of the high current connector sizes H11 and H15 have a length of 3.5 mm (1,5 mm on request). Other lengths of early mate/late break contacts on request.

Mating length



E = early mate, late break

S = standard



	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 ⁶ MΩ	> 10 ⁶ 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 halfsine	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

DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics



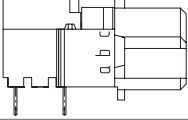
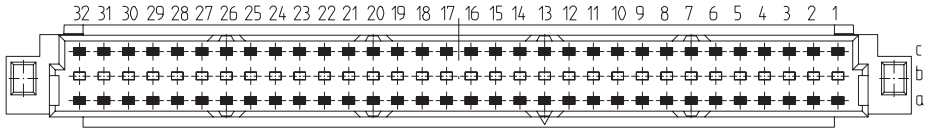
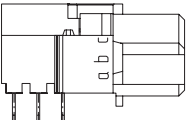
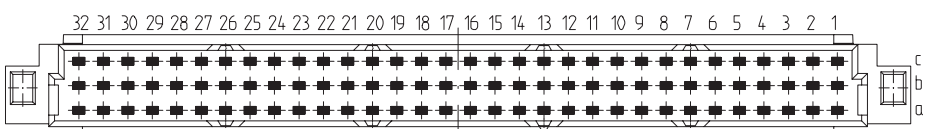
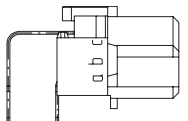
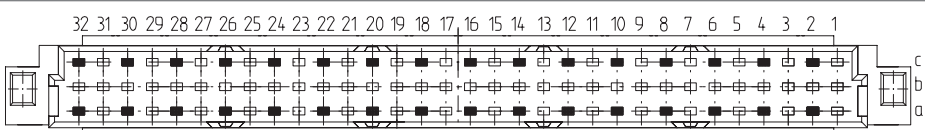
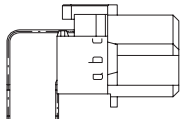
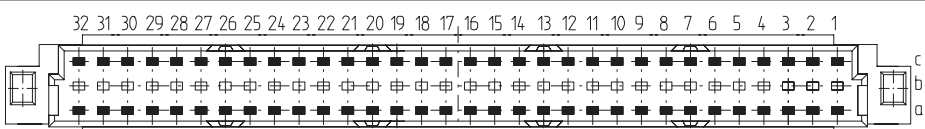

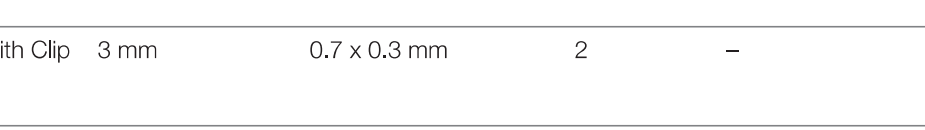
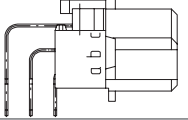
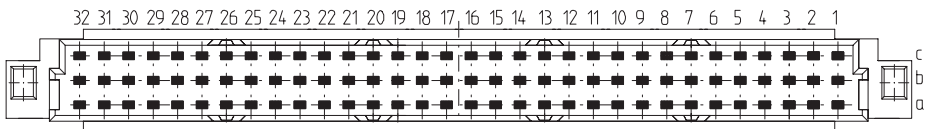




	Standard	B, B/2, B/3, C, C/2, C/3, Q, Q/2, Q/3, R, R/2, R/3, CD, RD, TE, E80, E160, ECC	M
Number of Pins		20, 30, 32, 48, 64, 80, 96, 128, 160	6, 24, 42, 60, 78
Process-conditions			
Solder temperature max.	IEC 68-2-20		
Hand soldering temperature max.		3.5 s at 350 °C	3.5 s at 350 °C
Dip soldering temperature 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 GF30 (Standard) PA 10T30GF (THR)	PBT GF30 (Standard)
CTI value	IEC 60112	250 (Standard) 600 (THR)	225
UL flame rating		UL 94 V-0	UL 94 V-0
UL file		E171666	E171666
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			
cUL		E84703	E84703

DIN 41612 / IEC 60603-2 Connectors

Type R Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
 	Pressfit	3 mm	0.7 x 0.3 mm	2	–	284262
 	Pressfit	3 mm	0.7 x 0.3 mm	2	–	284260
 	Solder	3 mm	0.7 x 0.3 mm	2	–	284261
 	Solder	3 mm	0.7 x 0.3 mm	2	–	284259
 	Solder with Clip	3 mm	0.7 x 0.3 mm	2	–	284263
 	Solder	3 mm	0.7 x 0.3 mm	1	–	354135
 	Solder	3 mm	0.7 x 0.3 mm	2	–	284258
 	Solder with Clip	3 mm	0.7 x 0.3 mm	2	–	284264