DIN 41612 SPECIFICATIONS

INTRODUCTION

ECS DIN 41612 Connectors offer the user a wide variety of options to choose from with 16 to 160 signal contacts available in a two piece connector system. ECS connectors are compatible with and conform to the specifications of DIN 41612 and IEC 60603-2. The DIN 41612 connector system is one of the most widely used connector systems in the world.

ECS DIN 41612 connectors are offered in a variety of termination methods, including Press Fit, Dip Solder, and Wire Wrap. For Mid-Plane applications, extended tail lengths and a large selection of rear mount shrouds are also available. With an easy to use part creation system, the user can define the specific connector that is required for the application. For special applications ECS can offer many options including selective pin loading, special plating, customer part coding, and mold configurations. Please contact Customer Service to discuss your special requirements.

DIN 41612 SIZE	B	Q	C	R	CD	RD	E	TE	M
Orientation	Standard	Inverse	Standard	Inverse	Standard	Inverse	Standard	Inverse	Standard
Max. Number of Contacts	64		96		128		160		78
Contact Row Designation	ab	ab	abc	abc	abcd	abcd	abcde	abcde	abc
Temperature Range	-65°C to +125°C								
Insulator Material	PBT 30% Glass Filled UL 94 V-0 Rated								
Contact Material: Socket Connectors	Phosphor Bronze Alloy								
Contact Material: Pin Connectors	Copper Alloy								
Contact Plating / Performance Per DIN 41612, Part 5 — Level 1	≥500 Mating Cycles								
Contact Plating / Performance Per DIN 41612, Part 5 — Level 2	≥400 Mating Cycles								
Contact Plating / Performance Per DIN 41612, Part 5 — Level 3	≥ 50 Mating Cycles								
Contact Resistance	≤ 20m Ω								
Insulation Resistance	≥ 10^{12} m Ω at 100 VDC								
Dielectric Strength	≤1000 VDC								
Current Range at Ambient Temp. Of +20C	1.5 Amp				3 Amp				
Current Range at Ambient Temp. Of +70C	1 Amp				2 Amp				
Current Range at Ambient Temp. Of +100C	.75 Amp				1 Amp				
Insertion Force (N)	≤60		≤90		≤100		≤100		≤70
Withdrawal Forces Per Contact (N)	≥ .15								

CONNECTOR PERFORMANCE LEVELS PER DIN 41612, PART 5

Level 1 (per DIN 41612 Part 5)
500 mating cycles
21 Days SO_2 gas test
250 mating Cycles
Measurement of contact resistance, followed by visual inspection. Level 1 connectors show no abrasion of the contact finish.

Level 2 (per DIN 41612 Part 5)
400 mating cycles
4 Days SO_2 gas test
200 mating Cycles
Measurement of contact resistance, followed by visual inspection. Level 2 connectors show no abrasion of the contact finish.

Level 3 (per DIN 41612 Part 5)
50 mating cycles
Visual Inspection (no gas test)
Measurement of contact resistance, followed by visual inspection. Level 3 connectors show no abrasion of the contact finish.

APPROVALS

Recognized under the recognized component Program of Underwriters Laboratories, Inc.
File Numbers: E176234

Bellcore GRE 1217 CORE
Connectors are available that meet the requirements of Bellcore GRE-1217-CORE. Please consult factory for ordering information.

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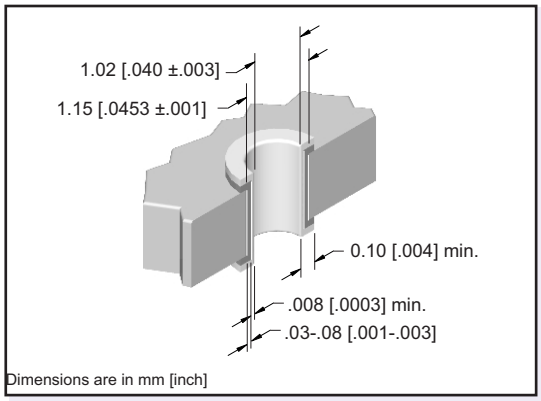


Dimensions are in mm [inch]

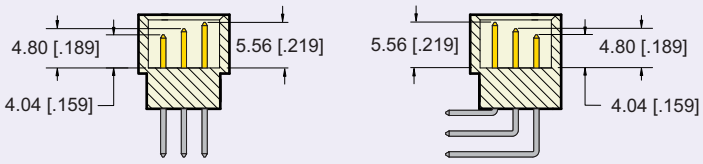
PRESS FIT CONNECTORS

Press fit connectors are available in all DIN 41612 configurations, with four different tail lengths to choose from. Standard connectors Types B, C, CD, E, and M are all flat plate press fit. Inverse connectors Types Q, R, RD, and TE require press in tools. Please consult factory for list of tools.

DRILLED HOLE DIAMETER	PLATING THICKNESS	HOLE DIAMETER	PAD DIAMETER	INSERTION FORCE PER PIN	WITHDRAWAL FORCE PER PIN
1.15 [.0453]	Copper .03-.08 [.001-.003] Tin .008 [.0003]min.	After Plating .040±.003	1.65 [.065]	40 lbs. Max.	10 lbs. Min.

EM/LB & LM/EB CONTACTS

Early Make/Late Break and Late Make/Early Break contacts are available in any position and all rows. For press fit connectors, a programmable seating tool is used to determine the location(s). Solder and Right angle connectors are pre-loaded at the factory. Please consult Customer Service for EM/LB and LM/EB contact loading and press in tools.



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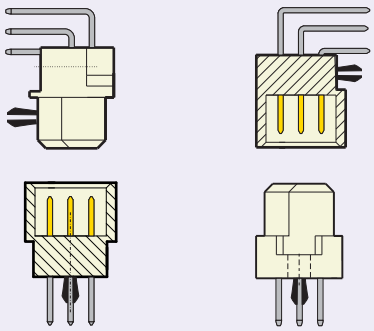

MOUNTING CLIPS

For straight solder and right angle versions, connectors can be supplied with pre-installed mounting clips. The mounting clips, designed for 1.6mm thick PCB's provide an effective retention method to hold the connector in the PCB during the soldering process. See part number coding for ordering information.