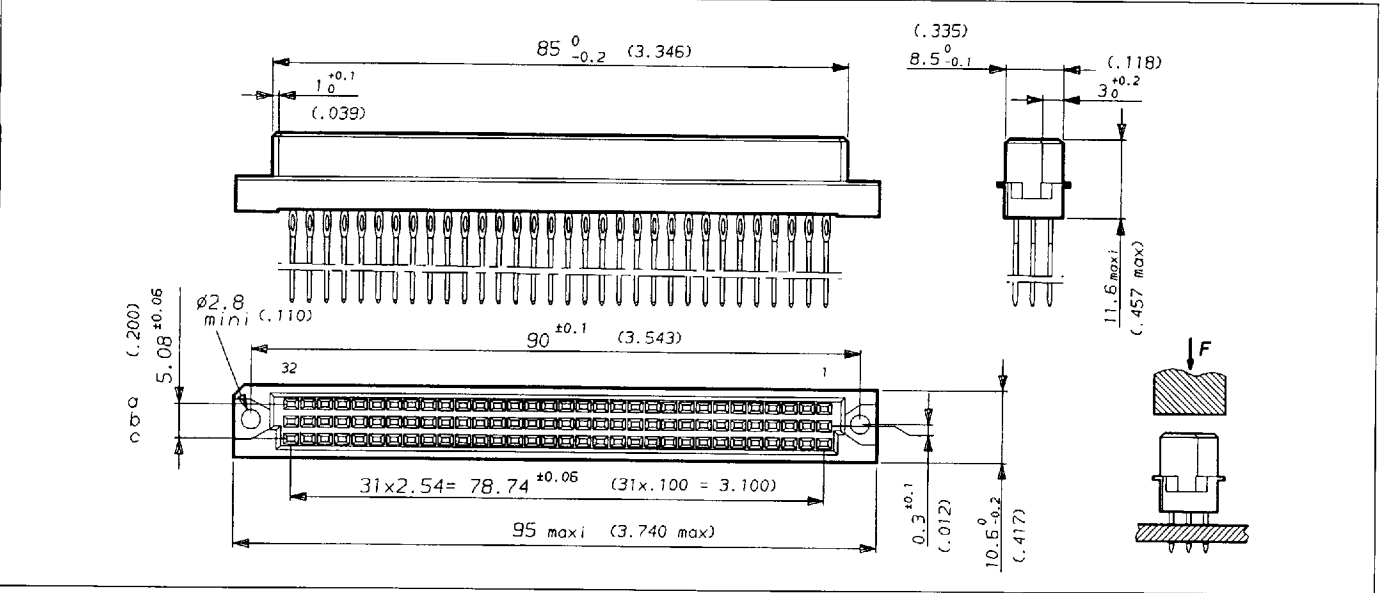




Standard female press fit, 3 row

8609 series, style C



Catalogue numbers - standard items

No of contacts	Contact arrang.	Contact termination	Contact termination
		 short post	 W.W. one wrap
96		8609.396.81.94.7x5.000.E3	8609.396.81.91.7x5.000.E3
64		8609.464.81.94.7x5.000.E3	8609.464.81.91.7x5.000.E3
48		8609.348.81.94.7x8.000.E3	8609.348.81.91.7x8.000.E3
32		8609.432.81.94.7x8.000.E3	8609.432.81.91.7x8.000.E3
		 W.W. 2 wraps	
96		8609.396.81.92.7x5.000.E3	
64		8609.464.81.92.7x5.000.E3	
48		8609.348.81.92.7x8.000.E3	
32		8609.432.81.92.7x8.000.E3	

Performance class / plating :

- DIN 41612 class III : replace x by 4 in part number.
- DIN 41612 class II : replace x by 5 in part number.
- DIN 41612 class I : replace x by 6 in part number.

Contact plating : selective gold over nickel on contact area, tin-lead on termination.

Options :

Special terminations and contact arrangements are available upon request : consult factory.

Individual polarization : see page 66

Plated thru hole requirements :

drilled hole : $1,15 \pm 0,025$
(.0453 $\pm$.0010)

finished hole : 0,94 (.037) min
1,09 (.043) max

Cu plating : 0,025 (.00098) min
0,050 (.00196) max

SnPb : 0,008 (.0003) min
0,012 (.0005) max

Application tooling : see page 103

Introduction

This catalogue groups the broad DIN 41612 connector range and derived variations of Framatome Connectors International. The range consists of several product series covering all types of applications such as board to board and board to wire for all types of interconnections: signal, power, coax, fibre optics.

8609 series is the product range for low current (1,5 amp) boardmount applications. It refers to the standard DIN styles B, B/2, C, C/2, and to the reversed styles Q, Q/2, R, R/2 as well as to the expanded 3 row 120 and 150 position styles. In addition, style M offered in both standard and reversed mounting permits high versatility due to the possible combination of inserts like power and coaxial inserts or fibre optic inserts existing for glass or plastic fibres.

BPS8 series is the signal cable connector range. It is available in 4 connector sizes ranging from minimum 9 way up to 96 way. Its unique insulation displacement design grants the lowest installed cost to the user. It is supported by a large application tooling offering tuned to any production volume.

PI43 series is derived from DIN style C and offers 43 positions. This connectors series permits power (10 amp) board to board interconnections and extremely high versatility when used in wire applications due the possibility of accomodating Trim trio series contacts, subminiature coax contacts and fibre optic contacts.

5159 series is the power DIN connector range including the medium power (5,5 amp) styles D, E and F as well as the high power (15 amp) style H. A mixed style F24/H7 combines the advantage of medium and high power contacts. This series includes connectors for boardmount or rack applications as well as crimp to wire connectors for wire applications.

5011 series is a power module derived from reverse DIN to be used on double Euroboards to provide 8 power lines (10 amp) in the available space left between 2 signal connectors. In addition, it solves the problems of power sequencing due to the 4 possible contact levels.

Performance classes

Standard platings are those required by DIN 41612. All active contact areas are selectively plated with gold over nickel in order to fulfill the requirements of the DIN standard. Termination areas are plated according to applications.

DIN 41612 class III	DIN 41612 class II	DIN 41612 class I
50 operations, no industrial atmosphere	200 operations +4 days industrial atmosphere SO ₂ + 200 operations	250 operations +21 days industrial atmosphere SO ₂ + 250 operations
Field of applications		
consumer electronics, peritelephony, office supplies	industrial electronics, data, private switching	telecommunication, public switching, datacom

Special platings to meet requirements of other specifications are also available upon request : MIL 55302, BT 222H, BT 236, PTT177. Consult factory.

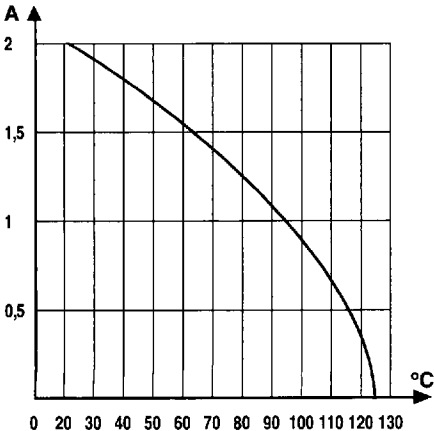


Selection guide - Specifications and technical datas

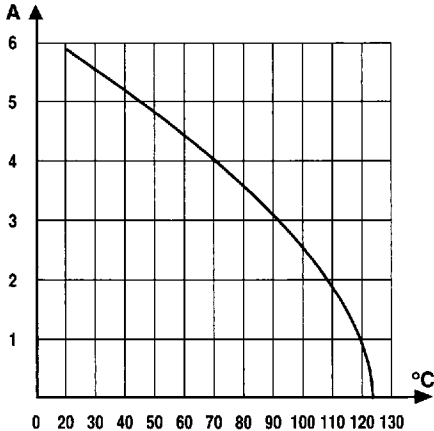
		8609					
STANDARDS AND SPECIFICATIONS		B and C	Q and R	C/2;R/2 B/2;Q/2	HE11	M	Extended Din
	DIN 41612						
	IEC 603 1-2						
	NFC 93429 HE11						
	NFC 93420 HE 12 01-02-03						
	NFC 93420 HE 12 04						
	DIN 41626						
	VG 95324						
	BS 9525 F 0004						
	BS 9525 0017						
	BT 222 H and 222 T						
	BT 236						
	BT 2580D						
	MIL.C.55302						
	UL rating	UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0
	UL approved	n° E118235	n° E118235	n° E118235	n° E118235	n° E118235	n° E31151
	CSA approved	n° 86805	n° 86805	n° 86805	n° 86805	n° 86805	n° LR44961
PHYSICAL DATA	Pitch	2,54 mm (.100)	2,54 mm (.100)	2,54 mm (.100)	2,54 mm (.100)	2,54 mm (.100)	2,54 mm (.100)
	Max. number of contacts	64 -96	64 -96	32-48	96	24-42-60-78	120-150
ELECTRICAL DATA	Current rating at 20°C	1,5 amp	1,5 amp	1,5 amp	1,5 amp	1,5 amp	1,5 amp
	Temperature range	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C
	Contact resistance	< 20 mΩ	< 20 mΩ	< 20 mΩ	< 20 mΩ	< 20 mΩ	< 20 mΩ
	Insulation resistance	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ
	Test voltage (rms)	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
MECHANICAL DATA	Connector insertion force per contact	< 0,94N	< 0,94N	< 0,94N	< 0,94N	< 0,94N	< 0,94N
	Connector extraction force per contact	> 0,15N	> 0,15N	> 0,15N	> 0,15N	> 0,15N	> 0,15N

Derating curves

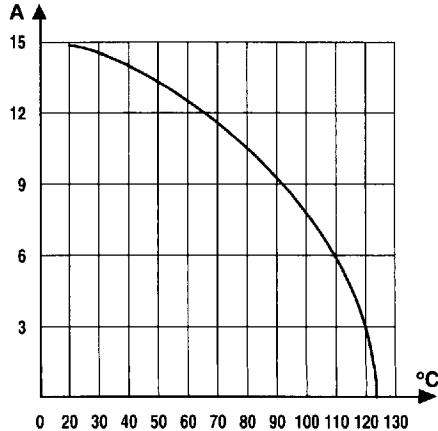
8609/BPS8 series



5159 series, styles D, E, F

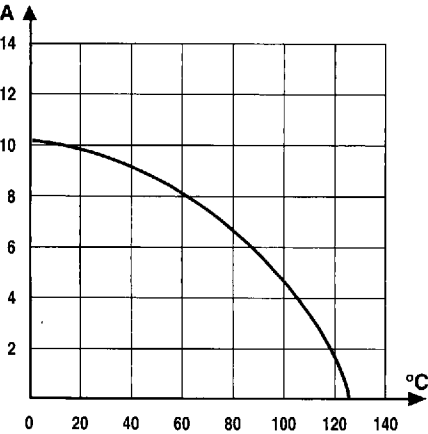


5159 series, style H

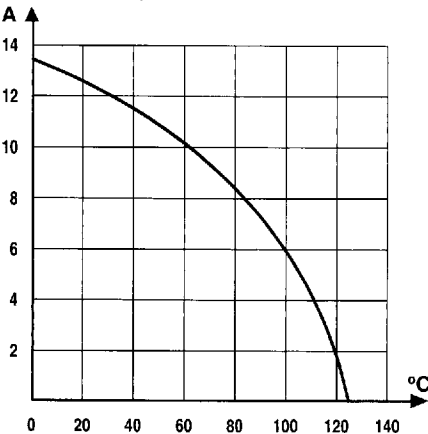


BPS8	PI43	5159				5011
IDC	DIN 41612 Trim trio	D and E	F	H	F24/H7	Power module
						
						
						
						
UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0
			n° E118235	n° E118235	n° E118235	
			n° 86916	n° 86916	n° 86916	
2,54 mm (.100)	3,81 mm (.150)	5,08 mm (.200)	5,08 mm (.200)	10,16 mm (.400)	5,08/10,16 mm (.200/.400))	5,08 mm (.200)
64-96	43	32-48	48	15	24/7	8
1,5 amp	10 amp	5,5 amp	5,5 amp	15 amp	5,5/15 amp	10 amp
-40°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C	-55°C/ +125°C
< 20 mΩ	< 3 mΩ	< 15 mΩ	< 15 mΩ	< 8 mΩ	< 15/8 mΩ	< 10 mΩ
> 10 ⁶ MΩ	> 5.10 ³ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ	> 10 ⁶ MΩ
1000 V	2000 V	1550 V	1550 V	3100 V	1550/3100 V	1550 V
< 1N	< 3N	< 1,25N	< 1,55N	< 6N	< 1,55N/< 6N	< 4N
> 0,2N	> 2N	> 0,2N	> 0,2N	> 0,2N	> 0,2N	> 0,6N

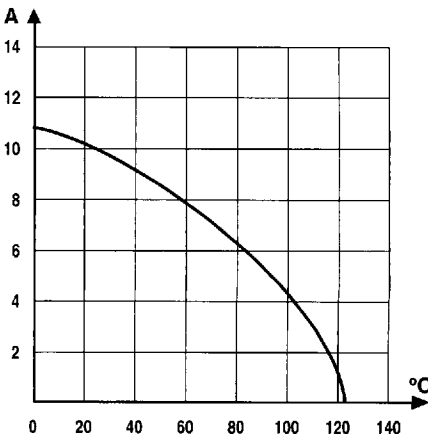
PI43 series, wire to board

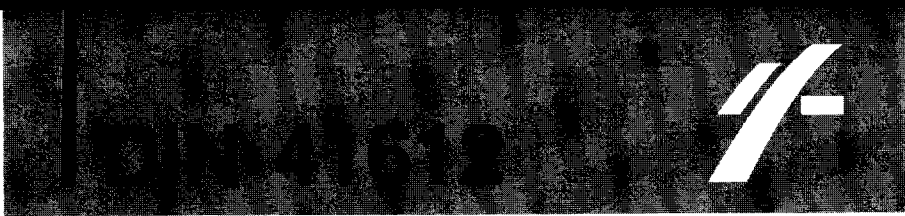


PI43 series, wire to wire



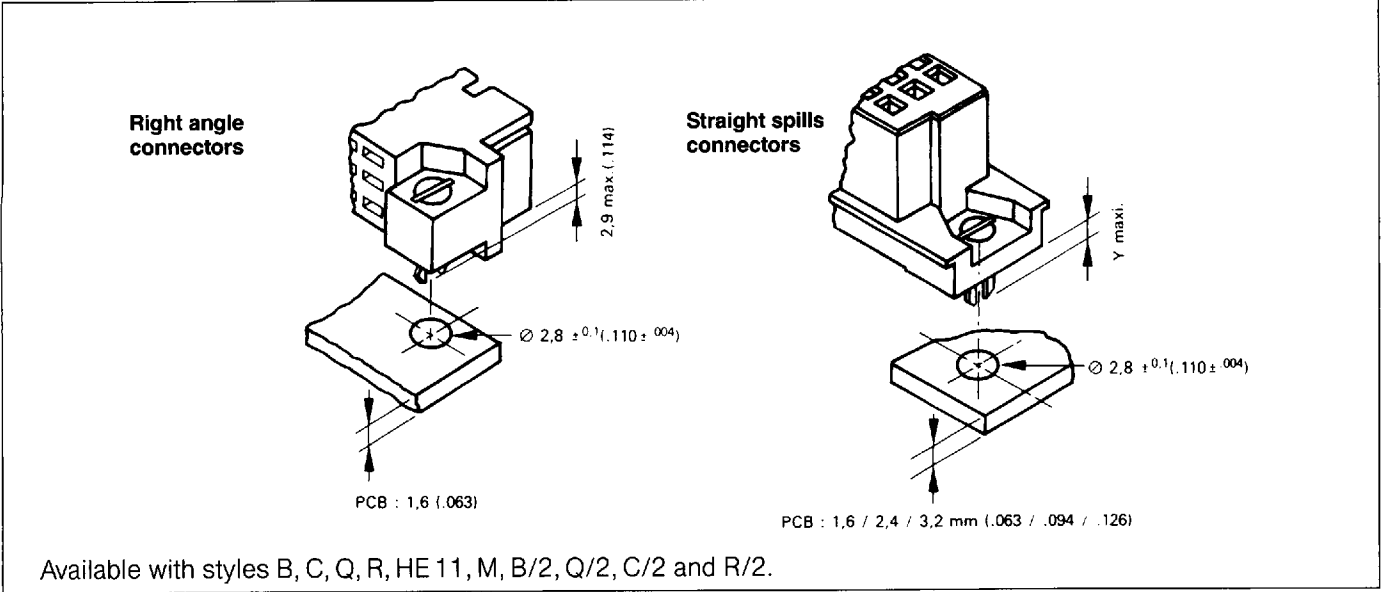
5011 series





Connectors fitted with snap in harpoons

Connectors fitted with harpoons make board mounting very easy by just snapping in by hand. Harpoons hold connectors on PCB during dip soldering and since fixing holes are plated, they provide a reliable fixing when soldering to board.



Technical characteristics:

- Insertion force in PCB	< 100 N (actual force 30 N approx.), compatible with robotics
- Retention force in PCB	> 20 N (before soldering) > 200 N (after soldering).
- Material	phosphor bronze

Part numbers:

Right angle connectors: write a "H" in the 12th digit in part number. This harpoon works with 1,6 mm nominal thickness PCB's.

Ex: 8609-396-71-13-H55-000-E1

Straight spills connectors: write the corresponding code in the 12th digit in part number in accordance with the nominal thickness on the board.

Y maxi	PCB thickness	Code	Typical P/N
3	1,6 mm	H	8609-396-81-24-H55-000-E2
3,8	2,4 mm	A	8609-396-81-14-A55-000-E2
4,6	3,2 mm	R	8609-396-81-04-R55-000-E2

Component board layout

Styles B and Q
Styles B/2 and Q/2
Styles C, R and HE 11
Styles C/2 and R/2