

SMR Rack and Panel Connectors

RECTANGULAR CONNECTORS

SMR RACK AND PANEL CONNECTORS

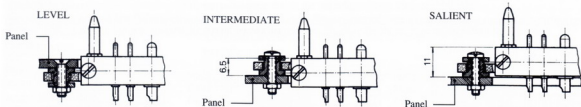
These very robust Rack connectors comprise a block of SM elements, assembled on a rigid frame, two end blocks with floating bushings and spigots for the mating of the male and female connectors. All the metallic parts are anodized for protection. Six different sizes are manufactured, and each size allows a certain number of SM elements according to the standard disposition of contacts of page 15.

The technical characteristics are the same as the SM elements.



MOUNTING:

These connectors can be mounted indistinctly in three positions: level, Intermediate and Salient. They are supplied for Intermediate or Level mounting. The combinations of Level or Salient can be made during the mounting of the connector in the panel.



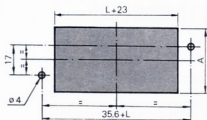
If a higher number of SM elements is required than those of the standard disposition of contacts, the dimensions of the connectors will be determined observing the present drawing, in which the length L (of the block of SM elements) must NOT exceed 44 mm.

This length L is obtained in the following way:

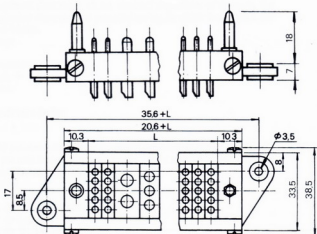
- 5.5 x n elements of 5 or 8 contacts +
- 8.25 x n elements of 3 contacts +
- 11 x n elements of 2 contacts.

If a longer connector is needed, please consult your dealer.

PANEL CUT OUT



DIMENSIONS All dimensions in mm.



A	Salient mounting	Intermediate and level mounting
	30 mm	40 mm

Standard disposition of contacts

	1	2	3	4	5		6	
Ref.								
N.° cont.	15 5	22 2	36 6	44 4	58 8	59 9	66 6	612 12
Ref.								
N.° cont.	18 8	210 10	37 7	411 11	512 12	516 16	613 13	614 14
Ref.								
N.° cont.		216 16	310 10	412 12	517 17	522 22	616 16	620 20
Ref.								
N.° cont.			310 A 10	414 14	525 25	526 26	621 21	622 22
Ref.								
N.° cont.			315 15	418 18		540 40	630 30	630 A 30
Ref.								
N.° cont.			321 21	420 20			634 34	648 48
Ref.								
N.° cont.			324 24	432 32				
					If a non standard disposition of contacts is required, please precise the number of 2, 3, 5 and 8 contact elements.			

NOTE: This disposition of contacts refers to the socket.

If supplements exist they are always mounted beside the female bracket.

SM Elements Description



These elements are manufactured in six different sizes, with 2, 3, 5, 8, 10, and 16 contacts, which can be either male or female. Staked together, except the 10 and 16 contact elements, we can assemble High density connectors in rigid frames, with metallic and aluminium hoods.

All the elements have the contacts numbered on both sides for identification.

Insulators :

Monoblock

- * (M) Melamine (non removable)
- ** (T) Thermoplastic (removable)

Contacts:

Brass, with gold over nickel platings.
Solder (Z), Crimp (X), PCB (Y), 90° PCB (YC)
Mini wire-wrap (W3)

* Diallylphthalate (on request).

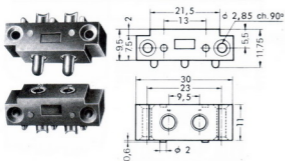
** Self extinguishing Thermoplastic UL 94:VO

TECHNICAL CHARACTERISTICS

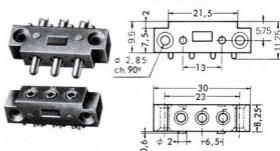
NUMBER OF CONTACTS	2	3	5	8	10	16
Wire section (mm ²)	5.3	2.1	0.9	0.6	0.9	0.9
Average extraction force per contact	≤ 6 N	≤ 4 N	≤ 2 N			
Insulator resistance at 20° C and 80% relative humidity	(M) (T): 10 ³ M Ω min.					
Contact resistance (male and female mated)	≤ 5 m Ω					
Test voltage, Melamine, at sea level (V. eff.)	2500 V	2000 V	1500 V			
Test voltage, Thermoplastic, at sea level (V. eff.)	Not manufactured		1500 V	Not manufactured		
Working voltage, Melamine, at sea level (V. eff.)	750 V	500 V	250 V			
Working voltage, Thermoplastic, at sea level (V. eff.)	Not manufactured		250 V	Not manufactured		
Working temperature, Melamine	-40°C + 120°C					
Working temperature, Thermoplastic UL 94:VO	-55°C + 90°C					
Nominal current (A) per contact	25 A	15 A	10 A	7.5 A	10 A	10 A

SM Elements

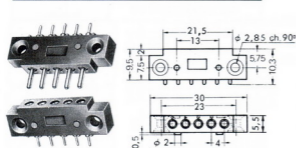
2 contactos (Z)



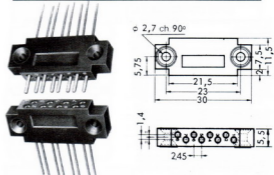
3 contactos (Z)



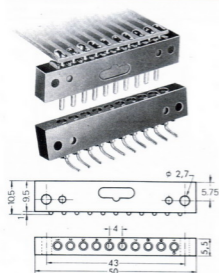
5 contactos (Z) (X) (Y) (YC) (W3)



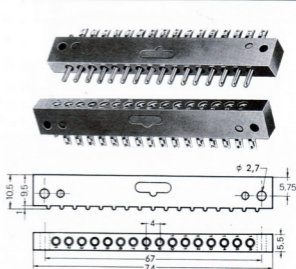
8 contactos (Z) (X) (Y) (W3)



10 contactos (Z) (X) (Y) (YC) (W3)



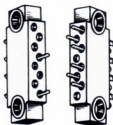
16 contactos (Z) (Y) (YC) (W3)



Contact versions

		NON REMOVABLE					REMOVABLE		CONTACT SIZES	
		Insulator (M)					Insulator (T)			
CONTACTS	Type	N° contac.					N° contac.		Male/Female	Male/Female
		2	3	5	10	16	5	8	SM 2-3-5-10-16	SM 8
Solder	Z	●	●	●	●	●	●			
Crimp	X						●			
PCB	Y			●	●	●	●			
PCB 90° (Not stackable)	YC			●	●	●	●			
Wire-wrap	W3			●	●	●	●			
male contacts	∅D	3.5	2.5	1.5	1.5	1.5	1.5	1	Dimensions of Male/Female contacts are identical except dimension * which in the Female contact is 0.	
	∅d	3.2	2.2	1.4	1.4	1.4	1.4	1.1		

All dimensions in mm.

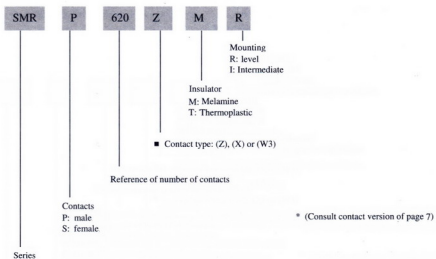


NOTE:

Under request, it is possible to codify the SM elements with (Z), (X), (Y) and (W3) contacts, by assembling male and female contacts on the same element.

● CONTACT POSSIBILITIES

Commercial part number of a connector



ORDER EXAMPLE: SMR P 620 Z M R

Refers to a SMR series connector (SMR), Male (P), of 20 contacts (620), Solder (Z), Melamine (M), and for level mounting (R).