

# SERIE 67

## Rack Rectangular Connectors

### Main Characteristics

- Blind mate floating fixing
- High DWV (up to 6000V rms)
- High density
- Modular
- 5, 10 & 20 Amps contacts :
  - Solder
  - Crimp
  - PCB and wire wrap
- Coaxial 50 contacts
- 180° polarization between plug and receptacle
- Metallic guiding pins

### •Description

Rack connectors are composed of:

- Connector mounted on chassis with floating fixings.
- Rack connector with rigid fixing and guiding pin.

Guiding and fixing system allow a right connexion with +/-1 mm  
Max mis alignment between rack and panel.

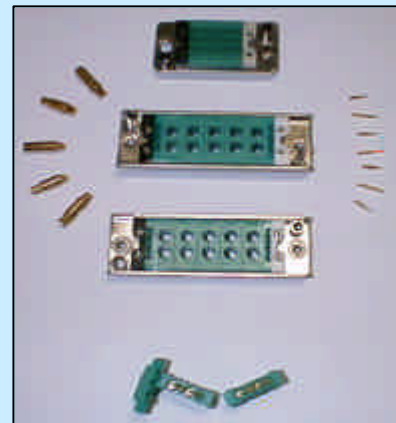
7 sizes of connector are available in standard :

30 : 5 unity modules	102 : 17 unity modules
48 : 8 unity modules	120 : 20 unity modules
60 : 10 unity modules	150 : 25 unity modules
78 : 13 unity modules	

(Please consult us for other sizes)

The unit is the width of the 6 contacts module. The 4 contact module is corresponding to 2 unities, the 2 contacts module is corresponding to 3 unities.

(see insert arrangements on page 3)



**Density & Modularity ?  
RACK is the solution !**

### Applications

- Cabinets, Bays
- Special machines
- Modular equipments
- Shelters
- Automatic ASSY machines

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## Plug Rack Connector (PRM)

PRM connectors are composed of :

- Stackable modules :
  - hermaphrodites modules 6 and 4 contacts
  - socket coaxial 2 contacts module
  - pin 20 A 2 contacts module
- 2 modules of extremity in thermoplastic, a white, the other black. The number «1» engraved on the two faces of the black module allows to locate the contact number «1».
- 2 threaded stalks and 2 nuts allowing to fix among them these various parts. The set is riveted on a stiff metal patch allowing the fixation of the rack on the panel. This patch supports 2 different diameter guiding pins, insuring guidance and polarization.

## Receptacle Rack Connector (PRF)

The connector PRF consists of the same elements as the connector PRM. The stiff metal patch has a system allowing a floating fixation of the connector with +/- 1 mm max mis alignment between rack and panel.

Notice :

After mating between des PRM and PRF connectors, the distance between the insulations faces must be lower than 1 mm. If the tolerances of the Rack and pannel system do not allow to respect this limit, spacer's must be used.  
(Please consult us)

## Contacts

### Signal and power contacts elements

	2 contacts	4 contacts	6 contacts
Current .....	20 A	10 A	5 A
Insulation at 20°C and 80%HR.....	10 <sup>5</sup> M	10 <sup>5</sup> M	10 <sup>5</sup> M
Contact resistance.....	0.001	0.003	0.005
DWV* at sea level :			
crimp, solder.....	2 000 V rms	4 000 V rms	6 000 V rms
Y PCB.....			1 500 V rms
Wire Wrap.....			1 500 V rms
Working voltage* at sea level :			
crimp, solder.....	500 V rms	1 500 V rms	200 V rms
Y PCB.....			250 V rms
Wire Wrap.....			250 V rms
Mating force.....	11.6 N	7.4 N	3.7 N
Unmating force.....	9.5 N	4.8 N	2.7 N
Weight of an equipped element :			
crimp, solder.....	5 g	2.1 g	0.9 g
Y PCB.....		2.5 g	1.2 g
Wire Wrap.....			1.6 g
Working temperature :			
polycarbonate green insert (1) .....		- 55° à + 100° C	
polyethersulfone black insert .....		- 55° à + 125° C	

\* Only for 2 mated modules with heat shrink boot around each contact tail coming inside the insert cavity..

### Coaxial contacts elements (2 contacts)

Contacts resistance.....	50
Insulation at 20°C and 80% HR.....	10 <sup>5</sup> M
Weight of an equipped element.....	4.5 g
Working temperature :	
green insert (1).....	- 55° à + 100° C
black insert.....	- 55° à + 125° C

(1) Never use trichlorethylene with the green insert.

Contact type	Usable cables Maxi Diameter (mm)	References		
		MIL-C-17E	NFC 93 550	CEI n°96
A	2	RG 178 B / U	KX 21 A	50-1-A
		RG 196 A / U		50-1-A1
B	2,7	50 SMD Filotex (without standard)		
		RG 174 / U	KX 3 B	50-2-1
		RG 316 / U	KX 22 A	50-2-2
		RG 188 A / U		50-2-A1

## Standard Contact arrangements : (For none standards arrangements, please consult us)

For arrangements with modules fitted with 20 A contacts, pin modules are assembled in PRM Rack connectors, socket modules in PRF chassis connectors.

Coaxial contacts can be assembled in 20 A modules.

### Caption :

Socket contact  
+ Pin contact

4 contacts module (10 A)

Socket contact  
+ Pin contact

6 contacts module (5 A)

ou



20 A socket contact  
(inserted in the plug)



Socket coaxial contact (inserted in the plug)

ou

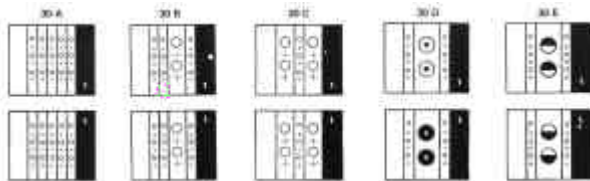


20 A pin contact  
(inserted in the receptacle)



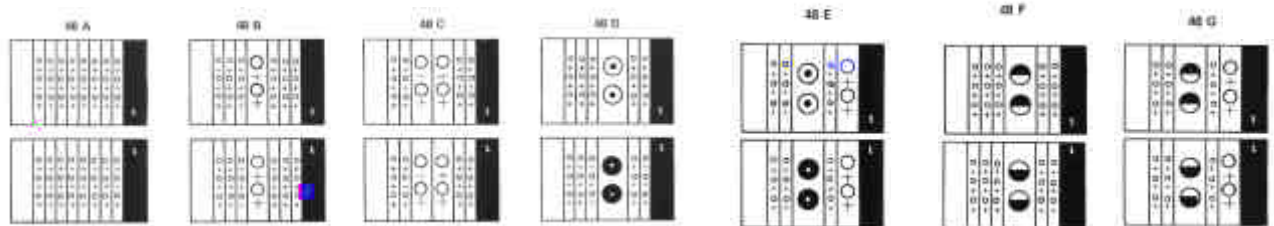
Pin coaxial contact (inserted in the receptacle)

### Connectors size 30 (30 contacts maxi)

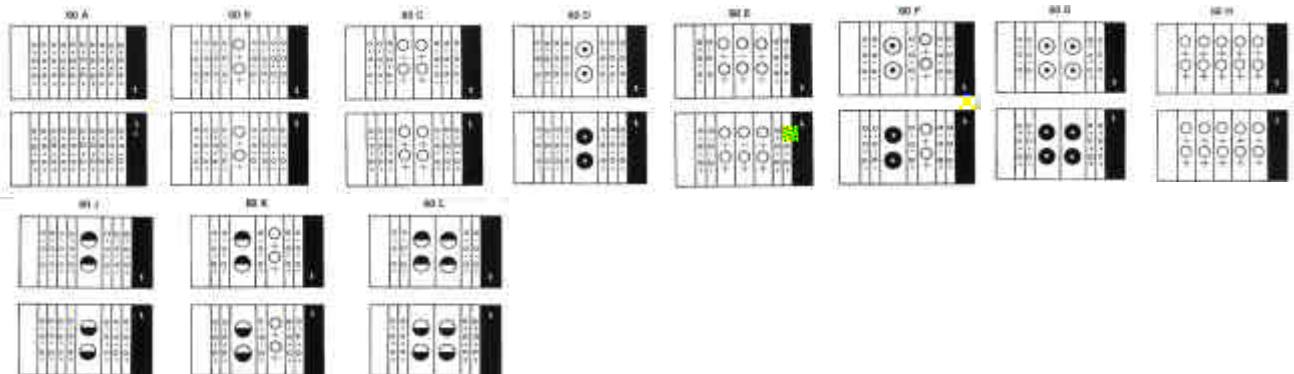


PRM connector is represented above.  
PRF connector is represented under.

### Connectors size 48 (48 contacts maxi)



### Connectors size 60 (60 contacts maxi)



### Connectors size 78 (78 contacts maxi)



### Connectors size 102 (102 ct maxi)

### Connectors size 120 (120 contacts maxi)



### Connectors size 150 (150 ct maxi) Please consult us

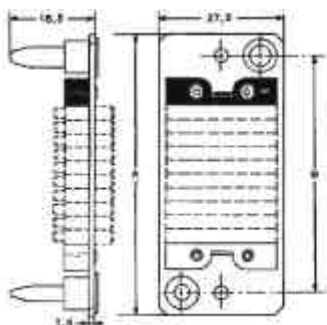
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# Dimensions

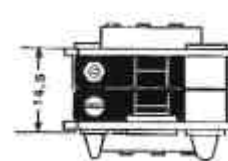
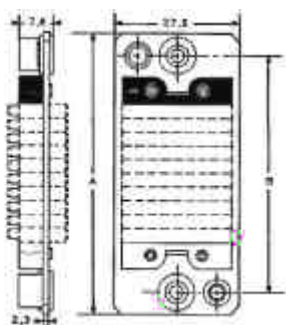
## Dimensions

## PRM and PRF connectors

### PRM Plug for Rack



### PRF Receptacle for Chassis

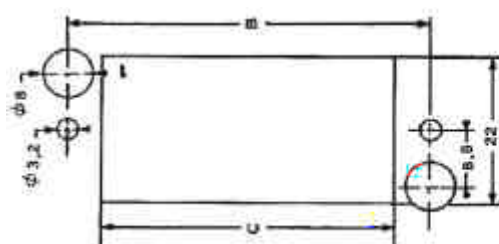


Connector size	Number of unite module	Dimensions mm		
		A $\pm 0,2$	B $\pm 0,1$	C mini
30	5	47,2	37,2	26,8
48	8	56,35	46,35	35,9
60	10	62,45	52,45	42
78	13	71,6	61,6	51,2
102	17	83,8	73,8	63,4
120	20	92,95	82,95	72,5
150	25	108,2	98,2	87,7

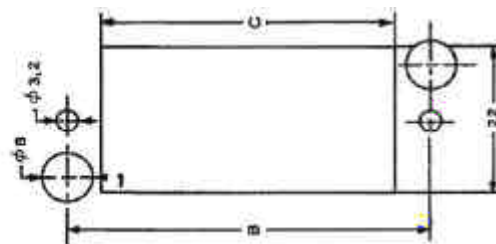
## Panel drilling

Assembly by the front of the panel, panel seen from the accoupling side.  
The position of the contact number «1» is given for information on figures.

### PRM connector



### PRF connector



## Part number

Connector type :	PRM	67	78	B	X	V	A
PRM : plug for Rack (with guiding pin)							
PRF : Receptacle for chassis							
67 Series							
Shell size (see on page 3)							
Insert arrangement (see on page 3)							
Contact type :							
Z : solder contactr							
X : crimp contact							
W : wire-wrap							
Y : PCB or flex							
Module material :							
V : polycarbonate green (-55° to +100°C)							
R : polyethersulfone black (-55° to +125°C)							
A or B coaxial type (see on page 2)							
Only for contact arrangement with coaxial contacts (see on page 3)							

Note : Crimping, removal, insertion tools and test connectors : Please consult us

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