### SINGLE POLE POWER CONNECTORS

### **UP TO 1.000A**





#### Introduction



Since 1952, Radiall Sa have been enabling the future through collaboration with our customers. The results are a range of innovative and award-winning products that customers trust for unrivaled repeatability and performance.

Radiall Sa are a global company with facilities around the world that specializes in manufacturing the highest quality interconnect components to support the most demanding applications.

At Radiall, you can rely on us to be the industry's global market leader.

VanSystem is a company founded in Lombardy - Italy, which has been operating since 1985 in the industrial market.

Since 2015 VanSystem is a Radiall company. Besides connectors with screw or bayonet coupling complying with the Mil-DTL-5015 standard, VanSystem designs and manufactures non-standard products for special applications.

One of VanSystem's strong points is an agile and dynamic organizational structure which enables direct and constant interaction

with customers in order to meet all their requirements and build solid, long-term partnerships.

The VanSystem team's professionalism, skill and commitment are at your service to help you achieve the solution you are looking for. VanSystem's Quality System is qualified according to ISO 9001:2015 and ISO/TS 22163:2017 IRIS Certification<sup>™</sup> rules:2017 (International Railway Industry Standard).







#### **Characteristics**

#### PWBS: POWER CONNECTORS – SINGLE POLE – 1.000A



PWBS Single pole bayonet connector has been developed for motor and power connection in Railway application up to 1000A.

Suitable for harsh environments, could be used for car-to-car jumpers, power distributions and traction motors.

The rubber coupling nut allows this connector to be used in severe outdoor connections and harsh ambient conditions.

Customized power connectors solution could be developed to suit your needs.

#### APPLICATIONS

- Railway
- Energy
- Naval
- Industrial

#### **International Standard Document Compliance**

- EN 50124-1: Railway applications Insulation coordination
- IEC 60077-1: Railway applications Electric equipment for rolling stock
- EN 45545-2: Railway applications Fire protection on railway vehicles
- NFPA 130 (ASTM E 162, ASTM E 662): Standard for Fixed Guideway Transit and Passenger Rail Systems
- UNI CEI 11170-3 : Guidelines for railway vehicle protection for tramways and with guided rail
- NFF 16-102: Railway Rolling Stock Fire Behavior
- EN 50467: Railway applications Rolling stock Electrical connectors, requirements and test methods
- IEC 61373: Railway applications. Rolling stock equipment. Shock and vibration tests
- VG 95234: Electrical connectors and plug-and-socket devices, connectors with coupling pressurewater tight, up to 245A
- IEC 60529: Degrees of protection provided by enclosures (IP Code)
- European Directive 2011/65: RoHS complying

#### **Features and Benefits**

- Robust Connection
  - Fully protected connectors: no risk to damage the contacts thanks the robust shell
  - Supplied with grounding finger, conductive plating and the proper rear accessory
  - Suitable for 12 polarizations to prevent un-correct coupling
- Easy installation
  - Fast and reliable coupling
  - Backshell and accessories for fastening cable/conduit fixation
  - Suitable for harsh environments (adapted for outdoor use)
    - Waterproof connection
      - Dust proof
      - Corrosion resistant
- High level of performance
  - Working temperature -60°C ÷ 180°C (according to the inserts material)
  - EMI protection with grounding finger
  - Female contacts with touch proof protection (type 30)





## Introduction ELECTRICAL CHARACTERISTICS

Working voltage	750V (OV4) 1.000V (OV3) 1.500V (OV2) 3.000V (OV2) with extended insulation					
Test Voltage (EN 60077-1)	up to 5.600V					
Working current	500A / 600A / 1.000A					
Air and creepage distances	According to EN 50124-1					
Contact resistance	< 0,5 mΩ					
Insulating resistance	> 5 GΩ					
Rated insulation voltage	1.800V Unm (OV4)					

#### **MECHANICAL CHARACTERISTICS**

Coupling mechanism Mating endurance

(IEC 61300-2-2)

Shock and vibrations tests (EN 61373)

#### Reverse bayonet

500 mating cycles minimum

Category 2 bogie mounted

#### **ENVIRONMENTAL CHARACTERISTICS**

Connectors working temperature	Standard –40°C ÷ +125°C High temperature –40°C ÷ +180°C Low temperature -60°C ÷ +125 °C
Class of temperature air (EN 50125-1)	T3 : -25°C +45°C (external to vehicle)
Protection degree (EN 60529)	IP67 (when mated)
Corrosion resistant	500h (F7 shell finishes) 200h (F16 shell finishes) 500h* (F26 shell finishes)

\*for 1000h, please contact our sales office

#### **MATERIALS AND FINISHES**

Shells	Aluminum alloy with different types of finishes protection
Shell finishes	(F7) epoxy varnish - colour black (not conductive) (F16) CCF-Black(*) passivation cadmiun free (conductive) (F26) Hard anodized shiny black (not conductive)
Internal Insulator	Thermoplastic resin according to UL 94 V0 Flame retardant according to EN 45545-2 (HL3 R22 / R23) and NFPA 130 (ASTM E 162, ASTM E 662, BSS7239)
Contacts	Copper alloy - Silver plating $3.5\mu$ min. can be supplied with one or two contactation band
Gasket	Flame retardant silicone compound





#### **Characteristics**

#### **PRODUCT CHARACTERISTICS**

Bayonet coupling system	Composed by three ramps on the external side and three stainless steel studs mounted inside the plug coupling nut. The coupling point, at the end of the ramp, is protected by a stainless steel roller.
Coupling retention system	Obtained by a wave washer installed under the plug connector coupling nut.
Contacts arrangement	Unipolar central Contacting provided by multi-points contacts band
Contacting	Provided by multi-points contacts band
Touch proof	Female contacts, size 2-30, could be supplied with touch proof contacts protection
Contacts retention	Metal clip
Polarization	Suitable for 12 polarizations to prevent un-correct coupling
Shielding	- Plug connectors can be supplied with grounding finger - Shell connectors can be finished in conductive passivation F16 CCF-Black
MS 3057-C cable clamp	Besides guaranteeing an excellent mechanical strain relief keeping the cable in the center of the connector, these cable-clamps are provided with an internal conical rubber bushing ensuring waterproof protection. The screws in stainless steel have elastic rose-cut antivibration head.
AMK backshell	Provided with gasket and iris spring connected to one another by an internal ring. When screwing the rear coupling nut, the gasket and the spring tighten around the cable or the hose, so to guarantee an excellent mechanical strain relief and water tightness.

#### SHIELDING SOLUTIONS

Plug connectors can be supplied with grounding finger (type 96 - 98 - 96GG - 98GG - 965), when mated with receptacle connectors (type 01 - 030 - 03) and provided with rear accessories for shielded cables, the connectors have shielding characteristics according to VG95234 specs.







## Product Range PRODUCT CHARACTERISTICS

Image: Signer of the second						1	1							
Temperature range: -: -40°C+125°C H: -40°C+125°C L: -60°C+125°C Working Voltage: -: 1.500V (OV2) – with extended insulation Series Prefix Shell Type: O6: Plug with metal coupling nut O6: Plug with router coated coupling nut O6: Plug with router coated coupling nut O6: Plug with grounding finger (shelding) 96: Plug with grounding finger and rubber coated coupling nut O3: Rear mounting receptacle able to accept accessories O3: Rear mounting receptacle O1: Inline connector Accessory (1): Accessory (1): D4: Backshell with IRIS spring for multicore jacketed cables D4: Backshell with IRIS spring for multicore jacketed cables D5: Backshell with IRIS spring for multicore jacketed cables D4: Backshell with IRIS spring for multicore jacketed cables D5: Backshell with IRIS		Temperature range	Insulating	Series	Type	Accessory (1)	Arrangement	Gender	Polarization	Contact type	Cable entry	Finishes	Gasket	Modification code
-40°C + 125°C         H:       -40°C + 125°C         Working Voltage:         -:       1.500V [0/2] - with extended insulation         Shell Type:         06:       Plug with metal coupling nut         06:       Plug with coupling nut         06:       Plug with rounding finger (shielding)         96:       Plug with recorded coupling nut         06:       Plug with recording finger (shielding)         96:       Plug with receptacle able to accept accessories         03:       Rear mounting finger and rubber coated coupling nut         03:       Rear mounting finger or multicore jackteed cables         D1:       Inline connector         Arrangement:		н	v	PWBS	06	AMK	40P1	Р	А	2-20-240TP	M40	F7	G	S
DA: Backshell with internal metric thread   Arrangement:	Temperature range: -: -40°C ÷ +125°C H: -40°C ÷ +125°C Uorking Voltage: -: 1.500V (0V2) V: 3.000V (0V2) – with extended insulation Series Prefix Shell Type: O6: Plug with metal coupling nut O6G6: Plug with ber coated coupling nut O6G6: Plug with Heavy Duty coupling nut 96: Plug with Heavy Duty coupling nut 96: Plug with grounding finger (shielding) 96G6: Plug with grounding finger and rubber coated coupling nut 030: Rear mounting receptacle able to accept accessories O3: Rear mounting receptacle able to accept accessory (1): Accessory (1): AC: Backshell with MS 3057-C type cable clamp AMK: Backshell with IRIS spring for multicore jacketed cables													
32P1:Shell $32$ single pole $40P1:$ Shell $40$ single poleGender:P:Pin contactS:Socket contactSocket contactPolarization Angle:Shell size $32$ Shell size $40$ A0°A0°B30°30°36°C60°F120°I20°G180°G180°G180°G216°H210°270°324°M300°N330°A														
Gender:         P:       Pin contact         S:       Socket contact         Polarization Angle:         Shell size 32       Shell size 40         A       0°       0°         B       30°       36°         C       60°       72°         D       90°       108°         E       120°       144°         F       150°       180°         G       180°       216°         H       210°       252°         I       240°       252°         I       240°       324°         M       300°          N       330°	32P1: She	ll 32 single			_									
B       30°       36°         C       60°       72°         D       90°       108°         E       120°       144°         F       150°       180°         G       180°       216°         H       210°       252°         I       240°       288°         L       270°       324°         M       300°          N       330°	Gender: P: Pin S: Socl Polarization A Shell size	contact ket contact ngle:	Shell siz											
	B         30°           C         60°           D         90°           E         120°           F         150°           G         180°           H         210°           I         240°           L         270°           M         300°		36 72 10 14 18 21 25 28 32	5° 18° 14° 30° 16° 52° 38° 24°		Dad		14						



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B0       B1       S1       S1 <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>												
nd, for wire section 50 mm <sup>2</sup> - AWG 1/0 (for shell size 32) nd, for wire section 75 mm <sup>2</sup> (for shell size 32) d, for wire section 90 mm <sup>2</sup> (for shell size 32) d, for wire section 120 mm <sup>2</sup> - AWG 4/0 (for shell size 32) nd, for wire section 50mm <sup>2</sup> - AWG 1/0 (for shell size 40) nd, for wire section 95mm <sup>2</sup> - AWG 3/0 (for shell size 40) nd, for wire section 120mm <sup>2</sup> - AWG 4/0 (for shell size 40) nd, for wire section 70mm <sup>2</sup> - AWG 2/0 (for shell size 40) nd, for wire section 95mm <sup>2</sup> - AWG 3/0 (for shell size 40) nd, for wire section 95mm <sup>2</sup> - AWG 3/0 (for shell size 40) nd, for wire section 120mm <sup>2</sup> - AWG 4/0 (for shell size 40) nd, for wire section 150mm <sup>2</sup> (for shell size 40) nd, for wire section 150mm <sup>2</sup> (for shell size 40) nd, for wire section 185mm <sup>2</sup> (for shell size 40) nd, for wire section 185mm <sup>2</sup> (for shell size 40) nd, for wire section 185mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd (for wire section 240mm <sup>2</sup> (for shell size 40) nd (for shell size 40) nd (for shell size 40) nd (for wire section 150m <sup>2</sup> size 40) nd (for shell siz	0	Insulating	Series	Type	Accessory (1)	Arrangement	Gender	Polarization	Contact type	 cable entry	Finishes	
nd, for wire section 75 mm <sup>2</sup> (for shell size 32) d, for wire section 90 mm <sup>2</sup> (for shell size 32) id, for wire section 120 mm <sup>2</sup> - AWG 4/0 (for shell size 32) nd, for wire section 50mm <sup>2</sup> - AWG 1/0 (for shell size 40) nd, for wire section 95mm <sup>2</sup> - AWG 3/0 (for shell size 40) id, for wire section 120mm <sup>2</sup> - AWG 4/0 (for shell size 40) nd, for wire section 70mm <sup>2</sup> - AWG 2/0 (for shell size 40) nd, for wire section 95mm <sup>2</sup> - AWG 3/0 (for shell size 40) nd, for wire section 95mm <sup>2</sup> - AWG 3/0 (for shell size 40) nd, for wire section 120mm <sup>2</sup> - AWG 4/0 (for shell size 40) nd, for wire section 120mm <sup>2</sup> (for shell size 40) nd, for wire section 150mm <sup>2</sup> (for shell size 40) nd, for wire section 185mm <sup>2</sup> (for shell size 40) nd, for wire section 185mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 185mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40) nd, for wire section 240mm <sup>2</sup> (for shell size 40)		v	PWBS	06	AMK	40P1	Ρ	А	2-20-240TP	140	F7	
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#### Product Range

Contact Type:

PART NUMBER DESCRIPTION

Temperature range

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1-25-50: Single ban 1-25-75: Single ban 1-25-90: Single band 1-25-120: Single band 1-20-50: Single ban 1-20-95: Single ban 1-20-120: Single band 2-30-70: Double ban 2-30-95: Double ban 2-30-120: Double ban 2-30-150: Double ban 2-30-185: Double ban 2-30-240: Double ban 2-30-262: Double ban 2-30-646: Double ban Threaded hole contacts (for 03 panel version only) With touch proof contacts protection (for contact type 2-30 only)

#### Cable entry

TH:

TP:

G2:

R8:	(AC) cable clamp (8 – 13,5mm)
R10:	(AC) cable clamp (9,6 – 15,9mm)
R12:	(AC) cable clamp (11,3 – 19mm)
R16:	(AC) cable clamp (15,5 – 23,8mm)
R20:	(AC) cable clamp (17 – 23mm)
R28:	(AC) cable clamp (25 – 31mm)
xx:	(AMK) clamping range according to wire diameter (please contact our sales office)
M32:	(DA) internal thread M32
M40:	(DA) internal thread M40
Shell fin	
F7:	Black polyurethane varnish
F26 :	Hard anodized shiny black
F16:	CCF-Black passivation (conductive)
Gasket:	
G:	Receptacle connectors supplied with panel gasket

Receptacle connectors supplied with conductive panel gasket



Gasket

G

Modification code

S\_

**PWBS** 



## Product Range



\*please, consul our commercial office

Contact size (Shell size)	Multi-points Contact band	Wire Section (mm²)	AWG Cable size	Working current	Manual Crimping tool	Crimp Die*	Stripping length (mm)
1-25-50 (32)	(on female contacts)	50	-	600A	HT45*	ME14*	20
1-25-70 (32)	(on female contacts)	70	-	600A	HT120	ME24-C	22
1-25-95 (32)	(on female contacts)	95	-	600A	HT120	ME24-C	30
1-25-120 (32)	(on female contacts)	120	-	600A	HT120	ME29-C	30
1-20-50 (40)	(on female contacts)	50	-	500A	HT120	ME17-C* ME20-C*	20
1-20-70 (40)	(on female contacts)	70	-	500A	HT120	ME20-C* ME24-C*	22* 24*
1-20-95 (40)	(on female contacts)	95	-	500A	HT120	ME24-C	20
1-20-120 (40)	(on female contacts)	120	-	500A	HT120	ME29-C	20
1-20-92 (40)	(on female contacts)	92	3/0	500A	HT120	ME24-C	20
1-20-112 (40)	(on female contacts)	112	4/0	500A	HT120	ME30-C	20
2-30-95 (40)	Double	95	-	1.000A	HT120	ME24-C	30
2-30-120 (40)	Double	120	-	1.000A	HT120	ME29-C	30
2-30-150 (40)	Double	150	-	1.000A	HT120	ME37-C	29
2-30-185 (40)	Double	185	-	1.000A		*	*
2-30-240 (40)	Double	240	-	1.000A	HT120	ME60-C	40
2-30-262 (40)	Double	-	262 MCM	1.000A	HT120	ME37-C	27
2-30-535 (40)	Double	-	535 MCM	1.000A	HT120	ME60-C	40
2-30-646 (40)	Double	-	646 MCM	1.000A	HT120	MK32-C*	40



Working current to be checked with the specific cable characteristics

\*\*TP = can be supplied with

Product Range

#### FEMALE CRIMP CONTACTS



\*please, consul our commercial office

nmercial office				1	touch proof protections			
Contact size (Shell size)	Multi-points Contact band	Wire Section (mm²)	AWG Cable size	Working current	Manual Crimping tool	Crimp Die*	Strippin length (mm)	
1-25-50 (32)	Single	50	-	600A	HT45	ME14	20	
1-25-70 (32)	Single	70	-	600A	HT120	ME24-C	22	
1-25-95 (32)	Single	95	-	600A	HT120	ME24-C	30	
1-25-120 (32)	Single	120	-	600A	HT120	ME29-C	30	
1-20-50 (40)	Single	50	-	500A	HT120	ME17-C* ME20-C*	20	
1-20-70 (40)	Single	70	-	500A	HT120	ME20-C* ME24-C*	22* 24*	
1-20-95 (40)	Single	95	-	500A	HT120	ME24-C	20	
1-20-120 (40)	Single	120	-	500A	HT120	ME29-C	20	
1-20-92 (40)	Single	92	3/0	500A	HT120	ME24-C	20	
1-20-112 (40)	Single	112	4/0	500A	HT120	ME30-C	20	
2-30-95 (40)	TP**	95	-	1.000A	HT120	ME24-C	30	
2-30-120 (40)	TP**	120	-	1.000A	HT120	ME29-C	30	
2-30-150 (40)	TP**	150	-	1.000A	HT120	ME37-C	29	
2-30-185 (40)	TP**	185	-	1.000A	HT120*	*	*	
2-30-240 (40)	TP**	240	-	1.000A	HT120	ME60-C	40	
2-30-262 (40)	TP**	-	262 MCM	1.000A	HT120	ME37-C	27	
2-30-535 (40)	TP**	-	535 MCM	1.000A	HT120	ME60-C	40	
2-30-646 (40)	TP**	-	646 MCM	1.000A	HT120	MK32-C*	40	



Working current to be checked with the specific cable characteristics



#### Product Range

Male contact with double multi-points band



Female contacts with touch proof



Female contact with single multi-points band



Contacts with rear threaded hole



#### **Removal tools**

Contact size	Description	Order Number
1-25-xx	Removal tool for contacts Ø20	61110
1-20-xx	Removal tool for contacts Ø25	61087
2-30-xx	Removal tool for contacts Ø30	61125



For the instructions concerning the contacts crimping please consult the tools manuals. We recommend to respect the following general rules:

• always use the tools recommended by Radiall VanSystem's in the catalogue or manuals

• apply the suggested norms for tool maintenance and calibration

DO NOT USE ALTERNATIVE GREASES OR OILS which could damage the insert and affect the functionality of the connector.







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## PWBS

### 030 Shell - rear mounting panel receptacle with ramps

Receptacle connector supplied with straight backshell:

- AC: MS 3057-C type cable clamp
- AMK: IRIS spring for multicore jacketed cables
- DA: internal metric thread

Optional external grounding terminal.

Can be mated with 06 – 06GG – 96 – 96GG – 65 – 965 plugs









\*) Dimensions "G" and "H" can be different from the value indicated according to backshells accessories, wires size and some special configurations. Verify with our Customer Service Department.

Shell Size	ØD	к	L	М	R	S	т	G*	H*
32	53,4	4	38.4	24.4	44.5	57	M5	165	165
40	65,5	4	38.5	24.4	55.6	69.8	M5	170	168





#### 03..TH Shell - rear mounting panel receptacle with ramps. Contact with rear threaded hole.

Receptacle connector unable to accept rear accessories.

Optional external grounding terminal.

Can be mated with 06 - 06GG - 96 - 96GG - 65 - 965 plugs.





Shell Size	ØD	К	L	М	R	S	G
32	53,4	4	38.4	24.4	44.5	57	34
40	65,5	4	38.5	24.4	55.6	69.8	*

\*) Consult with our Customer Service Department.





PWBS

#### 06 / 96 Shells - plug connector with bayonet coupling nut

Plug connector supplied with straight backshell:

- AC: MS 3057-C type cable clamp
- AMK: IRIS spring for multicore jacketed cables
- DA: internal metric thread

#### Shell type:

- 06 with straight backshell
- 96 provided with grounding finger

Can be mated with 030 - 03..TH - 01 receptacles.









Shell Size	ØD	G*	H*
32	60	165	167
40	72,4	170	172

\*) Dimensions "G" and "H" can be different from the value indicated according to backshells accessories, wires size and some special configurations. Verify with our Customer Service Department.



### 06GG / 96GG Shells – plug connector with rubber covered bayonet coupling nut

The rubber covered coupling nut is able to protect against dust and impact.

Plug connector supplied with straight backshell:

- AC: MS 3057-C type cable clamp
- AMK: IRIS spring for multicore jacketed cables
- DA: internal metric thread

Shell type:

- 06GG with straight backshell
- 96GG provided with grounding finger

Can be mated with 030 - 03..TH - 01 receptacles.









Shell Size	ØD	G*	H*	a a
32	76	165	167	a s c
40	90	170	172	

\*) Dimensions "G" and "H" can be different from the value indicated according to backshells accessories, wires size and some special configurations. Verify with our Customer Service Department.





### 65 / 965 Shells – plug connector with Heavy Duty bayonet coupling nut

Connector with special coupling-nut particularly robust and suitable to be used with working gloves.

Plug connector supplied with straight backshell:

- AC: MS 3057-C type cable clamp
- AMK: IRIS spring for multicore jacketed cables
- DA: internal metric thread

#### Shell type:

- 65 with straight backshell
- 965 provided with grounding finger

Can be mated with 030 - 03..TH - 01 receptacles.







Shell Size	ØD	G*	H*
32	67,1	165	167
40	79,1	170	172

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\*) Dimensions "G" and "H" can be different from the value indicated according to backshells accessories, wires size and some special configurations. Verify with our Customer Service Department.





#### Product Range

#### 01 Shells – plug connector with ramps

Cable connecting plug able to accept rear straight backshell:

- AC: MS 3057-C type cable clamp
- AMK: IRIS spring for multicore jacketed cables
- DA: internal metric thread

Can be mated with 06 – 96 – 06GG – 96GG – 65 – 965 plugs.

Shell

Size

32

40

## 



different from the value indicated according to backshells accessories, wires size and some special configurations. Verify with our Customer Service Department.

Dimensions in mm



11111111

ъD

53,4

65,5

165

170

165

168





#### **Accessories and tools**

Plug connector cap with stainless steel chain and lug.



size	Туре	L
32	PWBS 042-32	206 mm
40	PVBS 042-40	206 mm

Receptacle connector cap with stainless steel chain and lug.



size	Туре	L
32	PWBS 043-32	206 mm
40	PWBS 043-40	206 mm

Stainless spring cap for receptacle connector (can be used with contacts without touch proof only)



size	Туре	L max
32	TPM-32R	125 mm
40	TPM-40R	130 mm





#### Accessories and tools

#### Gaskets C216/C216R for 03 - 030 connectors

These gaskets are used to make rear mounting panel connectors waterproof. Available in two versions:

- gasket C216: non conductive chloroprene rubber gasket (IP67 protection)
- gasket C216R: conductive chloroprene rubber gasket with embedded metal screen (IP65

C216R

protection). These gaskets guarantee watertightness and RFI shielding.

C216





gasket	type	size	А	В	С	S	Øт
C216-32	non-conductive	32	44.5	57	53.4	0,8±0.3	5.1
C216-40	non-conductive	40	55.5	69.9	65.5	0,8±0.3	5.1
C216R-32	conductive	32	44.5	57	53.4	0.5±0.2	5.1
C216R-40	conductive	40	55.5	69.9	65.5	0.5±0.2	5.1

Dummy receptacle connector.

Useful to hold the plug connectors when not in use (can be used with connectors without touch proof only).



size	Туре
32	CVBS 05-32
40	CVBS 05-40





SPECIAL PRODUCT SOLUTION

## **PWBS**

#### CP100516 single power connector with 90° plug bayonet connector



90° plug bayonet connector. Contacts nr: 1 male designed for cable lug. Crimp lug (for 120mm<sup>2</sup>, 150mm<sup>2</sup> or 240mm<sup>2</sup> cable) with connection screw to the central contact. With polarization key, can be supplied with 6 different polarizations Shells: Aluminum alloy - Protection plate: black epoxy varnish Connector accessories: backshell wth MS3057-C cable clamp.

#### Item

CP100516-1-08Px

CP100516 single power connector with ground connection - rear panel mounting.



Bayonet connector with external ground connection - rear panel mounting Contacts nr: 1 female with termination for direct connection to the bar, M12 threaded Shells: Aluminum alloy - Protection plate: black epoxy varnish

ltem

CP100516-1-03Sx

MI.L4 – SAL.





#### SPECIAL PRODUCT SOLUTION



#### **CP100516** – single power connector with **male double multi-points contact band**

Plug bayonet connector, 1 male contact for conductor 95 mm<sup>2</sup>, 120 mm<sup>2</sup>, 150 mm<sup>2</sup>, 185 mm<sup>2</sup> or 240 mm<sup>2</sup> with multi-points contact band.

Shells: Aluminum alloy - Protection plate: black epoxy varnish

Connector accessories: backshell wth MS3057-C cable clamp.



#### CP100516 single power connector with external ground connection



Bayonet connector .

Contacts nr: 1 female with crimp termination Shells: Aluminum alloy - Protection plate: black epoxy varnish.

Connector accessories: backshell wth MS3057-C cable clamp (on request).

Item

CP100516-1-03Sx





SPECIAL PRODUCT SOLUTION

## **PWBS**

#### CP211213 single power connector with front finger test device – for cable MCM 646



Straight plug bayonet connector, 1 female contact for cable MCM 646 - 327 mm<sup>2</sup>, with multi-points contact band.

Shells: Aluminum alloy - Protection plate: black epoxy varnish

Connector accessories: backshell with MS3057-C cable clamp.

ltem	
CP211213-61Sx	

#### CP211213 single power connector with direct connection to busbar



Bayonet connector rear panel mouting. Contacts nr: 1 male with termination for direct connection to the busbar, M12 threaded. Double multi-point contactation band. Shells: Aluminum alloy - Protection plate: black epoxy varnish

Item	
CP211213-1-03Px	

Mia-Hon





#### SPECIAL PRODUCT SOLUTION

CP211213 single power connector for cable MCM 262.

**I 262.** Plug bayonet connector, 1 female contact for conductor MCM 262 - 133 mm<sup>2</sup> with multipoints contact band.

Shells: Aluminum alloy - Protection plate: black epoxy varnish

Connector accessories: backshell with cable retention trough toroidal spring and adapter M32 threaded.

The connector is supplied with thermoplastic caps.

Item CP211213-1-61Sx

#### CP211213 single power connector - rear panel mounting and M32 backshell



Bayonet connector - rear panel mounting Contacts nr: 1 male with crimp termination for conductor MCM 262 - 133 mm<sup>2</sup> with multipoints contact band.

Shells: Aluminum alloy - Protection plate: black epoxy varnish.

Connector accessories: backshell with cable retention trough toroidal spring and adapter M32 threaded.

ltem

CP211213-1-03Px

Mia-Hon





SPECIAL PRODUCT SOLUTION

## **PWBS**

#### **CP110616** single power connector - **unipolar central + 2 pilot contacts**



Plug bayonet connector with rubber coated coupling nut and backshell

Contacts nr: - 1 male contact for conductor 150 mm<sup>2</sup> with

double multi-point contactation band+

- 2 male contacts size 16 for conductor 2.5mm<sup>2</sup> Shells: Aluminum alloy - Protection plate: black epoxy varnish

#### ltem

CP110616-1+2-06P-150

#### CP110616 single power connector - unipolar central + 2 pilot contacts



Bayonet connector rear panel mounting Contacts nr:

- 1 female contact for direct connection to bus bar

- 2 female contacts size 16 for conductor 2.5mm<sup>2</sup> (Jumpered)

Shells: Aluminum alloy - Protection plate: black epoxy varnish

#### Item

CP110616-1+2-03S-120





#### SPECIAL PRODUCT SOLUTION

**PWBS** 

#### CP090313 – single power connector – backshell for rubber conduit



Bayonet connector – rear panel mounting Contacts nr: 1 male with multi-point contactation, size 2-30-185 and 2-30-240. With polarization pin, can be supplied with 6 different polarizations Shells: Aluminum alloy - Protection plate: F7 black epoxy-polyurethane varnish Connector accessories: backshell for Adapter for rubber conduit.

Item CP090313-1-06P

#### CP090313 – single power connector – rear panel mounting



Bayonet connector – rear panel mounting Contacts nr: 1 female with multi-point contactation, size 2-30-185 and 2-30-240. With polarization pin, can be supplied with 6 different polarizations Shells: Aluminum alloy - Protection plate: black

epoxy varnish Connector accessories: backshell with MS3057-C cable clamp.

Item	
CP090313-1-03S	





#### Product Range

#### SPECIAL PRODUCT SOLUTION

**CP300912** single power connector – **with 90° plug bayonet connector or** adapter for rubber conduit.



Bayonet connector – 90° Contacts nr: 1 female with multi-point contactation, wire section 240 mm<sup>2</sup>. Shells: Aluminum alloy - Protection plate: F7 black epoxy-polyurethane varnish Connector accessories: backshell for MS3057-C cable clamp.

Item

CP300912 832B1S xx

CP300912 single power connector – front panel mounting with screws or fixing nut



Mi.Men.L3-Rad.HiC

Bayonet connector – front panel mounting Contacts nr: 1 crimp female fro double multi-point contactation band, wire section 240 mm<sup>2</sup>

ltem
CP300912 00AC
ltem





#### SAFETY Information regarding the use of the product within recommended safety limits

To use the connectors described in this catalogue according to the necessary safety requirements we suggest you apply the following criteria:

• use the connectors and connected cables within their electrical and environmental limits

• follow the characteristics of each version (shell, class and type of strain relief) and carefully choose the appropriate connector for the required use

• make sure to respect the procedures regarding the correct assembly of connectors and the crimping of contacts

- any connector damaged during shipment, storage, assembly or use should be replaced
- never uncouple the connectors when under power
- always protect the parts against shock when the circuit is under power
- always check the circuit before putting it under power
- consult Radiall VanSystem Srl if in doubt

• the user must take final responsibility for electrical safety Radiall VanSystem Srl reserves the right to amend the specifications of this catalogue without issuing prior notice.

For the instructions concerning assembly and crimping of contacts please consult the appropriate tools manuals.

We recommend to respect the following general rules:

- to be used always the tools recommended by Radiall VanSystem's catalogue or manuals
- to be applied the suggested norms for tool maintenance and calibration

DO NOT USE ALTERNATIVE GREASES OR OILS which could damage the insert and affect the functionality of the connector.

Radiall VanSystem Srl reserves the right to amend the specifications of this catalogue without issuing prior notice.





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