

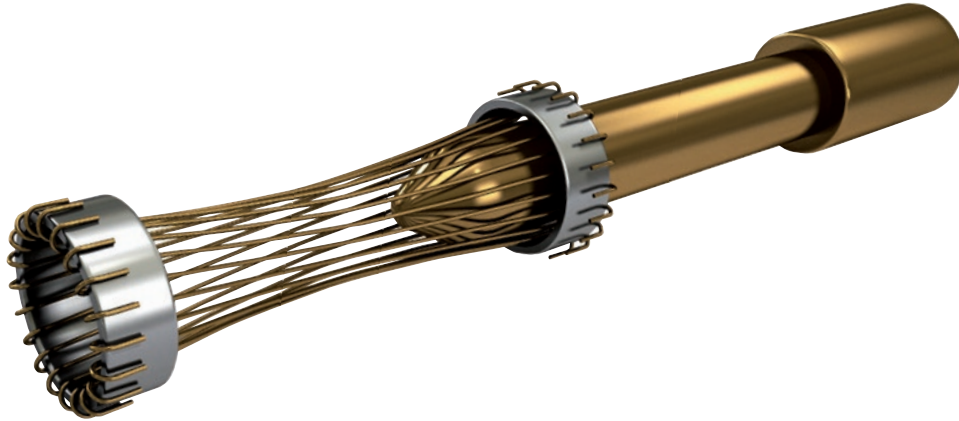
M12 SERIES W

Robust and Reliable Circular Connectors



HYPERBOLOID TECHNOLOGY

Smiths Connectors offers an extensive range of superior contact technologies suitable for standard and custom solutions. Hypertac® (HYPERboloid conTACT) is the original superior performing hyperboloid contact technology designed for use in all applications and in harsh and demanding environments where high reliability and safety are critical. The inherent electrical and mechanical characteristics of the Hypertac hyperboloid contact ensures unrivalled performance in terms of reliability, number of mating cycles, low contact force and minimal contact resistance. The shape of the contact sleeve is formed by hyperbolically arranged contact wires, which align themselves elastically as contact lines around the pin, providing a number of linear contact paths.



FEATURES

LOW INSERTION/EXTRACTION FORCES

The angle of the socket wires allows tight control of the pin insertion and extraction forces. The spring wires are smoothly deflected to make line contact with the pin.

LONG CONTACT LIFE

The smooth and light wiping action minimizes wear on the contact surfaces. Contacts perform up to 100,000 insertion/extraction cycles with minimal degradation in performance.

LOWER CONTACT RESISTANCE

The design provides a far greater contact area and the wiping action of the wires insures a clean and polished contact surface. Our contact technology has half the resistance of conventional contact designs.

HIGHER CURRENT RATINGS

The design parameters of the contact (e.g., the number, diameter and angle of the wires) may be modified for any requirement. The number of wires can be increased so the contact area is distributed over a larger surface. Thus, the high current carried by each wire because of its intimate line contact, can be multiplied many times.

IMMUNITY TO SHOCK & VIBRATION

The low mass and resultant low inertia of the wires enable them to follow the most abrupt or extreme excursions of the pin without loss of contact. The contact area extends 360 degrees around the pin and is uniform over its entire length. The 3 dimensional symmetry of the Hypertac contact design guarantees electrical continuity in all circumstances.

BENEFITS

HIGH DENSITY INTERCONNECT SYSTEMS

Significant reductions in size and weight of sub-system designs. No additional hardware is required to overcome mating and un-mating forces.

LOW COST OF OWNERSHIP

The Hypertac contact technology will surpass most product requirements, thus eliminating the burden and cost of having to replace the connector or the entire subsystem.

LOW POWER CONSUMPTION

The lower contact resistance of our technology results in a lower voltage drop across the connector reducing the power consumption and heat generation within the system.

MAXIMUM CONTACT PERFORMANCE

The lower contact resistance of the Hypertac contact reduces heat build-up; therefore Hypertac contacts are able to handle far greater current in smaller contact assemblies without the detrimental effects of high temperature.

RELIABILITY UNDER HARSH ENVIRONMENTS

Harsh environmental conditions require connectors that will sustain their electrical integrity even under the most demanding conditions such as shock and vibration. The Hypertac contact provides unmatched stability in demanding environments when failure is not an option.

TABLE OF CONTENTS

M12 SERIES W

- ▶ Technical Characteristics.....2
- ▶ How to Order.....3

- ▶ Connectors:
 - Female Cable Plugs Overmolded4
 - Female Cable Plugs Free Assemble6
 - Male Cable Plugs Overmolded.....9
 - Male Cable Plugs Free Assemble 11
 - Straight Male Receptacle13
 - Angled Male Receptacle16
 - Female Panel Feed Through17

- ▶ Contacts.....22
- ▶ Tools23

- ▶ Assembly Instructions:
 - Straight Female Cable Plug24
 - Angled Female Cable Plug25
 - Straight Male Cable Plug.....26
 - Angled Male Cable Plug27
 - Straight Male Receptacle28
 - Angled Male Receptacle29
 - Female Panel Feed Through30

- ▶ User Information31

TECHNICAL CHARACTERISTICS



STANDARDS

Contacts Diameter (2, 3, 4, 5 poles)	Ø 1 mm	DIN EN 61076-2-101
Contact Diameter (8 poles)	Ø 0.8 mm	DIN EN 61076-2-101
Coding	A-code, D-code	—
MATERIAL		
Shell	Brass, zinc-diecast	—
Machined Contacts	CuZn alloy	—
Stamped Contacts	Tin-bronze, stainless steel	—
Insert	PA66, PA6	—
Sealing	FPM	—
Overmolding	TPU	—
FINISHES		
Shell Plating	Nickel	—
Machined Contact Plating	Nickel and gold	—
Stamped Contact Plating	Partial gold plating	—
MECHANICAL		
Mating Cycles	> 500	—
Contact Retention Force	> 20N	EN 61984
ELECTRICAL		
Current Rating	4 A (2 to 5 contacts) 2 A (6 to 8 contacts)	—
Voltage Rating	90V 250V 60V 30V	EN 50467* & NF F 61-030 (5 contacts A-code) DIN 61076-2-101 (4 contacts) DIN 61076-2-101 (5 contacts) DIN 61076-2-101 (8 contacts)
Withstanding Voltage	2500V	EN 50124-1*
Contact Resistance	< 7 mΩ	—
Insulation Resistance	≤ 9 x 10 ³ MΩ	—
Overvoltage Category	III	EN 61984
PHYSICAL AND ENVIRONMENTAL		
Operating Temperature Range	-40°C to 125°C (free assemble) -40°C to 80°C (overmolded)	—
Environmental Level	IP67	—
Contamination Level	3 PD3A	DIN 60664-1 EN 50124-1*
Installation Altitude	2,000 m (2 to 5 poles) 6,000 m (8 poles)	EN 61984 EN 61984
Fluid Resistance	Oil, hydrolysis, microbes	—
Salt Spray	500h	—
Fire & Smoke	V0 (free assemble) HB (overmolded)	UL94 UL94

Notes:

Only the free assembled straight connector versions are compliant to the rail standard EN 50467 and NF F 61-030. Consult factory for details.

HOW TO ORDER

**1** ▶ CONNECTOR FAMILY *(Fixed)***W** M12 CIRCULAR CONNECTORS, SERIES W**2** ▶ CONNECTOR DESIGN**PB** STRAIGHT FEMALE CABLE PLUG OVERMOLDED**PD** ANGLED FEMALE CABLE PLUG OVERMOLDED**PC** STRAIGHT FEMALE CABLE PLUG FREE ASSEMBLE**PE** ANGLED FEMALE CABLE PLUG FREE ASSEMBLE**PJ** STRAIGHT FEMALE CABLE PLUG WITH FLANGE, FREE ASSEMBLE**RB** STRAIGHT MALE CABLE PLUG OVERMOLDED**RD** ANGLED MALE CABLE PLUG OVERMOLDED**RC** STRAIGHT MALE CABLE PLUG FREE ASSEMBLE**RE** ANGLED MALE CABLE PLUG FREE ASSEMBLE**EA** STRAIGHT MALE RECEPTACLE, FRONT PANEL MOUNTING M16X1.5**EB** STRAIGHT MALE RECEPTACLE, REAR PANEL MOUNTING M16X1.5**EC** ANGLED MALE RECEPTACLE, ROTATABLE BACK SHELL**ED** STRAIGHT MALE RECEPTACLE, FRONT PANEL MOUNTING M12X1**DA** PANEL FEED THROUGH, FEMALE, HEXAGON WRENCH SIZE 17, FRONT PANEL MOUNTING M16X1.5**DB** PANEL FEED THROUGH, FEMALE, REAR PANEL MOUNTING M16X1.5**DC** PANEL FEED THROUGH, FEMALE, FRONT PANEL MOUNTING M16X1.5**DD** PANEL FEED THROUGH, FEMALE, REAR PANEL MOUNTING M16X1.5, WITH GROUNDING PIN**DE** PANEL FEED THROUGH, FEMALE, FRONT PANEL MOUNTING M12X1**3** ▶ PLATING**A** NICKEL PLATED**M** MIXED: METALLIC & PLASTICS**4** ▶ INSERTS**04A** 4WAY D-CODED FOR SOCKETS, CLOCKWISE POLARIZED FOR STRAIGHT FEMALE CABLE PLUGS**04B** 4WAY D-CODED FOR PINS, COUNTER-CLOCKWISE POLARIZED FOR STRAIGHT MALE CABLE PLUGS**04C** 4WAY D-CODED FOR SOCKETS, CLOCKWISE POLARIZED FOR PANEL FEED THROUGH & 90° FEMALE CABLE PLUGS**04D** 4WAY D-CODED FOR PINS, COUNTER-CLOCKWISE POLARIZED FOR RECEPTACLES & 90° MALE CABLE PLUGS**05A** 5WAY A-CODED FOR SOCKETS, CLOCKWISE POLARIZED FOR STRAIGHT FEMALE CABLE PLUGS**05B** 5WAY A-CODED FOR PINS, COUNTER-CLOCKWISE POLARIZED FOR STRAIGHT MALE CABLE PLUGS**05C** 5WAY A-CODED FOR SOCKETS, CLOCKWISE POLARIZED FOR PANEL FEED THROUGH & 90° FEMALE CABLE PLUGS**05D** 5WAY A-CODED FOR PINS, COUNTER-CLOCKWISE POLARIZED FOR RECEPTACLES & 90° MALE CABLE PLUGS**08A** 8WAY A-CODED FOR SOCKETS, CLOCKWISE POLARIZED FOR STRAIGHT FEMALE CABLE PLUGS**08B** 8WAY A-CODED FOR PINS, COUNTER-CLOCKWISE POLARIZED FOR STRAIGHT MALE CABLE PLUGS**08C** 8WAY A-CODED FOR SOCKETS, CLOCKWISE POLARIZED FOR PANEL FEED THROUGH & 90° FEMALE CABLE PLUGS**08D** 8WAY A-CODED FOR PINS, COUNTER-CLOCKWISE POLARIZED FOR RECEPTACLES & 90° MALE CABLE PLUGS**5** ▶ TERMINATION STYLE**NNNN** W/OUT CONTACTS FOR ALL FREE ASSEMBLE VERSIONS⁽¹⁾**FRAN** MACHINED HYPERBOLOID SOCKETS Ø 1 MM
FRBN MANDREL CRIMP BARREL**FDAN** MACHINED HYPERBOLOID SOCKETS Ø 1 MM
WITH SOLDER PIN**FRCN** MACHINED HYPERBOLOID SOCKETS Ø 0.8 MM
FRDN MANDREL CRIMP BARREL**MRAN** MACHINED PINS Ø 1 MM MANDREL CRIMP BARREL**MRBN****MDAN** MACHINED PINS Ø 1 MM WITH SOLDER PIN**MDBN****MRAN** MACHINED PINS Ø 0.8 MM MANDREL CRIMP BARREL**MRBN****6** ▶ CABLE CLAMPING**000** W/OUT CABLE CLAMP FOR RECEPTACLES & PANEL FEED THROUGH**283** CLAMP FOR ALL FREE ASSEMBLED CABLE PLUGS,
CLAMPING RANGE Ø 9 TO 10 MM**308** CLAMP FOR ALL FREE ASSEMBLED CABLE PLUGS,
CLAMPING RANGE Ø 7.5 TO 9 MM**294** CLAMP FOR ALL FREE ASSEMBLED CABLE PLUGS, CLAMPING RANGE Ø 6 TO 8 MM**293** CLAMP FOR ALL FREE ASSEMBLED CABLE PLUGS, CLAMPING RANGE Ø 4.5 TO 6 MM**7** ▶ VERSION NUMBER**02** 5WAY INSULATOR PARTIALLY EQUIPPED FOR 2 POLE VERSION**03** 5WAY INSULATOR PARTIALLY EQUIPPED FOR 3 POLE VERSION**04** 5WAY INSULATOR PARTIALLY EQUIPPED FOR 4 POLE VERSION**06** 8WAY INSULATOR PARTIALLY EQUIPPED FOR 6 POLE VERSION**07** 8WAY INSULATOR PARTIALLY EQUIPPED FOR 7 POLE VERSION

Notes:

1. Hyperboloid machined or stamped contacts to be sold separately.

CONNECTORS

▶ FEMALE CABLE PLUGS - OVERMOLDED

Straight Female Cable Plug - Type PB

Straight female cable plug with coupling ring, overmolded, shielded

Cable Length

- ▶ 00100 1 m
- ▶ 00200 2 m
- ▶ 00300 3 m
- ▶ 00500 5 m
- ▶ 01000 10 m



Ø 1 mm Machined Hyperboloid Sockets

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way D-coded	K/WPBM04A007/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	
	5way A-coded	K/WPBM05A001/	Special cable: NEXANS 2PH 190	

Ø 1 mm Stamped Hyperboloid Sockets

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way A-coded	K/WPBM05A009/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	
	5way A-coded	K/WPBM05A006/	Standard cable: PUR 5x0.35, cable Ø 5.4 mm ± 0.2	

Ø 0.8 mm Stamped Hyperboloid Sockets

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	8way A-coded	K/WPBM08A008/	Standard cable: PUR 4x2x0.25, cable Ø 6.8 mm ± 0.2	

Notes:

1. Both machined or stamped sockets are available for all types. Please consult factory for new part number.
2. Cable length to be added to part numbers
3. For all types: to define your individual cable quality and length please contact factory
4. Dimensions are in mm

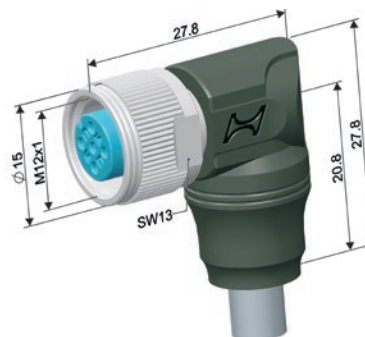
▶ FEMALE CABLE PLUGS - OVERMOLDED

Angled Female Cable Plug - Type PD

90° female cable plug with coupling ring, overmolded, shielded

Cable Length

- ▶ 00100 1 m
- ▶ 00200 2 m
- ▶ 00300 3 m
- ▶ 00500 5 m
- ▶ 01000 10 m



Ø 1 mm Machined Hyperboloid Sockets

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way D-coded	K/WPDM04C007/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	

Ø 1 mm Stamped Hyperboloid Sockets

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way A-coded	K/WPDM05C005/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	
	5way A-coded	K/WPDM05C006/	Standard cable: PUR 5x0.35, cable Ø 5.4 mm ± 0.2	

Ø 0.8 mm Stamped Hyperboloid Sockets

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	8way A-coded	K/WPDM08C008/	Standard cable: PUR 4x2x0.25, cable Ø 6.8 mm ± 0.2	

Notes:

1. Both machined or stamped sockets are available for all types. Please consult factory for new part number.
2. Cable length to be added to part numbers
3. For all types: to define your individual cable quality and length please contact factory
4. Dimensions are in mm

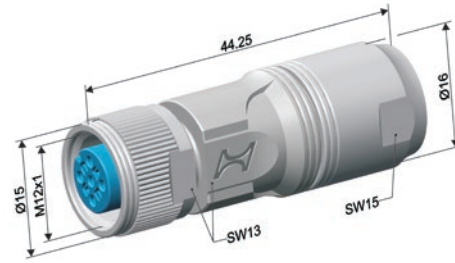
► **FEMALE CABLE PLUGS - FREE ASSEMBLE**

Straight Female Cable Plug - Type PC

Straight female cable plug with coupling ring, free assemble, shieldable, variable cable clamps

Stamped hyperboloid HCS sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped hyperboloid sockets ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	4way D-coded	W PC A 04A NNNN 283	Ø 9 to 10 mm	without contacts
		W PC A 04A NNNN 294	Ø 6 to 8 mm	
		W PC A 04A NNNN 293	Ø 4.5 to 6 mm	
		W PC A 04A NNNN 308	Ø 7.5 to 9 mm	
	5way A-coded	W PC A 05A NNNN 283	Ø 9 to 10 mm	without contacts
		W PC A 05A NNNN 294	Ø 6 to 8 mm	
		W PC A 05A NNNN 293	Ø 4.5 to 6 mm	
		W PC A 05A NNNN 308	Ø 7.5 to 9 mm	

Ø 1 mm Machined Hyperboloid Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CLAMP RANGE	CONTACTS
	4way D-coded	W PC A 04A FRAN 283	Ø 9 to 10 mm	
		W PC A 04A FRAN 294	Ø 6 to 8 mm	
		W PC A 04A FRAN 293	Ø 4.5 to 6 mm	
		W PC A 04A FRAN 308	Ø 7.5 to 9 mm	
	5way A-coded	W PC A 05A FRAN 283	Ø 9 to 10 mm	
		W PC A 05A FRAN 294	Ø 6 to 8 mm	
		W PC A 05A FRAN 293	Ø 4.5 to 6 mm	
		W PC A 05A FRAN 308	Ø 7.5 to 9 mm	

Without Contacts (Ø 0.8 mm machined or stamped hyperboloid sockets ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W PC A 08A NNNN 283	Ø 9 to 10 mm	without contacts
		W PC A 08A NNNN 294	Ø 6 to 8 mm	
		W PC A 08A NNNN 293	Ø 4.5 to 6 mm	
		W PC A 08A NNNN 308	Ø 7.5 to 9 mm	

Ø 0.8 mm Machined Hyperboloid Sockets

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W PC A 08A FRCN 283 (AWG 24-20)	Ø 9 to 10 mm	
		W PC A 08A FRDN 283 (AWG 30-22)		
		W PC A 08A FRCN 294 (AWG 24-20)	Ø 6 to 8 mm	
		W PC A 08A FRDN 294 (AWG 30-22)		
		W PC A 08A FRCN 293 (AWG 24-20)	Ø 4.5 to 6 mm	
		W PC A 08A FRDN 293 (AWG 30-22)		
		W PC A 08A FRCN 308 (AWG 24-20)	Ø 7.5 to 9 mm	
		W PC A 08A FRDN 308 (AWG 30-22)		

Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

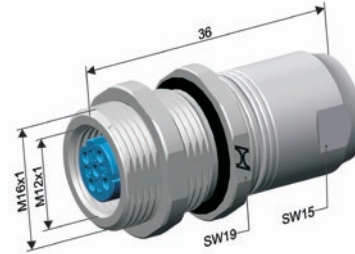
► FEMALE CABLE PLUGS - FREE ASSEMBLE

Straight Female Cable Plug - Type PJ

Straight female cable plug with external thread, flange mounting, free assemble, shieldable, variable cable clamps

Stamped hyperboloid HCS sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped hyperboloid sockets ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	4way D-coded	W PJ A 04A NNNN 283	Ø 9 to 10 mm	without contacts
		W PJ A 04A NNNN 294	Ø 6 to 8 mm	
		W PJ A 04A NNNN 293	Ø 4.5 to 6 mm	
		W PJ A 04A NNNN 308	Ø 7.5 to 9 mm	
	5way A-coded	W PJ A 05A NNNN 283	Ø 9 to 10 mm	without contacts
		W PJ A 05A NNNN 294	Ø 6 to 8 mm	
		W PJ A 05A NNNN 293	Ø 4.5 to 6 mm	
		W PJ A 05A NNNN 308	Ø 7.5 to 9 mm	

Ø 1 mm Machined Hyperboloid Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CLAMP RANGE	CONTACTS
	4way D-coded	W PJ A 04A FRAN 283	Ø 9 to 10 mm	
		W PJ A 04A FRAN 294	Ø 6 to 8 mm	
		W PJ A 04A FRAN 293	Ø 4.5 to 6 mm	
		W PJ A 04A FRAN 308	Ø 7.5 to 9 mm	
	5way A-coded	W PJ A 05A FRAN 283	Ø 9 to 10 mm	
		W PJ A 05A FRAN 294	Ø 6 to 8 mm	
		W PJ A 05A FRAN 293	Ø 4.5 to 6 mm	
		W PJ A 05A FRAN 308	Ø 7.5 to 9 mm	

Without Contacts (Ø 0.8 mm machined or stamped hyperboloid sockets ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W PJ A 08A NNNN 283	Ø 9 to 10 mm	without contacts
		W PJ A 08A NNNN 294	Ø 6 to 8 mm	
		W PJ A 08A NNNN 293	Ø 4.5 to 6 mm	
		W PJ A 08A NNNN 308	Ø 7.5 to 9 mm	

Ø 0.8 mm Machined Hyperboloid Sockets

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W PJ A 08A FRCN 283 (AWG 24-20)	Ø 9 to 10 mm	
		W PJ A 08A FRDN 283 (AWG 30-22)		
		W PJ A 08A FRCN 294 (AWG 24-20)	Ø 6 to 8 mm	
		W PJ A 08A FRDN 294 (AWG 30-22)		
		W PJ A 08A FRCN 293 (AWG 24-20)	Ø 4.5 to 6 mm	
		W PJ A 08A FRDN 293 (AWG 30-22)		
		W PJ A 08A FRCN 308 (AWG 24-20)	Ø 7.5 to 9 mm	
		W PJ A 08A FRDN 308 (AWG 30-22)		

Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

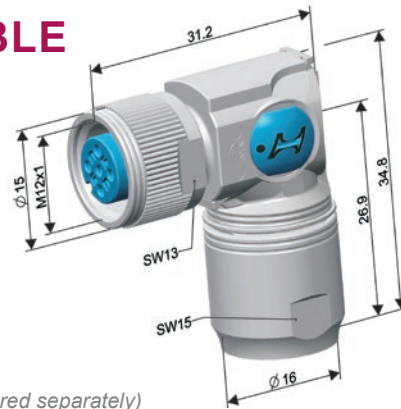
► **FEMALE CABLE PLUGS - FREE ASSEMBLE**

Angled Female Cable Plug - Type PE

90° female cable plug with coupling ring, free assemble, shieldable, variable cable clamps

Stamped hyperboloid HCS sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped hyperboloid sockets ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	4way D-coded	W PE A 04C NNNN 283	Ø 9 to 10 mm	without contacts
		W PE A 04C NNNN 294	Ø 6 to 8 mm	
		W PE A 04C NNNN 293	Ø 4.5 to 6 mm	
		W PE A 04C NNNN 308	Ø 7.5 to 9 mm	
	5way A-coded	W PE A 05C NNNN 283	Ø 9 to 10 mm	without contacts
		W PE A 05C NNNN 294	Ø 6 to 8 mm	
		W PE A 05C NNNN 293	Ø 4.5 to 6 mm	
		W PE A 05C NNNN 308	Ø 7.5 to 9 mm	

Ø 1 mm Machined Hyperboloid Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CLAMP RANGE	CONTACTS
	4way D-coded	W PE A 04C FRAN 283	Ø 9 to 10 mm	
		W PE A 04C FRAN 294	Ø 6 to 8 mm	
		W PE A 04C FRAN 293	Ø 4.5 to 6 mm	
		W PE A 04C FRAN 308	Ø 7.5 to 9 mm	
	5way A-coded	W PE A 05C FRAN 283	Ø 9 to 10 mm	
		W PE A 05C FRAN 294	Ø 6 to 8 mm	
		W PE A 05C FRAN 293	Ø 4.5 to 6 mm	
		W PE A 05C FRAN 308	Ø 7.5 to 9 mm	

Without Contacts (Ø 0.8 mm machined or stamped hyperboloid sockets ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W PE A 08C NNNN 283	Ø 9 to 10 mm	without contacts
		W PE A 08C NNNN 294	Ø 6 to 8 mm	
		W PE A 08C NNNN 293	Ø 4.5 to 6 mm	
		W PE A 08C NNNN 308	Ø 7.5 to 9 mm	

Ø 0.8 mm Machined Hyperboloid Sockets

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W PE A 08C FRCN 283 (AWG 24-20)	Ø 9 to 10 mm	
		W PE A 08C FRDN 283 (AWG 30-22)		
		W PE A 08C FRCN 294 (AWG 24-20)	Ø 6 to 8 mm	
		W PE A 08C FRDN 294 (AWG 30-22)		
		W PE A 08C FRCN 293 (AWG 24-20)	Ø 4.5 to 6 mm	
		W PE A 08C FRDN 293 (AWG 30-22)		
		W PE A 08C FRCN 308 (AWG 24-20)	Ø 7.5 to 9 mm	
		W PE A 08C FRDN 308 (AWG 30-22)		

Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3

2. Cable assemblies are also offered, please contact factory

3. Dimensions are in mm

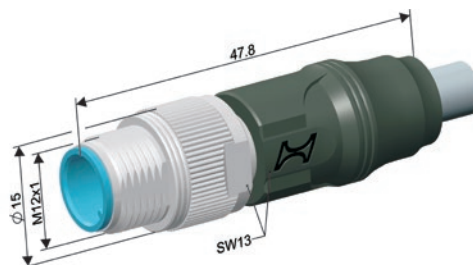
► MALE CABLE PLUGS - OVERMOLDED

Straight Male Cable Plug - Type RB

Straight female cable plug with external thread, overmolded, shielded

Cable Length

- 00100 1 m
- 00200 2 m
- 00300 3 m
- 00500 5 m
- 01000 10 m



Ø 1 mm Machined Pins

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way D-coded	K/WRBM04B007/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	
		K/WRBM04B001/	Special cable: NEXANS 2PK 211	
	5way A-coded	K/WRBM05B001/	Special cable: NEXANS 2PK 211	

Ø 1 mm Stamped Pins

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way A-coded	K/WRBM05B005/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	
	5way A-coded	K/WRBM05B006/	Standard cable: PUR 5x0.35, cable Ø 5.4 mm ± 0.2	

Ø 0.8 mm Stamped Pins

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	8way A-coded	K/WRBM08B008/	Standard cable: PUR 4x2x0.25, cable Ø 6.8 mm ± 0.2	

Notes:

1. Both machined or stamped sockets are available for all types. Please consult factory for new part number.
2. Cable length to be added to part numbers
3. For all types: to define your individual cable quality and length please contact factory
4. Dimensions are in mm

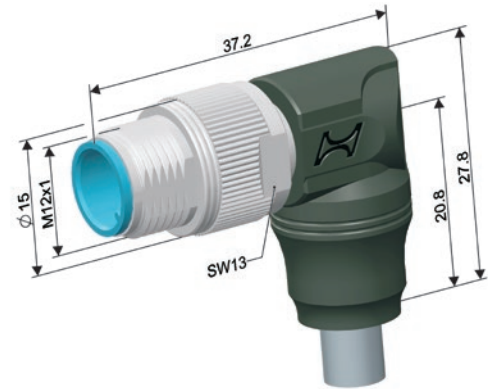
► **MALE CABLE PLUGS - OVERMOLDED**

Angled Male Cable Plug - Type RD

90° male cable plug with external thread, overmolded, shielded

Cable Length

- ▶ 00100 1 m
- ▶ 00200 2 m
- ▶ 00300 3 m
- ▶ 00500 5 m
- ▶ 01000 10 m



Ø 1 mm Machined Pins

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way D-coded	K/WRDM04D008/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	

Ø 1 mm Stamped Pins

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	4way A-coded	K/WRDM05D006/	Standard cable: PUR 4x0.35, cable Ø 5.0 mm ± 0.2	
	5way A-coded	K/WRDM05D007/	Standard cable: PUR 5x0.35, cable Ø 5.4 mm ± 0.2	

Ø 0.8 mm Stamped Pins

INSERT	TYPE	PART NUMBER ⁽²⁾	CABLE ⁽³⁾	CONTACTS
	8way A-coded	K/WRDM08D009/	Standard cable: PUR 4x2x0.25, cable Ø 6.8 mm ± 0.2	

Notes:

1. Both machined or stamped pins are available for all types. Please consult factory for new part number.
2. Cable length to be added to part numbers
3. For all types: to define your individual cable quality and length please contact factory
4. Dimensions are in mm .

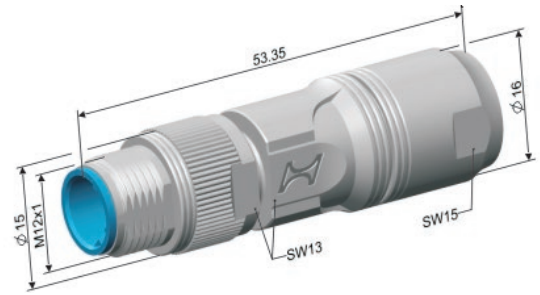
► MALE CABLE PLUGS - FREE ASSEMBLE

Straight Male Cable Plug - Type RC

Straight male cable plug with external thread, free assemble, shieldable, variable cable clamps

Stamped HCS round pins on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	4way D-coded	W RC A 04B NNNN 283	Ø 9 to 10 mm	
		W RC A 04B NNNN 294	Ø 6 to 8 mm	
		W RC A 04B NNNN 293	Ø 4.5 to 6 mm	
		W RC A 04B NNNN 308	Ø 7.5 to 9 mm	
	5way A-coded	W RC A 05B NNNN 283	Ø 9 to 10 mm	
		W RC A 05B NNNN 294	Ø 6 to 8 mm	
		W RC A 05B NNNN 293	Ø 4.5 to 6 mm	
		W RC A 05B NNNN 308	Ø 7.5 to 9 mm	

Ø 1 mm Machined Pins (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CLAMP RANGE	CONTACTS
	4way D-coded	W RC A 04B MRAN 283	Ø 9 to 10 mm	
		W RC A 04B MRAN 294	Ø 6 to 8 mm	
		W RC A 04B MRAN 293	Ø 4.5 to 6 mm	
		W RC A 04B MRAN 308	Ø 7.5 to 9 mm	
	5way A-coded	W RC A 05B MRAN 283	Ø 9 to 10 mm	
		W RC A 05B MRAN 294	Ø 6 to 8 mm	
		W RC A 05B MRAN 293	Ø 4.5 to 6 mm	
		W RC A 05B MRAN 308	Ø 7.5 to 9 mm	

Without Contacts (Ø 0.8 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W RC A 08B NNNN 283	Ø 9 to 10 mm	
		W RC A 08B NNNN 294	Ø 6 to 8 mm	
		W RC A 08B NNNN 293	Ø 4.5 to 6 mm	
		W RC A 08B NNNN 308	Ø 7.5 to 9 mm	

Ø 0.8 mm Machined Pins

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W RC A 08B MRCN 283 (AWG 24-20)	Ø 9 to 10 mm	
		W RC A 08B MRDN 283 (AWG 30-22)		
		W RC A 08B MRCN 294 (AWG 24-20)	Ø 6 to 8 mm	
		W RC A 08B MRDN 294 (AWG 30-22)		
		W RC A 08B MRCN 293 (AWG 24-20)	Ø 4.5 to 6 mm	
		W RC A 08B MRDN 293 (AWG 30-22)		
		W RC A 08B MRCN 308 (AWG 24-20)	Ø 7.5 to 9 mm	
		W RC A 08B MRDN 308 (AWG 30-22)		

Notes:

- For partial assembly with 2 to 4 contacts add version number, see page 3
- Cable assemblies are also offered, please contact factory
- Dimensions are in mm

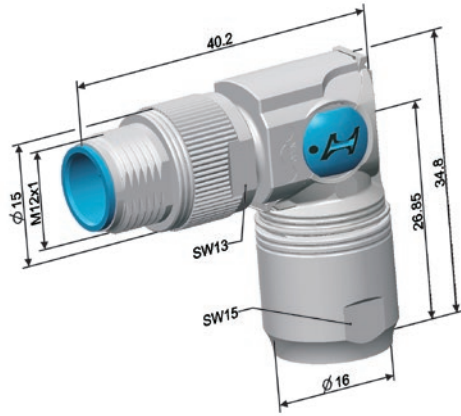
► **MALE CABLE PLUGS - FREE ASSEMBLE**

Angled Male Cable Plug - Type RE

90° male cable plug with external thread, free assemble, shieldable, variable cable clamps

Stamped HCS round pins on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	4way D-coded	W RE A 04D NNNN 283	Ø 9 to 10 mm	without contacts
		W RE A 04D NNNN 294	Ø 6 to 8 mm	
		W RE A 04D NNNN 293	Ø 4.5 to 6 mm	
		W RE A 04D NNNN 308	Ø 7.5 to 9 mm	
	5way A-coded	W RE A 05D NNNN 283	Ø 9 to 10 mm	without contacts
		W RE A 05D NNNN 294	Ø 6 to 8 mm	
		W RE A 05D NNNN 293	Ø 4.5 to 6 mm	
		W RE A 05D NNNN 308	Ø 7.5 to 9 mm	

Ø 1 mm Machined Pins (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CLAMP RANGE	CONTACTS
	4way D-coded	W RE A 04D MRAN 283	Ø 9 to 10 mm	
		W RE A 04D MRAN 294	Ø 6 to 8 mm	
		W RE A 04D MRAN 293	Ø 4.5 to 6 mm	
		W RE A 04D MRAN 308	Ø 7.5 to 9 mm	
	5way A-coded	W RE A 05D MRAN 283	Ø 9 to 10 mm	
		W RE A 05D MRAN 294	Ø 6 to 8 mm	
		W RE A 05D MRAN 293	Ø 4.5 to 6 mm	
		W RE A 05D MRAN 308	Ø 7.5 to 9 mm	

Without Contacts (Ø 0.8 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W RE A 08D NNNN 283	Ø 9 to 10 mm	without contacts
		W RE A 08D NNNN 294	Ø 6 to 8 mm	
		W RE A 08D NNNN 293	Ø 4.5 to 6 mm	
		W RE A 08D NNNN 308	Ø 7.5 to 9 mm	

Ø 0.8 mm Machined Pins

INSERT	TYPE	PART NUMBER	CLAMP RANGE	CONTACTS
	8way A-coded	W RE A 08D MRCN 283 (AWG 24-20)	Ø 9 to 10 mm	
		W RE A 08D MRDN 283 (AWG 30-22)		
		W RE A 08D MRCN 294 (AWG 24-20)	Ø 6 to 8 mm	
		W RE A 08D MRDN 294 (AWG 30-22)		
		W RE A 08D MRCN 293 (AWG 24-20)	Ø 4.5 to 6 mm	
		W RE A 08D MRDN 293 (AWG 30-22)		
		W RE A 08D MRCN 308 (AWG 24-20)	Ø 7.5 to 9 mm	
		W RE A 08D MRDN 308 (AWG 30-22)		

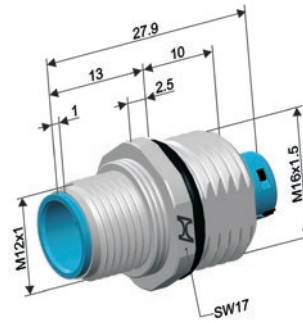
Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

► MALE RECEPTACLES

Straight Male Receptacle - Type EA
Straight male receptacle, front panel mounting M16x1.5

Stamped HCS round pins on reels 300/9,000 pcs.
More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W EA A 04D NNNN 000	
	5way A-coded	W EA A 05D NNNN 000	

Ø 1 mm Machined Pins (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W EA A 04D MRAN 000	
	5way A-coded	W EA A 05D MRAN 000	

Ø 1 mm Machined Pins (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W EA A 04D MDAN 000 (length X = 8 mm) W EA A 04D MDBN 000 (length X = 6 mm)	
	5way A-coded	W EA A 05D MDAN 000 (length X = 8 mm) W EA A 05D MDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W EA A 08D NNNN 000	

Ø 0.8 mm Machined Pins

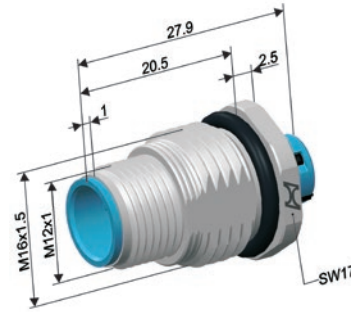
INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W EA A 08D MRCN 000 (AWG 24-20) W EA A 08D MRDN 000 (AWG 30-22)	

- Notes:**
- For partial assembly with 2 to 4 contacts add version number, see page 3
 - Cable assemblies are also offered, please contact factory
 - Dimensions are in mm

► **MALE RECEPTACLES**

Straight Male Receptacle - Type EB
Straight male receptacle, rear panel mounting M16x1.5

Stamped HCS round pins on reels 300/9,000 pcs.
More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W EB A 04D NNNN 000	
	5way A-coded	W EB A 05D NNNN 000	

Ø 1 mm Machined Pins (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W EB A 04D MRAN 000	
	5way A-coded	W EB A 05D MRAN 000	

Ø 1 mm Machined Pins (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W EB A 04D MDAN 000 (length X = 8 mm) W EB A 04D MDBN 000 (length X = 6 mm)	
	5way A-coded	W EB A 05D MDAN 000 (length X = 8 mm) W EB A 05D MDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W EB A 08D NNNN 000	

Ø 0.8 mm Machined Pins

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W EB A 08D MRCN 000 (AWG 24-20) W EB A 08D MRDN 000 (AWG 30-22)	

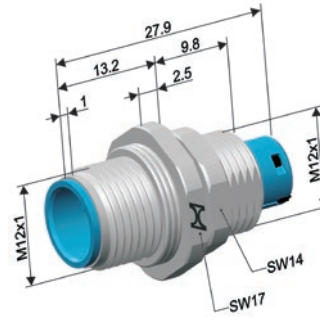
Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm.

► MALE RECEPTACLES

Straight Male Receptacle - Type ED
Straight male receptacle, front panel mounting M12x1

Stamped HCS round pins on reels 300/9,000 pcs.
More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W ED A 04D NNNN 000	
	5way A-coded	W ED A 05D NNNN 000	

Ø 1 mm Machined Pins (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W ED A 04D MRAN 000	
	5way A-coded	W ED A 05D MRAN 000	

Ø 1 mm Machined Pins (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W ED A 04D MDAN 000 (length X = 8 mm) W ED A 04D MDBN 000 (length X = 6 mm)	
	5way A-coded	W ED A 05D MDAN 000 (length X = 8 mm) W ED A 05D MDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W ED A 08D NNNN 000	

Ø 0.8 mm Machined Pins

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W ED A 08D MRCN 000 (AWG 24-20) W ED A 08D MRDN 000 (AWG 30-22)	

- Notes:**
- For partial assembly with 2 to 4 contacts add version number, see page 3
 - Cable assemblies are also offered, please contact factory
 - Dimensions are in mm

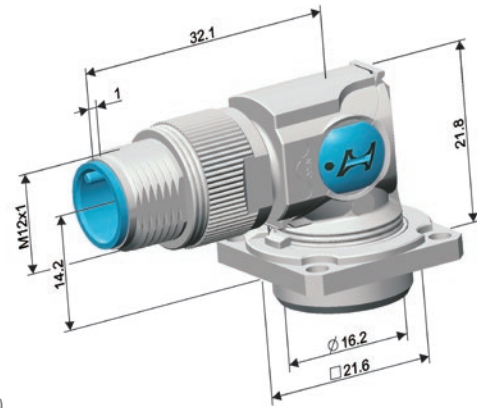
► **MALE RECEPTACLES**

Angled Male Receptacle - Type EC

90° male receptacle, flange mounting, rotatable back shell 0° to 330°

Stamped HCS round pins on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W EC A 04D NNNN 000	
	5way A-coded	W EC A 05D NNNN 000	

Ø 1 mm Machined Pins (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W EC A 04D MRAN 000	
	5way A-coded	W EC A 05D MRAN 000	

Without Contacts (Ø 0.8 mm machined or stamped pins ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W EC A 08D NNNN 000	

Ø 0.8 mm Machined Pins

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W EC A 08D MRCN 000 (AWG 24-20) W EC A 08D MRDN 000 (AWG 30-22)	

Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

▶ FEMALE PANEL FEED THROUGH

Straight Panel Feed Through - Type DA

Panel feed through, female, hexagon wrench size 17, front panel mounting M16x1.5

Stamped HCS hyperboloid sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W DA A 04C NNNN 000	
	5way A-coded	W DA A 05C NNNN 000	

Ø 1 mm Machined Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DA A 04C FRAN 000	
	5way A-coded	W DA A 05C FRAN 000	

Ø 1 mm Machined Sockets (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DA A 04C FDAN 000 (length X = 8 mm) W DA A 04C FDBN 000 (length X = 6 mm)	
	5way A-coded	W DA A 05C FDAN 000 (length X = 8 mm) W DA A 05C FDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DA A 08C NNNN 000	

Ø 0.8 mm Machined Sockets

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DA A 08C FRCN 000 (AWG 24-20) W DA A 08C FRDN 000 (AWG 30-22)	

Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

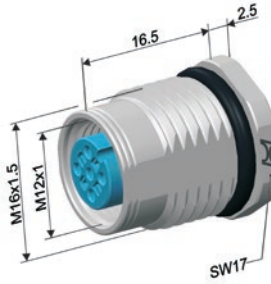
► **FEMALE PANEL FEED THROUGH**

Straight Panel Feed Through - Type DB

Panel feed through, female, rear panel mounting M16x1.5

Stamped HCS hyperboloid sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W DB A 04C NNNN 000	
	5way A-coded	W DB A 05C NNNN 000	

Ø 1 mm Machined Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DB A 04C FRAN 000	
	5way A-coded	W DB A 05C FRAN 000	

Ø 1 mm Machined Sockets (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DB A 04C FDAN 000 (length X = 8 mm) W DB A 04C FDBN 000 (length X = 6 mm)	
	5way A-coded	W DB A 05C FDAN 000 (length X = 8 mm) W DB A 05C FDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DB A 08C NNNN 000	

Ø 0.8 mm Machined Sockets

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DB A 08C FRCN 000 (AWG 24-20) W DB A 08C FRDN 000 (AWG 30-22)	

Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

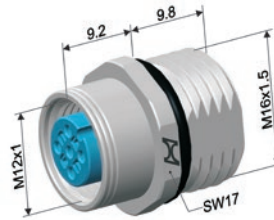
▶ FEMALE PANEL FEED THROUGH

Straight Panel Feed Through - Type DC

Panel feed through, female, front panel mounting M16x1.5

Stamped HCS hyperboloid sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W DC A 04C NNNN 000	
	5way A-coded	W DC A 05C NNNN 000	

Ø 1 mm Machined Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DC A 04C FRAN 000	
	5way A-coded	W DC A 05C FRAN 000	

Ø 1 mm Machined Sockets (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DC A 04C FDAN 000 (length X = 8 mm) W DC A 04C FDBN 000 (length X = 6 mm)	
	5way A-coded	W DC A 05C FDAN 000 (length X = 8 mm) W DC A 05C FDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DC A 08C NNNN 000	

Ø 0.8 mm Machined Sockets

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DC A 08C FRCN 000 (AWG 24-20) W DC A 08C FRDN 000 (AWG 30-22)	

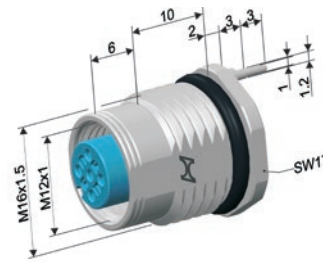
Notes:

1. For partial assembly with 2 to 4 contacts add version number, see page 3
2. Cable assemblies are also offered, please contact factory
3. Dimensions are in mm

► **FEMALE PANEL FEED THROUGH**

Straight Panel Feed Through - Type DD

Panel feed through, female, rear panel mounting M16x1.5 with grounding pin



Ø 1 mm Machined Pins (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DD A 04C FDAN 000 (length X = 8 mm) W DD A 04C FDBN 000 (length X = 6 mm)	
	5way A-coded	W DD A 05C FDAN 000 (length X = 8 mm) W DD A 05C FDBN 000 (length X = 6 mm)	

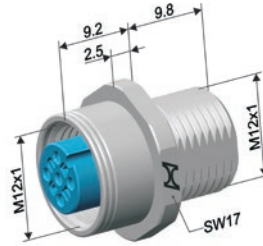
▶ FEMALE PANEL FEED THROUGH

Straight Panel Feed Through - Type DE

Panel feed through, female, front panel mounting M12x1

Stamped HCS hyperboloid sockets on reels 300/9,000 pcs.

More information and part numbers see page 22



Without Contacts (Ø 1 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	4way D-coded	W DE A 04C NNNN 000	
	5way A-coded	W DE A 05C NNNN 000	

Ø 1 mm Machined Sockets (AWG 24-18)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DE A 04C FRAN 000	
	5way A-coded	W DE A 05C FRAN 000	

Ø 1 mm Machined Sockets (Solder dip for PCB assembly, solder pin Ø 1 mm)

INSERT	TYPE	PART NUMBER ⁽¹⁾	CONTACTS
	4way D-coded	W DE A 04C FDAN 000 (length X = 8 mm) W DE A 04C FDBN 000 (length X = 6 mm)	
	5way A-coded	W DE A 05C FDAN 000 (length X = 8 mm) W DE A 05C FDBN 000 (length X = 6 mm)	

Without Contacts (Ø 0.8 mm machined or stamped sockets ordered separately)

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DE A 08C NNNN 000	

Ø 0.8 mm Machined Sockets

INSERT	TYPE	PART NUMBER	CONTACTS
	8way A-coded	W DE A 08C FRCN 000 (AWG 24-20) W DE A 08C FRDN 000 (AWG 30-22)	

Notes:

- For partial assembly with 2 to 4 contacts add version number, see page 3
- Cable assemblies are also offered, please contact factory
- Dimensions are in mm

CONTACTS

Machined Crimp Contacts

SIZE	AWG	DIMENSIONS	TYPE	PART NUMBER	ORDERING INFORMATION	CRIMPING TOOL
1 mm	24-18	0.24 to 1.0 mm ²	Hyperboloid Socket	020.001022.1020	FRAN	B151 + B200
			Pin	021.001039.1020	MRAN	B151 + B200
1 mm	30-22	0.05 to 0.34 mm ²	Hyperboloid Socket	020.000353.1020	FRBN	B150 + B055/A
			Pin	021.000402.1020	MRBN	B150 + B055/A
0.8 mm	24-20	0.24 to 0.5 mm ²	Hyperboloid Socket	020.001024.1020	FRCN	B151 + B200
			Pin	021.001044.1020	MRCN	B151 + B200
0.8 mm	30-22	0.05 to 0.34 mm ²	Hyperboloid Socket	020.001027.1020	FRDN	B150 + B395
			Pin	021.001045.1020	MRDN	B150 + B395

Stamped Crimp HCS™ Contacts

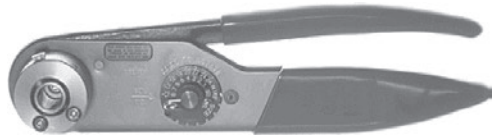

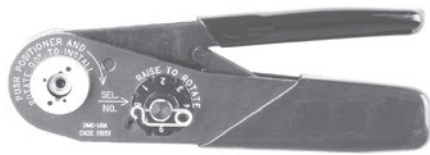

SIZE	AWG	DIMENSIONS	TYPE	PART NUMBER <i>Reel 9,000 pcs.</i>	PART NUMBER <i>Reel 300 pcs.</i>	CRIMPING TOOL
1 mm	32-28	0.03 to 0.08 mm ²	Hyperboloid Socket	020.000376.2000	020.000376.2000.A2	B287/32 - 28
			Pin	021.001005.1025	021.001005.1025.A2	B287/32 - 28
1 mm	28-24	0.08 to 0.20 mm ²	Hyperboloid Socket	020.000377.2000	020.000377.2000.A2	B287/28 - 24
			Pin	021.001006.1025	021.001006.1025.A2	B287/28 - 24
1 mm	24-20	0.20 to 0.50 mm ²	Hyperboloid Socket	020.000378.2000	020.000378.2000.A2	B287/24 - 20
			Pin	021.001007.1025	021.001007.1025.A2	B287/24 - 20
0.8 mm	32-28	0.03 to 0.08 mm ²	Hyperboloid Socket	020.001018.2000	020.001018.2000.A2	B287/32 - 28
			Pin	021.001035.1025	021.001035.1025.A2	B287/32 - 28
0.8 mm	28-24	0.08 to 0.20 mm ²	Hyperboloid Socket	020.001019.2000	020.001019.2000.A2	B287/28 - 24
			Pin	021.001036.1025	021.001036.1025.A2	B287/28 - 24
0.8 mm	24-20	0.20 to 0.50 mm ²	Hyperboloid Socket	020.001020.2000	020.001020.2000.A2	B287/24 - 20
			Pin	021.001037.1025	021.001037.1025.A2	B287/24 - 20

Machined Solder Contacts (Solder pin Ø 1 mm)


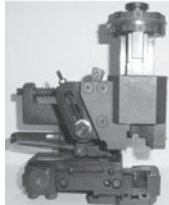
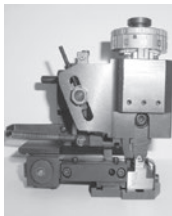
SIZE	TERMINATION	TYPE	PART NUMBER
1 mm	8 mm Solder Pin	Hyperboloid Socket	090.000029.2000
		Pin	070.000011.2000
1 mm	6 mm Solder Pin	Hyperboloid Socket	090.000030.2000
		Pin	070.000012.2000

TOOLS

Crimping Tools for Machined Contacts

HAND CRIMPING TOOL	POSITIONER
 <p>B151</p>	 <p>B200</p>
 <p>B150</p>	 <p>B055/A (Ø 1 mm contacts) B395 (Ø 0.8 mm contacts)</p>

Crimping Tools for Stamped Contacts

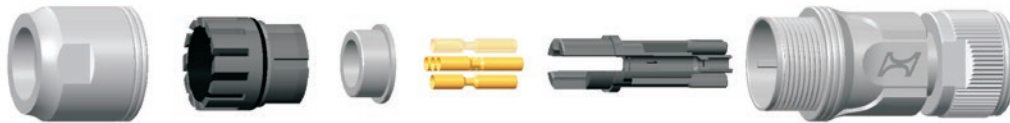
CRIMPING TOOL	TERMINATION CROSS SECTION	AWG	PART NUMBER
 <p>HAND CRIMPING TOOLS WITH FEEDER LINE <i>For 300 pcs. reels</i></p>	0.03 to 0.08 mm ²	32-28	B287/32 - 28
	0.08 to 0.20 mm ²	28-24	B287/28 - 24
	0.20 to 0.50 mm ²	24-20	B287/24 - 20
 <p>APPLICATORS FOR CRIMPING MACHINES WITH FEEDER LINE <i>AMP/Schäfer ESP 100</i></p>	0.03 to 0.08 mm ²	32-28	B288/32 - 28
	0.08 to 0.20 mm ²	28-24	B288/28 - 24
	0.20 to 0.50 mm ²	24-20	B288/24 - 20
 <p>APPLICATORS FOR CRIMPING MACHINES WITH FEEDER LINE <i>Kirsten PP3</i></p>	0.03 to 0.08 mm ²	32-28	B286/32 - 28
	0.08 to 0.20 mm ²	28-24	B286/28 - 24
	0.20 to 0.50 mm ²	24-20	B286/24 - 20

ASSEMBLY INSTRUCTIONS

▶ STRAIGHT FEMALE CABLE PLUG

Stripping Length:

A = 23 mm, x = 4 mm (machined contacts) or 3 mm (stamped contacts)



1



2



3



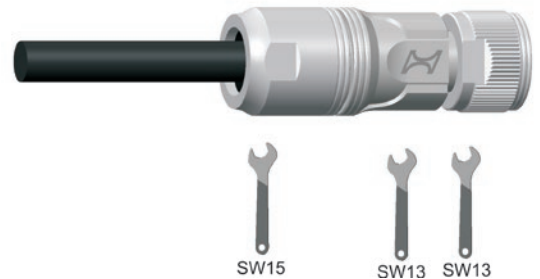
4



5



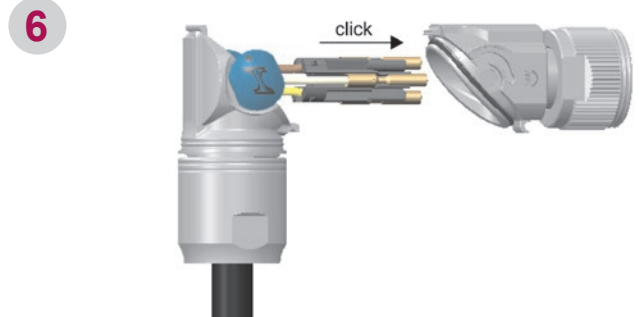
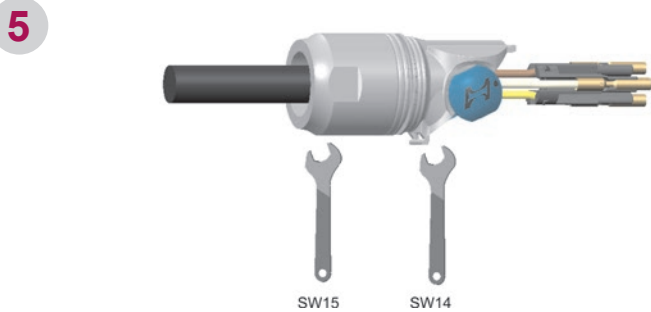
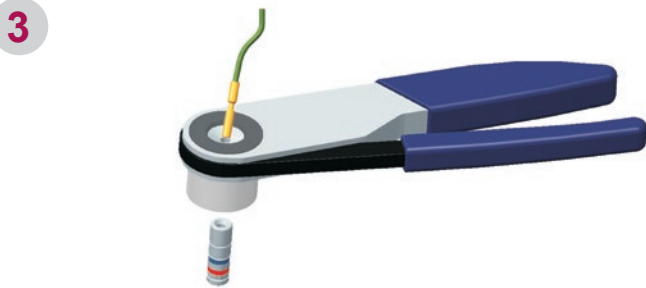
6



▶ ANGLED FEMALE CABLE PLUG

Stripping Length:

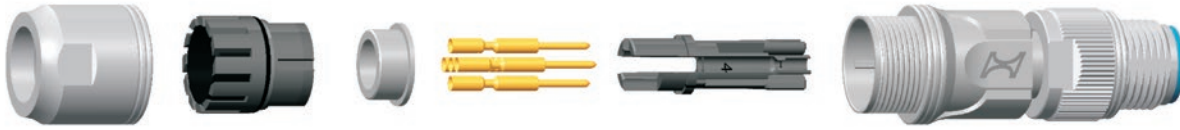
A = 35 mm, x = 3 mm (machined contacts) or 4 mm (stamped contacts)



► **STRAIGHT MALE CABLE PLUG**

Stripping Length:

A = 23 mm, x = 4 mm (machined contacts) or 3 mm (stamped contacts)



1



2



3



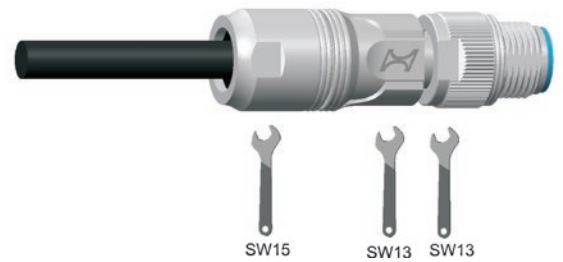
4



5



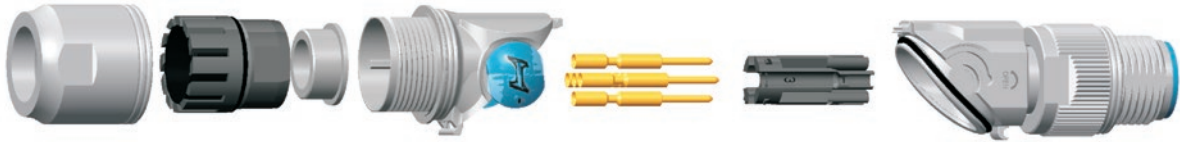
6



▶ ANGLED MALE CABLE PLUG

Stripping Length:

A = 35 mm, x = 4 mm (machined contacts) or 3 mm (stamped contacts)



1



2



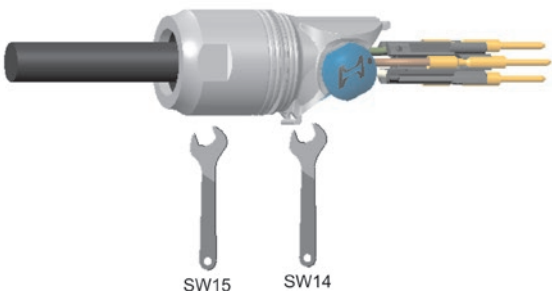
3



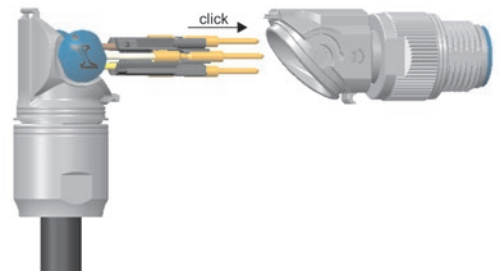
4



5



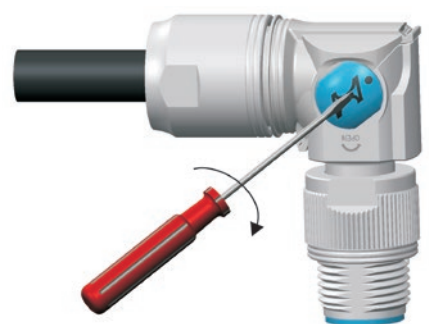
6



7



8



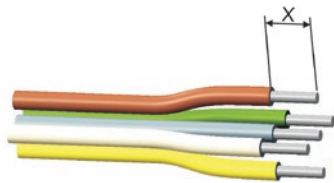
► **STRAIGHT MALE RECEPTACLE**

Stripping Length:

x = 4 mm (machined contacts) or 3 mm (stamped contacts)



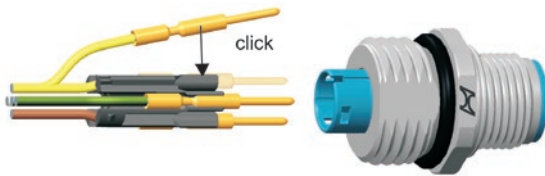
1



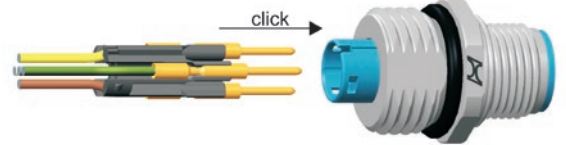
2



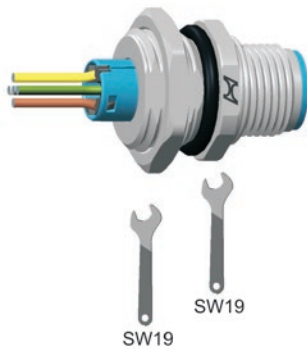
3



4



5



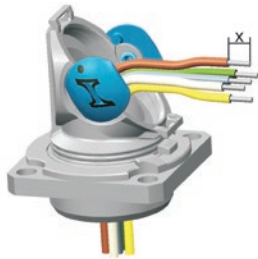
▶ **ANGLED MALE RECEPTACLE**

Stripping Length:

x = 4 mm (machined contacts) or 3 mm (stamped contacts)



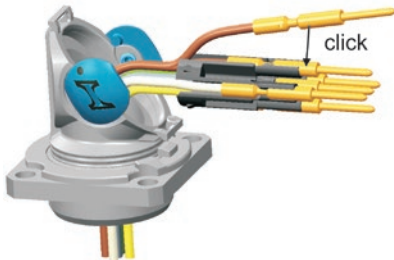
1



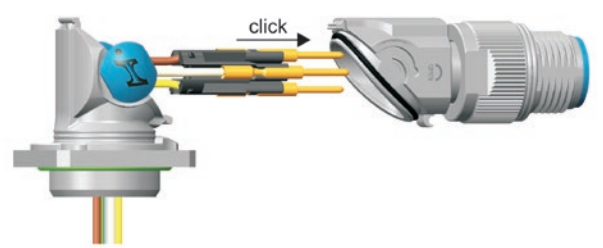
2



3



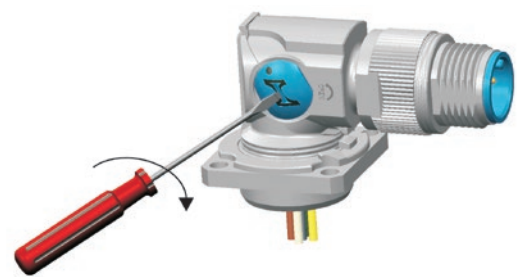
4



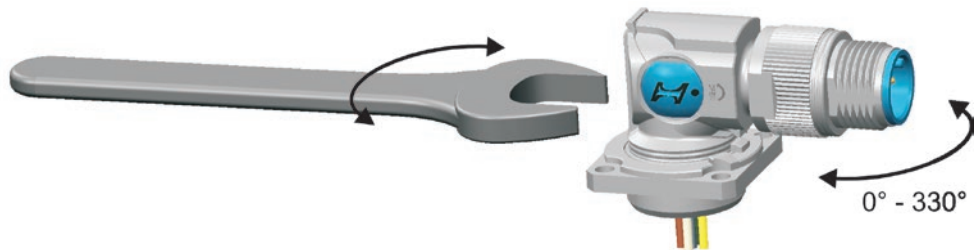
5



6



7



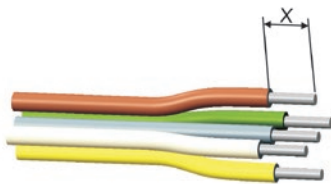
► **FEMALE PANEL FEED THROUGH**

Stripping Length:

x = 4 mm (machined contacts) or 3 mm (stamped contacts)



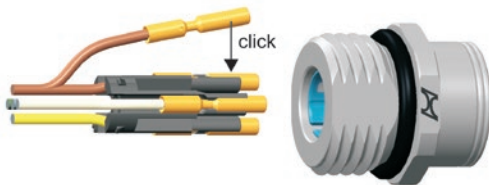
1



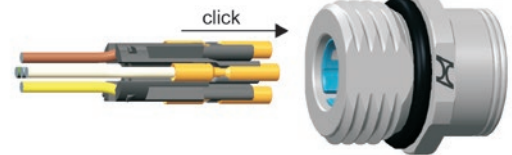
2



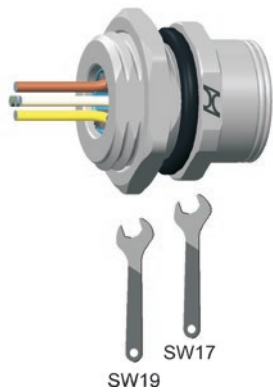
3



4




5



USER INFORMATION

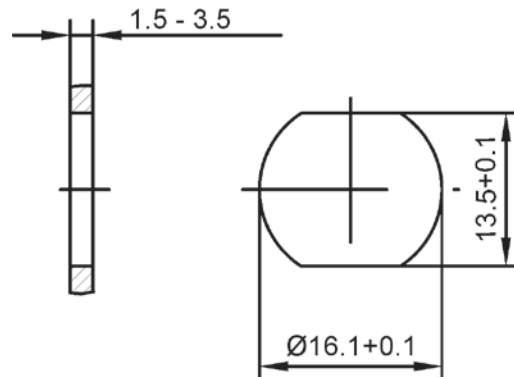
Accessories & Mounting

► ACCESSORIES

ACCESSORIES	PART NUMBER
 <p>CABLE CLAMPS For free assemble cable plugs</p>	Ø 4.5 to 6 mm: .293
	Ø 6 to 8 mm: .294
	Ø 9 to 10 mm: .283
	Ø 7.5 to 9 mm: .308
 <p>PROTECTION CAPS</p>	Solder pins: 031.294.1000
	External threads: 031.001087.1000
 <p>DUST SHIELD CAPS</p>	Male cable plugs: C/BEL/9
	Female cable plugs: 007.001182.1002

► MOUNTING ARRANGEMENT

Straight Receptacle & Panel Feed Through



Disclaimer 2015

All of the information included in this catalog is believed to be accurate at the time of printing. It is recommended, however, that users should independently evaluate the suitability of each product for their intended application and be sure that each product is properly installed, used and maintained to achieve desired results.

Smiths Connectors makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use.

Smiths Connectors reserves the right to modify design and specifications, in order to improve quality, keep pace with technological development or meet specific production requirements.

No reproduction or use without express permission of editorial and pictorial content, in any manner.

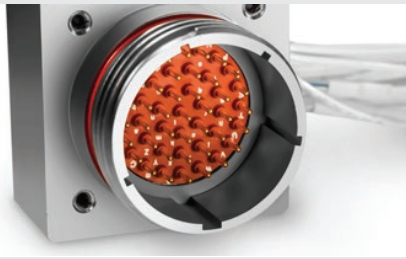
SMITHS CONNECTORS PRODUCT LINES

Circular



- ▶ Metal and plastic
- ▶ Industrial M12, M23, M40, M58
- ▶ Crimp and solder terminations
- ▶ Push/pull latch mechanism
- ▶ Color coding

EMI / EMP Filter



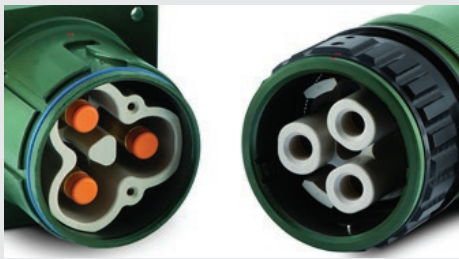
- ▶ EMI/RFI filtering and transient protection
- ▶ RoHS compliant solderless filter connectors available
- ▶ Filtered adapter for "bolt on" EMI/EMP solutions
- ▶ Filter hybrid capability
- ▶ Circular, ARINC, D-Subminiature, Micro-D

Heavy Duty



- ▶ Modular solution: signal, power, data contacts and fiber optics
- ▶ EMC shielding
- ▶ High pressure up to 35K PSI, 250°C
- ▶ High temperature up to 440°C

High Power



- ▶ Single and multi-way
- ▶ Circular and configurable rectangular
- ▶ Power contact up to 1,200 Amps
- ▶ Excellent performance in harsh environments

High Speed Copper / Fiber



- ▶ Quadrax and Twinax connectors
- ▶ Fiber Optic Butt Joint, Expanded Beam and Floating Fiber Termini available
- ▶ ARINC and MIL-STD contacts

Mil / Aero Standards



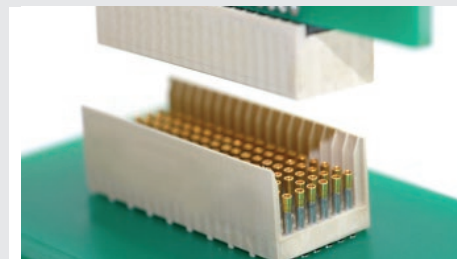
- ▶ Standard military interface
- ▶ ARINC 801
- ▶ ARINC interface
- ▶ Custom inserts

Modular / Rectangular



- ▶ Configurable modules for signal, power, coax, fiber optic and/or pneumatics
- ▶ Guided hardware for blind mating
- ▶ Easy configuration in a single frame
- ▶ For rack & panel and cable applications

PCB



- ▶ Low, medium and high density board-to-board, cable to board and stacking
- ▶ Signal, power, coax and high speed configurations
- ▶ Numerous termination styles

Spring Probe



- ▶ Z-axis compliant
- ▶ Blind mate engagement
- ▶ High density
- ▶ Extreme miniaturization
- ▶ High reliability, multi-cycle performance

SMITHS CONNECTORS GLOBAL SUPPORT

AMERICAS

Costa Mesa, CA
Hudson, MA
Kansas City, KS

1.714.371.1100
1.978.568.0451
1.913.342.5544

customerservice@sabritec.com
info@hypertronics.com
info@idinet.com

EUROPE

France
Germany
Italy
United Kingdom

33.2.3296.9176
49.991.250.120
39.10.60361
44.208.236.2400

info@hypertac.fr
info@hypertac.de
info@hypertac.it
info@hypertac.co.uk

ASIA

Shanghai, China
Singapore
Suzhou, China

86.21.3318.4650
65.6846.1655
86.512.6273.1188

asiacrs@smithsconnectors.com
asiacrs@smithsconnectors.com
asiacrs@smithsconnectors.com

visit us at | smithsconnectors.com |     

Copyright© 2015 Smiths Connectors | All rights reserved | Version 1.2