



INGKE TECHNOLOGY CO., LIMITED
Solution of Industrial Connector

M SERIES CONNECTOR





INGKE Technology specializes in producing M-series connector, Circular Connector and waterproof, finished wire harness and OEM/ODM business, to provide customers with a comprehensive professional connection solutions. Since its establishment 1993, with technology as dependence and the market as direction, we have developed to be a competitive high-tech enterprise and a leading manufacturer of connectors.



After years of development, because of excellent products, rich product lines and high cost performance, our company is more and more popular with the majority of customers. In the environment of unmanned driving and industry 4.0, INGKE TECHNOLOGY products are widely used in wind power generation, high-speed rail, automobile manufacturing, intelligent transportation, intelligent manufacturing and so on, and gradually become the backbone of domestic industrial connectors. We have passed the ISO9001 system certification, and the implementation of 6S management policy, effectively ensure the quality of products.

Our company's sales network has been gradually built, and offices will be set up in major cities in China and more partners will be established around the world. We take "professional focus to do a good job in each product" concept, "to the highest quality, sincere service" the purpose of sincere service for customers.



产品目录

DIRECTORY

M5

Connector

10

M8

Connector

13

M9

Connector

23

M12

Connector

27

M16

Connector

49

M23

Connector

55

7/8

Connector

60

ISO9001

STRICTLY IN ACCORDANCE WITH THE ISO9001 QUALITY MANAGEMENT SYSTEM

1



Experienced R&D Team

From connector research and development, mold making to production and processing, each link is controlled by senior engineers, and the whole team has rich experience in connector and wire harness processing.

2



High quality production and testing equipment

From hardware processing, assembly, welding, injection molding and testing, we purchase advanced production equipment and testing equipment to ensure the production of high quality products, low production defect rate requirements.

3



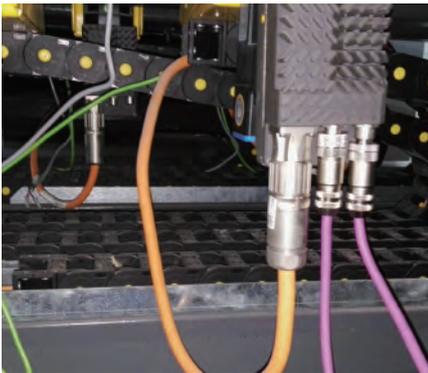
High quality production talents

With the rapid growth of business and the rapid growth of production personnel, we have also established a perfect pre-job training, on-the-job further education and other training systems, so as to create a group of high-quality production talents.

APPLICATION

PROFESSIONAL FOCUS ON PROVIDING A VARIETY OF SIGNAL、DATA、POWER TRANSMISSION CONNECTORS

SERVO MOTOR



With the trend of networking and movement, the connection mode of servo motor is also upgraded, and the application of the connection demand of drag chain cable and high protection class is accelerated. The M12 A, D, X, S, T types and The M17, M23 series developed by INGKE TECHNOLOGY meet the needs of various specifications of motors.

INDUSTRIAL CAMERA



The development of the Internet of Things IOT has promoted the rapid development of industrial cameras, which play a pivotal role in the industrial manufacturing and logistics industries. Harsh environment and ultra-high transmission requirements, INGKE TECHNOLOGY developed the M12 connector to better solve the industrial camera connection.

RENEWABLE ENERGY



Energy comes from natural processes. Solar energy, wind energy, geothermal energy, hydraulic power, and some forms of biomass are the most common, cleaner and moresustainable sources of energy. In accordance with the development of renewable energy technology trends, INGKE keeps pace with the times and develops connectors and wire harness assemblies for power, signal and hybrid transmission, which can be used in wind power stations, wind turbines, solarpower stations, inverters, and natural gas, hydraulic power plants, simple toinstall, fast and reliable. Customized solutions provide one-stop service for specific needs.

DESIGN AND MANUFACTURE OF PRECISION PERSONALIZED CONNECTION SOLUTIONS



AEROSPACE & DRONE



To support reliable signal and data transmission under harsh environment about civil aircraft, commercial aviation industry, military aviation, drones, GPS Navigation is the basic requirement for connector. INGKE' M series and PUSH-PULL products can provide operable solution no matter how the environment is cold, vibration, high radiation, high humidity.

INDUSTRIAL 4.0



INGKE' sensors/ actuators in the form of connectors, cable harness assemblies are perfectly suited for industrial equipment and machinery. They offer safety in harsh environmental conditions including corrosion, shock vibration, dust, moisture buildup as well as extremely adverse installation situations. The solutions act as a control system providing reliable connections in the key industrial machinery and factory automation markets.

SMART CITY



With the popularity of smart city, traffic intelligence, data collection and other industries have higher requirements for video transmission and data transmission. Traffic signals, video surveillance and other connectors and feeder cable have also been a large number of applications.

PROTOCOL

IO-LINK TECHNOLOGY

Standardized data interfaces are more and more widely used in industry to meet the distributed control of complex production systems and the increasing demand for rapid exchange of information and data. Different from the office field, the industrial environment applications put forward very strict requirements for connectors, connection technology and wiring, INGKE electric products have covered most of the current mainstream network bus protocol and field bus protocol products.

The series of products include assembly, prefabricated cable, through panel mount, PCB board and other types of installation solutions in all aspects.





Schematic diagram of IO-link connection technology

CANopen®

SERCOS
the automation bus

EtherNet/IP™

CC-Link IE Field

CC-Link

DeviceNet™

EtherCAT®

PROFI[®]
BUS

PROFI[®]
NET

INTERBUS

AS[®]
INTERFACE
SAFETY AT WORK

CAT6A
10 Gbit/s

CONNECTION TECHNOLOGY

CONNECTORS OR COMPONENTS FULLY MEETS THE CUSTOMER'S SPECIFICATIONS

Instructions for use: Connectors and accessories are not allowed to be operated with power on or with load under normal use.

SCREW CONNECTION

- Screw connection is a detachable electrical connection between the guide wire, screw, and terminal. Designed according to DIN/EN 60999/VDE 0609.
- Wide range of applicable wire specifications, no special tools, can be operated on site.

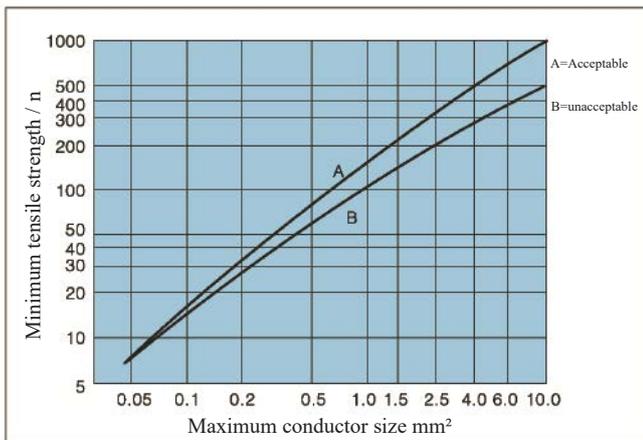
Screw size	M2.5	M3	M3.5
Torque(Ncm)	40	50	60

SOLDERING CONNECTION

- Welding connections can be wired to conductors via electro-solder irons and weld'ers, or connectors to printed circuit boards. Solder joints and accessories are tested and signed according to DIN EN 60068 part 2-20 operation.
- Suitable for prefabricated cable connection, printed circuit board, easy and fast operation, high pin density.

CRIMP CONNECTION

- Crimp connection is to use crimping tools to physically twist wires and conductors together, is a non-detachable electrical connection. Connection requirements according to DIN IEC 60352 Part 2.
- Suitable for field wiring, high reliability, high connection density characteristics.



HOW TO ORDER(PART NUMBER)

YK **B** **08** - **P** **1** **03** **A** **SR** **M** - **L**
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Shielded / Unshielded

P = Unshielded
B = Shielded Pin(Ground Pin)
S = Shielded

② Connector's Size

05 = M5 | 08 = M8 | 09 = M9 |
12 = M12 | 16 = M16 | 23 = M23
78 = 7/8 Connector

③ Housing Material

M = Metal (Brass, Nickel Plated)
S = Metal (Brass, Nickel Plated)
Panel-Mounting Connector > Shielding Pin.
N = Metal (Brass, Nickel Plated)
Overmolded-Connector > With Shielding Cable.
P = Plastic (Nylon + GF, UL Approval).
E = Metal with Electronic Wire

④ Connector Gender

1 = Male | 2 = Female
3 = Male+Female

⑤ Number of Pins

M5, see page 12 electrical parameters.
M8, see page 21 electrical parameters.
M9, see page 26 electrical parameters.
M12, see page 40 43 47 48 electrical parameters. M16,
see page 54 electrical parameters.
M23, see page 57 58 electrical parameters.
7/8, see page 63 electrical parameters.

⑥ Coding A, B, C, D, E, K, L, M, P, S, T, X or Y...

⑦ ⑧ Connector Type

Panel Side Connector

⑦
SR = Solder Bucket Pin, Rear Mounting
SF = Solder Bucket Pin, Front Mounting
PR = PCB Pin, Rear Mounting
PF = PCB Pin, Front Mounting
RP = R/A PCB Pin, Rear Mounting
⑧
*L = PG7 | P = PG9 | N = M12*1.0 | M = M16*1.5*

Cable Size Connector

⑦
SN = Straight Over-molded Connector.
RN = R/A Over-molded Connector.
⑧ **Cable Material**
V = PVC | U = PUR | T = TPU ...

Field-Attachable Connector

⑦
FN = Straight Field-Attachable Connector
FR = Right Angle Field-Attachable Connector
⑧
L = Screw Connection
H = Soldering Connection
Y = Crimp Connection

SMT(SMD) Connector

SDT = With Screw Nut.(Shown as follow 1)
RST = With Screw Nut.(Shown as follow 2)
FWT = Without Screw Nut



⑨ Cable Length(mm)

100 = 100mm
1000 = 1000mm
...

*Customized products and some products are not included in this list.

M5 Series

Pins number: 3-4 pins

Plug: The length of cable can be customized

Socket: Front Mount Solder Type, Back Mount Solder Type and PCB board type

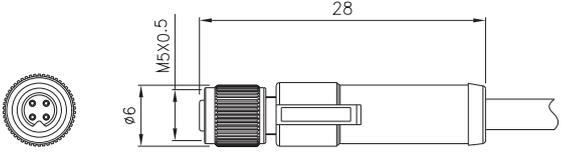
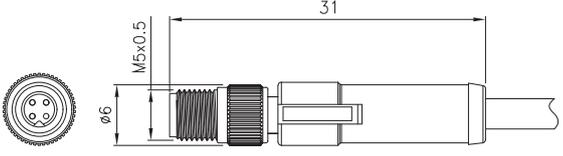
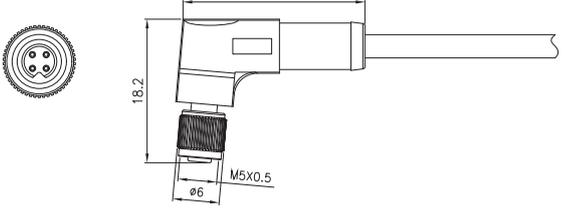
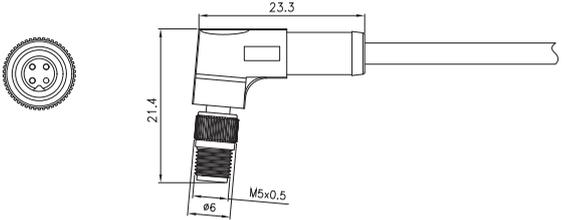
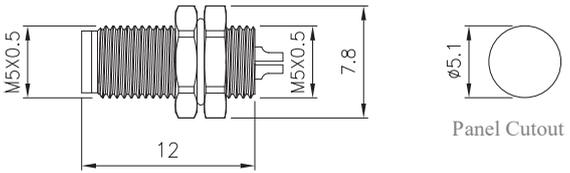
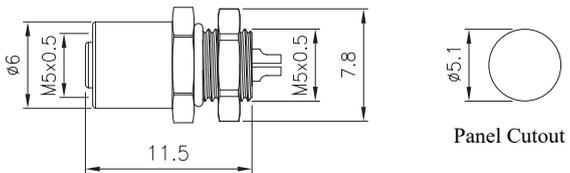
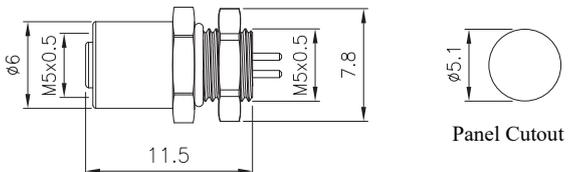
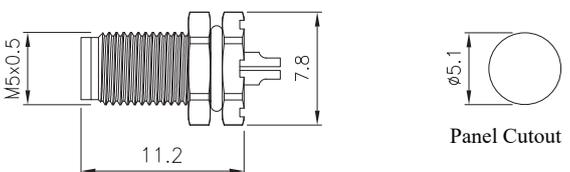
Waterproof grade: IP65 IP67 IP68

The products comply with IEC 61076-2-105 standard



PRODUCT PARAMETERS

Shell material: Brass nickel plated	Contact impedance: $\leq 3\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Durability: ≥ 500 Cycles
Contact material: Phosphorus copper/Brass gold-plated	Insulation impedance: $\geq 100\text{M}\Omega$
Insulator material: PA66	Temperature: $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Molding material: TPU/PVC	

Examples Picture	Drawing NO. and Description	Examples Drawing
	C0502S01 M5 Straight Female Overmolded plug	
	C0501S02 M5 Straight Male Overmolded plug	
	C0502R03 M5 Angled Female Overmolded plug	
	C0501R04 M5 Angled Male Overmolded plug	
	X0501F05 M5 Male Front Mount Socket (Solder, Screw M5*0.5)	
	X0502F06 M5 Female Front Mount Socket (Solder, Screw M5*0.5)	
	B0502F07 M5 Female Front Mount Socket (PCB Mount, Screw M5*0.5)	
	X0501H08 M5 Male Rear Mount Socket (Solder, Screw M5*0.5)	

Examples Picture	Drawing NO. and Description	Examples Drawing
	B0501H09 M5 Male Rear Mount Socket (PCB Mount)	
	X0502H10 M5 Female Rear Mount Socket (Solder)	
	B0502H11 M5 Female Rear Mount Socket (PCB Mount)	

M5•ELECTRICAL PARAMETERS

Pins	Male	Rated current	Rated voltage		Conductor size		Female
			A/C	D/C	AWG	mm ²	
3		1A	60V	60V	26	0.14	
4		1A	60V	60V	26	0.14	

M5•PCB PINS ARRANGEMENT

Pin	3	4	Pin	3	4
Male			Female		

M5•WIRE DEFINITION

Pins	Wire color
3 Pins	
1	BN
2	-
3	BU
4	BK

Pins	Wire color
4 Pins	
1	BN
2	WH
3	BU
4	BK

* Wiring definition according to conventional standards, if according to the agreement or other please contact us

M8 Series

Pins Number: 3 4 5 6 8 pins

Plug: assembly, overmolded cable type (length can be customized at will)

Most connectors are excellent for full shielding at 360 degrees

Socket: Front Mount Solder Type, Back Mount Solder Type and PCB board type

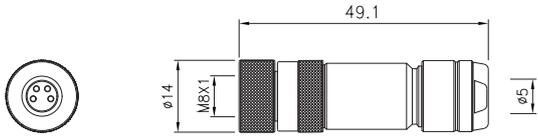
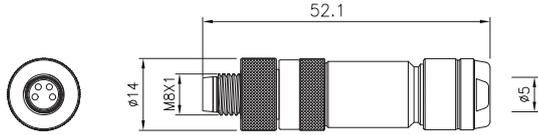
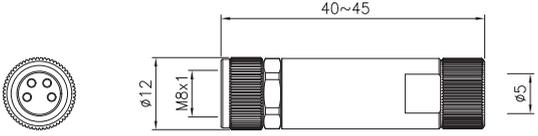
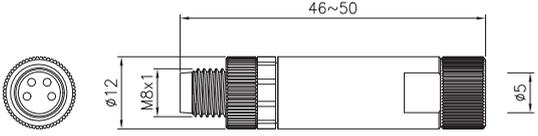
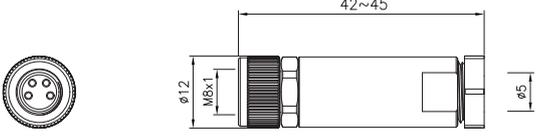
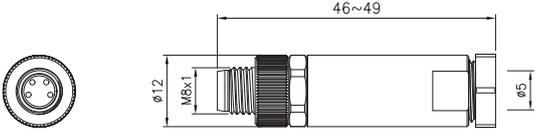
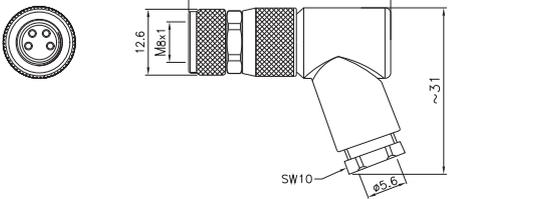
Waterproof grade: Ip65 IP67 IP68

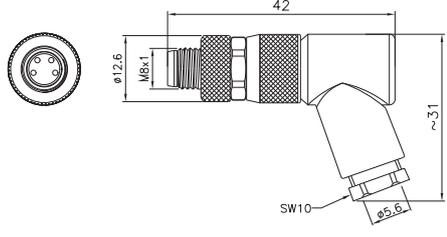
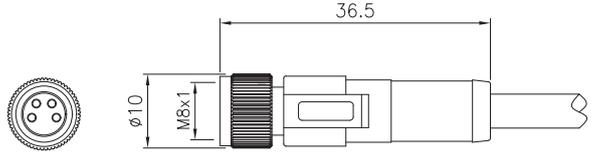
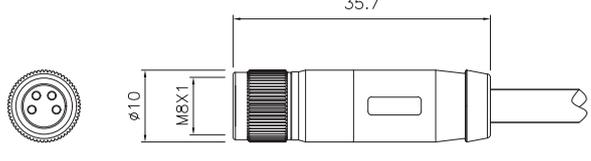
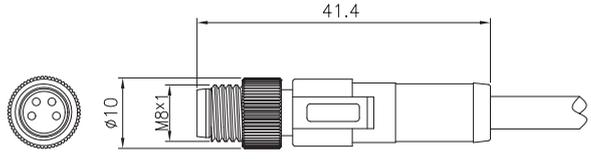
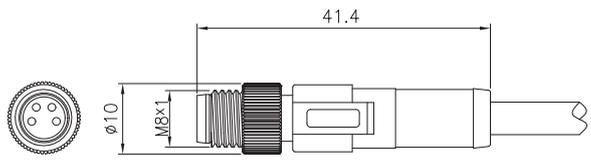
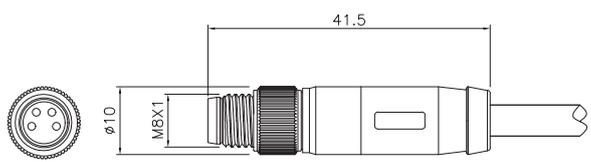
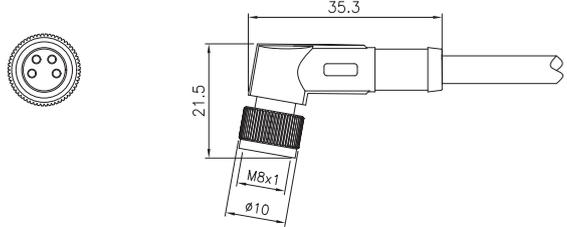
Products comply with IEC 61076-2-104 standard

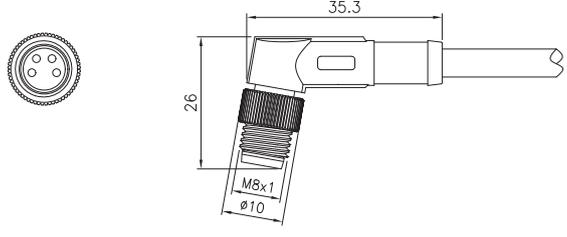
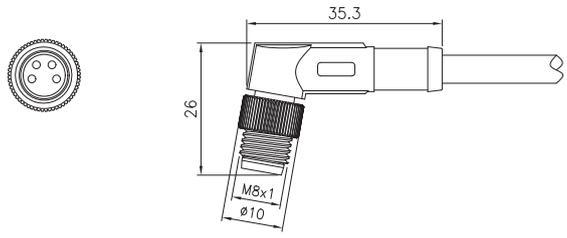
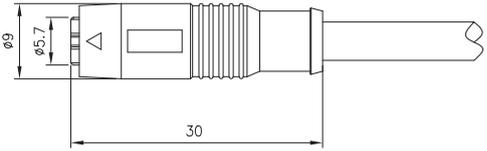
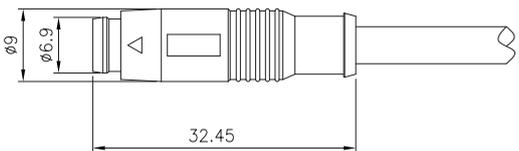
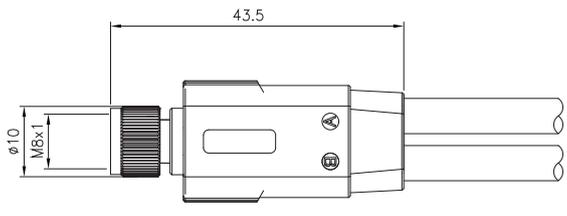
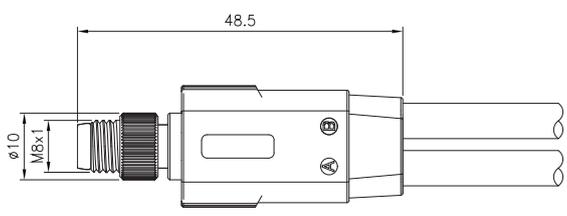
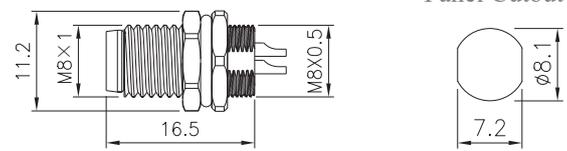


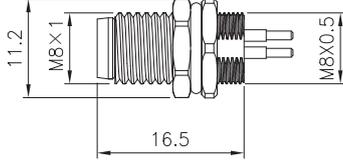
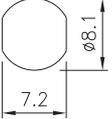
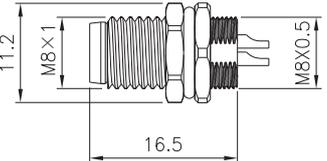
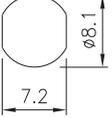
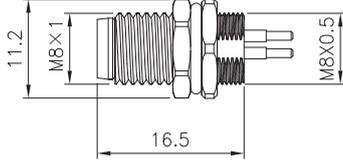
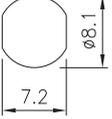
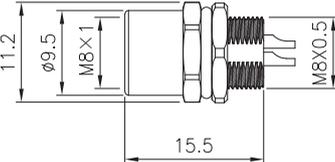
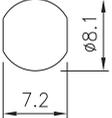
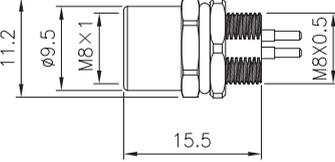
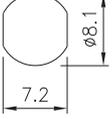
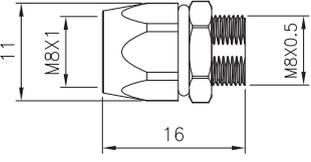
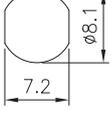
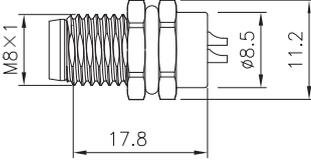
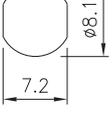
PRODUCT PARAMETERS

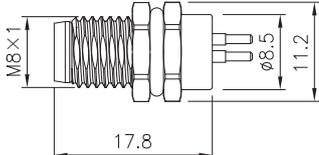
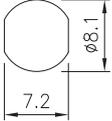
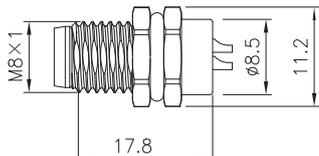
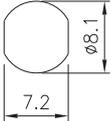
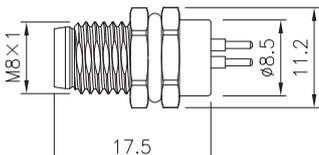
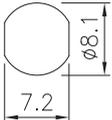
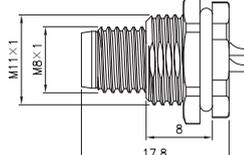
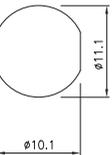
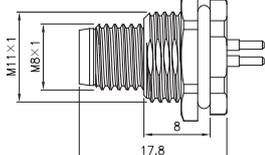
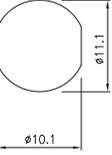
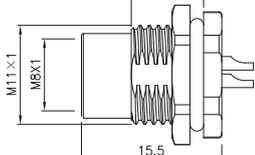
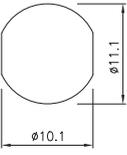
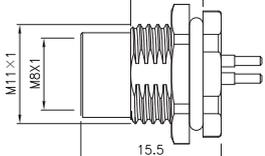
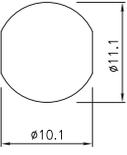
Shell material: Brass nickel-plated/Zinc alloy nickel-plated	Contact impedance: $\leq 5\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Durability: ≥ 500 Cycles
Contact material: Brass/Phosphorus copper gold-plated	Insulation impedance: $\geq 100\text{M}\Omega$
Insulator material: PA66	Temperature: $-40^\circ\text{C} \sim +85^\circ\text{C}$
Molding material : TPU/PVC	

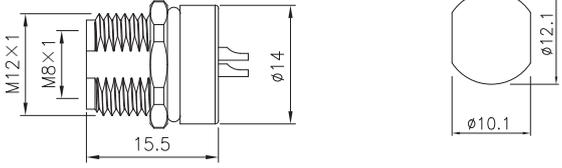
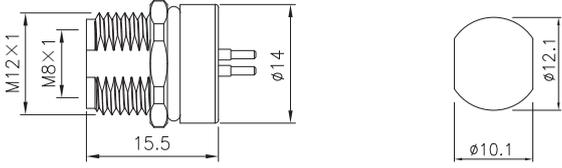
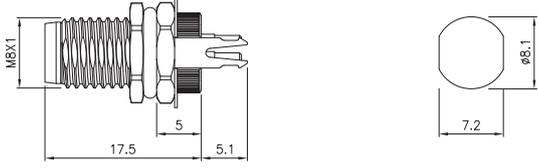
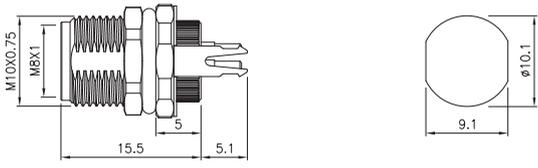
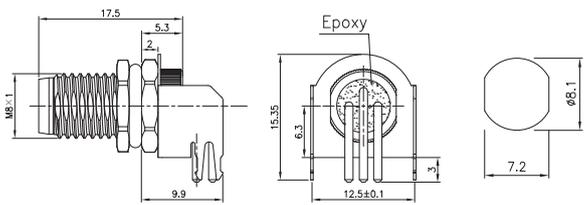
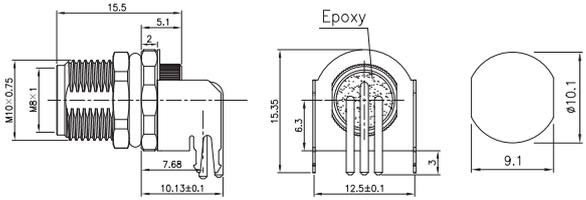
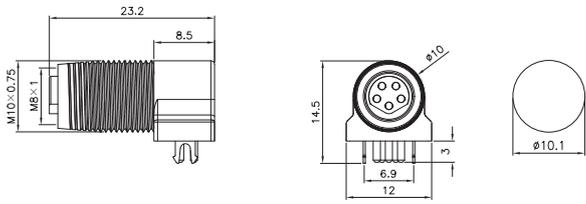
Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Z0802S01 M8 Straight Female Metal Plug (Screw terminal)</p>	
	<p>Z0801S02 M8 Straight Male Metal Plug (Screw terminal)</p>	
	<p>Z0802S03 M8 Straight Female Metal Plug (Screw terminal)</p>	
	<p>Z0801S04 M8 Straight Male Metal Plug (Screw terminal)</p>	
	<p>Z0802S05 M8 Straight Female Plastic Plug (Screw terminal)</p>	
	<p>Z0801S06 M8 Straight Male Plastic Plug (Screw terminal)</p>	
	<p>Z0802R07 M8 Angled Female Plastic Plug (Screw terminal)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Z0801R08 M8 Angled Male Plastic Plug (Screw terminal)</p>	
<p>Shielded/Unshielded</p> 	<p>C0802S09 M8 Straight Female overmolded plug</p>	
<p>Shielded/Unshielded</p> 	<p>C0802S10 M8 Straight Female overmolded plug (with damping)</p>	
<p>Shielded/Unshielded</p> 	<p>C0801S11 M8 Straight Male overmolded plug</p>	
<p>Shielded/Unshielded</p> 	<p>C0801S12 M8 Straight Male overmolded plug (Metal interface)</p>	
<p>Shielded/Unshielded</p> 	<p>C0801S13 M8 Straight Male overmolded plug (with damping)</p>	
<p>Shielded/Unshielded</p> 	<p>C0802R14 M8 Angled Female overmolded plug</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	C0801R15 M8 Angled Male overmolded plug	
	C0801R16 M8 Angled Male overmolded plug (Metal interface)	
	C0802S17 M8 Straight Female overmolded plug (push-pull)	
	C0801S18 M8 Straight Male overmolded plug (push-pull)	
	F0802S19 M8 Female 1 to 2 overmolded plug	
	F0801S20 M8 Male 1 to 2 overmolded plug	
	X0801S21 M8 Male Front Mount Socket (Solder, Screw M8*0.5)	

Examples Picture	Drawing NO. and Description	Examples Drawing/Panel Cutout	
	<p>B0801S22 M8 Male Front Mount Socket (PCB, Screw M8*0.5)</p>		
	<p>X0801S23 M8 Male Front Mount Socket (Solder, Screw M8*0.5) (Metal interface)</p>		
	<p>B0801S24 M8 Male Front Mount Socket (PCB, Screw M8*0.5) (Metal interface)</p>		
	<p>X0802S25 M8 Female Front Mount Socket (Solder, Screw M8*0.5)</p>		
	<p>B0802S26 M8 Female Front Mount Socket (PCB, Screw M8*0.5)</p>		
	<p>X0802S27 M8 Female Front Mount Socket (Solder, Screw M8*0.5) (bullet type)</p>		
	<p>X0801S28 M8 Male Back Mount Socket (Solder, Screw M8*1)</p>		

Examples Picture	Drawing NO. and Description	Examples Drawing/Panel Cutout	
	<p>B0801S29 M8 Male Back Mount Socket (PCB, Screw M8*1)</p>		
	<p>X0801S30 M8 Male Back Mount Socket (Solder, Screw M8*1) (Metal interface)</p>		
	<p>B0801S31 M8 Male Back Mount Socket (PCB, Screw M8*1) (Metal interface)</p>		
	<p>X0801S32 M8 Male Back Mount Socket (Solder, Screw M11*1)</p>		
	<p>B0801S33 M8 Male Back Mount Socket (PCB, Screw M11*1)</p>		
	<p>X0802S34 M8 Female Back Mount Socket (Solder, Screw M11*1)</p>		
	<p>B0802S35 M8 Female Back Mount Socket (PCB, Screw M11*1)</p>		

Examples Picture	Drawing NO. and Description	Examples Drawing/Panel Cutout
	<p>X0802S36 M8 Female Back Mount Socket (Solder, Screw M12*1)</p>	
	<p>B0802S37 M8 Female Back Mount Socket (PCB, Screw M12*1)</p>	
	<p>B0801G38 M8 Female Back Mount Socket (PCB, Screw M8*1) Grounded type</p>	
	<p>B0802G39 M8 Female Back Mount Socket (PCB, Screw M10*0.75) Grounded type</p>	
	<p>B0801R40 M8 Angled Male Back Mount Socket (PCB, Screw M8*1) Grounded type</p>	
	<p>B0802R41 M8 Angled Female Back Mount Socket (PCB, Screw M10*0.75) Grounded type</p>	
	<p>S0802R42 M8 Angled Female Socket (PCB, Screw M10*0.75)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Y0803C43 M8 Y Type Adapter (PSS)</p>	
	<p>T0803C44 M8 T Type Adapter (PSS)</p>	
	<p>I0801S45 M8 I Type Adapter (PS) (Screw M11*1)</p>	<p style="text-align: right;">Panel Cutout</p>
	<p>I0801S46 M8 I Type Adapter (PS)</p>	
	<p>P0802S47 M8 Female Ohm terminal plug 120Ω</p>	
	<p>P0801S48 M8 Male Ohm terminal plug 120Ω</p>	

M8 · DUST COVER

M8 Plastic Dust Cover (Inner screw)		
	Ring inner diameter	Drawing NO.
	φ 7.5mm	C0801P49
M8 Plastic Dust Cover (Outer screw)		
	Ring inner diameter	Drawing NO.
	φ 7.5mm	C0802P52
M8 Plastic Dust Cover (Outer screw)		
	Ring inner diameter	Drawing NO.
	φ M8	C0802P55

M8 All-Metal Dust Cover (Inner screw)		
	Ring inner diameter	Drawing NO.
	φ 8mm	C0801M50
	φ 10mm	C0801M51
M8 All-Metal Dust Cover (Outer screw)		
	Ring inner diameter	Drawing NO.
	φ 8mm	C0802M53
	φ 10mm	C0802M54

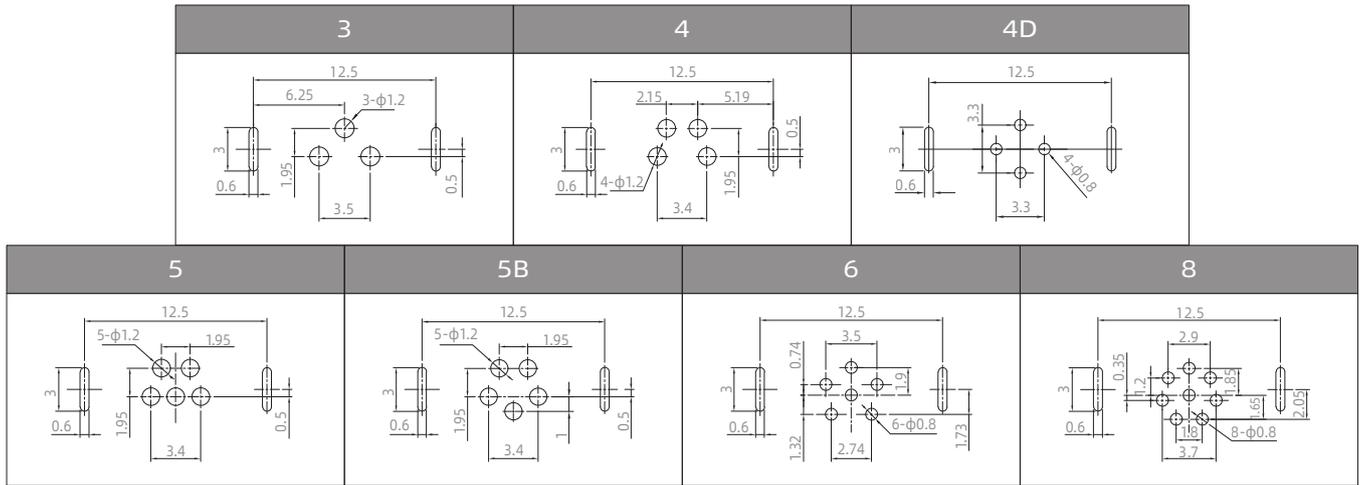
M8 · ELECTRICAL PARAMETERS

Pins	Male Code(Orientation)			Rated Current	Rated voltage		Wire Gauge		Female Code(Orientation)		
	A	B	D		A/C	D/C	AWG	mm ²	A	B	D
3				3A	60V	60V	24	0.25			
4				(A-Code):3A (D-Code):4A	60V	60V	24	0.25			
5				3A	30V	30V	24	0.25			
6				1.5A	30V	30V	26	0.14			
8				1.5A	30V	30V	26	0.14			

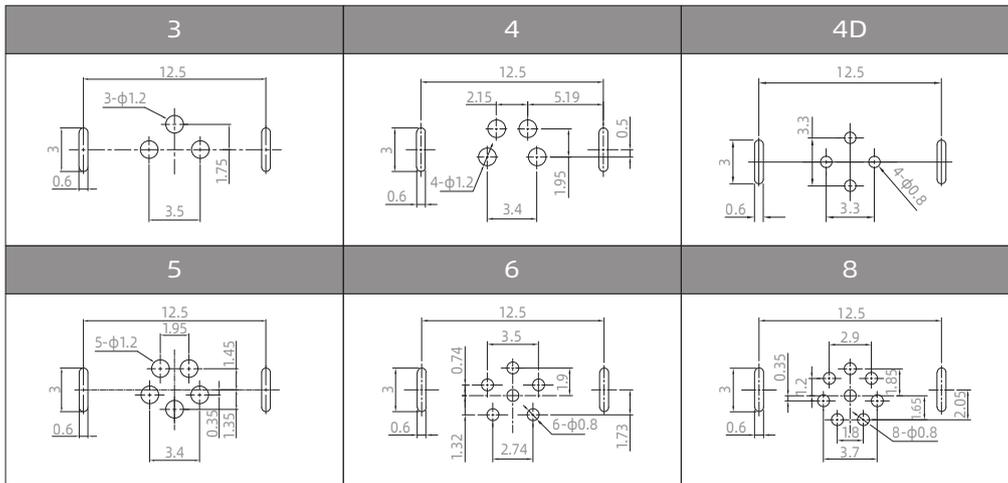
M8 · PCB PINS ARRANGEMENT

3	4	4D	5B	6	8

M8 · PCB ANGLED PINS ARRANGEMENT



M8 · PCB STRAIGHT PINS ARRANGEMENT



M8 · WIRE DEFINITION

Pins	Wire core color	
	3 Pin	
1	BN	
2	-	
3	BU	
4	BK	

Pins	Wire core color			
	4 Pin A-Code		4 Pins D-Code	
1	BN		YE	
2	WH		WH	
3	BU		OG	
4	BK		BU	

Pins	Wire core color			
	5 Pins A-Code		5 Pins B-Code	
1	BN		BN	
2	WH		WH	
3	BU		BU	
4	BK		BK	
5	GY		GY	

Pins	Wire core color	
	6 Pin	
1	BN	
2	WH	
3	BU	
4	BK	
5	GY	
6	PK	

Pins	Wire core color	
	8 Pin	
1	WH	
2	BN	
3	GN	
4	YE	
5	GY	
6	PK	
7	BU	
8	RD	

* Wiring definition according to conventional standards, if according to the agreement or other please contact our sales.

M9 Series

Pins Number: 2-8 pins

Most connectors are excellent for full shielding at 360 degrees

Plug: assembly, overmolded cable type (length can be customized at will)

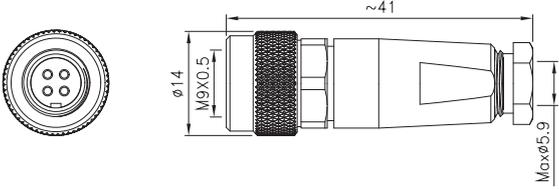
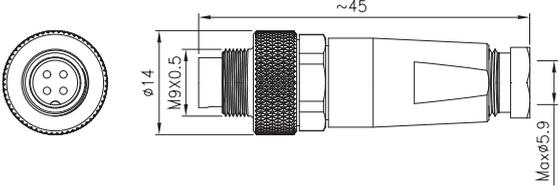
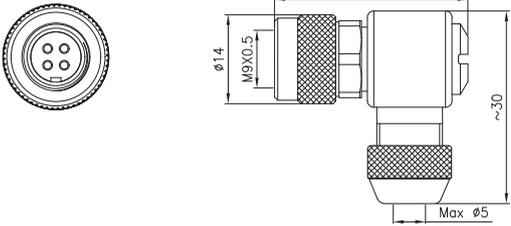
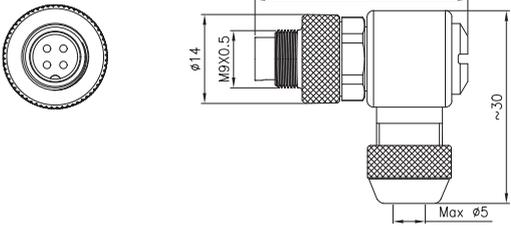
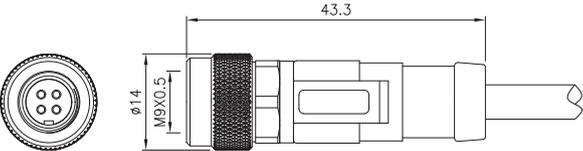
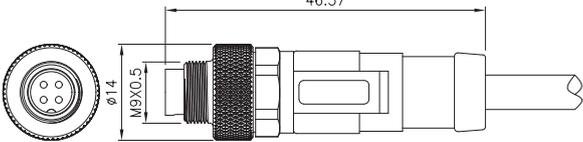
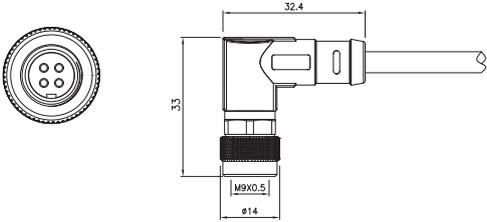
Socket: Front Mount Solder Type, Back Mount Solder Type and PCB board type

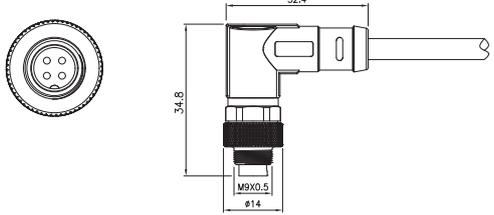
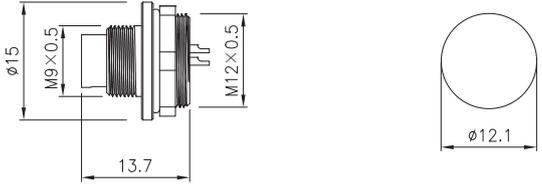
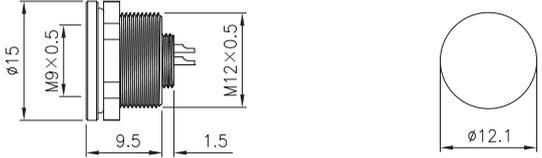
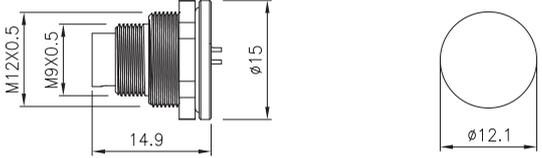
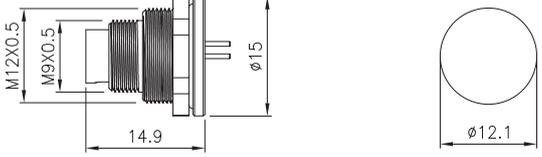
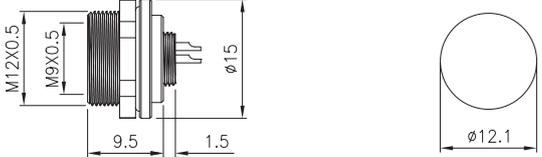
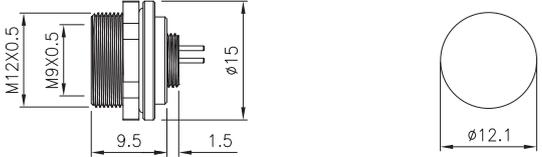
Waterproof grade: IP65 IP67 IP68



PRODUCT PARAMETERS

Shell material: Brass nickel-plated/Zinc alloy nickel-plated	Contact impedance: $\leq 3\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Wiring range: 3.0~5.0mm
Contact material: Brass/Phosphorus copper gold-plated	Insulation impedance: $\geq 100\text{M}\Omega$
Insulator material: PA66	Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Molding material: TPU/PVC	

Examples Picture	Drawing NO. and Description	Examples Drawing
	Z0902S01 M9 Straight Female Metal Plug (Solder)	
	Z0901S02 M9 Straight Male Metal Plug (Solder)	
	Z0902R03 M9 Angled Female Metal Plug (Solder)	
	Z0901R04 M9 Angled Male Metal Plug (Solder)	
Shielded/Unshielded 	C0902S05 M9 Straight Female Overmolded plug	
Shielded/Unshielded 	C0901S06 M9 Straight Male Overmolded plug	
Shielded/Unshielded 	C0902R07 M9 Angled Female Overmolded plug	

Examples Picture	Drawing NO. and Description	Examples Drawing/Panel Cutout
	<p>C0901R08 M9 Angled Male Overmolded plug</p>	
	<p>X0901S09 M9 Male Front Mount Socket (Solder)</p>	
	<p>X0902S10 M9 Male Front Mount Socket (Solder)</p>	
	<p>X0901S11 M9 Male Back Mount Socket (Solder)</p>	
	<p>B0901S12 M9 Male Back Mount Socket (PCB)</p>	
	<p>X0902S13 M9 Female Back Mount Socket (Solder)</p>	
	<p>B0902S14 M9 Female Back Mount Socket (PCB)</p>	

M9 · ELECTRICAL PARAMETERS

Pins	Male	Rated Current	Rated voltage		Wire Gauge		Female
			A/C	D/C	AWG	mm ²	
2		4A	125V	125V	24	0.25	
3		4A	125V	125V	24	0.25	
4		3A	125V	125V	24	0.25	
5		3A	125V	125V	24	0.25	
6		1A	125V	125V	26	0.14	
7		1A	125V	125V	26	0.14	
8		1A	125V	125V	26	0.14	

M9 · PCB PINS ARRANGEMENT

Pins	2A	3A	4A	5A	6A	7A	8A
Male							
Female							

M9 · WIRE DEFINITION

Pin	Wire core color								
2 Pin		3 Pin		6 Pin		7 Pin		8 Pin	
1	BN	1	BN	1	BN	1	WH	1	WH
2	BU	2	BU	2	WH	2	BN	2	BN
		3	BK	3	BU	3	GN	3	GN
				4	BK	4	YE	4	YE
				5	GY	5	GY	5	GY
				6	PK	6	PK	6	PK
						7	BU	7	BU
								8	RD

* Wiring definition according to conventional standards, if according to the agreement or other please contact our sales.

M12 Series

Metal housing connector excellent 360° full shielding, new more damped design

Products comply with IEC 61076-2-101 Industry 4.0 agreement, NEMA2000 standard

Plug: assembled type, injection molding with cable type (length can be customized)

Socket: Front Mount Solder type, Back Mount Solder type and PCB type

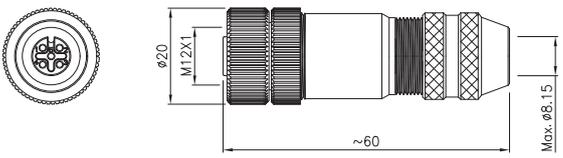
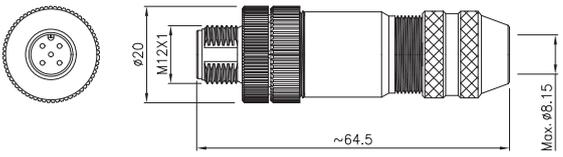
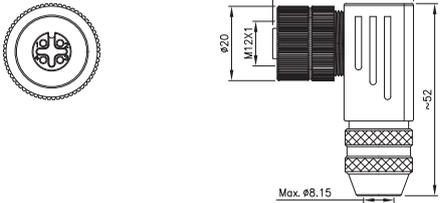
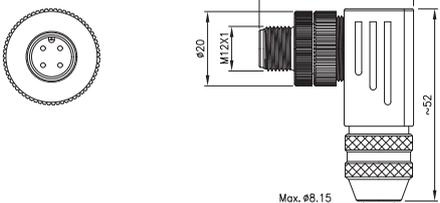
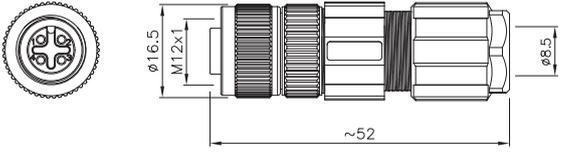
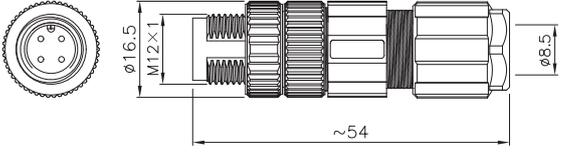
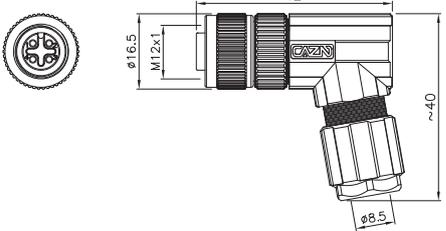
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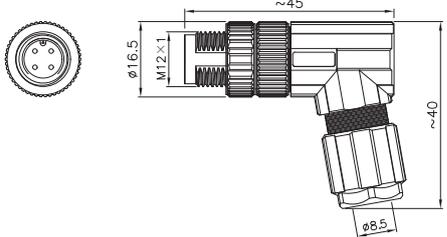
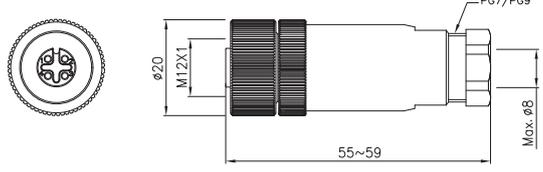
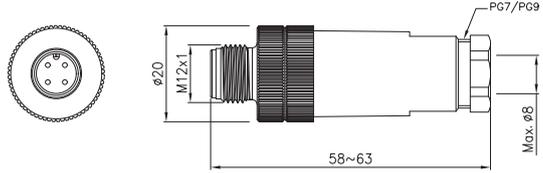
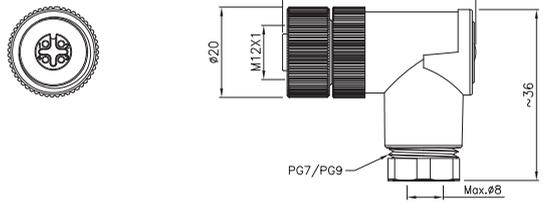
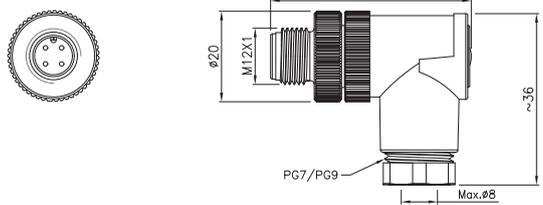
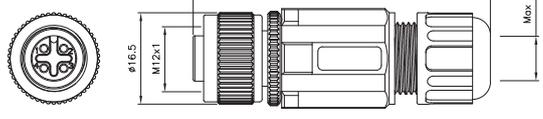
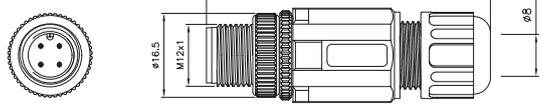
Waterproof grade: IP65 IP67 IP68

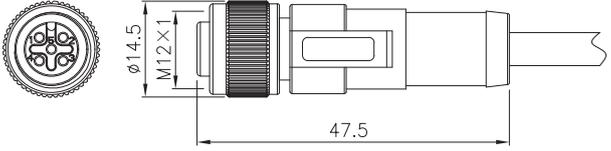
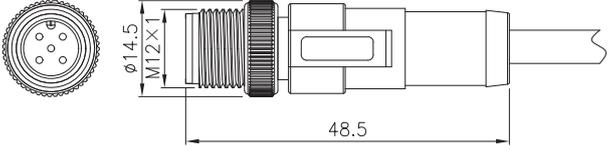
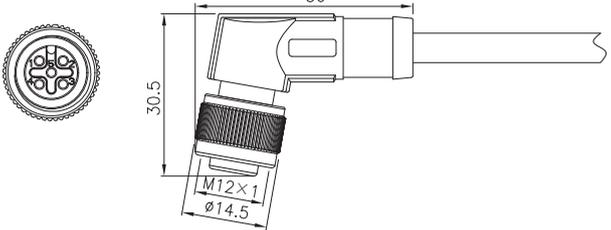
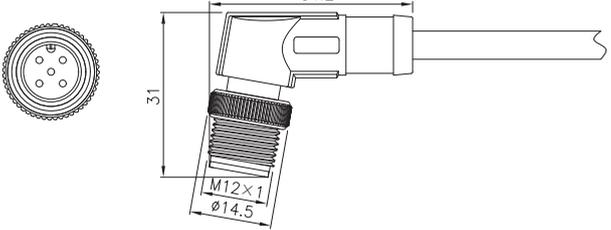
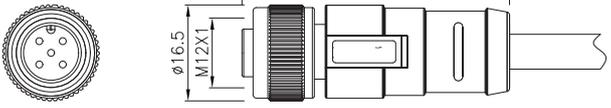
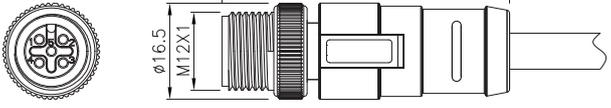
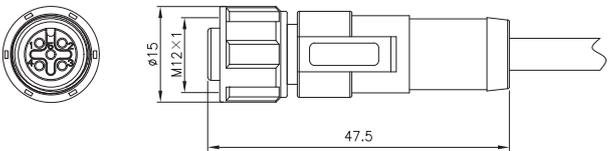


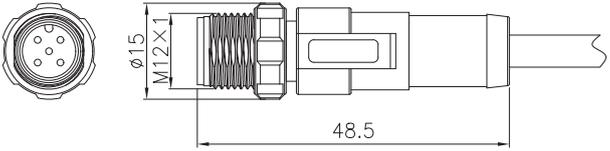
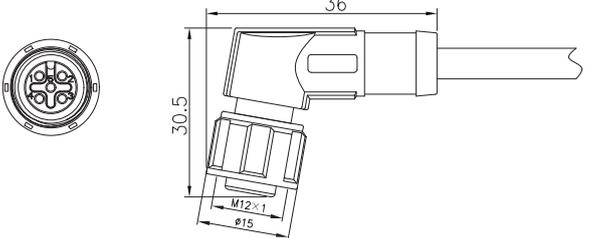
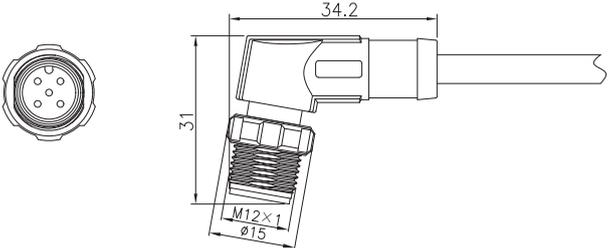
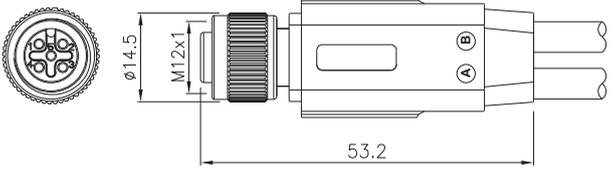
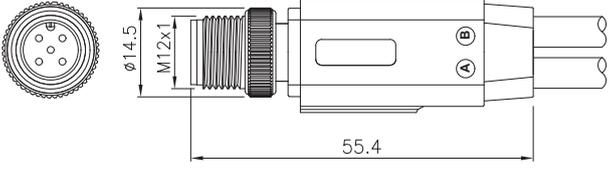
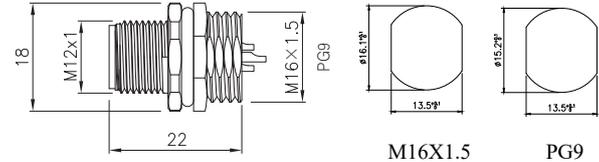
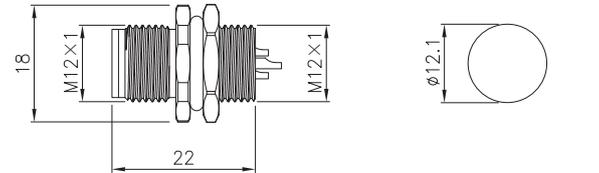
PRODUCT PARAMETERS

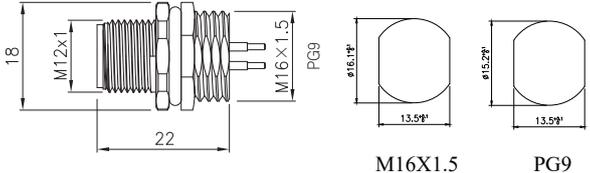
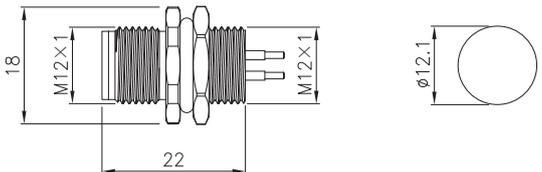
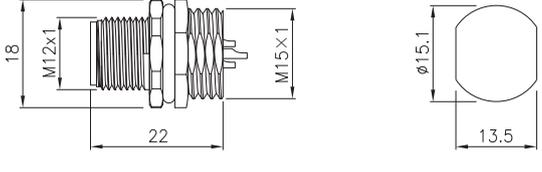
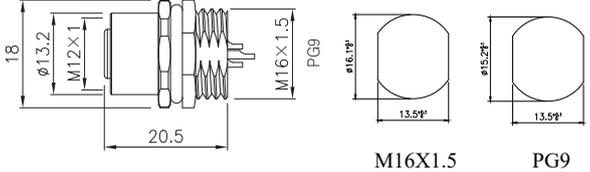
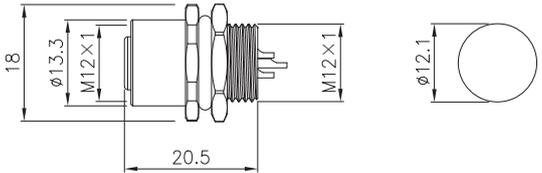
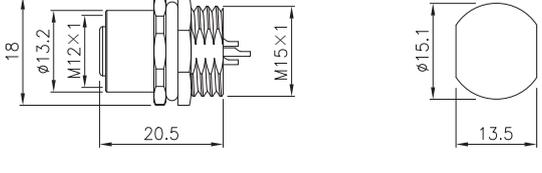
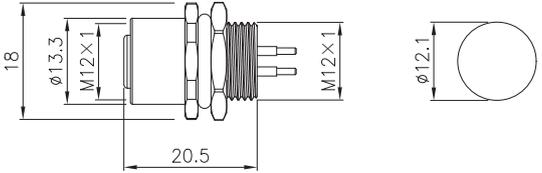
Shell material: Brass,Zinc alloy nickel-plated/PA-GF	Contact impedance: $\leq 5\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Durability: ≥ 500 Cycles
Contact material: Brass/Phosphorus copper gold-plated	Execution standard: IEC 61076-2-101(A,B,C,D,P Code) IEC 61076-2-111(K,L,M,S,T Code) IEC 61076-2-109(X-Code)
Insulator material: PA+GF/TPU	Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Molding material: TPU/PVC	Waterproof grade: IP67 IP68

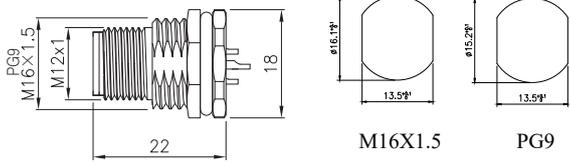
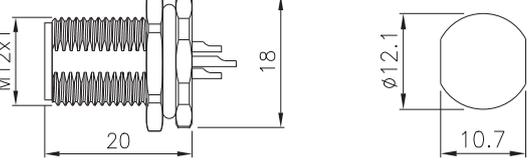
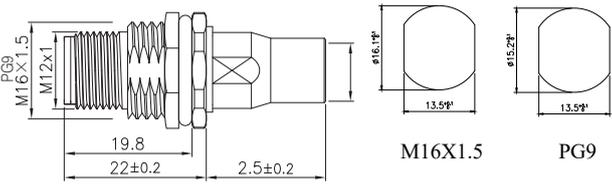
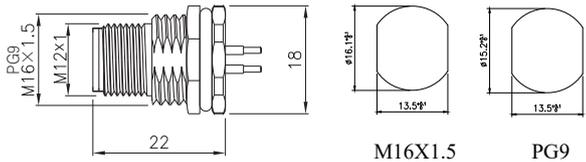
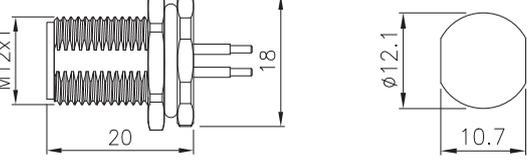
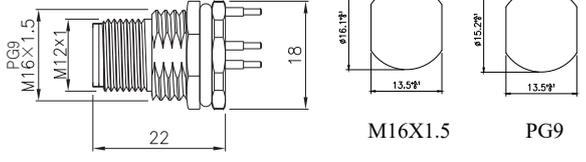
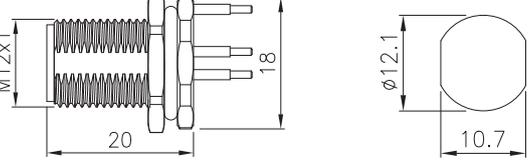
Examples Picture	Drawing NO. and Description	Examples Drawing
	Z1202S01 M12 Straight Female Metal Plug (Screw)	
	Z1201S02 M12 Straight Male Metal Plug (Screw)	
	Z1202R03 M12 Angled Female Metal Plug (Screw)	
	Z1201R04 M12 Angled Male Metal Plug (Screw)	
	Z1202S05 M12 Straight Female Metal Plug (Solder)	
	Z1201S06 M12 Straight Male Metal Plug (Solder)	
	Z1202R07 M12 Angled Female Metal Plug (Solder)	

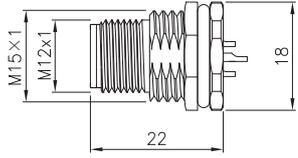
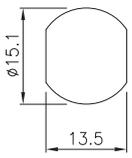
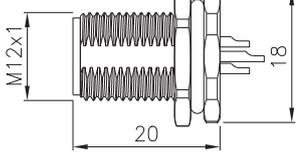
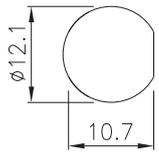
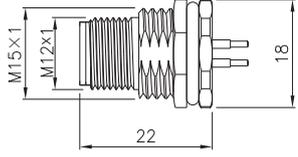
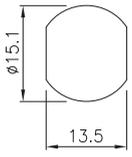
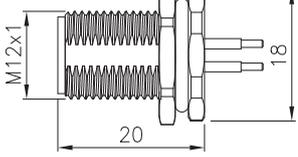
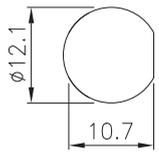
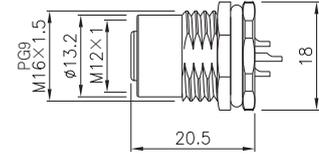
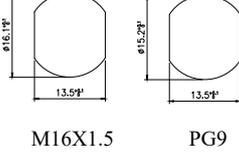
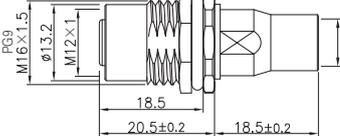
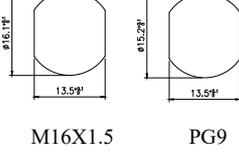
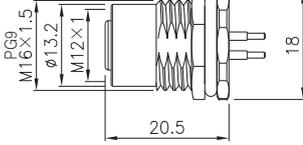
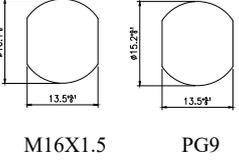
Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Z1201R08 M12 Angled Male Metal Plug (Solder)</p>	
	<p>Z1202S09 M12 Straight Female Plastic Plug (Screw)</p>	
	<p>Z1201S10 M12 Straight Male Plastic Plug (Screw)</p>	
	<p>Z1202R11 M12 Angled Female Plastic Plug (Screw)</p>	
	<p>Z1201R12 M12 Angled Male Plastic Plug (Screw)</p>	
	<p>Z1202S13 M12 Straight Female Plastic Plug (Solder)</p>	
	<p>Z1201S14 M12 Straight Male Plastic Plug (Solder)</p>	

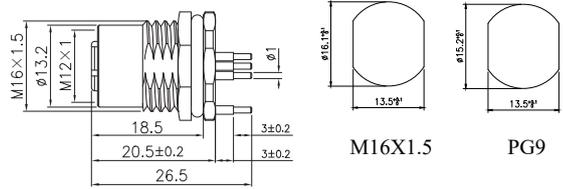
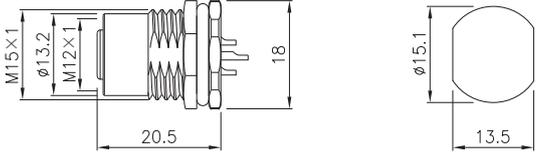
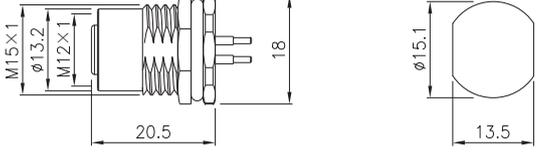
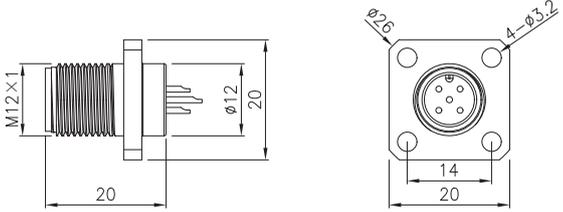
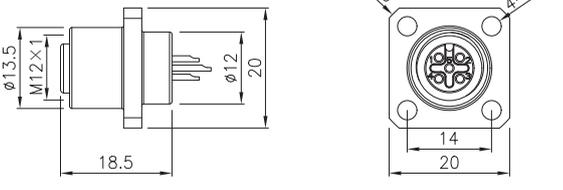
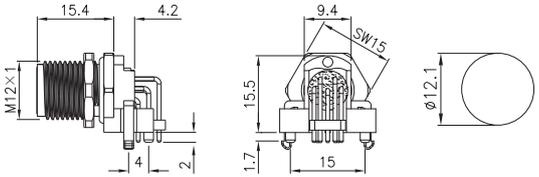
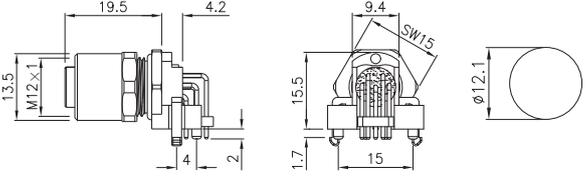
Examples Picture	Drawing NO. and Description	Examples Drawing
	C1202S15 M12 Straight Female Overmolded plug	
	C1201S16 M12 Straight Male Overmolded plug	
	C1202R17 M12 Angled Female Overmolded plug	
	C1201R18 M12 Angled Male Overmolded plug	
	C1202S19 M12 Straight Female Overmolded plug (with damping)	
	C1201S20 M12 Straight Male Overmolded plug (with damping)	
	C1202S21 M12 Straight Female overmolded plug (Plastic nut, Unshielded)	

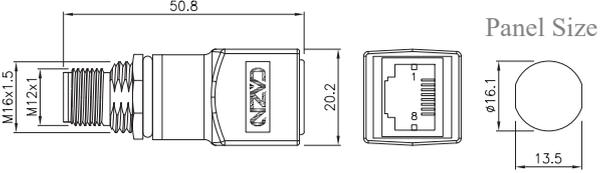
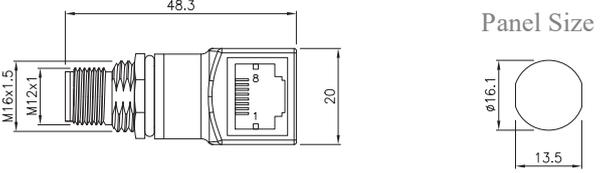
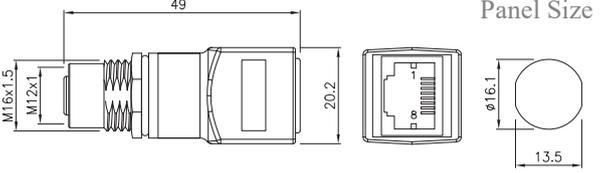
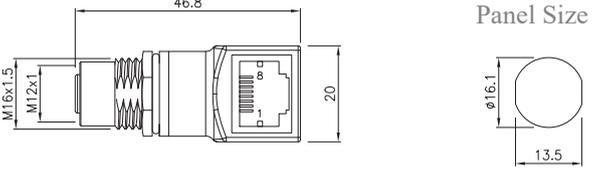
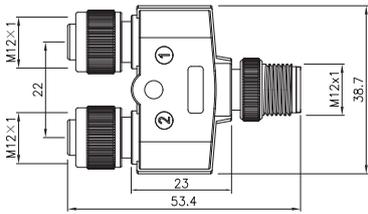
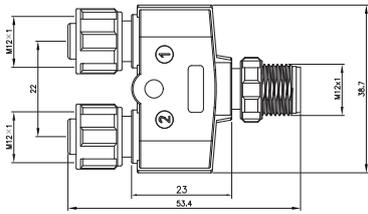
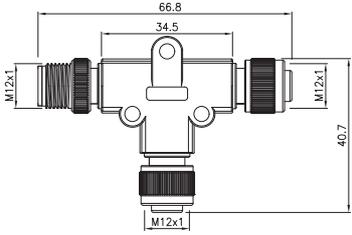
Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>C1201S22 M12 Straight Male overmolded plug (Plastic nut, Unshielded)</p>	
	<p>C1202R23 M12 Angled Female overmolded plug (Plastic nut, Unshielded)</p>	
	<p>C1201R24 M12 Angled Male overmolded plug (Plastic nut, Unshielded)</p>	
	<p>F1202S25 M12 Female 1 to 2 overmolded plug</p>	
	<p>F1201S26 M12 Male 1 to 2 overmolded plug</p>	
<p>Screw M16x1.5 / PG9</p> 	<p>X1201F27 M12 Male Front Mount Socket (Solder)</p>	<p>Panel Size</p> 
	<p>X1201F28 M12 Male Front Mount Socket (Solder, Screw M12*1)</p>	<p>Panel Size</p> 

Examples Picture	Drawing NO. and Description	Examples Drawing
	B1201F29 M12 Male Front Mount Socket (PCB)	
	B1201F30 M12 Male Front Mount Socket (PCB, Screw M12*1)	
	X1201F31 M12 Male Front Mount Socket (Solder, Screw M15*1) Plastic type	
	X1202F32 M12 Female Front Mount Socket (Solder)	
	X1202F33 M12 Female Front Mount Socket (Solder, Screw M12*1)	
	X1202F34 M12 Female Front Mount Socket (Solder, Screw M15*1) Plastic type	
	B1202F35 M12 Female Front Mount Socket (PCB, Screw M12*1)	

Examples Picture	Drawing NO. and Description	Examples Drawing / Panel Size
	<p>X1201H36 M12 Male Rear Mount Socket (Solder)</p>	
	<p>X1201H37 M12 Male Rear Mount Socket (Solder, Screw M12*1)</p>	
	<p>G1201H38 M12 Male Rear Mount Socket (Solder, Shielded)</p>	
	<p>B1201H39 M12 Male Rear Mount Socket (PCB)</p>	
	<p>B1201H40 M12 Male Rear Mount Socket (PCB, Screw M12*1)</p>	
	<p>B1201H41 M12 Male Rear Mount Socket PCB, Grounded type(Shield)</p>	
	<p>B1201H42 M12 Male Rear Mount Socket PCB, Screw M12*1, Grounded type (Shield)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing / Panel Size	
	<p>X1201H43 M12 Male Rear Mount Socket (Solder, Screw M15*1) Plastic type</p>		
	<p>X1201H44 M12 Male Rear Mount Socket (Solder, Screw M12*1) Plastic type</p>		
	<p>B1201H45 M12 Male Rear Mount Socket (PCB, Screw M15*1) Plastic type</p>		
	<p>B1201H46 M12 Male Rear Mount Socket (PCB, Screw M12*1) Plastic type</p>		
<p>Screw M16X1.5 / PG9</p> 	<p>X1202H47 M12 Female Rear Mount Socket (Solder)</p>		 <p>M16X1.5 PG9</p>
<p>Screw M16X1.5 / PG9</p> 	<p>G1202H48 M12 Female Rear Mount Socket (Solder, Shielded)</p>		 <p>M16X1.5 PG9</p>
<p>Screw M16X1.5 / PG9</p> 	<p>B1202H49 M12 Female Rear Mount Socket (PCB)</p>		 <p>M16X1.5 PG9</p>

Examples Picture	Drawing NO. and Description	Examples Drawing / Panel Size
	<p>B1202H50 M12 Female Rear Mount Socket PCB, Grounded type(Shield)</p>	
	<p>X1202H51 M12 Female Rear Mount Socket (Solder, Screw M15*1) Plastic type</p>	
	<p>B1202H52 M12 Female Rear Mount Socket (PCB, Screw M15*1) Plastic type</p>	
	<p>X1201C53 M12 Male Square Socket (Solder, 14*14)</p>	
	<p>X1202C54 M12 Female Square Socket (Solder, 14*14)</p>	
<p>Shielded / Unshielded</p> 	<p>B1201R55 M12 Angled Male Rear Mount Socket (PCB, Screw M12*1)</p>	
<p>Shielded / Unshielded</p> 	<p>B1202R56 M12 Angled Female Rear Mount Socket (PCB, Screw M12*1)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>A1201E57 M12 Male to Straight RJ45 Adapter</p>	
	<p>A1201E58 M12 Male to Angled RJ45 Adapter</p>	
	<p>A1202E59 M12 Female to Straight RJ45 Adapter</p>	
	<p>A1202E60 M12 Female to Angled RJ45 Adapter</p>	
	<p>A1201Y61 M12 Y-Type Adapter (PSS)</p>	
	<p>A1201Y62 M12 Y-Type Adapter (Plastic, PSS)</p>	
	<p>A1202T63 M12 T-Type Adapter (PSS)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	H1201S71 M12 Male Ohm terminal plug 120Ω	
	H1201S72 M12 Male Ohm terminal plug 120Ω (Plastic type)	

M12 · SMD RECEPTACLE ASSEMBLY

	T1201S73 M12 Male SMD Type Socket	
	T1202S74 M12 Female SMD Type Socket	

S1201F01 Front Mount Male Shell (Screw M12*1)	S1202F02 Front Mount Female Shell (Screw M12*1)	S1201H03 Rear Mount Male Shell (Screw M12*1)	S1201H04 Rear Mount Male Shell (Screw M15*1)	S1202H05 Rear Mount Female Shell (Screw M15*1)

M12·DUST COVER

M12 Plastic Dust Cover (Inner screw)		M12 Metal Dust Cover (Inner screw)	
	Ring inner diameter Drawing NO.		Ring inner diameter Drawing NO.
	φ 3mm C1201P01		φ 3mm C1201M05
	φ 11.5mm C1201P02		φ 12mm C1201M06
	φ 13mm C1201P03		φ 16mm C1201M07
	φ 15mm C1201P04		
M12 Plastic Dust Cover (Outer screw)		M12 Metal Dust Cover (Outer screw)	
	Ring inner diameter Drawing NO.		Ring inner diameter Drawing NO.
	φ 3mm C1202P08		φ 3mm C1202M12
	φ 11.5mm C1202P09		φ 12mm C1202M13
	φ 13mm C1202P10		φ 16mm C1202M14
	φ 15mm C1202P11		
M12 Plastic Dust Cover (Outer screw)			
	Ring inner diameter Drawing NO.		
	φ M12 C1202P15		

M12·PCB PINS ARRANGEMENT

Pin	2P A-Code	3P A-Code	4P A-Code	4P D-Code	5P A-Code
Male PCB Pin Arrangement					
	5P B-Code	6P A-Code	8P A-Code	12P A-Code	17P A-Code
Pin	2P A-Code	3P A-Code	4P A-Code	4P D-Code	5P A-Code
Female PCB Pins Arrangement					
	5P B-Code	6P A-Code	8P A-Code	12P A-Code	17P A-Code

M12·ELECTRICAL PARAMETERS

Pin	Male Code(Orientation)				Rated Current	Rated voltage		Wire Gauge		Female Code(Orientation)			
	A	B	C	D		A/C	D/C	AWG	mm ²	A	B	C	D
2					4A	250V	250V	22	0.34				
3					4A	250V	250V	22	0.34				
4					4A	250V	250V	22	0.34				
5					4A: A-Code B-Code 2A: C-Code	60V	60V	22	0.34				
6					2A	30V	30V	24	0.25				
8					2A	30V	30V	24	0.25				
12					1.5A	30V	30V	26	0.14				
17					1.5A	30V	30V	26	0.14				

M12· WIRE DEFINITION

Pins	Wire core color	
	2 Pins	
1	BN	
2	-	
3	BU	

Pins	Wire core color	
	3 Pins	
1	BN	
2	-	
3	BU	
4	BK	

Pins	Wire core color					
	4 Pins A-Code		4 Pins B-Code		4 Pins D-Code	
1	BN		BN		YE	
2	WH		WH		WH	
3	BU		BU		OG	
4	BK		BK		BU	

Pins	Wire core color			
	5 Pins A-Code		5 Pins B-Code	
1	BN		BN	
2	WH		WH	
3	BU		BU	
4	BK		BK	
5	GY		GY	

Pins	Wire core color	
	12 Pins	
1	BN	
2	BU	
3	WH	
4	GN	
5	PK	
6	YE	
7	BK	
8	GY	
9	RD	
10	VT	
11	OG	
12	LTGN	

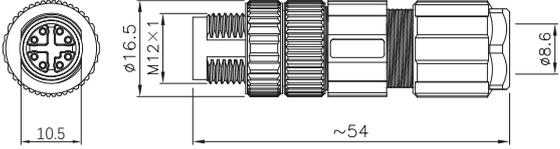
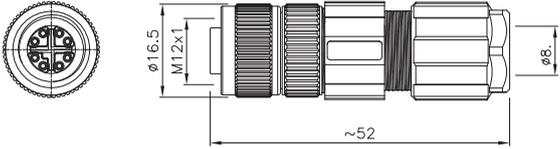
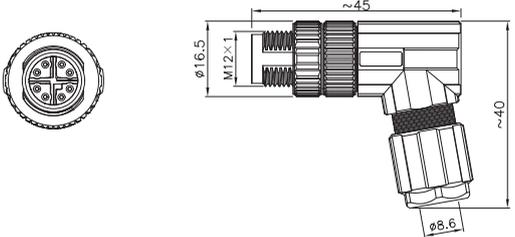
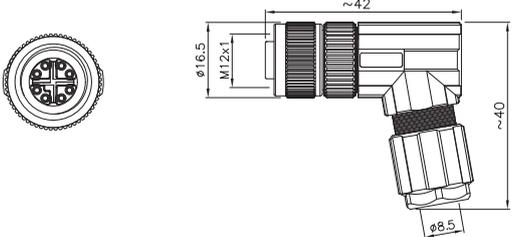
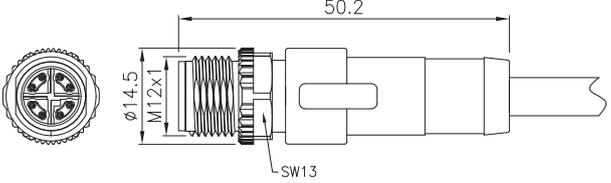
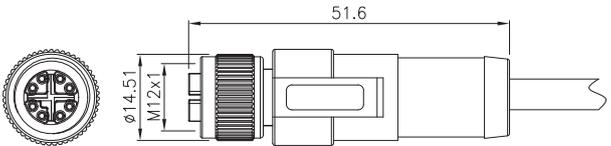
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	17 Pins	
1	BN	
2	BU	
3	WH	
4	GN	
5	PK	
6	YE	
7	BK	
8	GY	
9	RD	
10	VT	
11	OG	
12	LTGN	
13	LTBU	
14	BKWH	
15	BNWH	
16	RDWH	
17	BUWH	

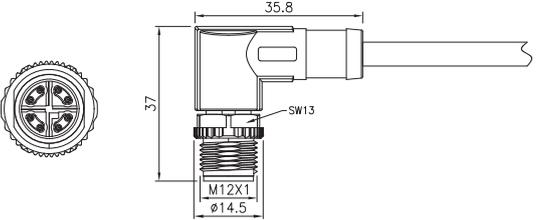
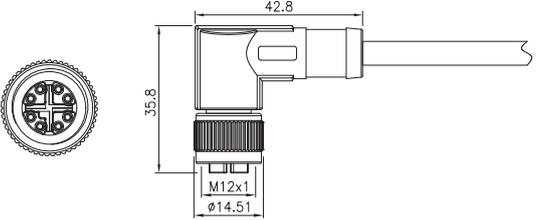
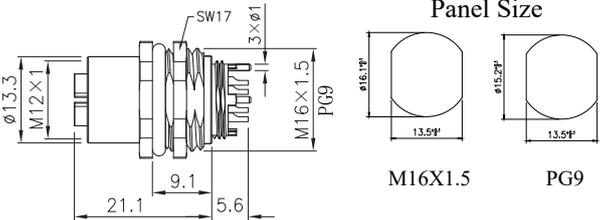
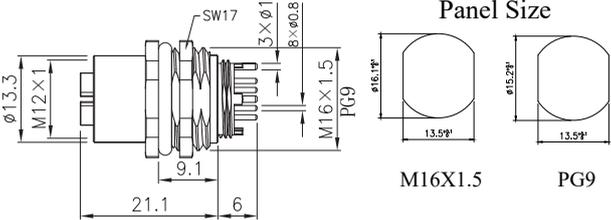
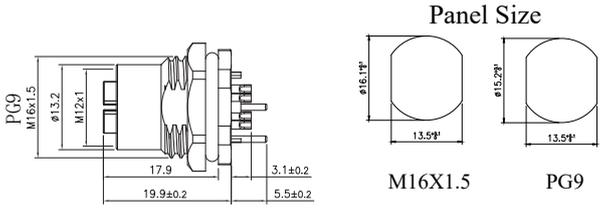
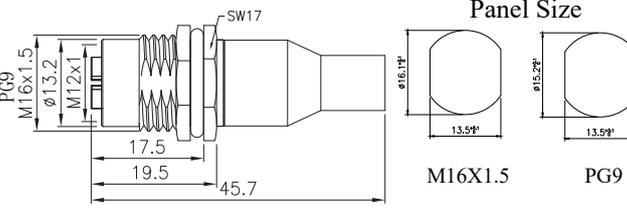
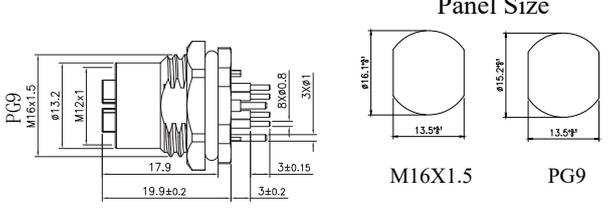
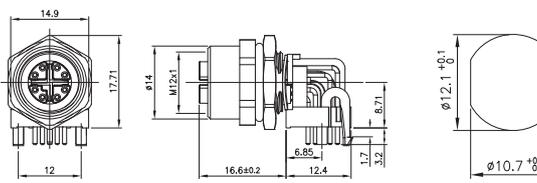
Pins	Wire core color	
	6 Pins	
1	BN	
2	WH	
3	BU	
4	BK	
5	-	
6	GY	
7	RD	

Pins	Wire core color	
	8 Pins	
1	WH	
2	BN	
3	GN	
4	YE	
5	GY	
6	PK	
7	BU	
8	RD	

* Wiring definition according to conventional standards,
if according to the agreement or other please contact our sales.

M12 DATA TYPE -- X CODE/Y CODE

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Z121DM01 M12 Straight Male Metal Plug (Crimp) PG7 for Data</p>	
	<p>Z122DM02 M12 Straight Female Metal Plug (Crimp, Solder)</p>	
	<p>Z121DR03 M12 Angled Male Metal Plug (Crimp) PG7 for Data</p>	
	<p>Z122DR04 M12 Angled Female Metal Plug (Crimp, Solder)</p>	
	<p>C121DS05 M12 Straight Male overmolded plug (Data Type, Shielded)</p>	
	<p>C122DS06 M12 Straight Female overmolded plug (Data Type, Shielded)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	C121DR07 M12 Angled Male overmolded plug (Data Type, Shielded)	
	C122DR08 M12 Angled Female overmolded plug (Data Type, Shielded)	
	X122DF09 M12 Female Front Mount Socket (Solder, Screw M16*1.5/ PG9)	
	B122DF10 M12 Female Front Mount Socket (PCB, Screw M16*1.5/ PG9)	
	X122DR11 M12 Female Rear Mount Socket (Solder, Screw M16*1.5/ PG9)	
	G122DR12 M12 Female Rear Mount Socket (Solder, Screw M16*1.5/ PG9, Shielded)	
	B122DR13 M12 Female Rear Mount Socket (PCB, Screw M16*1.5/ PG9, Shielded)	
	B122DR14 M12 Angled Female Rear Mount Socket (PCB, Screw M12*1, Shielded)	

Examples Picture	Drawing NO. and Description	Examples Drawing
	T122DS15 M12 Female SMD Type Socket	
	A122DE16 M12 Female to Straight RJ45 Adapter 180°	
	A122DE17 M12 Female to Angled RJ45 Adapter 90°	

M12·X-code/Y-code ELECTRICAL PARAMETERS

Pins	Male	Rated Current	Rated voltage		Wire Gauge		Female	PCB Pins Arrangement
			A/C	D/C	AWG	mm ²		
8X		0.5A	50V	60V	26~24	0.14~0.25		
6Y		0.5A/12A	30V	30V	2×26AWG+ 4×20AWG	0.14~0.5		
8Y		0.5A/6A	30V	30V	4×26AWG+ 4×20AWG	0.14~0.5		

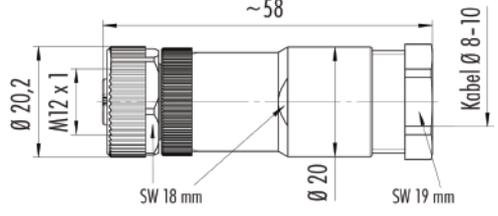
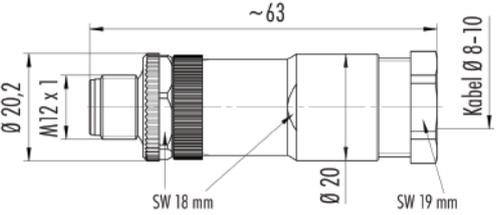
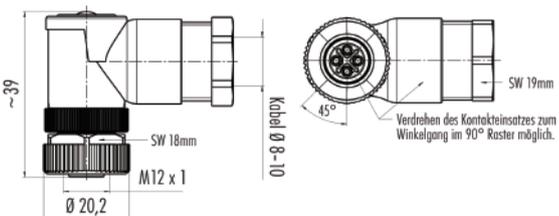
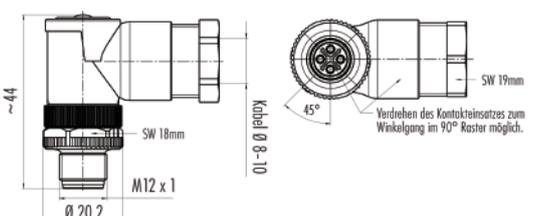
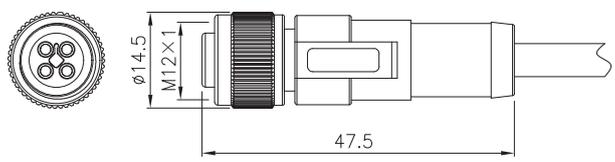
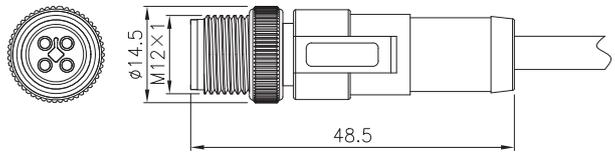
M12·X-code/Y-code WIRE DEFINITION

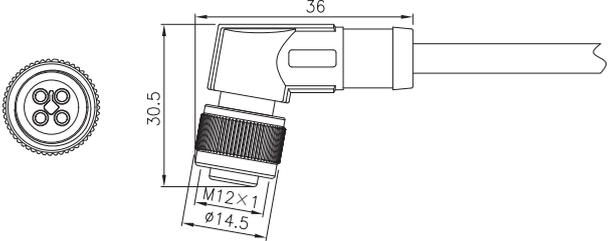
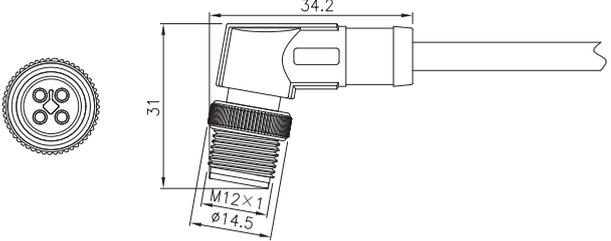
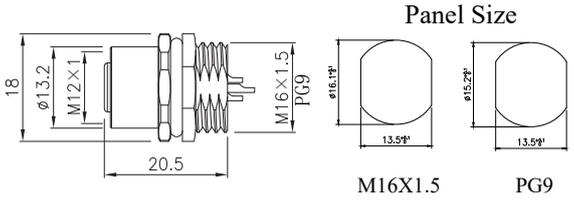
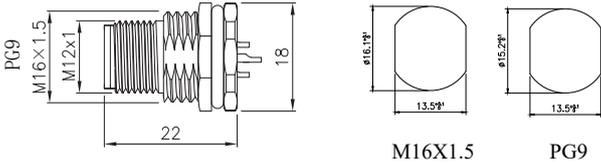
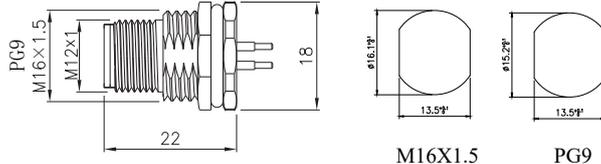
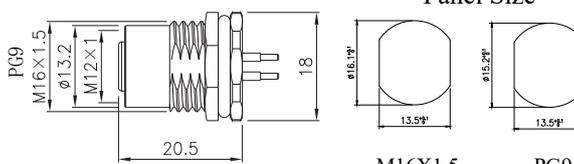
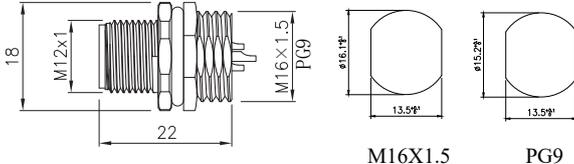
Pins	Wire core color			
8 Pins X-Code				
1	WHOG			D1+
2	OG			D1-
3	WHGN			D2+
4	GN			D2-
5	WHBN			D4+
6	BN			D4-
7	WHBU			D3-
8	BU			D3+

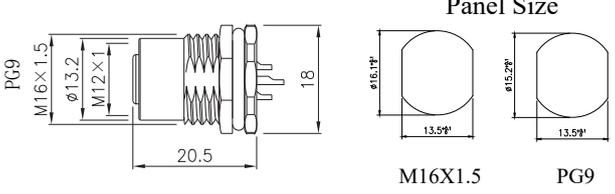
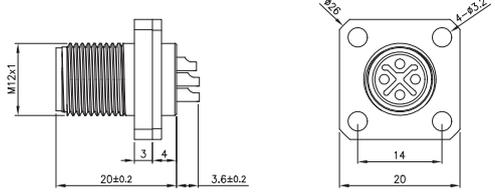
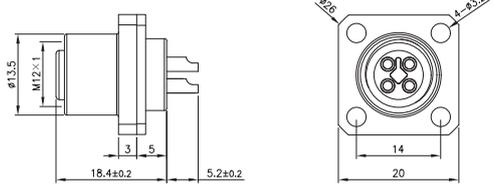
Pins	Wire core color			
8 Pins Y-Code				
1	WHOG			TD+
2	OG			TD-
3	WHGN			RD+
4	GN			RD-
5	BU			
6	WH			
7	BN			
8	BK			

* Wiring definition according to conventional standards, if according to the agreement or other please contact our sales.

M12 POWER TYPE -- S,T,K,L,M CODE

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Z122PS18 M12 Straight Female Plastic Plug (Screw) (Power Type)</p>	
	<p>Z121PS19 M12 Straight Male Plastic Plug (Screw) (Power Type)</p>	
	<p>Z122PR20 M12 Angled Female Plastic Plug (Solder) (Power Type) PG9</p>	
	<p>Z121PR21 M12 Angled Male Plastic Plug (Solder) (Power Type) PG9</p>	
<p>Shielded/Unshielded</p> 	<p>C122PP22 M12 Straight Female Plastic Plug (Power Type)</p>	
<p>Shielded/Unshielded</p> 	<p>C121PP23 M12 Straight Male Plastic Plug (Power Type)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>C122PR24 M12 Angled Female Overmolded Plug (Power Type)</p>	
	<p>C121PR25 M12 Angled Male Overmolded Plug (Power Type)</p>	
	<p>X122MF26 M12 Female Front Mount Socket (Solder, Power Type) (Screw M16*1.5/ PG9)</p>	
	<p>X121MR27 M12 Male Rear Mount Socket (Solder, Power Type) (Screw M16*1.5/ PG9)</p>	
	<p>B121MR28 M12 Male Rear Mount Socket (PCB, Power Type) (Screw M16*1.5/ PG9)</p>	
	<p>B122MR29 M12 Female Rear Mount Socket (PCB, Power Type) (Screw M16*1.5/ PG9)</p>	
	<p>X121MF30 M12 Male Front Mount Socket (Solder, Power Type) (Screw M16*1.5/ PG9)</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>X122MR31 M12 Female Rear Mount Socket (Solder, Power Type) (Screw M16*1.5/ PG9)</p>	
	<p>X121SS32 M12 Male Square Socket (Solder, 14*14)</p>	
	<p>X122SS33 M12 Female Square Socket (Solder, 14*14)</p>	

M12· S,T,K,L,M CODE ELECTRICAL PARAMETERS

Code (Orientation)	Pins	Male	Rated Current	Rated voltage		Wire Gauge		Female
				A/C	D/C	AWG	mm ²	
S-Code	2		12A	630V	630V	16	1.5	
	2+PE		12A	630V	630V	16	1.5	
	3+PE		12A	630V	630V	16	1.5	
T-Code	2		12A	60V	60V	16	1.5	
	2+PE		12A	60V	60V	16	1.5	
	3+PE		12A	60V	60V	16	1.5	
K-Code	2		16A	800V	800V	16	2.5	
	2+PE		16A	800V	800V	16	2.5	
	3+PE		16A	800V	800V	16	2.5	
	4+PE		16A	800V	800V	16	2.5	
L-Code	2		16A	63V	63V	14	2.5	
	2+PE		16A	63V	63V	14	2.5	
	3		16A	63V	63V	14	2.5	
	3+PE		16A	63V	63V	14	2.5	

Code (Orientation)	Pins	Male	Rated Current	Rated voltage		Wire Gauge		Female
				A/C	D/C	AWG	mm ²	
L-Code	4		16A	63V	63V	14	2.5	
	4+PE		16A	63V	63V	14	2.5	
M-Code	2		8A	630V	630V	16	1.5	
	2+PE		8A	630V	630V	16	1.5	
	3+PE		8A	630V	630V	16	1.5	
	4+PE		8A	630V	630V	16	1.5	
	5+PE		8A	630V	630V	16	1.5	

M12·S,T,K,L,M CODE WIRE DEFINITION

Pins	Wire core color
2+PE,S-Code	
1	BK1
2	BK2
PE	GNYE

Pins	Wire core color
4 Pins T-Code	
1	BN
2	WH
3	BU
4	BK

Pins	Wire core color
4+PE,K-Code	
1	BK1
2	BK2
3	BK3
4	BK4
PE	GNYE

Pins	Wire core color
5+PE,M-Code	
1	BK1
2	BK2
3	BK3
4	BK4
5	BK5
PE	GNYE

Pins	Wire core color
3+PE,S-Code	
1	BK1
2	BK2
3	BK3
PE	GNYE

Pins	Wire core color
4/4+PE,L-Code	
1	BN
2	WH
3	BU
4	BK
FE*	GY

*Omit 4 pins

*Wiring definition according to conventional standards, if according to the agreement or other please contact our sales.

M16 Series

Products comply with IEC 61076-2-106-2012 AISG Standard

Most connectors are excellent for full shielding at 360 degrees

Plug: assembly, overmolded cable type (length can be customized at will)

Socket: Front Mount Solder Type, Back Mount Solder Type and PCB board type

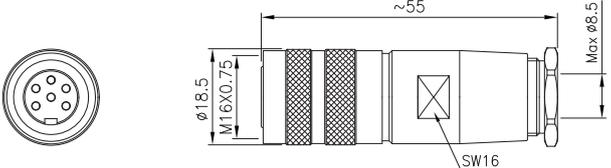
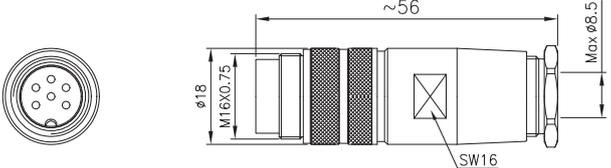
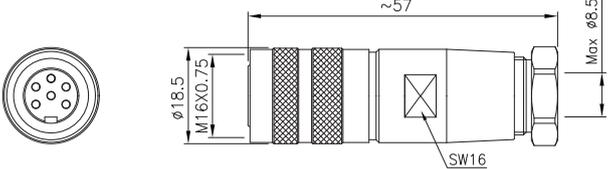
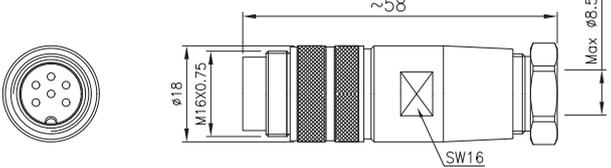
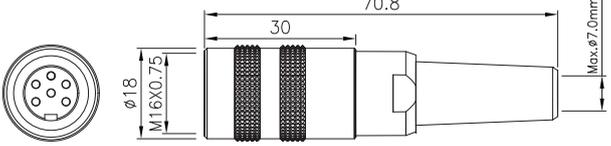
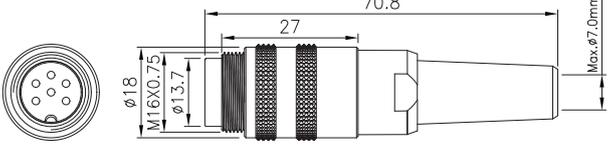
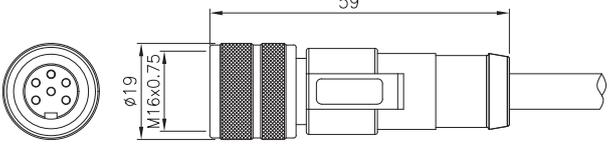
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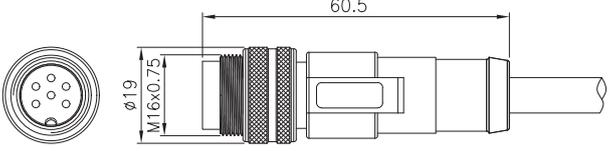
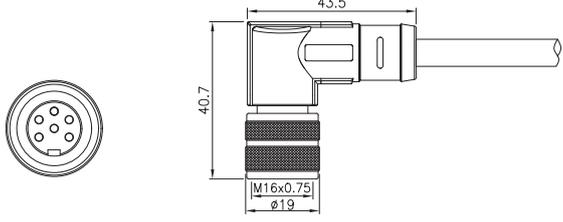
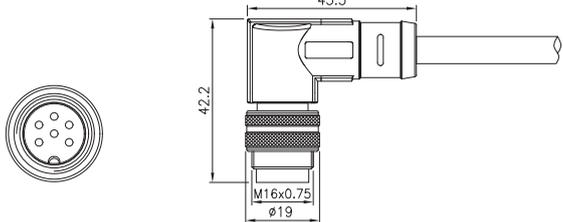
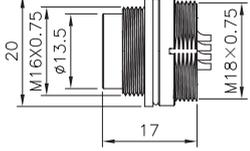
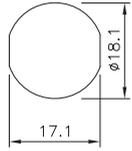
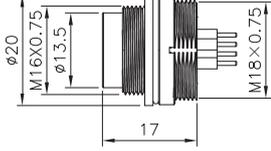
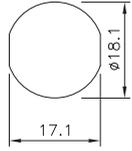
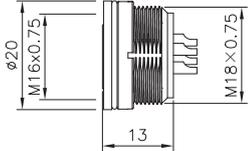
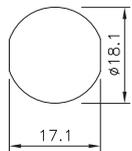
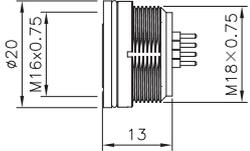
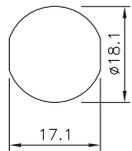
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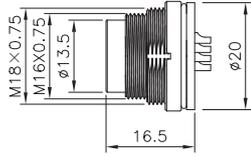
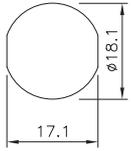
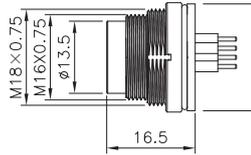
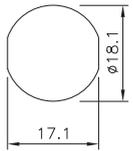
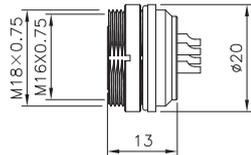
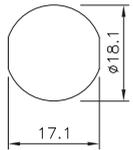
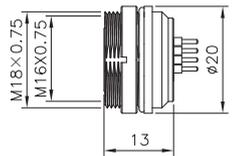
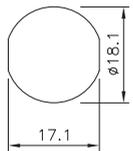
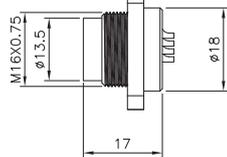
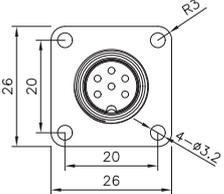
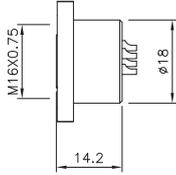
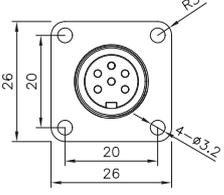


PRODUCT PARAMETERS

Shell material: Brass/Zinc alloy nickel/Brass nickel plated	Contact impedance: $\leq 5\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Durability: ≥ 500 Cycles
Contact material: Brass/Phosphorus copper gold-plated	Wiring range: PG7:4~6mm; PG9:6~8mm
Insulator material: PBT/PA66	Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Molding material: TPU/PVC	

Examples Picture	Drawing NO. and Description	Examples Drawing
	Z162MS01 M16 Straight Female Metal Plug (Solder)	
	Z161MS02 M16 Straight Male Metal Plug (Solder)	
	Z162MY03 M16 Straight Female Metal Plug (Crimp)	
	Z161MY04 M16 Straight Male Metal Plug (Crimp)	
	G162PS05 M16 Straight Female Plug (Solder, Plastic tube)	
	G161PS06 M16 Straight Male Plug (Solder, Plastic tube)	
Shielded/Unshielded 	C162MS07 M16 Straight Female Overmolded plug	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>C161MS08 M16 Straight Male Overmolded plug</p>	
	<p>C162MR09 M16 Angled Female Overmolded plug</p>	
	<p>C161MR10 M16 Angled Male Overmolded plug</p>	
	<p>X161MF11 M16 Male Front Mount Socket (Solder, Screw M18*0.75)</p>	 <p style="text-align: right;">Panel Size</p> 
	<p>B161MF12 M16 Male Front Mount Socket (PCB, Screw M18*0.75)</p>	 <p style="text-align: right;">Panel Size</p> 
	<p>X162MF13 M16 Male Front Mount Socket (PCB, Screw M18*0.75)</p>	 <p style="text-align: right;">Panel Size</p> 
	<p>B162MF14 M16 Female Front Mount Socket (PCB, Screw M18*0.75)</p>	 <p style="text-align: right;">Panel Size</p> 

Examples Picture	Drawing NO. and Description	Examples Drawing	
	<p>X161MR15 M16 Male Rear Mount Socket (Solder, Screw M18*0.75)</p>		<p>Panel Size</p> 
	<p>B161MR16 M16 Male Rear Mount Socket (PCB, Screw M18*0.75)</p>		<p>Panel Size</p> 
	<p>X162MR17 M16 Female Rear Mount Socket (Solder, Screw M18*0.75)</p>		<p>Panel Size</p> 
	<p>B162MR18 M16 Female Rear Mount Socket (PCB, Screw M18*0.75)</p>		<p>Panel Size</p> 
	<p>X161SS19 M16 Male Square Socket (Solder type) 20*20</p>		
	<p>X162SS20 M16 Female Square Socket (Solder type) 20*20</p>		

M16·DUST COVER

M16 Plastic Dust Cover (Inner screw)		M16 Metal Dust Cover (Inner screw)	
	Ring inner diameter Drawing NO.		Ring inner diameter Drawing NO.
	φ 3mm C1601P01		φ 3mm C1601M03
	φ 18mm C1601P02		φ 18mm C1601M04
M16 Plastic Dust Cover (Outer screw)		M16 Metal Dust Cover (Outer screw)	
	Ring inner diameter Drawing NO.		Ring inner diameter Drawing NO.
	φ 3mm C1602P05		φ 3mm C1602M07
	φ 18mm C1602P06		φ 18mm C1602M08

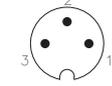
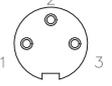
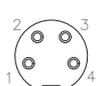
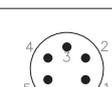
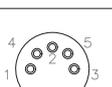
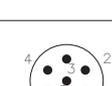
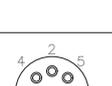
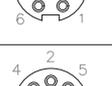
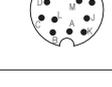
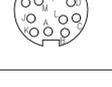
M16·ACCESSORIES

M16 Nut wrench					
	Semicircle Drawing NO. J166BY01		Round style Drawing NO. J166YY02		Slice type Drawing NO. J166ST03

M16·PCB PINS ARRANGEMENT

Pins	2P	3P	4P	5P	6P	7P	8P	12P
Male								
	14P	16P	19P	24P	5P B	7P B	14P B	
Female								
	14P	16P	19P	24P	5P B	7P B	14P B	

M16·ELECTRICAL PARAMETERS

Pins	Male		Rated Current	Rated voltage		Wire Gauge		Female	
	A-code	B Type		A/C	D/C	AWG	mm ²	A-code	B Type
2			7A	250V	32V	20	0.75		
3			7A	250V	32V	20	0.75		
4			6A	250V	32V	20	0.75		
5			6A	250V	32V	20	0.75		
6			5A	250V	32V	20	0.75		
7			5A	125V	32V	20	0.75		
8			5A	60V	32V	20	0.75		
12			3A	60V	32V	24	0.25		
14			3A	60V	32V	24	0.25		
16			3A	60V	32V	24	0.25		
19			3A	60V	32V	24	0.25		
24			1A	60V	32V	26	0.14		

M23 Series

Pins Number: Signal 6 7 9 12 17 19 pins; Power 6 8 pins

Two types: Signal and Power

Plug: assembly, cold-pressure construction

Socket: Straight/Angled cold-pressure construction

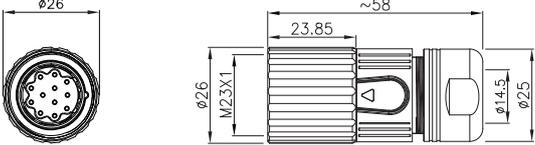
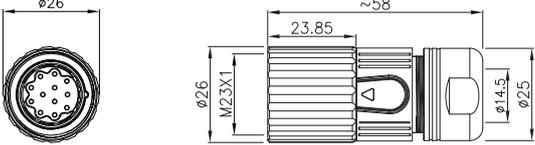
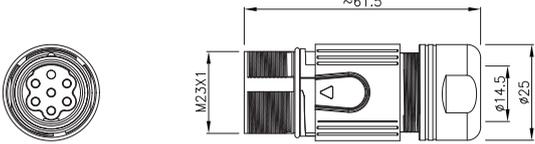
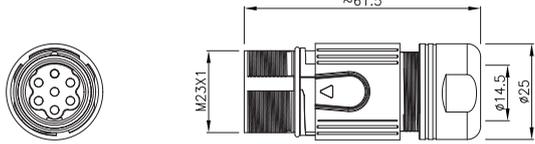
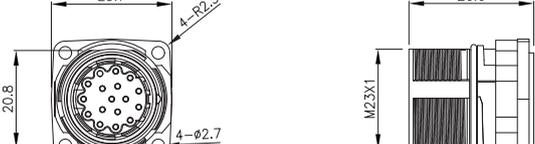
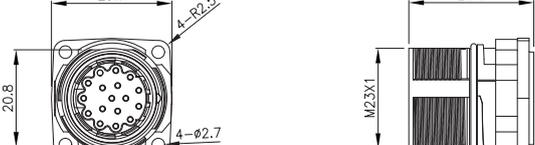
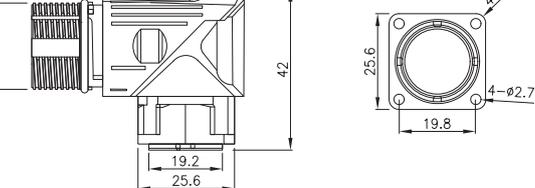
All connectors are excellent for full shielding at 360 degrees

Waterproof grade: IP67 IP68



PRODUCT PARAMETERS

Shell material: Brass nickel plated	Contact impedance: $\leq 5\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Durability: ≥ 500 Cycles
Contact material: Brass/Phosphorus copper gold-plated	Wiring range: 6~10mm
Insulator material: PBT/PA66	Temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Molding material: TPU/PVC	

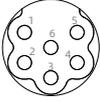
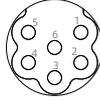
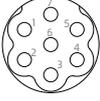
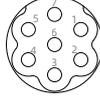
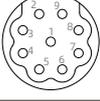
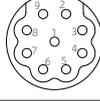
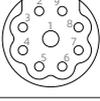
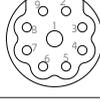
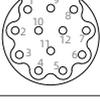
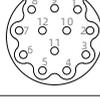
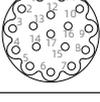
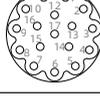
Examples Picture	Drawing NO. and Description	Examples Drawing
	Z232MY01 M23 Signal Straight Female Metal Plug (Crimp)	
	Z231MY02 M23 Signal Male Female Metal Plug (Crimp)	
	Z231DY03 M23 Signal Straight Mating Male Metal Plug (Crimp)	
	Z232DY04 M23 Signal Straight Mating Female Metal Plug (Crimp)	
	Z231SY05 M23 Signal Straight Male Socket (Crimp) Mount hole 19.8*19.8	
	Z232SY06 M23 Signal Straight Female Socket (Crimp) Mount hole 19.8*19.8	
	Z231RY07 Angled M23 Signal Male Square Socket (Crimp) Mount hole 19.8*19.8	

Examples Picture	Drawing NO. and Description	Examples Drawing
	Z232RY08 M23 Signal Female Square Socket (Crimp) Mount hole 19.8*19.8	
	P232SY09 M23 Power Straight Female Metal Plug (Crimp)PG	
	P231RY10 Angled M23 Power Male Square Socket (Crimp) Mount hole 19.8*19.8	
	C2301M01 M23 Metal dust cover (inner screw)	

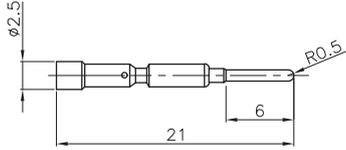
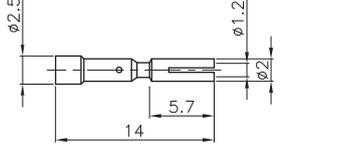
M23·M23 ELECTRICAL PARAMETERS

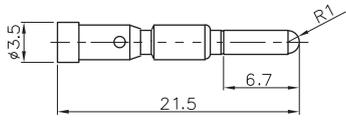
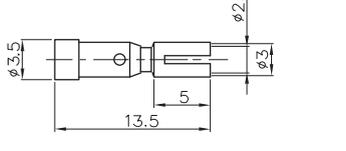
Pins	Male	Rated Current	Rated voltage		Wire Gauge		Female
			A/C	D/C	AWG	mm ²	
6		30A	630V	630V	14	2.5	
8		9A/20A	250V/630V	250V/630V	18/14	1/2.5	

M23·M23 ELECTRICAL PARAMETERS

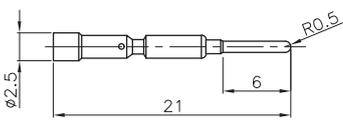
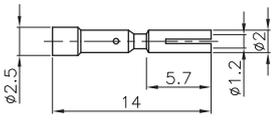
Pins	Male	Rated Current	Rated voltage		Wire Gauge		Female
			A/C	D/C	AWG	mm ²	
6		20A	300V	300V	14	2.5	
7		20A	300V	300V	14	2.5	
9		8A	150V	150V	16	1.5	
9P(8+1)		8A/20A	300V	150V	16/14	1.5/2.5	
12		8A	150V	150V	18	1	
17		8A	150V	150V	18	1	

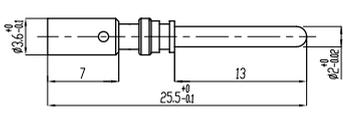
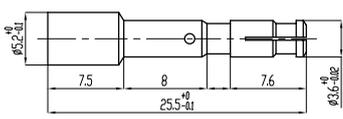
M23·SIGNAL CONTACT PINS PARAMETER TABLE

M23 Riveting pressure pin										
<p>Contact diameter: $\phi 1$</p> 	<p>Material: Brass gold plated</p> 	<p>M23 Riveted Male Pin</p> <table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>0.08-0.5mm² AWG 28-20</td> <td>Z231SY01</td> </tr> <tr> <td>0.5-1.0mm² AWG 20-17</td> <td>Z231SY02</td> </tr> <tr> <td>1.0-1.5mm² AWG 17-16</td> <td>Z231SY03</td> </tr> </tbody> </table>	Wire size	Drawing NO.	0.08-0.5mm ² AWG 28-20	Z231SY01	0.5-1.0mm ² AWG 20-17	Z231SY02	1.0-1.5mm ² AWG 17-16	Z231SY03
Wire size	Drawing NO.									
0.08-0.5mm ² AWG 28-20	Z231SY01									
0.5-1.0mm ² AWG 20-17	Z231SY02									
1.0-1.5mm ² AWG 17-16	Z231SY03									
		<p>M23 Riveted Female Pin</p> <table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>0.08-0.5mm² AWG 28-20</td> <td>Z232SY04</td> </tr> <tr> <td>0.5-1.0mm² AWG 20-17</td> <td>Z232SY05</td> </tr> <tr> <td>1.0-1.5mm² AWG 17-16</td> <td>Z232SY06</td> </tr> </tbody> </table>	Wire size	Drawing NO.	0.08-0.5mm ² AWG 28-20	Z232SY04	0.5-1.0mm ² AWG 20-17	Z232SY05	1.0-1.5mm ² AWG 17-16	Z232SY06
Wire size	Drawing NO.									
0.08-0.5mm ² AWG 28-20	Z232SY04									
0.5-1.0mm ² AWG 20-17	Z232SY05									
1.0-1.5mm ² AWG 17-16	Z232SY06									

M23 Riveting pressure pin						
<p>Contact diameter: $\phi 2$</p> 	<p>Material: Brass gold plated</p> 	<p>M23 Riveted Male Pin</p> <table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>0.75-2.5mm² AWG 18-13</td> <td>Z231SE07</td> </tr> </tbody> </table>	Wire size	Drawing NO.	0.75-2.5mm ² AWG 18-13	Z231SE07
Wire size	Drawing NO.					
0.75-2.5mm ² AWG 18-13	Z231SE07					
		<p>M23 Riveted Female Pin</p> <table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>0.75-2.5mm² AWG 18-13</td> <td>Z232SE08</td> </tr> </tbody> </table>	Wire size	Drawing NO.	0.75-2.5mm ² AWG 18-13	Z232SE08
Wire size	Drawing NO.					
0.75-2.5mm ² AWG 18-13	Z232SE08					

M23·POWER CONTACT PINS PARAMETER TABLE

M23 Riveting pressure pin						
Contact diameter: $\phi 1$	Material: Brass gold plated					
		M23 Riveted Male Pin				
		M23 Riveted Female Pin				
		<table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>0.25-1.0mm² AWG 23-17</td> <td>Z231PY09</td> </tr> </tbody> </table>	Wire size	Drawing NO.	0.25-1.0mm ² AWG 23-17	Z231PY09
Wire size	Drawing NO.					
0.25-1.0mm ² AWG 23-17	Z231PY09					
		<table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>0.25-1.0mm² AWG 23-17</td> <td>Z232PY10</td> </tr> </tbody> </table>	Wire size	Drawing NO.	0.25-1.0mm ² AWG 23-17	Z232PY10
Wire size	Drawing NO.					
0.25-1.0mm ² AWG 23-17	Z232PY10					

M23 Riveting pressure pin								
Contact diameter: $\phi 2$	Material: Brass gold plated							
		M23 Riveted Male Pin						
		M23 Riveted Female Pin						
		<table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>1.0-2.5mm² AWG 18-13</td> <td>M231PE11</td> </tr> <tr> <td>2.5-4.0mm² AWG 13-12</td> <td>M231PE12</td> </tr> </tbody> </table>	Wire size	Drawing NO.	1.0-2.5mm ² AWG 18-13	M231PE11	2.5-4.0mm ² AWG 13-12	M231PE12
Wire size	Drawing NO.							
1.0-2.5mm ² AWG 18-13	M231PE11							
2.5-4.0mm ² AWG 13-12	M231PE12							
		<table border="1"> <thead> <tr> <th>Wire size</th> <th>Drawing NO.</th> </tr> </thead> <tbody> <tr> <td>1.0-2.5mm² AWG 18-13</td> <td>M232PE13</td> </tr> <tr> <td>2.5-4.0mm² AWG 13-12</td> <td>M232PE14</td> </tr> </tbody> </table>	Wire size	Drawing NO.	1.0-2.5mm ² AWG 18-13	M232PE13	2.5-4.0mm ² AWG 13-12	M232PE14
Wire size	Drawing NO.							
1.0-2.5mm ² AWG 18-13	M232PE13							
2.5-4.0mm ² AWG 13-12	M232PE14							

M23·M23 WIRE DEFINITION

Pins	Wire core color	Wire Gauge
6 Pins		
1	BK U	1.5mm ²
2	BN V	1.5mm ²
3	GNYE	1.5mm ²
4	BK	1.5mm ²
5	WH	1.5mm ²
6	BN K	1.5mm ²

Pins	Wire core color	Wire Gauge
8 Pins		
1	BK 1	1.5mm ²
PE	GNYE	1.5mm ²
3	BK 2	1.5mm ²
4	BK 3	1.5mm ²
A	BK 5	0.75mm ²
B	BK 6	0.75mm ²
C	BK 7	0.75mm ²
D	BK 8	0.75mm ²

Pins	Wire core color	Wire Gauge
12 Pins		
1	PK	0.25mm ²
2	RD	0.25mm ²
3	BK	0.25mm ²
4	BU	0.25mm ²
5	BN	0.25mm ²
6	GN	0.25mm ²
7	VT	0.25mm ²
8	GY	0.25mm ²
9	Outer sheath	
10	WH	0.5mm ²
11	NC	
12	BN	0.5mm ²

Pins	Wire core color	Wire Gauge
17 Pins		
1	YE	0.14mm ²
2	GN	0.14mm ²
3	RD	0.14mm ²
4	NC	
5	BU	0.14mm ²
6	NC	
7	BNBU	0.5mm ²
8	GNBK	0.22mm ²
9	GNRD	0.22mm ²
10	BNRD	0.5mm ²
11	BK	0.14mm ²
12	BN	0.14mm ²
13	OG	0.14mm ²
14	WHBK	0.14mm ²
15	BNGY	0.22mm ²
16	BNYE	0.22mm ²
17	Inner sheath	

*Wiring definition according to conventional standards,
if according to the agreement or other please contact our sales.

7/8 Series

Products comply with IEC 61076-2-101 Industry 4.0 Agreement NEMA2000 standard

Plug: assembly, overmolded cable type (length can be customized at will)

Socket: Front Mount Solder Type, Back Mount Solder Type and PCB board type

Mainly used in power connectors

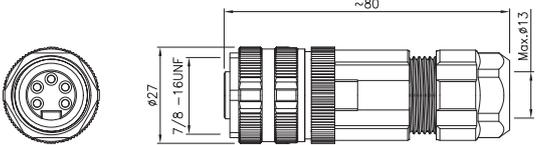
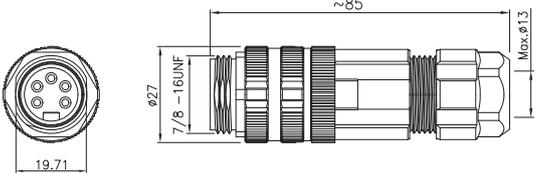
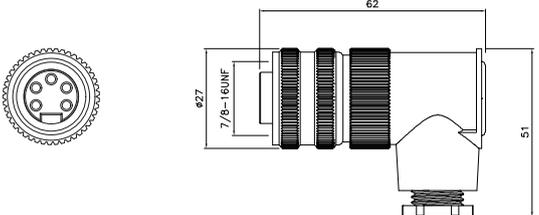
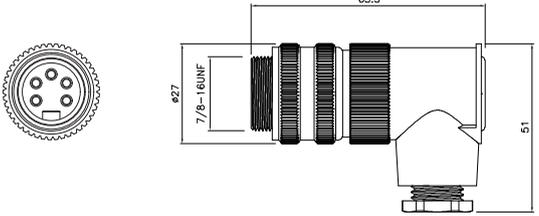
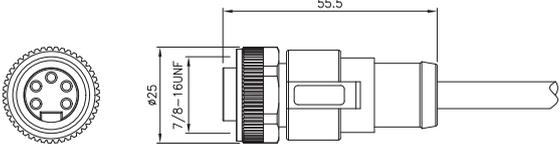
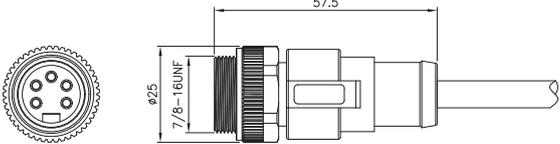
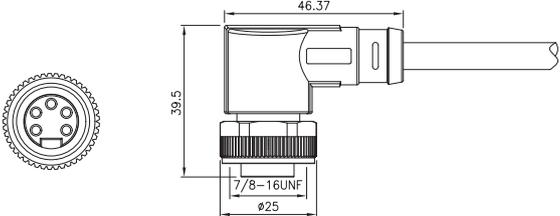
Pins Number: 3-6 pins

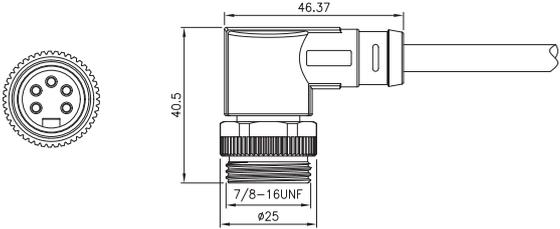
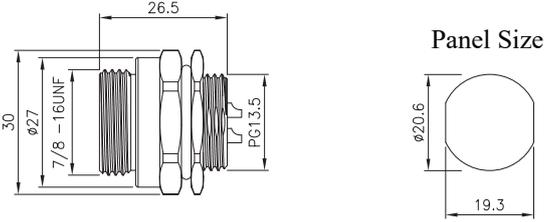
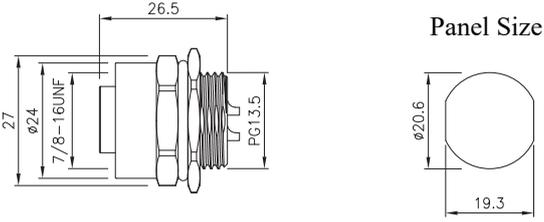
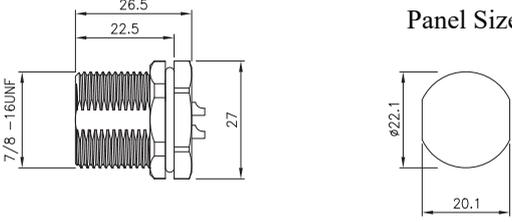
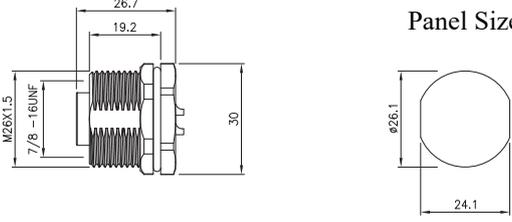
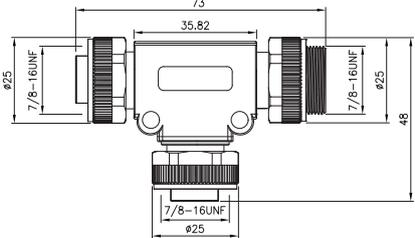
Waterproof grade: Ip65 IP67 IP68



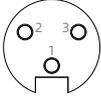
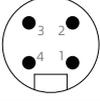
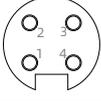
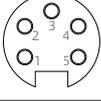
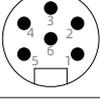
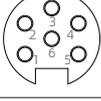
PRODUCT PARAMETERS

Shell material: Brass nickel-plated/Zinc alloy nickel-plated/PA-GF	Contact impedance: $\leq 5\text{m}\Omega$
Sealing material: Epoxy resin/Rubber	Durability: ≥ 500 Cycles
Contact material: Brass/Phosphorus copper gold-plated	Insulation impedance: $\geq 100\text{m}\Omega$
Insulator material: PA+GF/TPU	Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>Z782PS01 7/8 Straight Female Plastic Plug (Screw)</p>	
	<p>Z781PS02 7/8 Straight Male Plastic Plug (Screw)</p>	
	<p>Z782PR03 7/8 Angled Female Plastic Plug (Screw)</p>	
	<p>Z781PR04 7/8 Angled Male Plastic Plug (Screw)</p>	
<p>Shielded/Unshielded</p> 	<p>C782PS05 7/8 Straight Female overmolded plug</p>	
<p>Shielded/Unshielded</p> 	<p>C781PS06 7/8 Straight Male overmolded plug</p>	
<p>Shielded/Unshielded</p> 	<p>C782PR07 7/8 Angled Female overmolded plug</p>	

Examples Picture	Drawing NO. and Description	Examples Drawing
	<p>C781PR08 7/8 Angled Male overmolded plug</p>	
	<p>X781MF09 7/8 Male Front Mount Socket (Solder, Screw PG13.5)</p>	
	<p>X782MF10 7/8 Female Front Mount Socket (Solder, Screw PG13.5)</p>	
	<p>X781MR11 7/8 Male Rear Mount Socket (Solder, Screw 7/8-16UHF)</p>	
	<p>X782MR12 7/8 Female Rear Mount Socket (Solder, Screw M26*1.5)</p>	
	<p>A783PR13 7/8 T Type Adapter (PSS)</p>	

7/8·ELECTRICAL PARAMETERS

Pins	Male	Rated Current	Rated voltage		Conductor size		Female
			A/C	D/C	AWG	mm ²	
3		13A	300V	300V	18	1	
4		9A	300V	300V	18	1	
5		9A	300V	300V	20	0.5	
6		9A	300V	300V	20	0.5	

7/8·WIRE DEFINITION

Pins	Wire color		Pins	Wire color		Pins	Wire color	
	3 Pin			4 Pin			5 Pin	
1	BK		1	BK		1	BK	
2	BN		2	BU		2	BU	
3	BU		3	BN		3	GNYE	
4	-		4	WH		4	BN	
5	-		5	-		5	WH	

*Wiring definition according to conventional standards,
if according to the agreement or other please contact our sales.