

Circular **sensor** connectors



M5 cables & connectors

The M5 Series is specifically developed for the miniature sensor market and any similar applications that require multiple sensors within a miniaturized area. This product line offers both 3 and 4 Pins cable cord-sets and a range of panel-mount receptacles. All connectors are either over-molded on PUR/PVC cables or panel-mount receptacles with a solder-cup for wire connecting or with PCB termination for dip solder. In locked condition, this series can meet IP67 rating.

- Design as per IEC 61076-2-105
- Degree of protection IP67
- 3, 4 poles are available
- TPU over-molded
- Cable length customized, PUR and PVC cable options

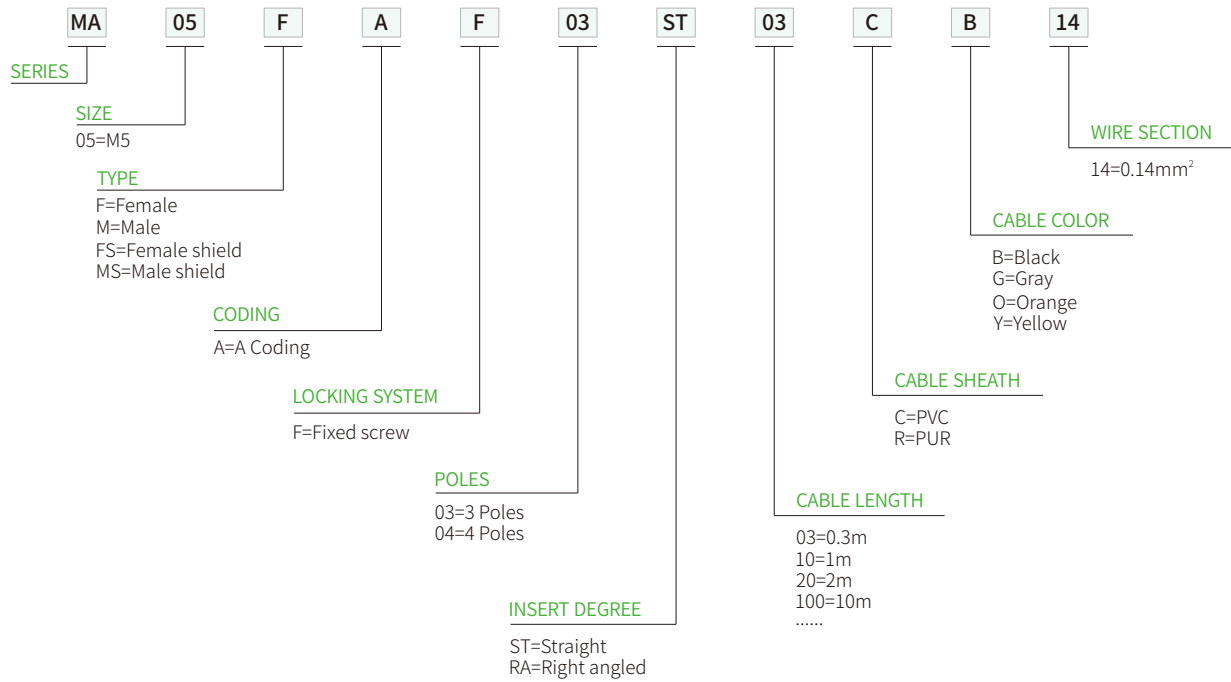
M5 Quick Search Table

M5 cables & connectors

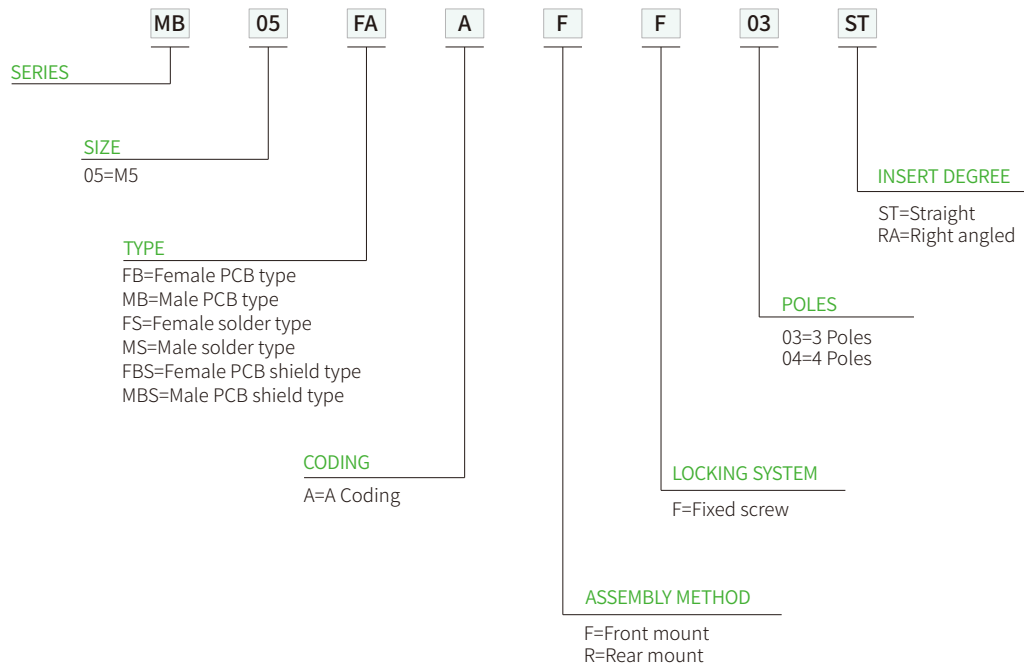
M5 Quick Search Table	Available Coding	A-coding			
	Rated Current	1A			
	Voltage	60V			
	Wire Gauge / size	26AWG / 0.14mm ²			
	Pin layout	 Male	 Female	 Male	 Female
Molded Cable		03 Pins		04 Pins	
	Straight Connector, Molded Cable	044	044	044	044
	Straight Connector, Molded Cable, Shielded	045	045	045	045
	Angled Connector, Molded Cable	046	046	046	046
Panel Mount Type		03 Pins		04 Pins	
	Straight Connector, Panel Mount, Solder, Front fastened	047	047	047	047
	Straight Connector, Panel Mount, Solder, Rear fastened	048	048	048	048
	Straight Connector, Panel Mount, PCB Type, Front fastened	049	049	049	049
	Straight Connector, Panel Mount, PCB Type, Front fastened With Earth Pin	050	050	050	050
ProtectionCap					
	Protection Cap for Male Connector	041			
	Protection Cap for Female Connector	041			

How to Order Part Number

■ M5 Series with cable molded



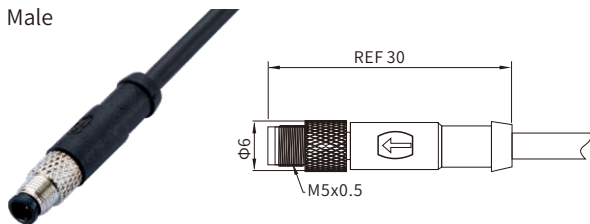
■ M5 Series Assembly / Panel-mount type



M5 Sensor and Actuator

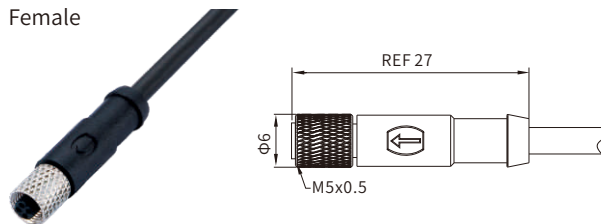
M5 Straight Connector, Molded Cable

Male



CE RoHS

Female



CE RoHS

Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-25°C ~ +85°C (flexible installation) , -40°C ~ +85°C (fixed installation)	
Connector insert	TPU	
Connector contacts	Brass with gold plated	
Connector overmold	TPU	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring(of Female)	FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Shielding	Unavailable	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	
Wire gauge	0.14mm ² (AWG26)	

Part Number

Pins	Cable length	Male		Female	
		PVC	PUR	PVC	PUR
3	1m	MA05MAF03ST-10CB14	MA05MAF03ST-10RB14	MA05FAF03ST-10CB14	MA05FAF03ST-10RB14
	3m	MA05MAF03ST-30CB14	MA05MAF03ST-30RB14	MA05FAF03ST-30CB14	MA05FAF03ST-30RB14
	5m	MA05MAF03ST-50CB14	MA05MAF03ST-50RB14	MA05FAF03ST-50CB14	MA05FAF03ST-50RB14
4	1m	MA05MAF04ST-10CB14	MA05MAF04ST-10RB14	MA05FAF04ST-10CB14	MA05FAF04ST-10RB14
	3m	MA05MAF04ST-30CB14	MA05MAF04ST-30RB14	MA05FAF04ST-30CB14	MA05FAF04ST-30RB14
	5m	MA05MAF04ST-50CB14	MA05MAF04ST-50RB14	MA05FAF04ST-50CB14	MA05FAF04ST-50RB14

Default wire colors

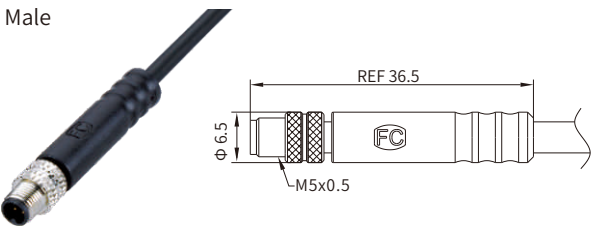
Pin No.		
Pin 1	BN	BN
Pin 2		WH
Pin 3	BU	BU
Pin 4	BK	BK

M5 Sensor and Actuator



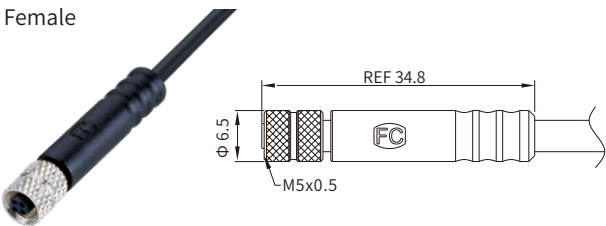
M5 Straight Connector, Molded Cable, Shielded

Male



CE RoHS

Female



CE RoHS

Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-25°C ~ +85°C (flexible installation) , -40°C ~ +85°C (fixed installation)	
Connector insert	TPU	
Connector contacts	Brass with gold plated	
Connector overmold	TPU; PA	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring(of Female)	FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Shielding	Available	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	
Wire gauge	0.14mm ² (AWG26)	

Part Number

Pins	Cable length	Male		Female	
		PVC	PUR	PVC	PUR
3	1m	MA05MSAF03ST-10CB14	MA05MSAF03ST-10RB14	MA05FSAF03ST-10CB14	MA05FSAF03ST-10RB14
	3m	MA05MSAF03ST-30CB14	MA05MSAF03ST-30RB14	MA05FSAF03ST-30CB14	MA05FSAF03ST-30RB14
	5m	MA05MSAF03ST-50CB14	MA05MSAF03ST-50RB14	MA05FSAF03ST-50CB14	MA05FSAF03ST-50RB14
4	1m	MA05MSAF04ST-10CB14	MA05MSAF04ST-10RB14	MA05FSAF04ST-10CB14	MA05FSAF04ST-10RB14
	3m	MA05MSAF04ST-30CB14	MA05MSAF04ST-30RB14	MA05FSAF04ST-30CB14	MA05FSAF04ST-30RB14
	5m	MA05MSAF04ST-50CB14	MA05MSAF04ST-50RB14	MA05FSAF04ST-50CB14	MA05FSAF04ST-50RB14

Default wire colors

Pin No.		
Pin 1	BN	BN
Pin 2		WH
Pin 3	BU	BU
Pin 4	BK	BK
Shell	Braid	

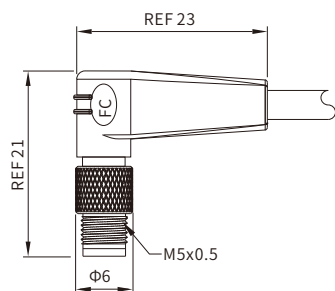
M5 Sensor and Actuator

M5 Angled Connector, Molded Cable

Male



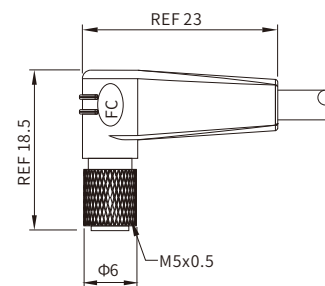
CE RoHS



Female



CE RoHS



Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-25°C ~ +85°C (flexible installation) , -40°C ~ +85°C (fixed installation)	
Connector insert	TPU	
Connector contacts	Brass with gold plated	
Connector overmold	TPU	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring(of Female)	FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Shielding	Unavailable	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	
Wire gauge	0.14mm ² (AWG26)	

Part Number

Pins	Cable length	Male		Female	
		PVC	PUR	PVC	PUR
3	1m	MA05MAF03RA-10CB14	MA05MAF03RA-10RB14	MA05FAF03RA-10CB14	MA05FAF03RA-10RB14
	3m	MA05MAF03RA-30CB14	MA05MAF03RA-30RB14	MA05FAF03RA-30CB14	MA05FAF03RA-30RB14
	5m	MA05MAF03RA-50CB14	MA05MAF03RA-50RB14	MA05FAF03RA-50CB14	MA05FAF03RA-50RB14
4	1m	MA05MAF04RA-10CB14	MA05MAF04RA-10RB14	MA05FAF04RA-10CB14	MA05FAF04RA-10RB14
	3m	MA05MAF04RA-30CB14	MA05MAF04RA-30RB14	MA05FAF04RA-30CB14	MA05FAF04RA-30RB14
	5m	MA05MAF04RA-50CB14	MA05MAF04RA-50RB14	MA05FAF04RA-50CB14	MA05FAF04RA-50RB14

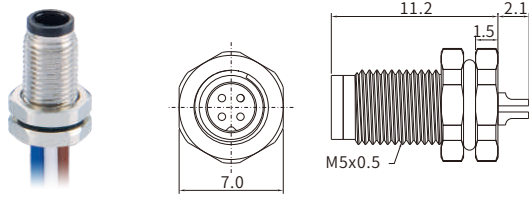
Default wire colors

Pin No.		
Pin 1	BN	BN
Pin 2		WH
Pin 3	BU	BU
Pin 4	BK	BK

M5 Sensor and Actuator

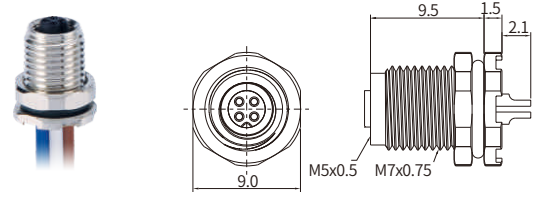
M5 Straight Connector, Panel Mount, Solder, Front fastened

Male



CE RoHS

Female



CE RoHS

Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-15°C~+85°C (flexible installation), -30°C~+85°C (fixed installation)	
Customized temperature	-25°C ~ +85°C (flexible installation) , -40°C ~ +85°C (fixed installation)	
Connector insert	TPU; PA+GF	
Connector contacts	Brass with gold plated	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring	Epoxy resin / FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Earth tag/pin	Unavailable	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	
Wire gauge	0.14mm² (AWG26)	

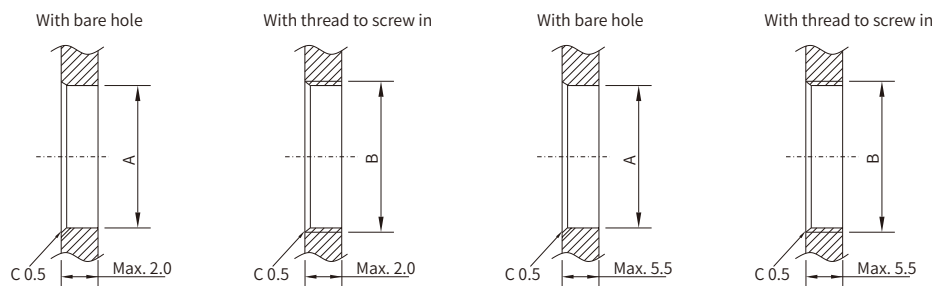
Part Number

Pins	Cable length	Male	Female
3	0.1m	MB05MSAFF03ST-1401	MB05FSAFF03ST-1401
	0.3m	MB05MSAFF03ST-1403	MB05FSAFF03ST-1403
4	0.1m	MB05MSAFF04ST-1401	MB05FSAFF04ST-1401
	0.3m	MB05MSAFF04ST-1403	MB05FSAFF04ST-1403

Default wire colors

Pin No.		
Pin 1	BN	BN
Pin 2		WH
Pin 3	BU	BU
Pin 4	BK	BK

Panel Cut-out Dimensions

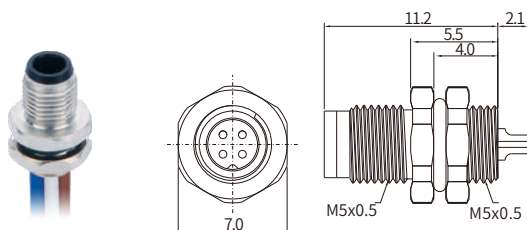


	A	B
M5	5.0 ^{+0.1} ₋₀	M5x0.5
M7	7.0 ^{+0.1} ₋₀	M7x0.75

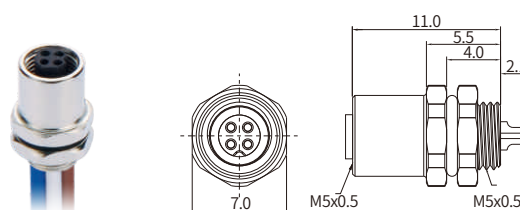
M5 Sensor and Actuator

M5 Straight Connector, Panel Mount, Solder, Rear fastened

Male



Female



Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-15°C~+85°C (flexible installation), -30°C~+85°C (fixed installation)	
Customized temperature	-25°C ~ +85°C (flexible installation), -40°C ~ +85°C (fixed installation)	
Connector insert	TPU; PA+GF	
Connector contacts	Brass with gold plated	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring	Epoxy resin / FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Earth tag/pin	Unavailable	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	
Wire gauge	0.14mm ² (AWG26)	

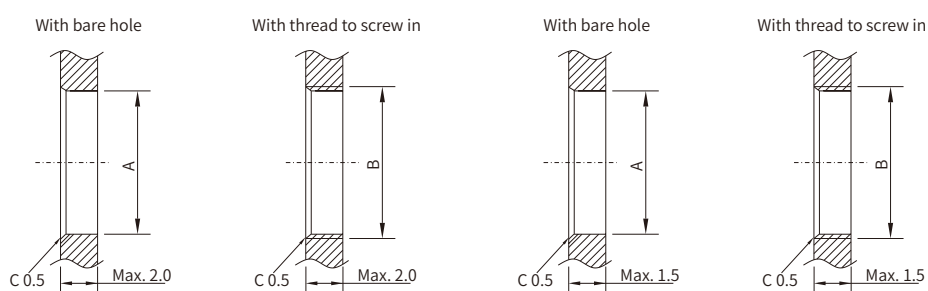
Part Number

Pins	Cable length	Male	Female
3	0.1m	MB05MSARF03ST-1401	MB05FSARF03ST-1401
	0.3m	MB05MSARF03ST-1403	MB05FSARF03ST-1403
4	0.1m	MB05MSARF04ST-1401	MB05FSARF04ST-1401
	0.3m	MB05MSARF04ST-1403	MB05FSARF04ST-1403

Default wire colors

Pin No.	Male	Female
Pin 1	BN	BN
Pin 2		WH
Pin 3	BU	BU
Pin 4	BK	BK

Panel Cut-out Dimensions

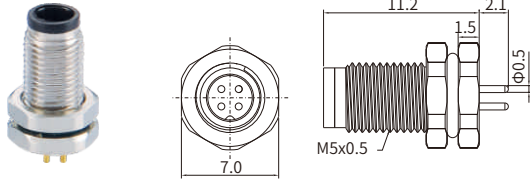


	A	B
M5	5.0 ^{+0.1} ₋₀	M5x0.5
M7	5.0 ^{+0.1} ₋₀	M5x0.75

M5 Sensor and Actuator

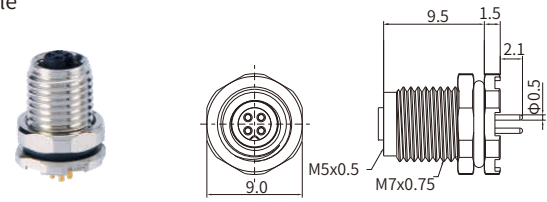
M5 Straight Connector, Panel Mount, PCB Type, Front fastened

Male



CE RoHS

Female



CE RoHS

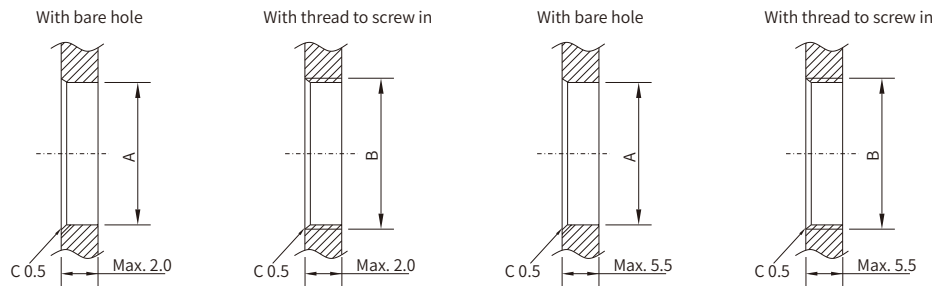
Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-25°C ~ +90°C	
Connector insert	TPU; PA+GF	
Connector contacts	Brass with gold plated	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring	Epoxy resin / FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Earth tag/pin	Unavailable	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	

Part Number

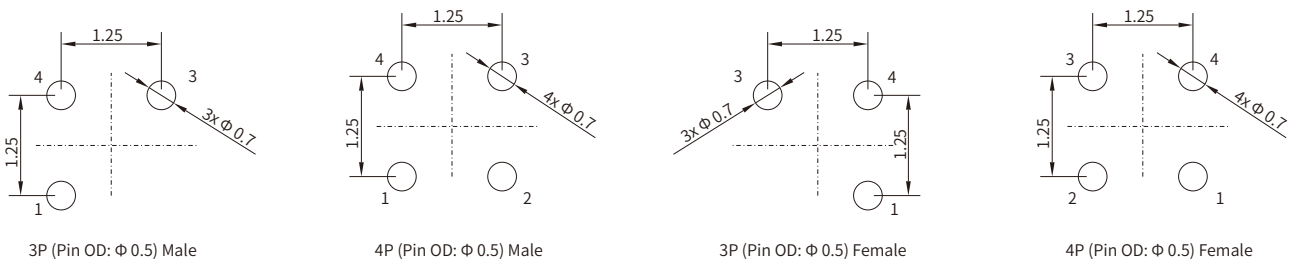
Pins	Male	Female
3	MB05MBAFF03ST	MB05FBAFF03ST
4	MB05MBAFF04ST	MB05FBAFF04ST

Panel Cut-out Dimensions



	A	B
M5	5.0 ^{+0.1} ₋₀	M5x0.5
M7	7.0 ^{+0.1} ₋₀	M7x0.75

PCB Layout

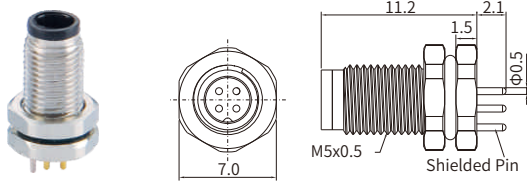


M5 Sensor and Actuator

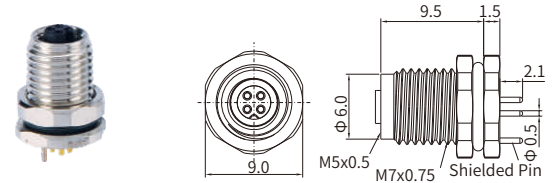


M5 Straight Connector, Panel Mount, PCB Type, Front fastened, With Earth Pin

Male



Female



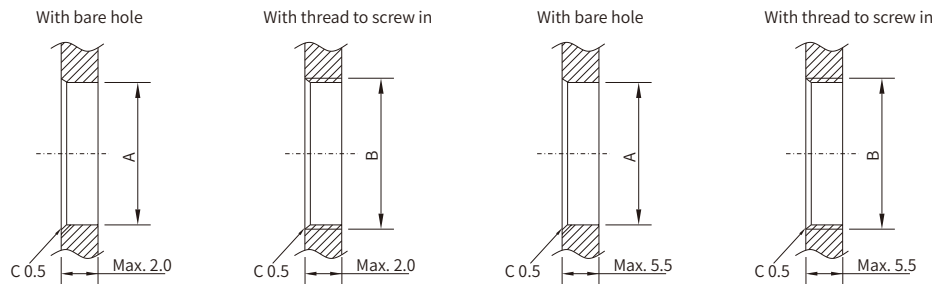
Specifications

Contacts	3	4
Pin layout(Male)		
Pin layout(Female)		
Standard	IEC 61076-2-105	
Ambient temperature	-25°C ~ +90°C	
Connector insert	TPU; PA+GF	
Connector contacts	Brass with gold plated	
Coupling nut/screw	Brass with nickel plated	
Seal/O-ring	Epoxy resin / FKM	
Insulation resistance	≥100MΩ	
Contact resistance	≤5mΩ	
Earth tag/pin	Available	
IP rating	IP67 in locked condition	
Mating endurance	>500 cycles	
Rated current	1 A	
Rated voltage	60V AC/DC	

Part Number

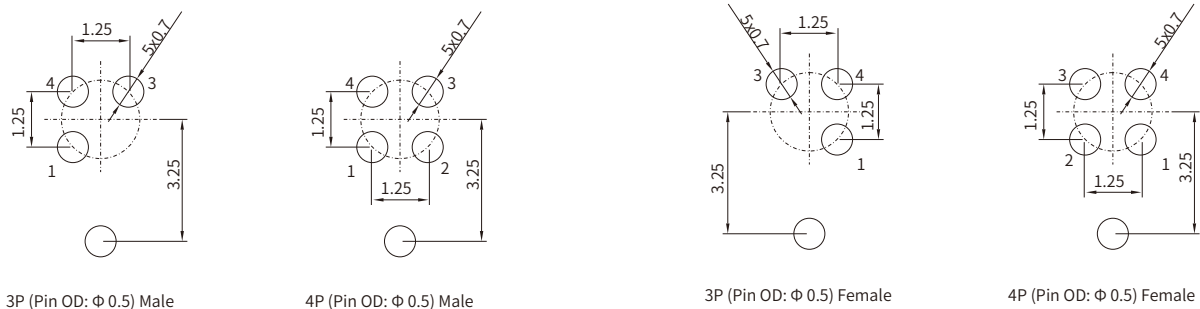
Pins	Male	Female
3	MB05MBSAFF03ST	MB05FBASFF03ST
4	MB05MBSAFF04ST	MB05FBASFF04ST

Panel Cut-out Dimensions



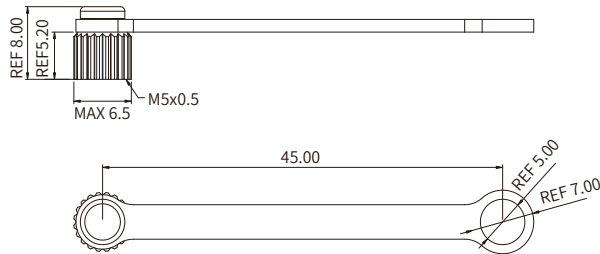
	A	B
M5	5.0 ^{+0.1} ₋₀	M5x0.5
M7	7.0 ^{+0.1} ₋₀	M7x0.75

PCB Layout



M5 Protection Cap for Male Connector

- Connector series: M5
- Gender: For male
- Locking type: Fix screw
- Part No.: PCNM5x0.5-3



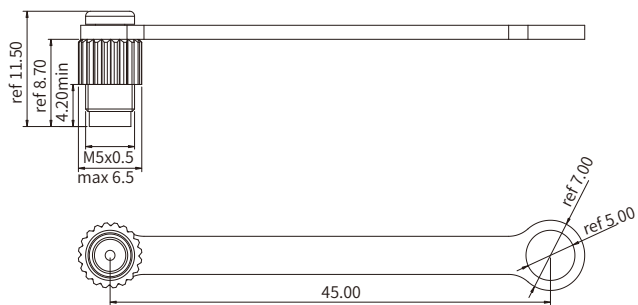
General information

Nut/Screw:	PA+GF
Line:	TPU

Gasket:	FKM
IP rating:	IP67 in locked condition

M5 Protection Cap for Female Connector

- Connector series: M5
- Gender: For female
- Locking type: Fix screw
- Part No.: PCSM5x0.5-3



General information

Nut/Screw:	PA+GF
Line:	TPU

IP rating:	IP67 in locked condition
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