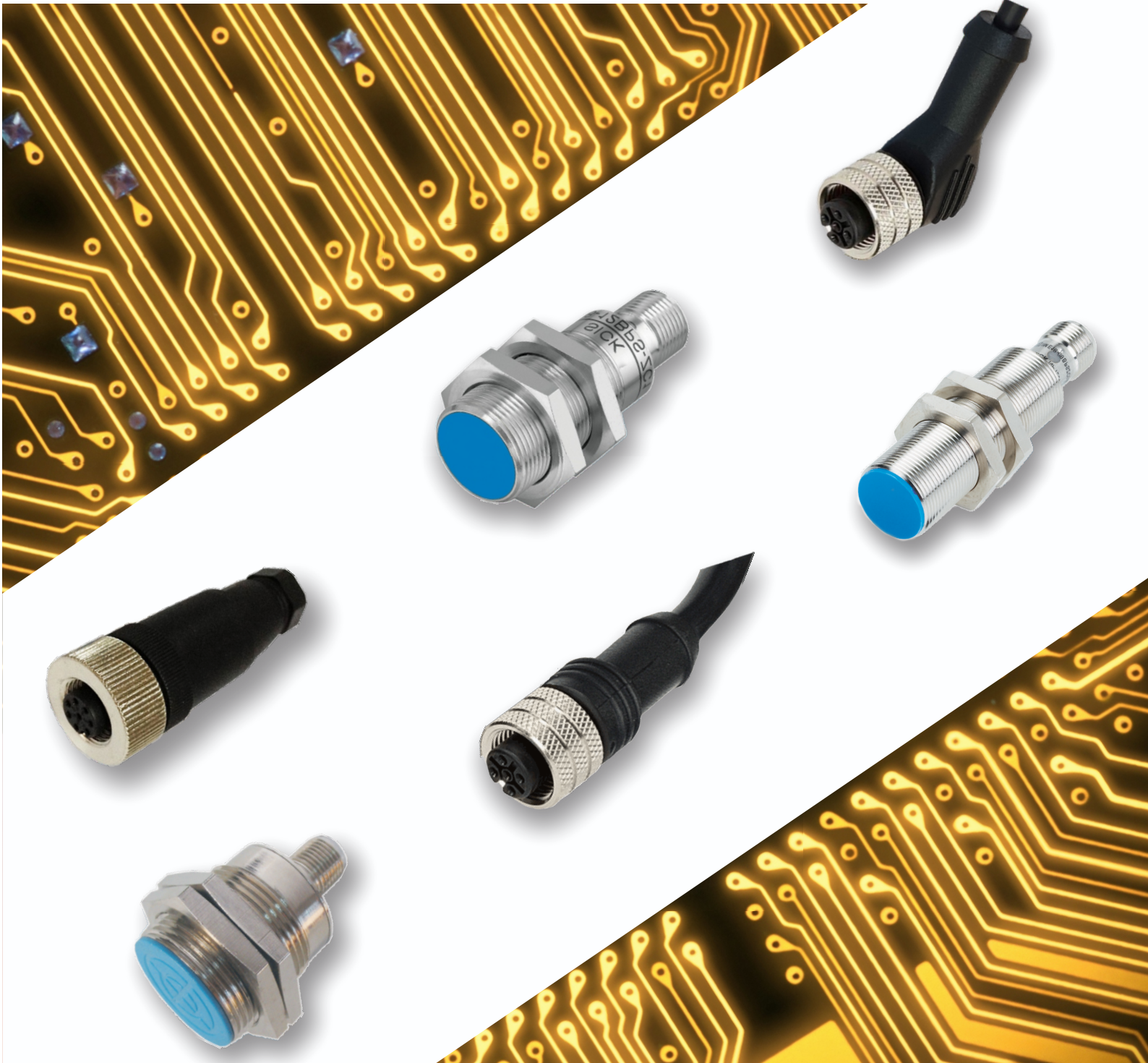


PROXIMITY SENSORS & CONNECTORS

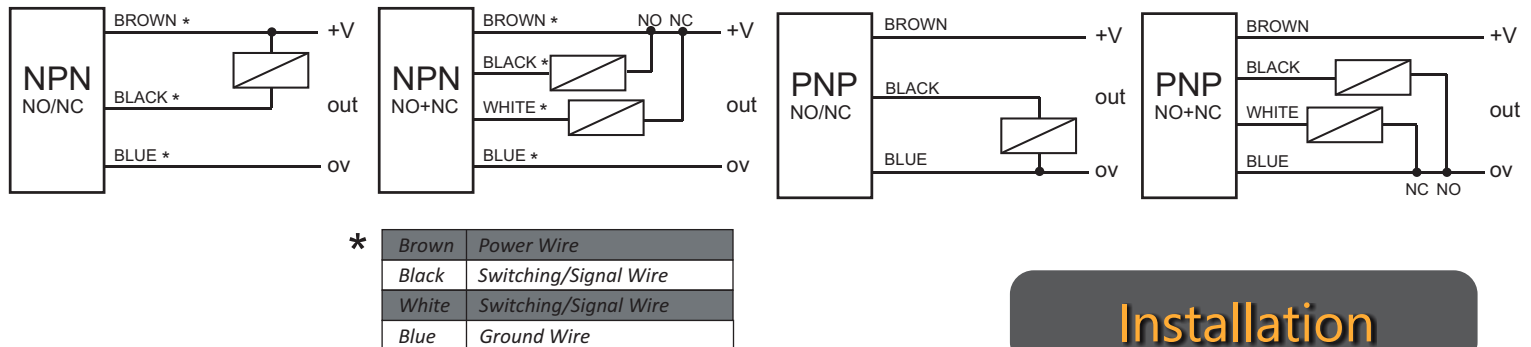
www.digitalswitching.com.au



Features

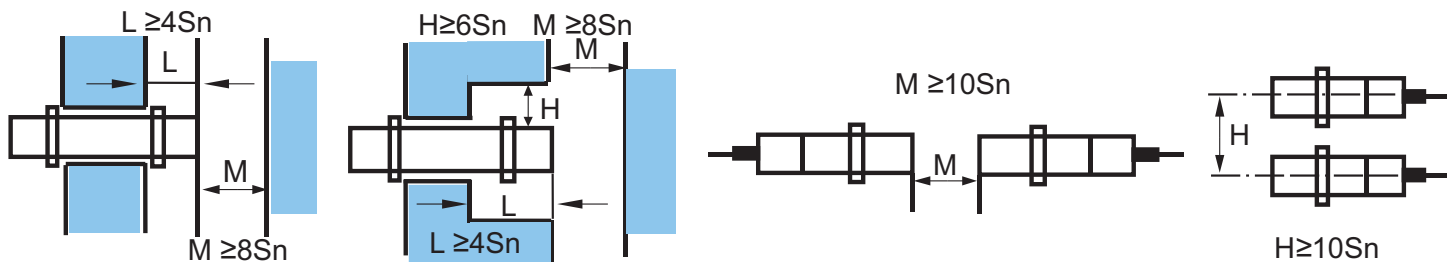
- Inductive proximity sensor
- Style: cylinder shape (M12, M18, M30).
- With LED operation indicator, easily identifiable.
- Brass nickel plated, proof of oil, water acid, alkaline.
- Standard sensing object: inductive sensor: ferrous metals.
- Over-load and short circuit protection; polarity reversal protection.
- RPM measuring in mechanism.
- Protection rate: IP67, water resistant.
- Shielded.
- Connection mode: M12 connector.
- DC 3-wire(10-30V DC).

Connections



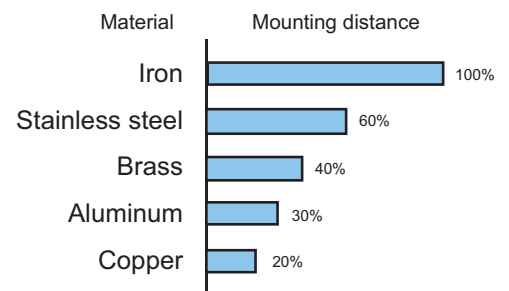
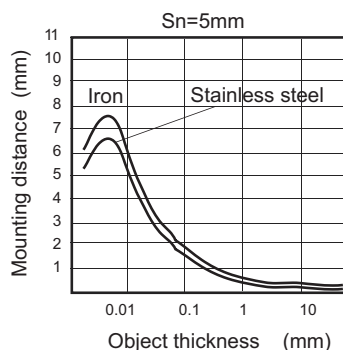
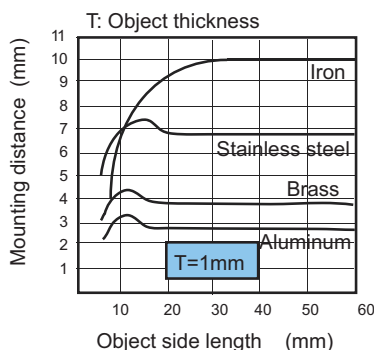
Installation

- When used in an area surrounded by metal or juxtaposed, install the sensor as follows. (Sn Sensing distance)

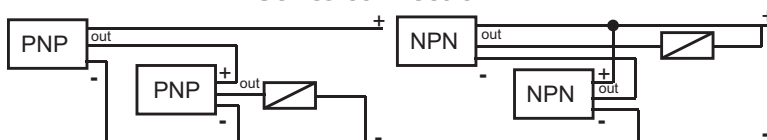


• IPS INDUCTIVE PROXIMITY APPLICATION DIRECTION

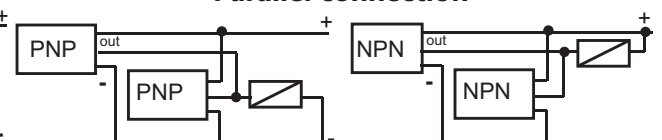
- Mounting distance should be set equal 80% Sn.
- Set mounting distance equals 50% Sn, when sensor applies in measuring mounting frequency or operating in high speed circumstance.
- Mounting distance varies with measuring object (iron, stainless steel, brass, copper, and aluminum).



Series connection



Parallel connection



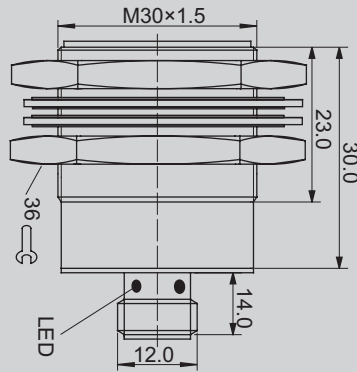
Inductive Proximity Sensor

M30 Series

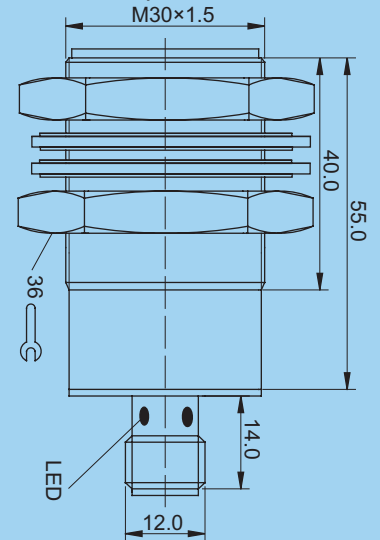
Dimension	M30 x1.5	M30 x1.5
Installation	Flush (shielded)	Flush (shielded)
Mounting distance Sn	10.0mm	10.0mm
Detect distance Sn	0...9.0mm	0...9.0mm



Unit: mm - Short Body



Unit: mm - Standard Body



PNP	DC 3 wires	NO	DSS-CPS-POM30SB-10FM	DSS-CPS-POM30LB-10FM
		NC	DSS-CPS-PCM30SB-10FM	DSS-CPS-PCM30LB-10FM
NPN	DC 3 wires	NO	DSS-CPS-NOM30SB-10FM	DSS-CPS-NOM30LB-10FM
		NC	DSS-CPS-NCM30SB-10FM	DSS-CPS-NCM30LB-10FM

Rated operational voltage (DC/AC)	24V DC	24V DC
Supply voltage (DC/AC)	10-30V DC	10-30V DC
Voltage drop	≤ 2.0V	≤ 2.0V
Rated insulation voltage	≥ 20M Ω	≥ 20M Ω
Load current capacity (DC/AC)	200mA	200mA
Off-state current (NPN/PNP)	≤ 15mA	≤ 15mA
Leak current	≤ 20 μA	≤ 20 μA
Against polarity reversal	YES	YES
Short circuit protected	YES	YES
Load capacity	≤ 1μF	≤ 1μF
Repeated accuracy	≤ 5%	≤ 5%
Ambient temperature range	-25...+70°C	-25...+70°C
Frequency (DC 3/2wires / AC 2 wires)	500Hz/400Hz	500Hz/400Hz
Function indication	Red LED Indicator	Red LED Indicator
IP ratings	IP67	IP67
Housing material	Nickle plate brass	Nickle plate brass
Material of sensing face	ABS	ABS
Plug-in connector	M12 3/4 Wire	M12 3/4 Wire
Approvals	CE	CE

Normally Open (NO):

When metal is within proximity to the sensor, the circuit will close and the indicating LED light will be ON.

Normally Closed (NC):

When metal is within proximity to the sensor, the circuit will open and the indicating LED light will be OFF.

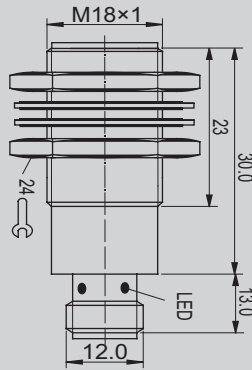
Inductive Proximity Sensor

M18 Series

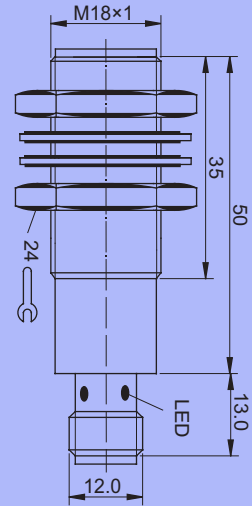
Dimension	M18 x1	M18 x1
Installation	Flush (shielded)	Flush (shielded)
Mounting distance Sn	5.0mm	5.0mm
Detect distance Sn	0...4.0mm	0...4.0mm



Unit: mm - Short Body



Unit: mm - Standard Body



PNP	DC 3 wires	NO	DSS-CPS-POM18SB-5FM	DSS-CPS-POM18LB-5FM
		NC	DSS-CPS-PCM18SB-5FM	DSS-CPS-PCM18LB-5FM
NPN	DC 3 wires	NO	DSS-CPS-NOM18SB-5FM	DSS-CPS-NOM18LB-5FM
		NC	DSS-CPS-NCM18SB-5FM	DSS-CPS-NCM18LB-5FM
Rated operational voltage (DC/AC)			24V DC	24V DC
Supply voltage (DC/AC)			10-30V DC	10-30V DC
Voltage drop			≤ 2.0V	≤ 2.0V
Rated insulation voltage			≥ 20M Ω	≥ 20M Ω
Load current capacity (DC/AC)			200mA	200mA
Off-state current (NPN/PNP)			≤ 15mA	≤ 10mA
Leak current			≤ 20 μA	≤ 20 μA
Against polarity reversal			YES	YES
Short circuit protected			YES	YES
Load capacity			≤ 1μF	≤ 1μF
Repeated accuracy			≤ 5%	≤ 5%
Ambient temperature range			-25...+70°C	-25...+70°C
Frequency (DC 3/2wires / AC 2 wires)			700Hz/400Hz	700Hz/400Hz
Function indication			Red LED Indicator	Red LED Indicator
IP ratings			IP67	IP67
Housing material			Nickle plate brass	Nickle plate brass
Material of sensing face			ABS	ABS
Plug-in connector			M12 3/4 Wire	M12 3/4 Wire
Approvals			CE	CE

Normally Open (NO):

When metal is within proximity to the sensor, the circuit will close and the indicating LED light will be ON.

Normally Closed (NC):

When metal is within proximity to the sensor, the circuit will open and the indicating LED light will be OFF.

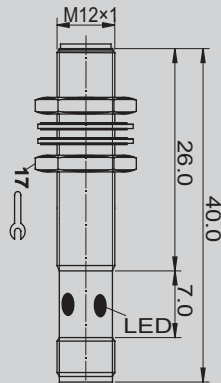
Inductive Proximity Sensor

M12 Series

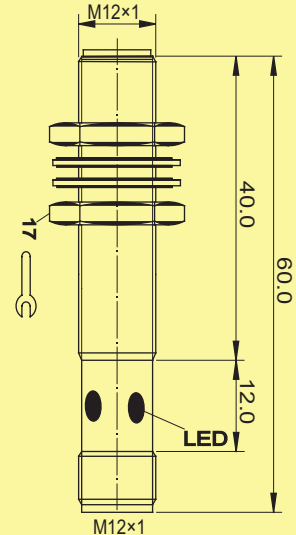
Dimension	M12 x1	M12 x1
Installation	Flush (shielded)	Flush (shielded)
Mounting distance Sn	4.0mm	4.0mm
Detect distance Sn	0...3.6mm	0...3.6mm



Unit: mm - Short Body



Unit: mm - Standard Body



PNP	DC 3 wires	NO	DSS-CPS-POM12SB-4FM	DSS-CPS-POM12LB-4FM
		NC	DSS-CPS-PCM12SB-4FM	DSS-CPS-PCM12LB-4FM
NPN	DC 3 wires	NO	DSS-CPS-NOM12SB-4FM	DSS-CPS-NOM12LB-4FM
		NC	DSS-CPS-NCM12SB-4FM	DSS-CPS-NCM12LB-4FM
Rated operational voltage (DC/AC)			24V DC	24V DC
Supply voltage (DC/AC)			10-30V DC	10-30V DC
Voltage drop			≤ 2.0V	≤ 2.0V
Rated insulation voltage			≥ 20M Ω	≥ 20M Ω
Load current capacity (DC/AC)			100mA	200mA
Off-state current (NPN/PNP)			≤ 15mA	≤ 15mA
Leak current			≤ 20 μA	≤ 20 μA
Against polarity reversal			YES	YES
Short circuit protected			YES	YES
Load capacity			≤ 1μF	≤ 1μF
Repeated accuracy			≤ 5%	≤ 5%
Ambient temperature range			-25...+70°C	-25...+70°C
Frequency (DC 3/2wires / AC 2 wires)			800Hz/400Hz	800Hz/400Hz
Function indication			Red LED Indicator	Red LED Indicator
IP ratings			IP67	IP67
Housing material			Nickle plate brass	Nickle plate brass
Material of sensing face			ABS	ABS
Plug-in connector			M12 3/4 Wire	M12 3/4 Wire
Approvals			CE	CE

Normally Open (NO):

When metal is within proximity to the sensor, the circuit will close and the indicating LED light will be ON.

Normally Closed (NC):

When metal is within proximity to the sensor, the circuit will open and the indicating LED light will be OFF.

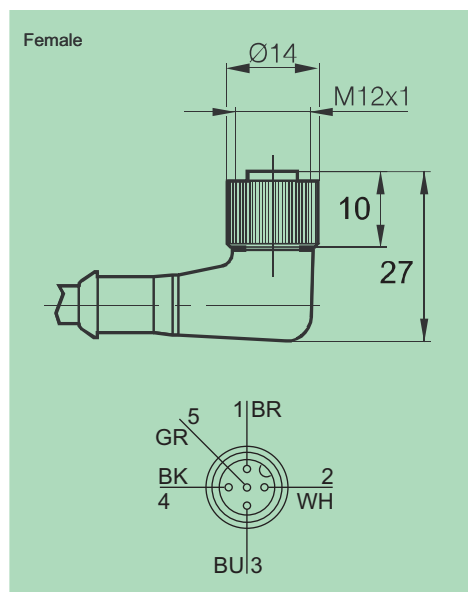
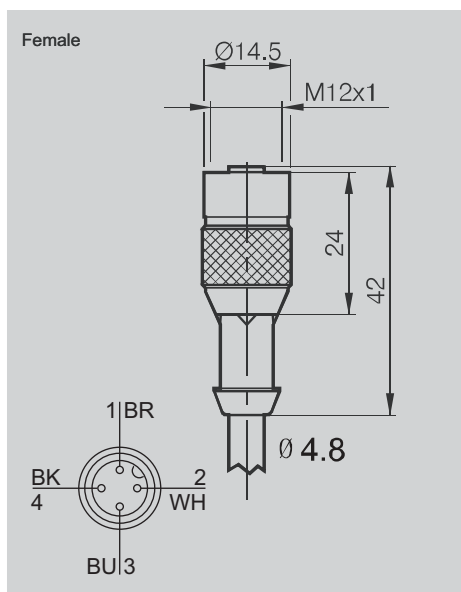
Plug-In Cables

Cables

Connector

M12 Straight 3/4 Pole (Pin)

M12 90° Angled 3/4 Pole (Pin)



DSS-CCS-M12-F4A-3M

DSS-CCS-M12-F4A-5M

DSS-CCS-M12-F4A-10M

DSS-CCA-M12-F4A-3M

DSS-CCA-M12-F4A-5M

DSS-CCA-M12-F4A-10M

Cable Lengths Available

3 Meter, 5 Meter, 10 Meter

3 Meter, 5 Meter, 10 Meter

No. of Cores

16X0.15

16X0.15

Section of Each Core

3(4) X 0.3mm²

3(4) X 0.3mm²

Material (Cable/Injection)

PVC

PVC

Material (Pole/Pin)

Copper

Copper

LED Lamp

NO

NO

Rated Voltage

DC 12~220V

DC 12~220V

Resistance of Each Core

17.24 X 10⁻³Ω

17.24 X 10⁻³Ω

Installation Strength

>200 MΩ

>200 MΩ

IP Rating (Cable/Injection)

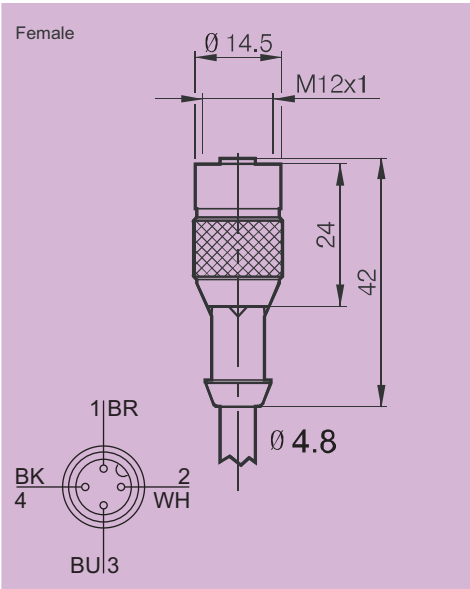
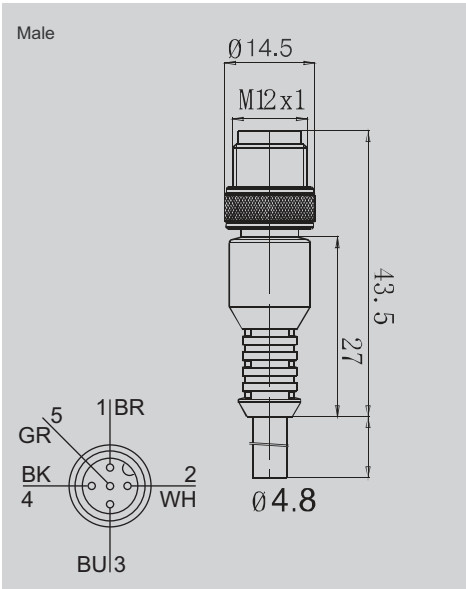
IP67/IP65

IP67/IP65

Connector


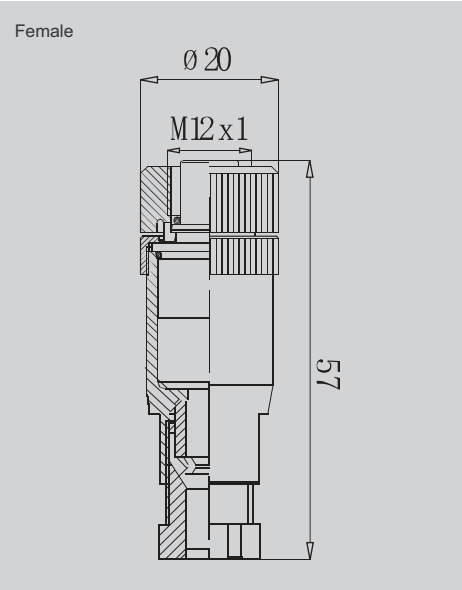
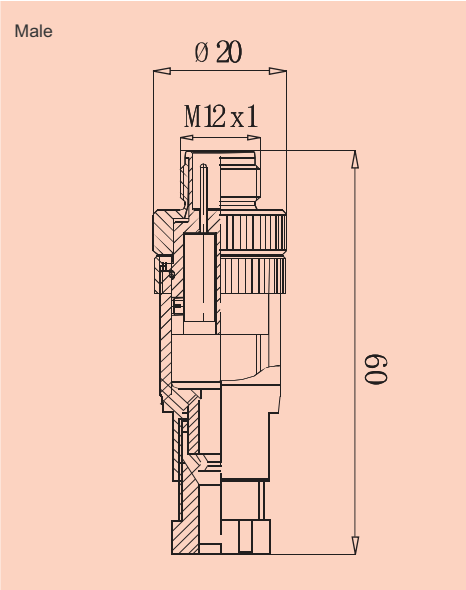
M12 Male
3/4 Pole (Pin)

M12 Female
3/4 Pole (Pin)



- DSS-CCS-FM12-F4A-3M
- DSS-CCS-FM12-F4A-5M
- DSS-CCS-FM12-F4A-10M

Cable Lengths Available	3 Meter, 5 Meter, 10 Meter
No. of Cores	16X0.15
Section of Each Core	3(4) X 0.3mm ²
Material (Cable/Injection)	PVC
Material (Pole/Pin)	Copper
LED Lamp	NO
Rated Voltage	DC 12~220V
Resistance of Each Core	17.24 X 10 ⁻³ Ω
Installation Strength	>200 MΩ
IP Rating (Cable/Injection)	IP67/IP65
Connection	Male - Female

Connector	M12 Female 4 Poles (Pins)	M12 Male 4 Poles (Pins)
		
	DSS-CCS-F-4A	DSS-CCS-M-4A
Cable	User Connect	User Connect
No. of Poles/Pins	3 or 4	3 or 4
Material of Housing	ABS	ABS
Material (Pole/Pin)	Nickle Plated Brass	Nickle Plated Brass
LED Lamp	NO	NO
Rated Voltage	AC/DC 12~250V	AC/DC 12~250V
Rated Current	AC 3A	AC 3A
Connection Method	Terminals	Terminals
Installation Strength	>200 M Ω	>200 M Ω
IP Rating (Housing)	IP67	IP67