

PRCM/PRW SERIES

Cylindrical Inductive Proximity Sensors With 12mm Connectors

■ Features

- > Surge Protection □
- > Reverse Polarity Protection □
- > Short Circuit Protection □
- > LED Indicator □
- > Easy Installation/Replacement □
- > 200mA Output Current □
- > Nickel Plated Brass □
- > Optional Connector On Body or 300mm Cable



■ Type

DC 3-Wire Switching

Appearances	Model
M12 	PRCM12-2DN
	PRCM12-2DP
	PRCM12-2DN2 ※
	PRCM12-2DP2 ※
M18 	PRCM12-4DN
	PRCM12-4DP
	PRCM12-4DN2 ※
	PRCM12-4DP2 ※
M18 	PRCM18-5DN
	PRCM18-5DP
	PRCM18-5DN2 ※
	PRCM18-5DP2 ※
M18 	PRCM18-8DN
	PRCM18-8DP
	PRCM18-8DN2 ※
	PRCM18-8DP2 ※
M30 	PRCM30-10DN
	PRCM30-10DP
	PRCM30-10DN2 ※
	PRCM30-10DP2 ※
M30 	PRCM30-15DN
	PRCM30-15DP
	PRCM30-15DN2 ※
	PRCM30-15DP2 ※

DC 3-Wire Switching (Long Body)

Appearances	Model
M18 	PRCML18-5DN
	PRCML18-5DP
	PRCML18-5DN2 ※
	PRCML18-5DP2 ※
M18 	PRCML18-8DN
	PRCML18-8DP
	PRCML18-8DN2 ※
	PRCML18-8DP2 ※
M30 	PRCML30-10DN
	PRCML30-10DP
	PRCML30-10DN2 ※
	PRCML30-10DP2 □
M30 	PRCML30-15DN
	PRCML30-15DP
	PRCML30-15DN2 ※
	PRCML30-15DP2 □

AC 2-Wire Switching (Long Body)

Appearances	Model
M18 	PRCML18-5AO
	PRCML18-5AC
M18 	PRCML18-8AO
	PRCML18-8AC
M30 	PRCML30-10AO
	PRCML30-10AC
M30 	PRCML30-15AO
	PRCML30-15AC

DC 2-Wire Switching

Appearances	Model
M12 	PRCMT12-2DO
	PRCMT12-2DC
M12 	PRCMT12-4DO
	PRCMT12-4DC
M18 	PRCMT18-5DO
	PRCMT18-5DC
M18 	PRCMT18-8DO
	PRCMT18-8DC
	PRCMT18-8DO-I
	PRCMT18-8DC-I
M30 	PRCMT30-10DO
	PRCMT30-10DC
M30 	PRCMT30-15DO
	PRCMT30-15DC

AC 2-Wire Switching

Appearances	Model
M12 	PRCM12-2AO
	PRCM12-2AC
M12 	PRCM12-4AO
	PRCM12-4AC
M18 	PRCM18-5AO
	PRCM18-5AC
	PRCM18-8AO
M18 	PRCM18-8AC
	PRCM30-10AO
	PRCM30-10AC
M30 	PRCM30-15AO
	PRCM30-15AC

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DC 3-Wire Switching

Appearances		Model
M12		PRW12-2DN
		PRW12-2DP
		PRW12-2DN2 ※
		PRW12-2DP2 ※
M18		PRW12-4DN
		PRW12-4DP
		PRW12-4DN2 ※
		PRW12-4DP2 ※
M18		PRW18-5DN
		PRW18-5DP
		PRW18-5DN2 ※
		PRW18-5DP2 ※
M18		PRW18-8DN
		PRW18-8DP
		PRW18-8DN2 ※
		PRW18-8DP2 ※
M30		PRW30-10DN
		PRW30-10DP
		PRW30-10DN2 ※
		PRW30-10DP2 ※
M30		PRW30-15DN
		PRW30-15DP
		PRW30-15DN2 ※
		PRW30-15DP2 ※

AC 2-Wire Switching

Appearances		Model
M12		PRW12-2AO
		PRW12-2AC
		PRW12-4AO
		PRW12-4AC
M18		PRW18-5AO
		PRW18-5AC
		PRW18-8AO
		PRW18-8AC
M30		PRW30-10AO
		PRW30-10AC
		PRW30-15AO
		PRW30-15AC

AC 2-Wire Switching (Long Body)

Appearances		Model
M18		PRWL18-5AO
		PRWL18-5AC
		PRWL18-8AO
		PRWL18-8AC
M30		PRWL30-10AO
		PRWL30-10AC
		PRWL30-15AO
		PRWL30-15AC

Connector cable

Appearances	Model	
	DC type	AC type
	CID2-2	CIA2-2
	CID3-2	-
	CID2-5	CIA2-5
	CID3-5	-
	CLD2-2	CLA2-2
	CLD3-2	-
	CLD2-5	CLA2-5
	CLD3-5	-

Appearances	Model	
	DC type	AC type
	C1D4-2	C1A4-2
	C1D4-5	C1A4-5
	C2D4-2	C2A4-2
	C2D4-5	C2A4-5
	C3D4-2	C3A4-2
	C3D4-5	C3A4-5
	C4D4-2	C4A4-2
	C4D4-5	C4A4-5

DC 3-Wire Switching (Long Body)

Appearances		Model
M18		PRWL18-5DN
		PRWL18-5DP
		PRWL18-5DN2 ※
		PRWL18-5DP2 ※
M18		PRWL18-8DN
		PRWL18-8DP
		PRWL18-8DN2 ※
		PRWL18-8DP2 ※
M30		PRWL30-10DN
		PRWL30-10DP
		PRWL30-10DN2 ※
		PRWL30-10DP2 □
M30		PRWL30-15DN
		PRWL30-15DP
		PRWL30-15DN2 ※
		PRWL30-15DP2 □

DC 2-Wire Switching

Appearances		Model
M12		PRWT12-2DO
		PRWT12-2DC
		PRWT12-4DO
		PRWT12-4DC
M18		PRWT18-5DO
		PRWT18-5DC
		PRWT18-8DO
		PRWT18-8DC
M18		PRWT18-8DO-I
		PRWT18-8DC-I
		PRWT30-10DO
		PRWT30-10DC
M30		PRWT30-15DO
		PRWT30-15DC

PRCM/PRW SERIES

Electrical Specifications

●DC 3 wire switching

Model	PRCM12-2D□ PRW12-2D□	PRCM12-4D□ PRW12-4D□	PRCM18-5D□ PRCML18-5D□ PRW18-5D□ PRWL18-5D□	PRCM18-8D□ PRCML18-8D□ PRW18-8D□ PRWL18-8D□	PRCM30-10D□ PRCML30-10D□ PRW30-10D□ PRWL30-10D□	PRCM30-15D□ PRCML30-15D□ PRW30-15D□ PRWL30-15D□
Detecting distance	2mm±10%	4mm±10%	5mm±10%	8mm±10%	10mm±10%	15mm±10%
Hysteresis	Max. 10% of detecting distance					
Standard detecting target	12×12×1mm (Iron)		18×18×1mm (Iron)	25×25×1mm (Iron)	30×30×1mm (Iron)	45×45×1mm (Iron)
Setting distance	0 to 1.4	0 to 2.8	0 to 3.5	0 to 5.6	0 to 7	0 to 10.5
Power supply (Operating voltage)	12 to 24VDC (10 to 30VDC)					
Power consumption	Max. 10mA					
Response frequency	800Hz	400Hz	350Hz	200Hz	250Hz	100Hz
Residual voltage	Max. 1.5V					
Variation due to Temp. fluctuation	±10% Max. of detecting distance at +20°C within temperature range of -25 to +70°C					
Control output	Resistive load:200mA, Inductive load:100mA					

●AC 2 wire switching

Model	PRCM12-2A□ PRW12-2A□	PRCM12-4A□ PRW12-4A□	PRCM18-5A□ PRCML18-5A□ PRW18-5A□ PRWL18-5A□	PRCM18-8A□ PRCML18-8A□ PRW18-8A□ PRWL18-8A□	PRCM30-10A□ PRCML30-10A□ PRW30-10A□ PRWL30-10A□	PRCM30-15A□ PRCML30-15A□ PRW30-15A□ PRWL30-15A□
Detecting distance	2mm±10%	4mm±10%	5mm±10%	8mm±10%	10mm±10%	15mm±10%
Hysteresis	Max. 10% of detecting distance					
Standard detecting target	12×12×1mm (Iron)		18×18×1mm (Iron)	25×25×1mm (Iron)	30×30×1mm (Iron)	45×45×1mm (Iron)
Setting distance	0 to 1.4	0 to 2.8	0 to 3.5	0 to 5.6	0 to 7	0 to 10.5
Power supply (Operating voltage)	110 to 220VAC (90 to 250VAC)					
Power consumption	Max. 2.5mA					
Response frequency	20Hz					
Residual voltage	Max. 10V					
Variation due to Temp. fluctuation	±10% Max. of detecting distance at +20°C within temperature range of -25 to +70°C					
Control output	Resistive load:150mA, Inductive load:75mA		Resistive load:200mA, Inductive load:100mA			

Physical Specifications

Insulation resistance	Min. 50MΩ (500VDC)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz in each of X,Y,Z directions for 2 hours					
Shock	500m/s ² (50G) in X,Y,Z directions for 3 times					
Indicator	Operating indicator : red LED					
Operating temperature	-25 to +70°C (non-freezing condition)					
Storage temperature	-30 to +80°C (non-freezing condition)					
Ambient humidity	35 to 95% RH					
Protection circuit	Surge protection circuit(AC, DC), reverse polarity protection, overload & short-circuit protection(DC)					
Protection	IP67(IEC specification)					
Insulation type(*1)	☑ Double Insulation					
Weight	PRW12-2A□	PRW12-4A□	PRCM18-5D□	PRCM18-8D□	PRCM30-10D□	PRCM30-15D□
	About 42g	About 42g	About 49g	About 49g	About 134g	About 134g
			PRCML18-5D□	PRCML18-8D□	PRCML30-10D□	PRCML30-15D□
			About 73g	About 73g	About 169g	About 169g
	PRCM12-2A□	PRCM12-4A□	PRCM18-5A□	PRCM18-8A□	PRCM30-10A□	PRCM30-15A□
	About 30g	About 30g	About 53g	About 53g	About 134g	About 134g
			PRCML18-5A□	PRCML18-8A□	PRCML30-10A□	PRCML30-15A□
			About 74g	About 74g	About 169g	About 169g
	PRW12-2D□	PRW12-4D□	PRW18-5D□	PRW18-8D□	PRW30-10D□	PRW30-15D□
	About 40g	About 40g	About 84g	About 84g	About 143g	About 143g
			PRWL18-5D□	PRWL18-8D□	PRWL30-10D□	PRWL30-15D□
			About 108g	About 108g	About 178g	About 178g
PRCM12-2D□	PRCM12-4D□	PRW18-5A□	PRW18-8A□	PRW30-10A□	PRW30-15A□	
About 26g	About 26g	About 87g	About 87g	About 148g	About 148g	
		PRWL18-5A□	PRWL18-8A□	PRWL30-10A□	PRWL30-15A□	
		About 112g	About 112g	About 185g	About 185g	

Electrical Specifications

DC 3-Wire Switching

Model	PRCMT12-2D□ PRWT12-2D□	PRCMT12-4D□ PRWT12-4D□	PRCMT18-5D□ PRWT18-5D□	PRCMT18-8D□ PRWT18-8D□	PRCMT30-10D□ PRWT30-10D□	PRCMT30-15D□ PRWT30-15D□
Detecting distance	2mm ± 10%	4mm ± 10%	5mm ± 10%	8mm ± 10%	10mm ± 10%	15mm ± 10%
Hysteresis	Max. 10% of detecting distance					
Standard detecting target	12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance	0 to 1.4	0 to 2.8	0 to 3.5	0 to 5.6	0 to 7	0 to 10.5
Power supply (Operating voltage)	24VDC (15 to 30VDC)					
Power consumption	Max. 0.9mA					
Response frequency	800Hz	400Hz	350Hz	200Hz	250Hz	100Hz
Residual voltage	Max. 7V					
Variation due to Temp. fluctuation	±10% Max. of detecting distance at +20°C within temperature range of -25 to +70°C					
Control output	Resistive load:50mA, Inductive load:25mA					

Physical Specifications

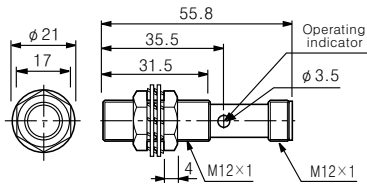
Insulation resistance	Min. 50M Ω (500VDC)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz in each of X,Y,Z directions for 2 hours					
Shock	500m/s ² (50G) in X,Y,Z directions for 3 times					
Indicator	Operating indicator : red LED					
Operating temperature	-25 to +70°C (non-freezing condition)					
Storage temperature	-30 to +80°C (non-freezing condition)					
Ambient humidity	35 to 95% RH					
Protection circuit	Surge protection circuit, overload & short-circuit protection					
Protection	IP67 (IEC specification)					
Insulation type(*1)	☐ Double Insulation					
Net Weight	PRCMT12-2D□	PRCMT12-4D□	PRCMT18-5D□	PRCMT18-8D□	PRCMT30-10D□	PRCMT30-15D□
	About 26g	About 26g	About 49g	About 49g	About 134g	About 134g
	PRWT12-2D□	PRWT12-4D□	PRWT18-5D□	PRWT18-8D□	PRWT30-10D□	PRWT30-15D□
	About 45g	About 45g	About 65g	About 65g	About 130g	About 130g

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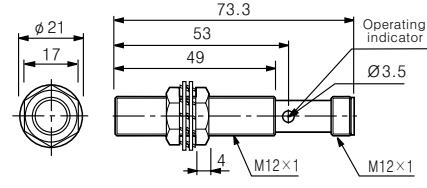
■ Dimensions

Unit:mm

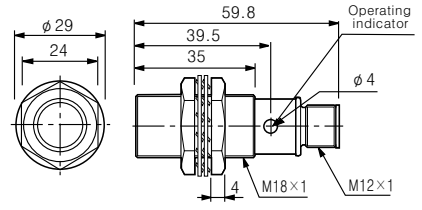
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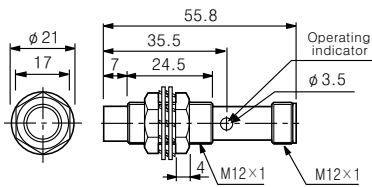
●PRCM12-2A□



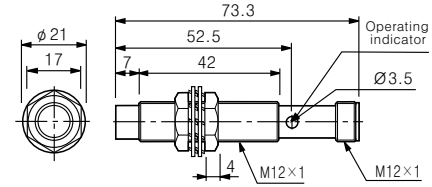
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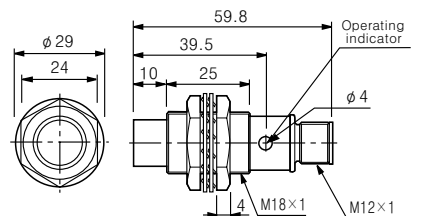
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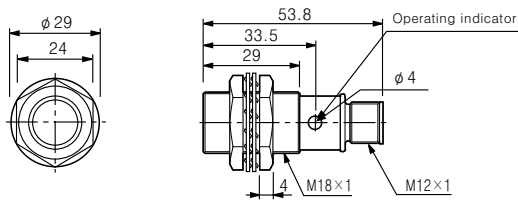
●PRCM12-4A□



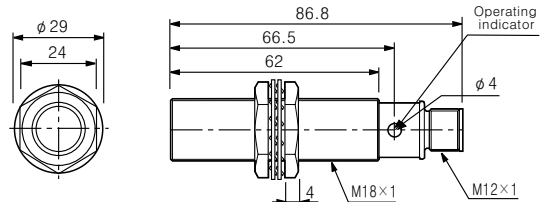
●PRCM18-8A□



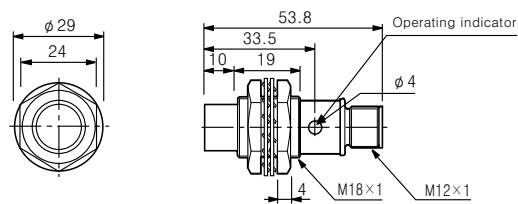
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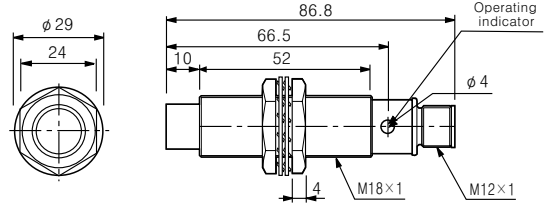
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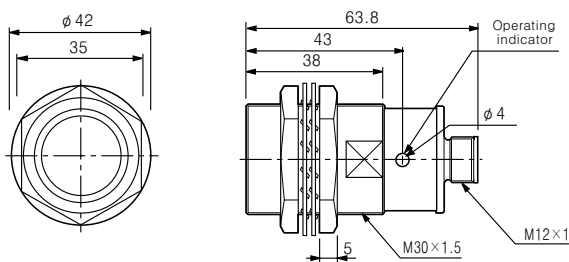
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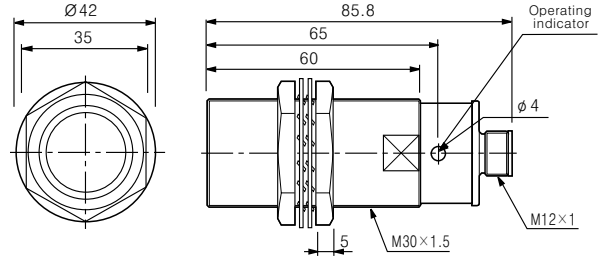
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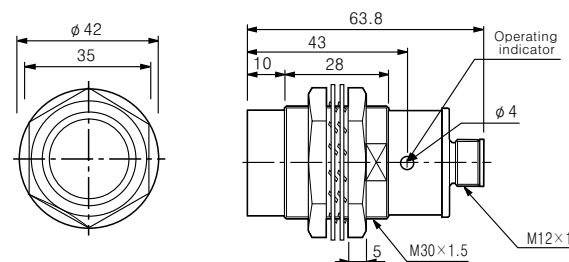
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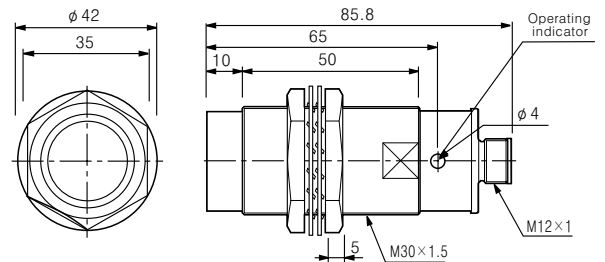
●PRCML30-10□□



●PRCM(T)30-15□□



●PRCML30-15□□

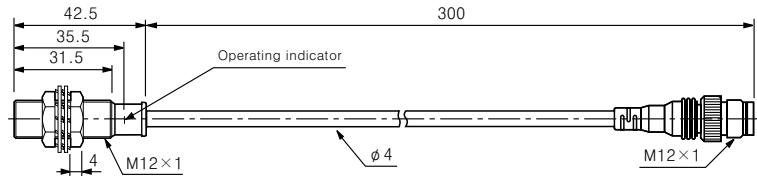
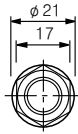
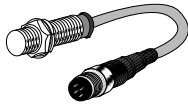


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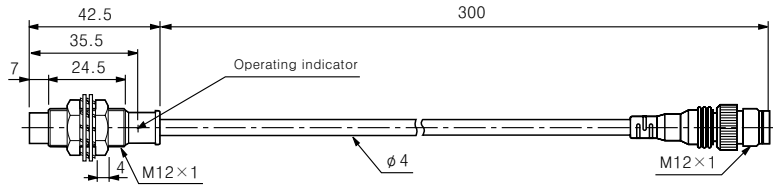
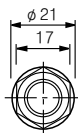
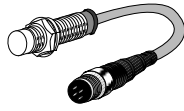
■ Dimensions

unit:mm

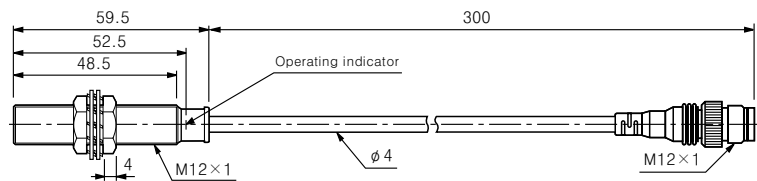
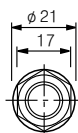
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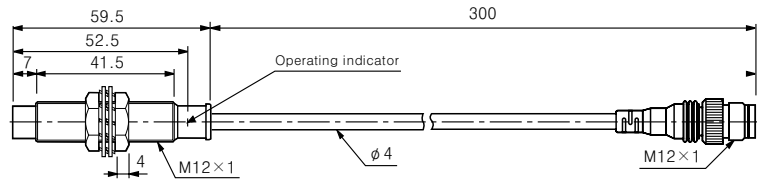
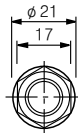
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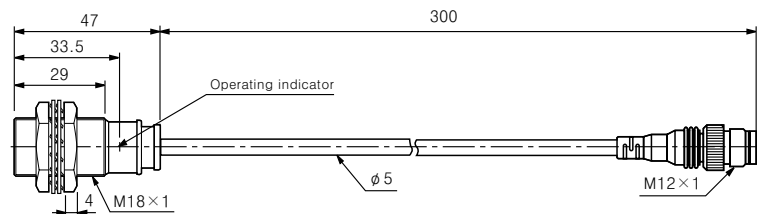
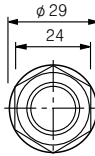
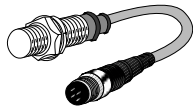
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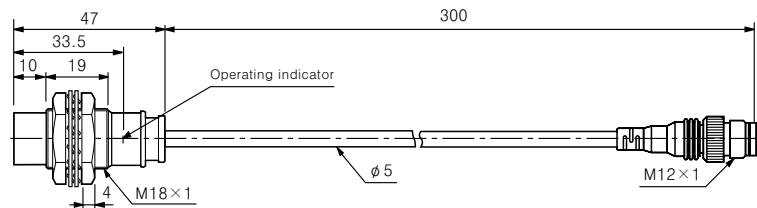
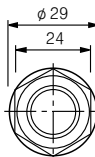
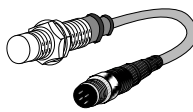
● PRW12-4A □



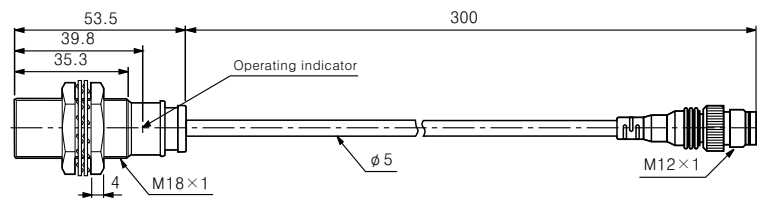
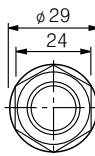
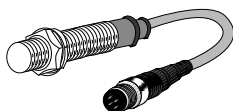
● PRW(T)18-5D □



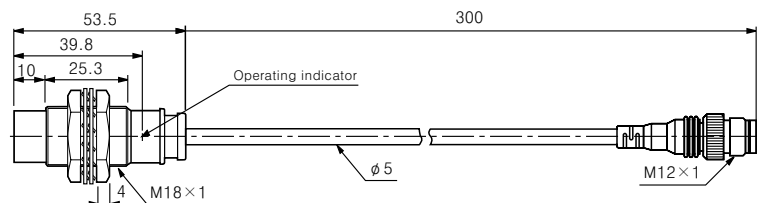
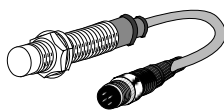
● PRW(T)18-8D □



● PRW18-5A □



● PRW18-8A □

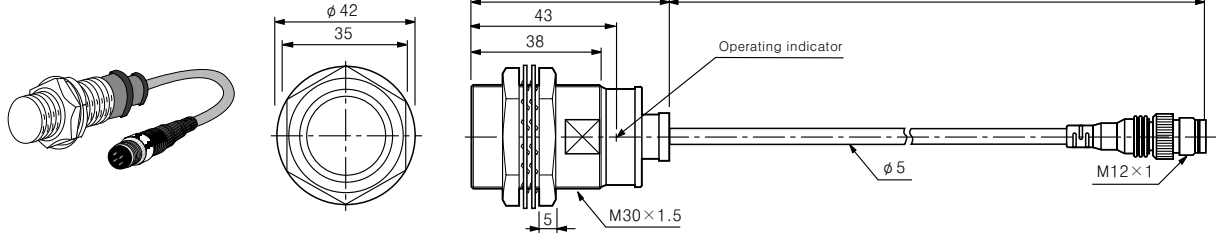


PRCM/PRW SERIES

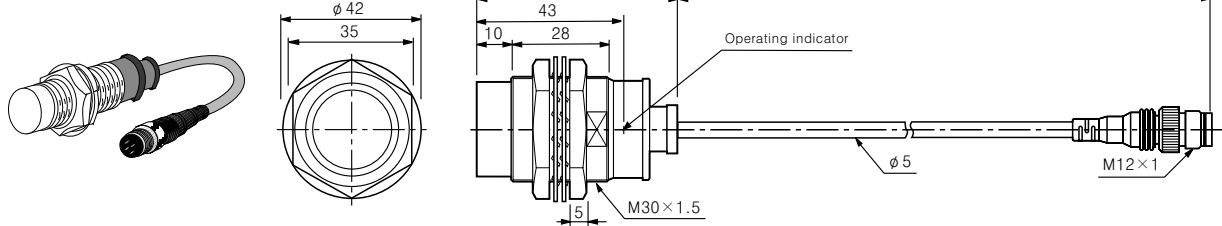
■ Dimensions

unit:mm

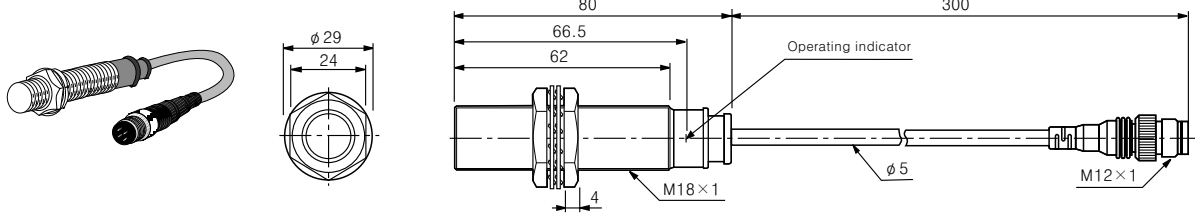
● PRW(T)30-10□□



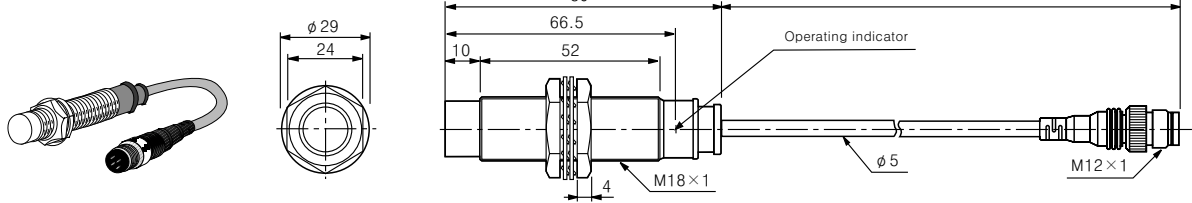
● PRW(T)30-15□□



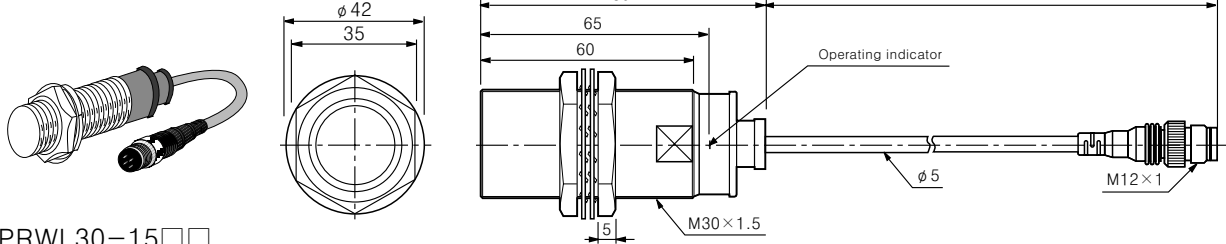
● PRWL18-5□□



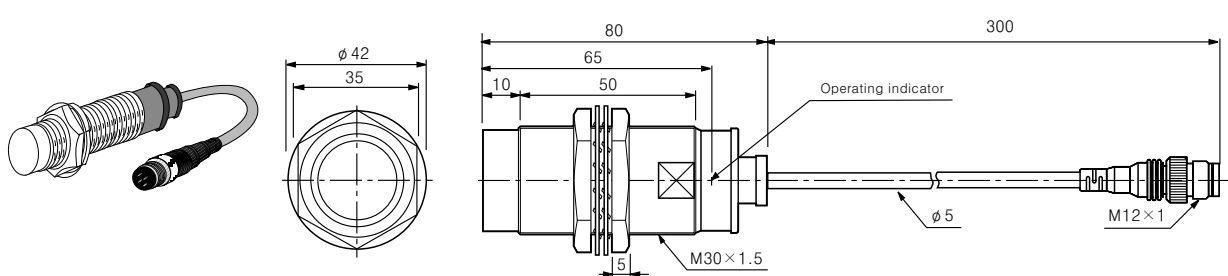
● PRWL18-8□□



● PRWL30-10□□

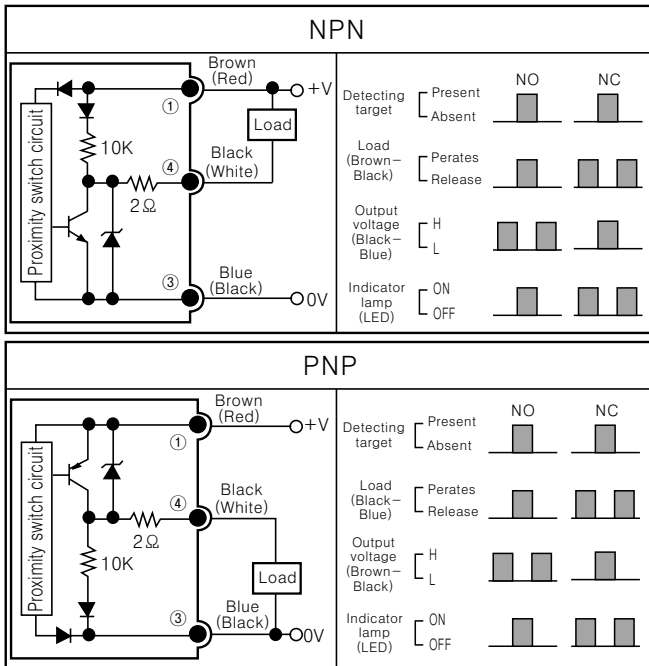


● PRWL30-15□□

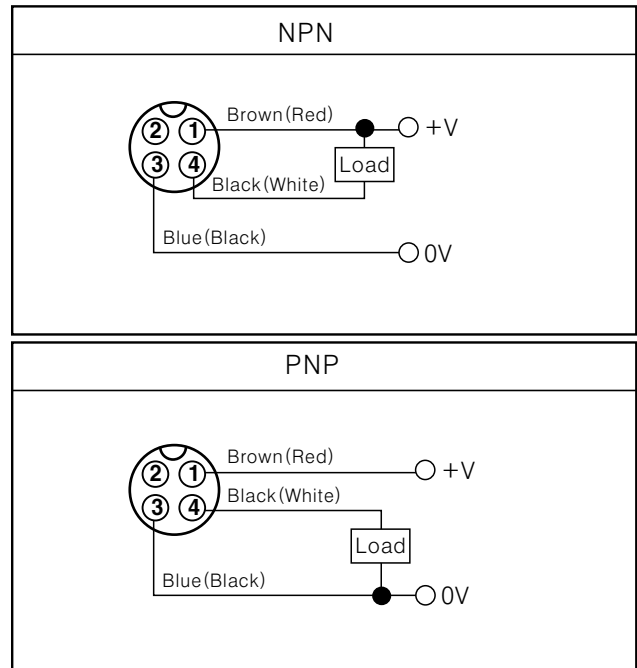


Control output circuit & operating load

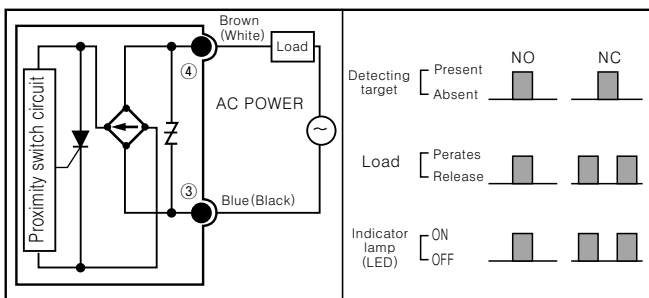
◎DC switching type



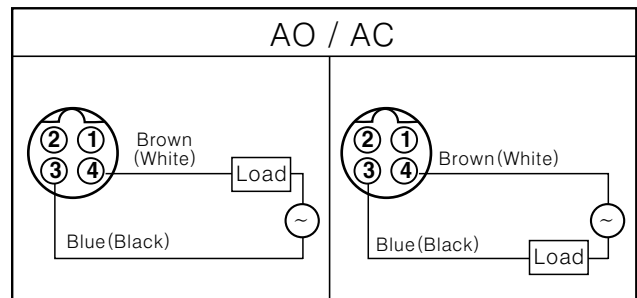
Connection for DC switching connector type



◎AC switching type

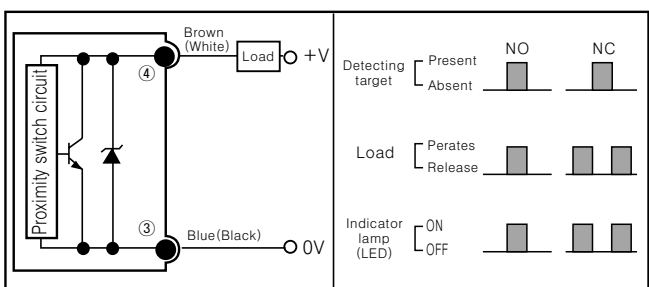


Connection for AC switching connector type

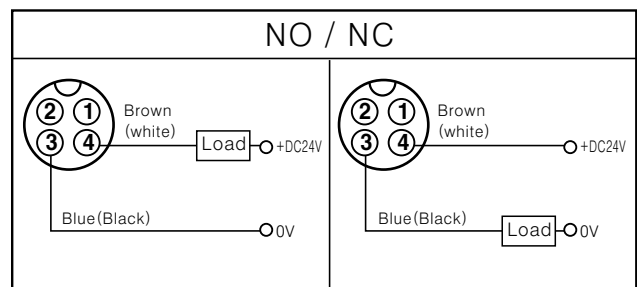


※ In AC type ② & ③, ① & ④ is common at inner connector.

◎DC 2wire switching type



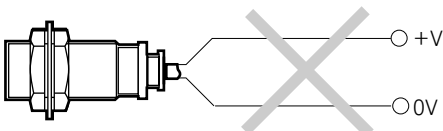
Connection for DC 2wire switching connector type



※ ①, ② pin is common at inner connector.

Power connection

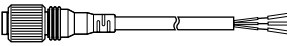
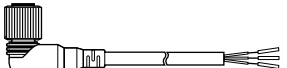
The load must be connected.



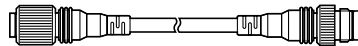
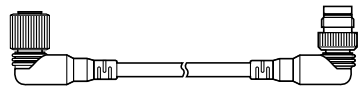
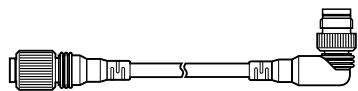
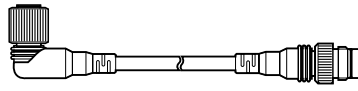
Be sure to apply the power after connecting the load.
With +V at brown color cable and 0V at blue color cable.

CONNECTOR CABLE

■ Connector cable

Type	Model		Wiring qty	Cable length (m)	Cable ϕ	Application of proximity switch		
	DC type	AC type						
	CID2-2	CIA2-2	2	2	$\phi 5$	<ul style="list-style-type: none"> ●PRCM SERIES ●PRW SERIES 		
	CID3-2	–	3					
	CID2-5	CIA2-5	2	5				
	CID3-5	–	3					
	CLD2-2	CLA2-2	2	2			$\phi 5$	<ul style="list-style-type: none"> ●PRCM SERIES ●PRW SERIES
	CLD3-2	–	3					
	CLD2-5	CLA2-5	2	5				
	CLD3-5	–	3					

■ Extension cable

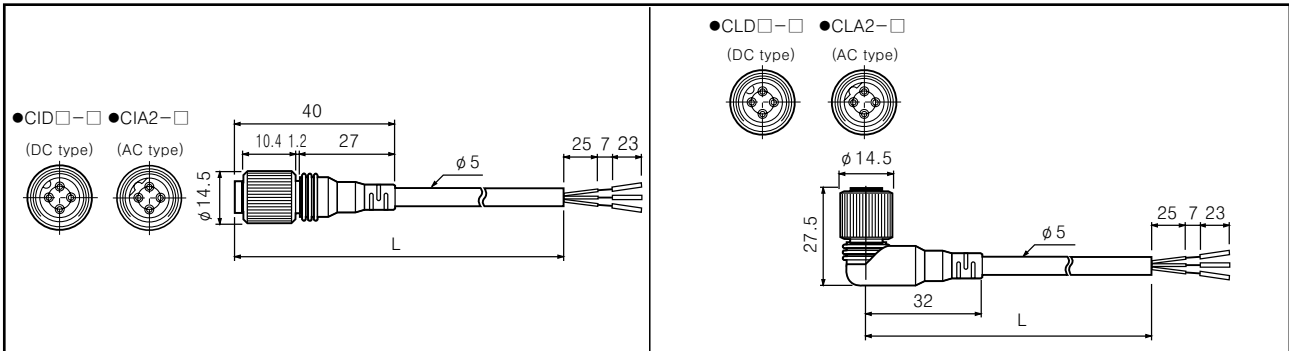
Type	Model		Cable length (m)	Cable ϕ	Application of proximity switch
	DC type	AC type			
	C1D4-2	C1A4-2	2	$\phi 5$	<ul style="list-style-type: none"> ●PRCM SERIES ●PRW SERIES
	C1D4-5	C1A4-5	5		
	C2D4-2	C2A4-2	2		
	C2D4-5	C2A4-5	5		
	C3D4-2	C3A4-2	2		
	C3D4-5	C3A4-5	5		
	C4D4-2	C4A4-2	2		
	C4D4-5	C4A4-5	5		

CONNECTOR CABLE

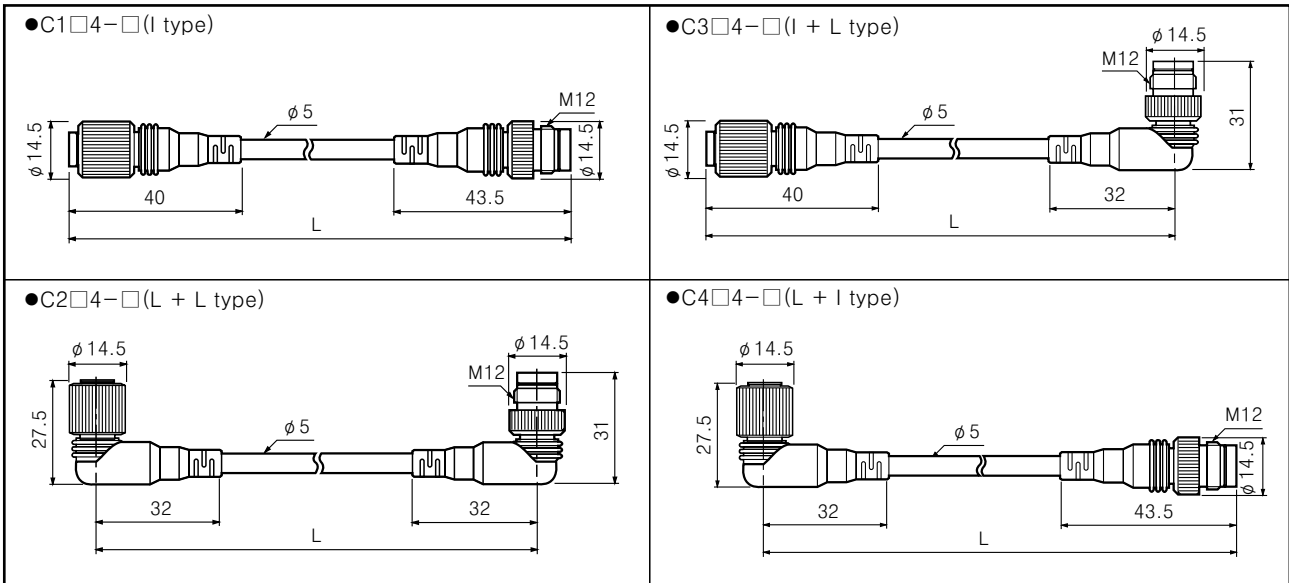
Dimensions

Connector cable

Unit:mm

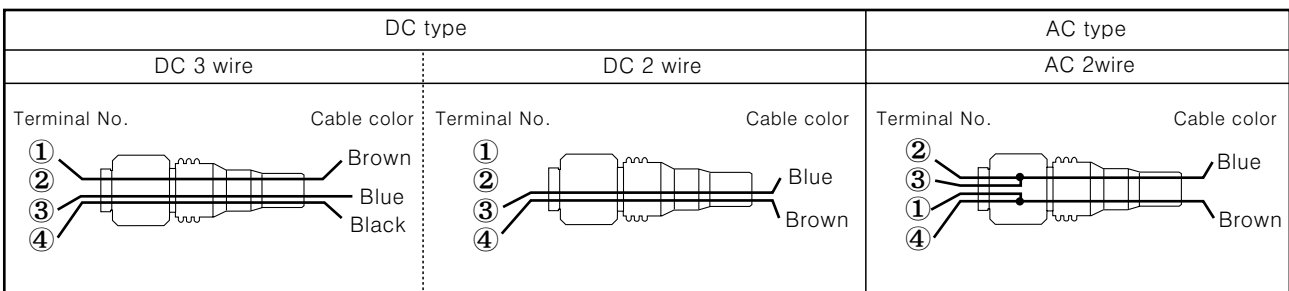


Extension cable

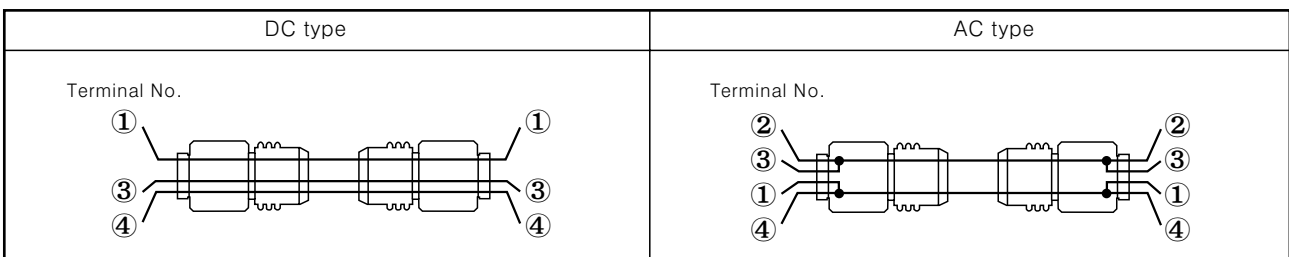


Connections

Connector cable

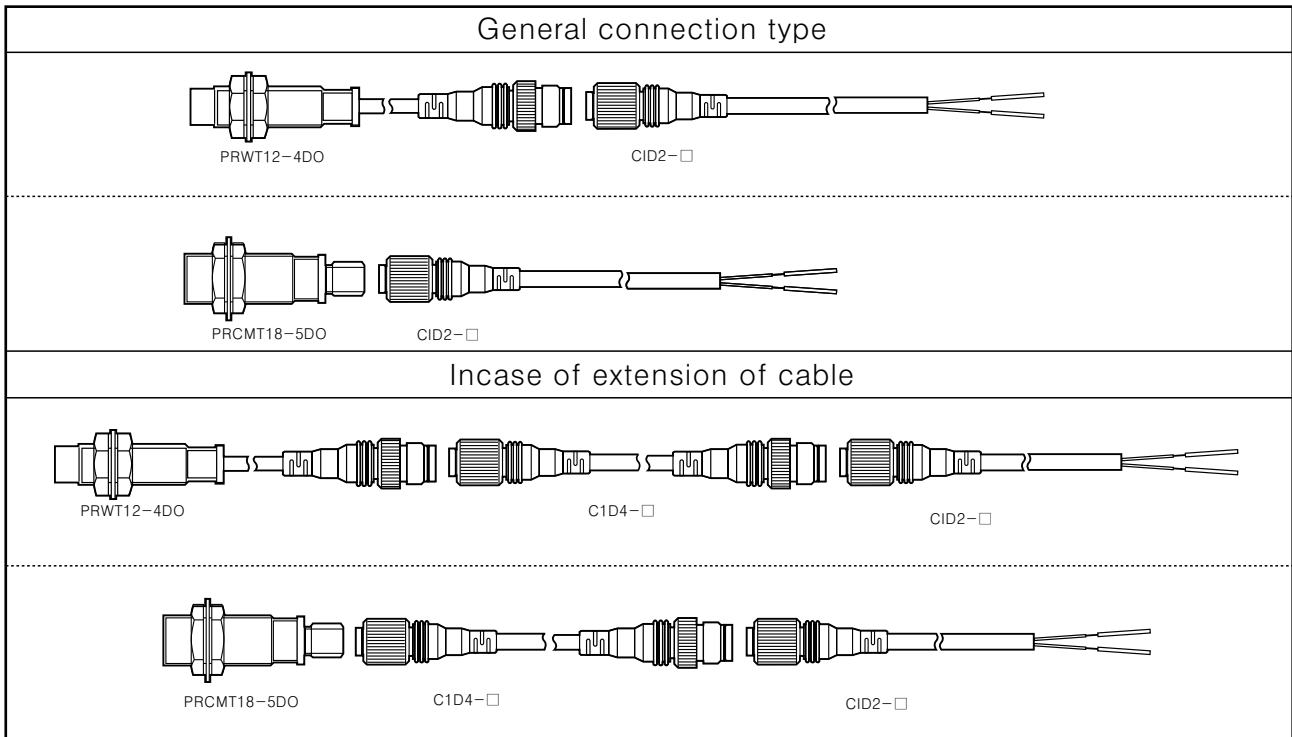


Extension cable



CONNECTOR CABLE

■ Cable connection



■ Connector for panel mounting

