

## Proximity sensor

### ■ Ordering information(Cylindrical type)

P	R					18	—	8	D	N	—		No mark	Standard type
													I <sup>※1</sup>	IEC standard
													V	Oil resistant cable
													IV	Oil resistant cable(IEC standard)
													N	NPN N.O.
													N2	NPN N.C.
													P	PNP N.O.
													P2	PNP N.C.
													O <sup>※2</sup>	Normally Open
													C <sup>※2</sup>	Normally Closed
													D	12-24VDC
													X	12-24VDC(non-polar)
													A	100-240VAC
													Number	Sensing distance(mm)
													Number	Diameter of head(mm)
													No mark	DC 3-wire type, AC 2-wire type
													T	DC 2-wire type
													No mark	Standard type
													S <sup>※3</sup>	Short body
													L	Long body
													No mark	Cable type
													CM <sup>※1</sup>	Connector type
													W <sup>※1</sup>	Cable connector type
													No mark	Standard type
													A	Spatter resistance type
													D	Long sensing distance type
													R	Cylindrical type
													P	Inductive proximity sensor
													C	Capacitive proximity sensor

※1: IEC standard item is available and add "-I" to the end of model.

※2: Normally Open, Normally Closed output are only for DC 2-wire and AC 2-wire type.

※3: Short type is only for DC 3-wire of PR12 type.

### ■ Ordering information(Rectangular type)

P	S		17	—	5	D	N		—		Frequency		No mark	Standard type
											Sensing position		F※1	Differential frequency type
											Output type		No mark	Standard type
													U※2	Upside sensing type
													N	NPN N.O.
													N2	NPN N.C.
													P	PNP N.O.
													P2	PNP N.C.
													O※3	Normally Open
													C※3	Normally Closed
													N3※4	NPN N.O.+N.C.
													P3※4	PNP N.O.+N.C.
													D	12-24VDC(AS Type:12-48VDC)
													A	100-240VAC
													Number	Sensing distance(mm)
													Number	Side length of head(mm)
													No mark	DC 3-wire type, AC 2-wire type
													T※5	DC 2-wire type
													S	Square
													SN	Square (new design)
													SD	Square long distance square
													FI	Flat type(Injection case)
													P	Inductive proximity sensor
													A	Inductive long distance proximity sensor

※1: Differential frequency type is only for PSN17 type

※1: Differential frequency type is only for PSN17 type.

※2: Upside sensing type is only for PS12, PSN17 type.

※3: Normally Open, Normally Closed output are only for DC 2-wire and AC 2-wire type.

※4: N3, P3 output is only for AS80 type.

※5: DC 2-wire type is only for PSN17 type.

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor& Driver&Controller

Graphic/Logic panel


Field network device

## Long distance proximity sensor

### ■ Specifications

#### ● DC 2-wire type

※When the □ model name is X, it is non-polarity model.

Model	<div>PRDT12-4DO PRDT12-4DC PRDT12-4DO-V PRDT12-4DC-V PRDLT12-4DO PRDLT12-4DC PRDLT12-4DO-V PRDLT12-4DC-V PRDWT12-4DO PRDWT12-4DC PRDWT12-4DO-I PRDWT12-4DC-I PRDWT12-4DO-IV PRDWT12-4DC-IV</div> <div>PRDT12-8DO PRDT12-8DC PRDT12-8DO-V PRDT12-8DC-V PRDLT12-8DO PRDLT12-8DC PRDLT12-8DO-V PRDLT12-8DC-V PRDWT12-8DO PRDWT12-8DC PRDWT12-8DO-I PRDWT12-8DC-I PRDWT12-8DO-IV PRDWT12-8DC-IV</div> <div>PRDT18-7DO PRDT18-7DC PRDT18-7DO-V PRDT18-7DC-V PRDLT18-7DO PRDLT18-7DC PRDLT18-7DO-V PRDLT18-7DC-V PRDWT18-7DO PRDWT18-7DC PRDWT18-7DO-I PRDWT18-7DC-I PRDWT18-7DO-IV PRDWT18-7DC-IV PRDWLT18-7DO-IV PRDWLT18-7DC-IV</div> <div>PRDT18-14DO PRDT18-14DC PRDT18-14DO O-V PRDT18-14DC O-V PRDLT18-14DO PRDLT18-14DC PRDLT18-14DO-V PRDLT18-14DC-V PRDWT18-14DO O PRDWT18-14DC PRDWT18-14DO-I PRDWT18-14DC-I PRDWT18-14DO-IV PRDWT18-14DC-IV PRDWLT18-14DO-IV PRDWLT18-14DC-IV</div> <div>PRDT30-15DO PRDT30-15DC PRDT30-15DO-V PRDT30-15DC-V PRDLT30-15DO PRDLT30-15DC PRDLT30-15DO-V PRDLT30-15DC-V PRDWT30-15DO PRDWT30-15DC PRDWT30-15DO-I PRDWT30-15DC-I PRDWT30-15DO-IV PRDWT30-15DC-IV</div> <div>PRDT30-25DO PRDT30-25DC PRDT30-25DO-V PRDT30-25DC-V PRDLT30-25DO PRDLT30-25DC PRDLT30-25DO-V PRDLT30-25DC-V PRDWT30-25DO PRDWT30-25DC PRDWT30-25DO-I PRDWT30-25DC-I PRDWT30-25DO-IV PRDWT30-25DC-IV</div>					
Appearances	<div>Line-up 2-wire non-polarity</div> <div>CE</div> <div></div>					
Sensing distance	4mm	8mm	7mm	14mm	15mm	25mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12×12×1mm(Iron)	25×25×1mm (Iron)	20×20×1mm (Iron)	40×40×1mm (Iron)	45×45×1mm (Iron)	75×75×1mm (Iron)
Sensing distance	0 to 2.8mm	0 to 5.6mm	0 to 4.9mm	0 to 9.8mm	0 to 10.5mm	0 to 17.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)					
Leakage current	Max. 0.6mA					
Response frequency※1	450Hz	400Hz	250Hz	200Hz	100Hz	
Residual voltage※2	Max. 3.5V(for non-polarity type, max. 5V)					
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C					
Control output	2 to 100mA					
Insulation resistance	Min. 50MΩ(at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Environ- ment	Ambient temperature	-25 to 70°C, Storage: -30 to 80°C				
	Ambient humidity	35 to 95%RH, Storage: 35 to 95%RH				
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: Heat-resistant ABS, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)					
Cable	ø4mm, 2-wire, 2m (for cable type, 300mm, M12 connector), (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)		ø5mm, 2-wire, 2m			
Approval	CE					
Protection	IP67(IEC Standard)					
Unit weight	PRDT: Approx. 74g PRDLT: Approx. 94g PRDWT: Approx. 44g	PRDT: Approx. 72g PRDLT: Approx. 92g PRDWT: Approx. 42g	PRDT: Approx. 115g PRDLT: Approx. 145g PRDWT: Approx. 80g PRDWLT: Approx. 42g	PRDT: Approx. 110g PRDLT: Approx. 140g PRDWT: Approx. 75g PRDWLT: Approx. 105g	PRDT: Approx. 175g PRDLT: Approx. 215g PRDWT: Approx. 140g	PRDT: Approx. 180g PRDLT: Approx. 220g PRDWT: Approx. 145g

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.



※2: Before using non-polarity type, check the condition of connected device because residual voltage is 5V.

※The '□' of model name is for power type. 'D' is 12-24VDC, 'X' is non-polarity 12-24VDC.

※The last 'V' of model name is for the model with oil-resistance reinforced cable.

※Environment resistance is rated at no freezing or condensation.

## ● DC 3-wire type

Model	PRD12-4DN	PRD12-8DN	PRD18-7DN	PRD18-14DN	PRD30-15DN	PRD30-25DN
	PRD12-4DP	PRD12-8DP	PRD18-7DP	PRD18-14DP	PRD30-15DP	PRD30-25DP
	PRD12-4DN2	PRD12-8DN2	PRD18-7DN2	PRD18-14DN2	PRD30-15DN2	PRD30-25DN2
	PRD12-4DP2	PRD12-8DP2	PRD18-7DP2	PRD18-14DP2	PRD30-15DP2	PRD30-25DP2
	PRDL12-4DN	PRDL12-8DN	PRDL18-7DN	PRDL18-14DN	PRDL30-15DN	PRDL30-25DN
	PRDL12-4DP	PRDL12-8DP	PRDL18-7DP	PRDL18-14DP	PRDL30-15DP	PRDL30-25DP
	PRDL12-4DN2	PRDL12-8DN2	PRDL18-7DN2	PRDL18-14DN2	PRDL30-15DN2	PRDL30-25DN2
	PRDL12-4DP2	PRDL12-8DP2	PRDL18-7DP2	PRDL18-14DP2	PRDL30-15DP2	PRDL30-25DP2
	PRDW12-4DN	PRDW12-8DN	PRDW18-7DN	PRDW18-14DN	PRDW30-15DN	PRDW30-25DN
	PRDW12-4DP	PRDW12-8DP	PRDW18-7DP	PRDW18-14DP	PRDW30-15DP	PRDW30-25DP
	PRDW12-4DN2	PRDW12-8DN2	PRDW18-7DN2	PRDW18-14DN2	PRDW30-15DN2	PRDW30-25DN2
	PRDW12-4DP2	PRDW12-8DP2	PRDW18-7DP2	PRDW18-14DP2	PRDW30-15DP2	PRDW30-25DP2
	PRDW12-4DN-V	PRDW12-8DN-V	PRDW18-7DN-V	PRDW18-14DN-V	PRDW30-15DN-V	PRDW30-25DN-V
	PRDW12-4DP-V	PRDW12-8DP-V	PRDW18-7DP-V	PRDW18-14DP-V	PRDW30-15DP-V	PRDW30-25DP-V
	PRDWL12-4DN	PRDWL12-8DN	PRDWL18-7DN	PRDWL18-14DN	PRDWL30-15DN	PRDWL30-25DN
	PRDWL12-4DP	PRDWL12-8DP	PRDWL18-7DP	PRDWL18-14DP	PRDWL30-15DP	PRDWL30-25DP
	PRDWL12-4DN2	PRDWL12-8DN2	PRDWL18-7DN2	PRDWL18-14DN2	PRDWL30-15DN2	PRDWL30-25DN2
	PRDWL12-4DP2	PRDWL12-8DP2	PRDWL18-7DP2	PRDWL18-14DP2	PRDWL30-15DP2	PRDWL30-25DP2
	Appearances					
Sensing distance	4mm	8mm	7mm	14mm	15mm	25mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12×12×1mm(Iron)	25×25×1mm(Iron)	20×20×1mm (Iron)	40×40×1mm (Iron)	45×45×1mm (Iron)	75×75×1mm (Iron)
Sensing distance	0 to 2.8mm	0 to 5.6mm	0 to 4.9mm	0 to 9.8mm	0 to 10.5mm	0 to 17.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)					
Current consumption	Max. 10mA					
Response frequency※1	500Hz	400Hz	300Hz	200Hz	100HZ	100Hz
Residual voltage	Max. 1.5V					
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃					
Control output	200mA					
Insulation resistance	Min. 50MΩ(at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Environ- ment	Ambient temperature	-25 to 70℃, Storage: -30 to 80℃				
	Ambient humidity	35 to 95%RH, Storage: 35 to 95%RH				
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit					
Protection	IP67(IEC Standard)					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: Heat-resistant ABS, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)					
Cable	ø4mm, 3-wire, 2m		ø5mm, 3-wire, 2m			
	(for cable type, 300mm, M12 connector), (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)					
Approval						
Unit weight	PRD: Approx. 74g PRDL: Approx. 94g PRDW: Approx. 44g PRDWL: Approx. 64g	PRD: Approx. 72g PRDL: Approx. 92g PRDW: Approx. 42g PRDWL: Approx. 62g	PRD: Approx. 115g PRDL: Approx. 145g PRDW: Approx. 80g PRDWL: Approx. 110g	PRD: Approx. 110g PRDL: Approx. 140g PRDW: Approx. 75g PRDWL: Approx. 105g	PRD: Approx. 175g PRDL: Approx. 215g PRDW: Approx. 140g PRDWL: Approx. 180g	PRD: Approx. 180g PRDL: Approx. 220g PRDW: Approx. 145g PRDWL: Approx. 185g

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※The last 'V' of model name is for the model with oil-resistance reinforced cable.

※Environment resistance is rated at no freezing or condensation.

Photo  
electric  
sensor

Fiber  
optic  
sensor

Door/Area  
sensor

Proximity  
sensor

Pressure  
sensor

Rotary  
encoder

Connector/  
Socket

Temp.  
controller

SSR/  
Power  
controller

Counter

Timer

Panel  
meter

Tacho/  
Speed/  
Pulse  
meter

Display  
unit

Sensor  
controller

Switching  
mode power  
supply

Stepper  
motor&  
Driver&Controller

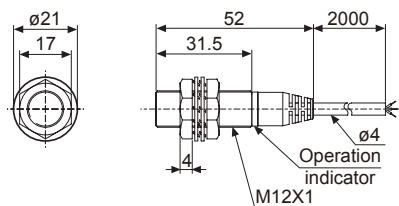
Graphic/  
Logic  
panel

Field  
network  
device

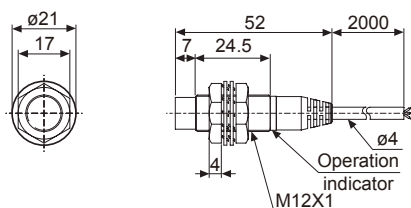
## ■ Dimensions

(unit: mm)

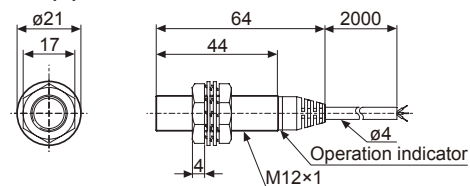
### ● PRD(T)12-4D□



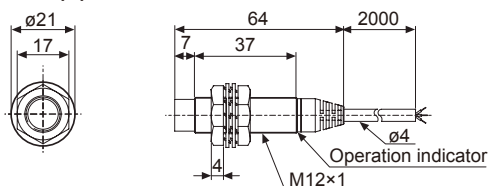
### ● PRD(T)12-8D□



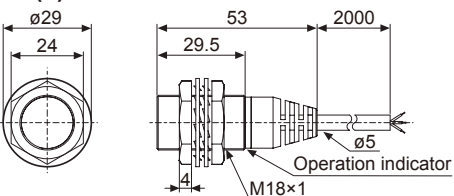
### ● PRDL(T)12-4D□



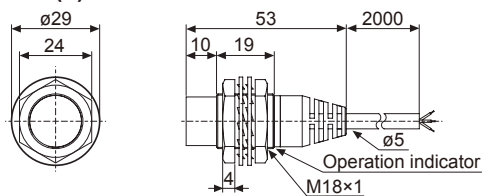
### ● PRDL(T)12-8D□



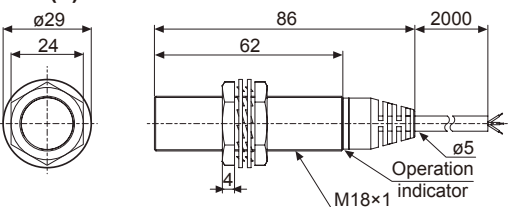
### ● PRD(T)18-7D□



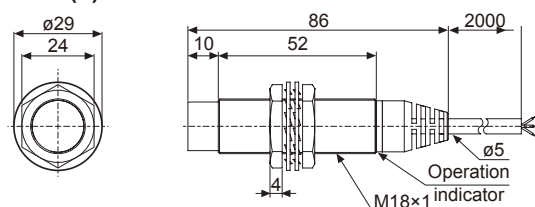
### ● PRD(T)18-14D□



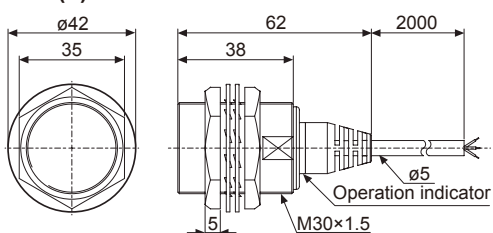
### ● PRDL(T)18-7D□



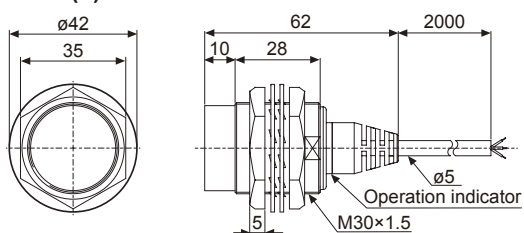
### ● PRDL(T)18-14D□



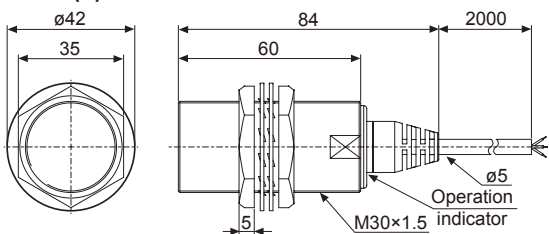
### ● PRD(T)30-15D□



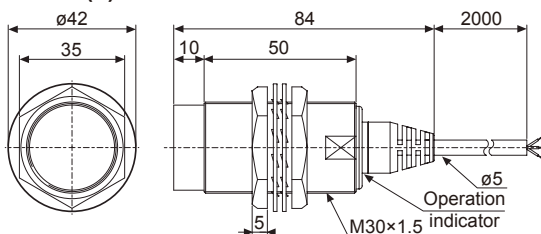
### ● PRD(T)30-25D□



### ● PRDL(T)30-15D□



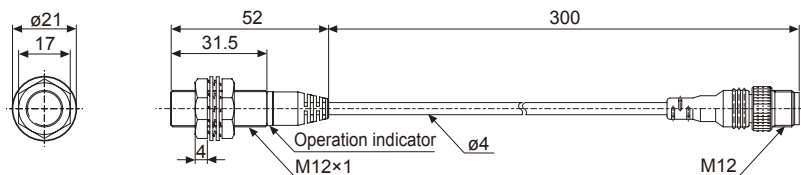
### ● PRDL(T)30-25D□



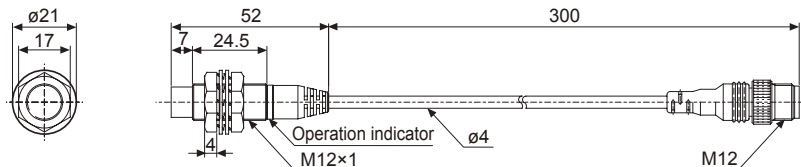
## ■ Dimensions

(unit: mm)

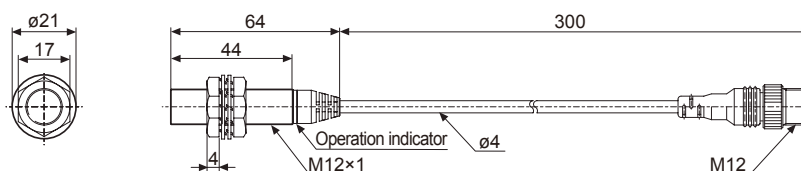
### • PRDW(T)12-4D□



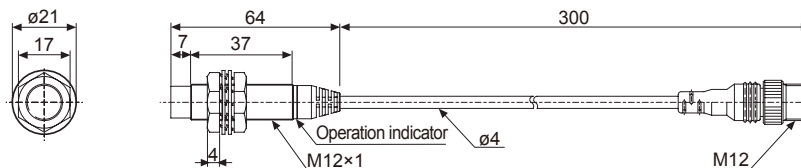
### • PRDW(T)12-8D□



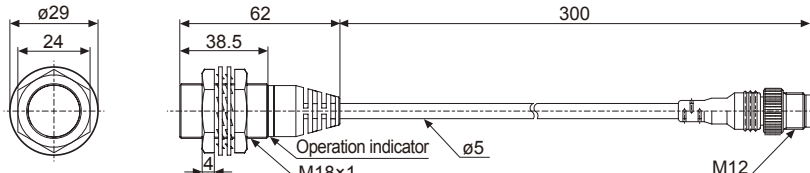
### • PRDWL12-4D□



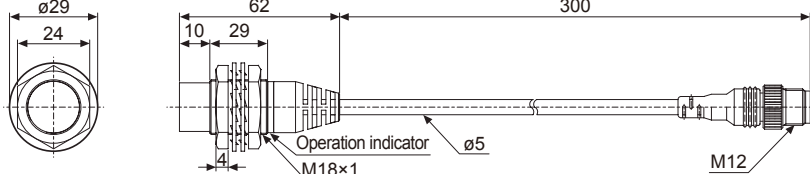
### • PRDWL12-8D□



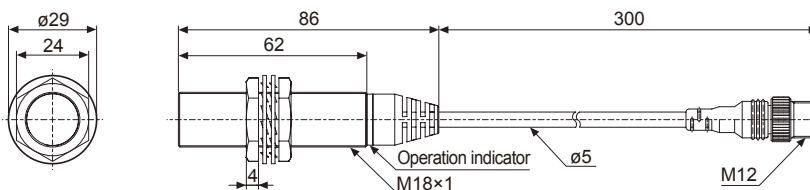
### • PRDW(T)18-7D□



### • PRDW(T)18-14D□



### • PRDWL(T)18-7D□



### • PRDWL(T)18-14D□

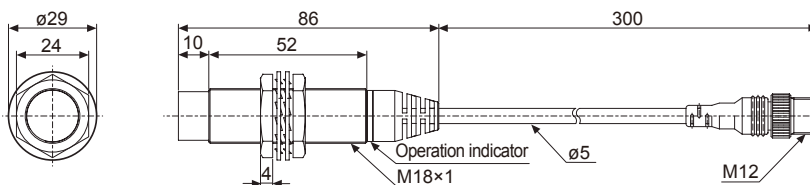


Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/ Power controller

Counter

Timer

Panel meter

Tacho/ Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor & Driver&Controller

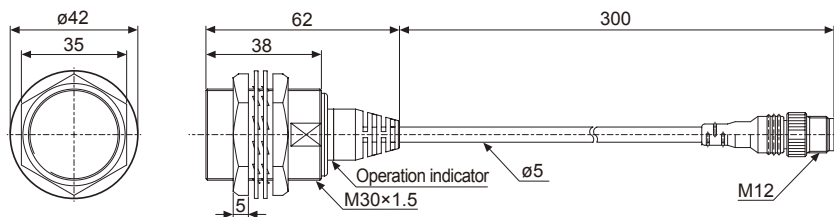
Graphic/ Logic panel

Field network device

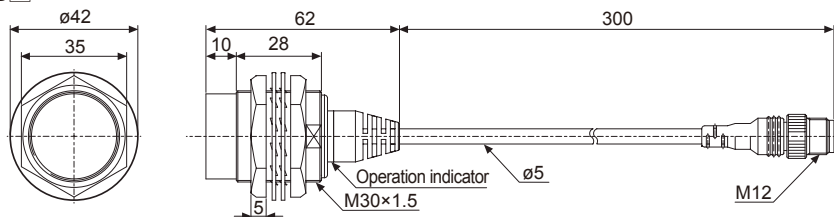
## ■ Dimensions

(unit: mm)

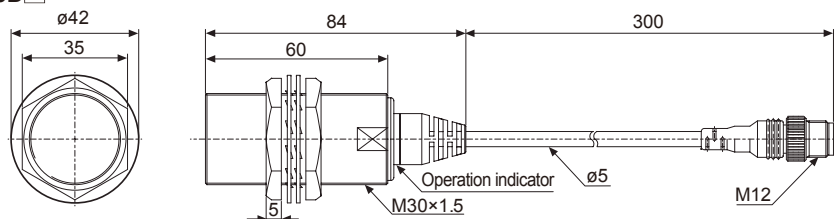
### ● PRDW(T)30-15D□



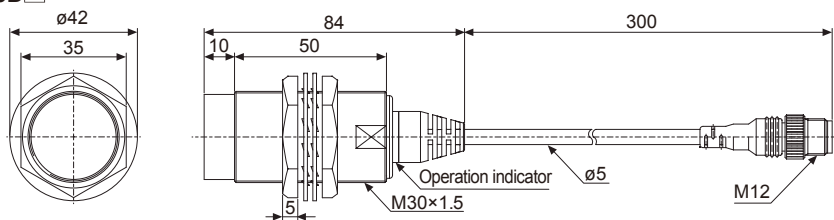
### ● PRDW(T)30-25D□



### ● PRDWL(T)30-15D□



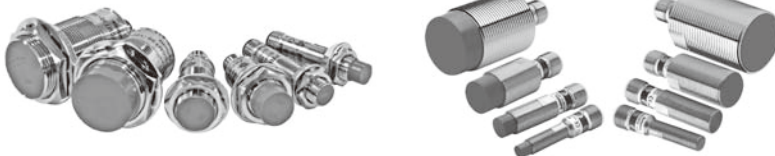
### ● PRDWL(T)30-25D□



# Long distance connector type proximity sensor

## ■ Specifications

### ● DC 2-wire type

Model※1	PRDCMT08-2DO PRDCMT08-2DC PRDCMT08-2DO-I PRDCMT08-2DC-I		PRDCMT08-4DO PRDCMT08-4DC PRDCMT08-4DO-I PRDCMT08-4DC-I		PRDCMT12-4DO PRDCMT12-4DC PRDCMT12-4DO-I PRDCMT12-4DC-I PRDCMLT12-4DO PRDCMLT12-4DC PRDCMLT12-4DO-I PRDCMLT12-4DC-I		PRDCMT12-8DO PRDCMT12-8DC PRDCMT12-8DO-I PRDCMT12-8DC-I PRDCMLT12-8DO PRDCMLT12-8DC PRDCMLT12-8DO-I PRDCMLT12-8DC-I		PRDCMT18-7DO PRDCMT18-7DC PRDCMT18-7DO-I PRDCMT18-7DC-I PRDCMLT18-7DO PRDCMLT18-7DC PRDCMLT18-7DO-I PRDCMLT18-7DC-I		PRDCMT18-14DO PRDCMT18-14DC PRDCMT18-14DO-I PRDCMT18-14DC-I PRDCMLT18-14DO PRDCMLT18-14DC PRDCMLT18-14DO-I PRDCMLT18-14DC-I		PRDCMT30-15DO PRDCMT30-15DC PRDCMT30-15DO-I PRDCMT30-15DC-I PRDCMLT30-15DO PRDCMLT30-15DC PRDCMLT30-15DO-I PRDCMLT30-15DC-I		PRDCMT30-25DO PRDCMT30-25DC PRDCMT30-25DO-I PRDCMT30-25DC-I PRDCMLT30-25DO PRDCMLT30-25DC PRDCMLT30-25DO-I PRDCMLT30-25DC-I	
Appearances	<div><div>CE</div><div></div><div>Upgrade</div></div>															
Sensing distance	2mm		4mm		8mm		7mm		14mm		15mm		25mm			
Hysteresis	Max. 10% of sensing distance															
Standard sensing target	8×8×1mm (Iron)		12×12×1mm (Iron)		25×25×1mm (Iron)		20×20×1mm (Iron)		40×40×1mm (Iron)		45×45×1mm (Iron)		75×75×1mm (Iron)			
Setting distance	0 to 1.4mm		0 to 2.8mm		0 to 5.6mm		0 to 5.6mm		0 to 9.8mm		0 to 10.5mm		0 to 17.5mm			
Power supply (Operating voltage)	12-24VDC (10-30VDC)															
Leakage current	Max. 0.6mA															
Response frequency※2	600Hz		500Hz		450Hz		400Hz		250Hz		200Hz		200Hz		100Hz	
Residual voltage	Max. 3.5V															
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C															
Control output	2 to 100mA															
Insulation resistance	Min. 50MΩ(at 500VDC megger)															
Dielectric strength	1500VAC 50/60Hz for 1minute															
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours															
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times															
Indicator	Operation indicator(red LED)															
Environment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C														
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH														
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit															
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: Heat-resistant ABS (PRDCMT08 type - Case: SUS303)															
Approval	CE															
Protection	IP67(IEC Standard)															
Unit weight※3	Existing	—				PRDCMT: Approx. 26g PRDCMLT: Approx. 36g		PRDCMT: Approx. 48g PRDCMLT: Approx. 66g		PRDCMT: Approx. 142g PRDCMLT: Approx. 182g						
	Upgrade	Approx. 15.5g	Approx. 15g	Approx. 23.5g	Approx. 22g	Approx. 46.5g	Approx. 42.5g	Approx. 118.5g	Approx. 110.5g							

※1: PRDCMT series is going to upgrade performance(4-side LED) and structure(comprehensive existing case and rear cap type).

※2: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※3: Upgrade unit weight is only for PRDCMT( Upgrade ). Refer to the existing unit weight for the other models or existing products.

※Environment resistance is rated at no freezing or condensation.

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply


Stepper motor& Driver&Controller

Graphic/Logic panel

Field network device

## ■ Specifications

### ● DC 3-wire type

Model	PRDCM12-4DN PRDCM12-4DP PRDCM12-4DN2 PRDCM12-4DP2 PRDCML12-4DN PRDCML12-4DP PRDCML12-4DN2 PRDCML12-4DP2		PRDCM12-8DN PRDCM12-8DP PRDCM12-8DN2 PRDCM12-8DP2 PRDCML12-8DN PRDCML12-8DP PRDCML12-8DN2 PRDCML12-8DP2		PRDCM18-7DN PRDCM18-7DP PRDCM18-7DN2 PRDCM18-7DP2 PRDCML18-7DN PRDCML18-7DP PRDCML18-7DN2 PRDCML18-7DP2		PRDCM18-14DN PRDCM18-14DP PRDCM18-14DN2 PRDCM18-14DP2 PRDCML18-14DN PRDCML18-14DP PRDCML18-14DN2 PRDCML18-14DP2		PRDCM30-15DN PRDCM30-15DP PRDCM30-15DN2 PRDCM30-15DP2 PRDCML30-15DN PRDCML30-15DP PRDCML30-15DN2 PRDCML30-15DP2		PRDCM30-25DN PRDCM30-25DP PRDCM30-25DN2 PRDCM30-25DP2 PRDCML30-25DN PRDCML30-25DP PRDCML30-25DN2 PRDCML30-25DP2	
Appearances	<div><div>CE</div><div></div></div>											
Sensing distance	4mm		8mm		7mm		14mm		15mm		25mm	
Hysteresis	Max. 10% of sensing distance											
Standard sensing target	12×12×1mm(Iron)		25×25×1mm(Iron)		20×20×1mm(Iron)		40×40×1mm(Iron)		45×45×1mm(Iron)		75×75×1mm(Iron)	
Setting distance	0 to 2.8mm		0 to 5.6mm		0 to 4.9mm		0 to 9.8mm		0 to 10.5mm		0 to 17.5mm	
Power supply (Operating voltage)	12-24VDC (10-30VDC)											
Current consumption	Max. 10mA											
Response frequency※1	500Hz		400Hz		300Hz		200Hz		100Hz		100Hz	
Residual voltage	Max. 1.5V											
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃											
Control output	Max. 200mA											
Insulation resistance	Min. 50MΩ(at 500VDC megger)											
Dielectric strength	1500VAC 50/60Hz for 1minute											
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours											
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times											
Indicator	Operation indicator(Red LED)											
Environ- ment	Ambient temperature -25 to 70℃, storage: -30 to 80℃											
	Ambient humidity 35 to 95%RH, storage: 35 to 95%RH											
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit											
Protection	IP67(IEC specification)											
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: Heat-resistant ABS											
Approval	CE											
Unit Weight	PRDCM: Approx. 26g PRDCML: Approx. 34g				PRDCM: Approx. 48g PRDCML: Approx. 66g				PRDCM: Approx. 142g PRDCML: Approx. 182g			

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.

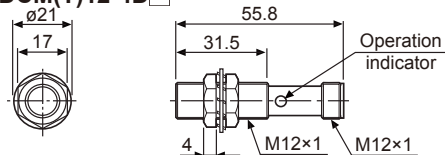


## ■ Dimensions

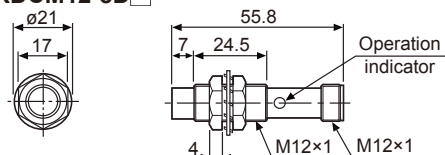
### ◎ PRDCM(T) Series

(unit: mm)

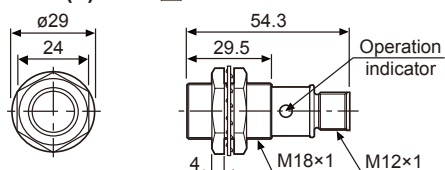
#### ● PRDCM(T)12-4D



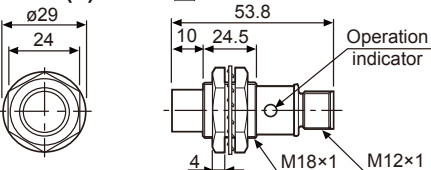
#### ● PRDCM12-8D



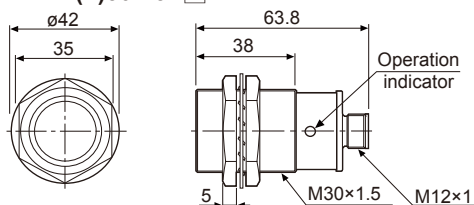
#### ● PRDCM(T)18-7D



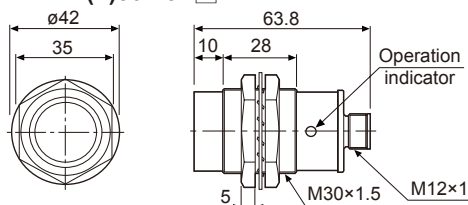
#### ● PRDCM(T)18-14D



#### ● PRDCM(T)30-15D

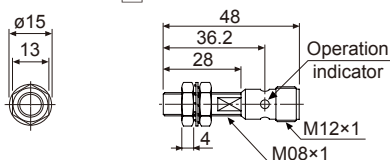


#### ● PRDCM(T)30-25D

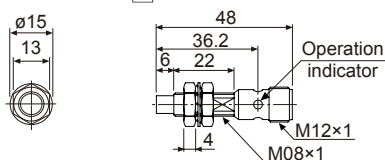


### ◎ PRDCMT Series Upgrade

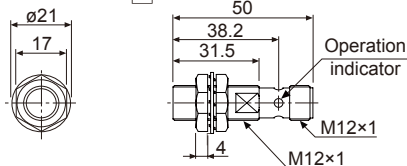
#### ● PRDCMT08-2D



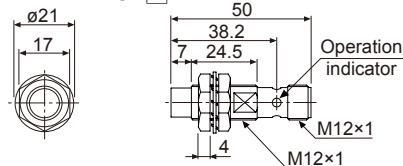
#### ● PRDCMT08-4D



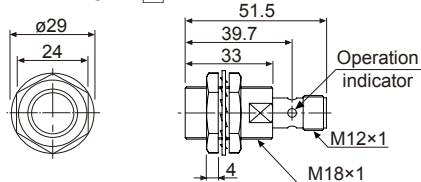
#### ● PRDCMT12-4D



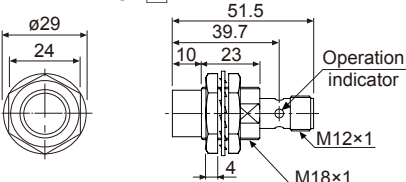
#### ● PRDCMT12-8D



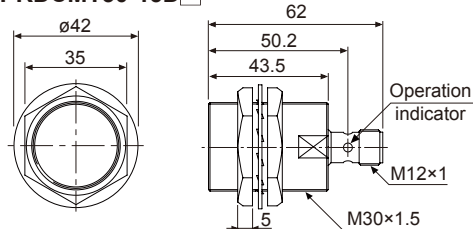
#### ● PRDCMT18-7D



#### ● PRDCMT12-8D



#### ● PRDCMT30-15D



#### ● PRDCMT30-25D

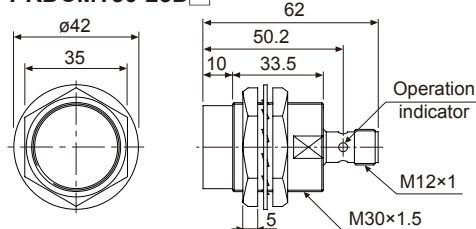


Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/ Power controller

Counter

Timer

Panel meter

Tacho/ Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor& Driver&Controller

Graphic/ Logic panel

Field network device

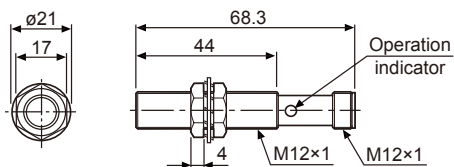
## Selection Guide

### ■ Dimensions

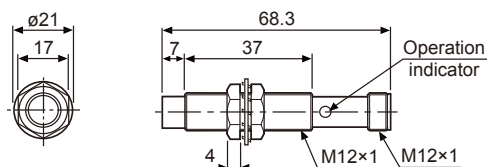
#### ◎ PRDCML(T) Series

(unit: mm)

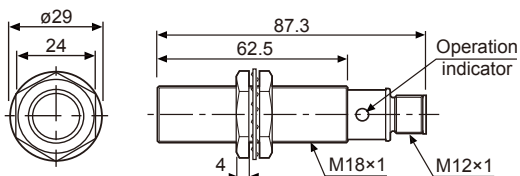
##### ● PRDCML(T)12-4D□



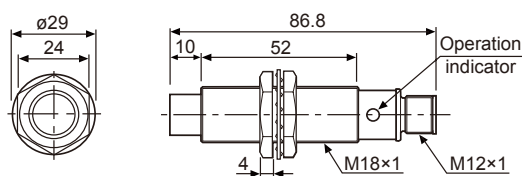
##### ● PRDCML(T)12-8D□



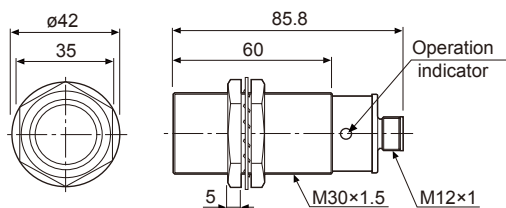
##### ● PRDCML(T)18-7D□



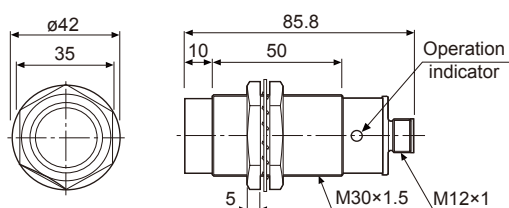
##### ● PRDCML(T)18-14D□



##### ● PRDCML(T)30-15D□




##### ● PRDCML(T)30-25D□



## Long distance inductive proximity sensor (spatter resistance type)

### ■ Specifications

#### ● DC 2-wire type

Model	PRDAT18-7DO PRDAT18-7DC PRDAT18-7DO-V PRDAT18-7DC-V	PRDAWT18-7DO PRDAWT18-7DC PRDAWT18-7DO-I PRDAWT18-7DC-I PRDAWT18-7DO-IV PRDAWT18-7DC-IV	PRDAT30-15DO PRDAT30-15DC PRDAT30-15DO-V PRDAT30-15DC-V	PRDAWT30-15DO PRDAWT30-15DC PRDAWT30-15DO-I PRDAWT30-15DC-I PRDAWT30-15DO-IV PRDAWT30-15DC-IV
Appearances	<div><div>NEW</div><div>CE</div><div></div></div>			
Sensing distance	7mm		15mm	
Hysteresis	Max. 10% of sensing distance			
Standard sensing target	20×20×1mm(iron)		45×45×1mm(iron)	
Sensing distance	0 to 4.9mm		0 to 10.5mm	
Power supply (operating voltage)	12-24VDC (10-30VDC)			

Model	PRDAT18-7DO PRDAT18-7DC PRDAT18-7DO-V PRDAT18-7DC-V	PRDAWT18-7DO PRDAWT18-7DC PRDAWT18-7DO-I PRDAWT18-7DC-I PRDAWT18-7DO-IV PRDAWT18-7DC-IV	PRDAT30-15DO PRDAT30-15DC PRDAT30-15DO-V PRDAT30-15DC-V	PRDAWT30-15DO PRDAWT30-15DC PRDAWT30-15DO-I PRDAWT30-15DC-I PRDAWT30-15DO-IV PRDAWT30-15DC-IV
Leakage current	Max. 0.6mA			
Response frequency※1	250Hz		100Hz	
Residual voltage	Max. 3.5V			
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃			
Control output	2 to 100mA			
Insulation resistance	Min. 50MΩ (at 500VDC megger)			
Dielectric strength	1,500VAC 50/60Hz for 1 min.			
Vibration	1mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times			
Indicator	Operation indicator (red LED)			
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃		
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH		
Protection circuit	Surge protection circuit, overcurrent protection			
Protection	IP67(IEC standard)			
Material	Case/Nut: Teflon coated brass, Washer: Teflon coated Iron, Sensing surface: Teflon, Standard cable(black): Polyvinyl chloride(PVC), Oil resistant cable(gray): Polyvinyl chloride(oil resistant PVC)			
Cable	ø5mm, 2-wire, 2m (AWG22, Core diameter : 0.08mm, Number of cores: 60, Insulator out diameter:ø1.25mm)	ø5mm, 2-wire, 300mm, M12 connector	ø5mm, 2-wire, 2m (AWG22, Core diameter : 0.08mm, Number of cores: 60, Insulator out diameter:ø1.25mm)	ø5mm, 2-wire, 300mm, M12 connector
Approval	CE			
Weight※2	Approx. 134g(approx. 122g)	Approx. 77g(approx. 65g)	Approx. 221g(approx. 184g)	Approx. 155g(approx. 143g)

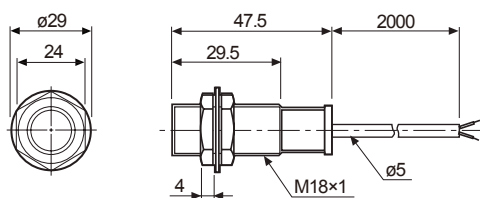
※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: The weight with packaging and the weight in parentheses is only unit weight. ※ Environment resistance is rated at no freezing or condensation.

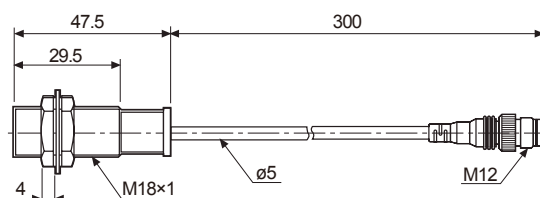
## Dimensions

(unit: mm)

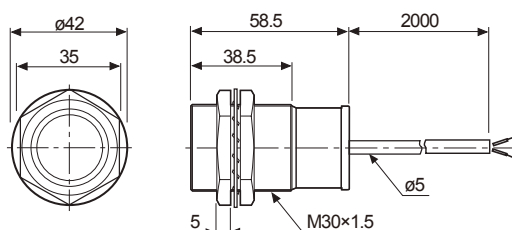
### • PRDAT18-7D□



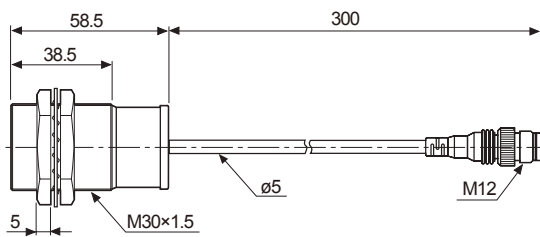
### • PRDAWT18-7D□



### • PRDAT30-15D□



### • PRDAWT30-15D□




## Cylindrical type proximity sensor

### ■ Specifications

#### ● DC 2-wire type

※When the □ model name is X, it is non-polarity model.

Model	PRT08-1.5DO PRT08-1.5DC	PRT08-2DO PRT08-2DC	PRT12-2DO PRT12-2DC	PRT12-4DO PRT12-4DC	PRT18-5DO PRT18-5DC	PRT18-8DO PRT18-8DC	PRT30-10DO PRT30-10DC PRT30-10DO-V	PRT30-15DO PRT30-15DC
Appearances	<div>Line-up 2-wire non-polarity</div> <div>CE</div> <div></div>							
Sensing distance	1.5mm	2mm	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance							
Standard sensing target	8×8×1mm (Iron)		12×12×1mm (Iron)		18×18×1mm (Iron)	25×25×1mm (Iron)	30×30×1mm (Iron)	45×45×1mm (Iron)
Sensing distance	0 to 1.05mm	0 to 1.4mm	0 to 1.4mm	0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)							
Leakage current	Max. 0.6mA							
Response frequency※1	1.5kHz	1kHz	1.5kHz	500Hz		350Hz	400Hz	200Hz
Residual voltage※2	Max. 3.5V(Non-polarity type is Max. 5V)							
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃(for PRT08 Series : ±20% Max.)							
Control output	2 to 100mA							
Insulation resistance	Min. 50MQ(at 500VDC megger)							
Dielectric strength	1500VAC 50/60Hz for 1minute							
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours							
Shock	500m/s²(approx. 50G) in X, Y, Z direction for 3 times							
Indicator	Operation indicator(red LED)							
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃						
	Ambient humidity	35 to 95% RH, storage: 35 to 95% RH						
Protection circuit	Surge protection circuit		Surge protection circuit, Overcurrent protection circuit					
Protection	IP67(IEC standard)							
Cable	ø3.5mm, 3-wire, 2m (AWG24, Core diameter: 0.08mm, Number of cores: 40, Insulator diameter: ø1mm)		ø4mm, 2-wire, 2m		ø5mm, 2-wire, 2m			
			(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)							
Approval	CE							
Weight※3	Approx. 64g(approx. 52g)		Approx. 84g(approx. 72g)		Approx. 122g(approx. 110g)		Approx. 207g(approx. 170g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: Before using non-polarity type, check the condition of connected device because residual voltage is 5V.

※3: The weight with packaging and the weight in parentheses is only unit weight.


※The '□' of model name is for power type. 'D' is 12-24VDC, 'X' is non-polarity 12-24VDC.

※The last 'V' of model name is for the model with oil-resistance reinforced cable.

※Environment resistance is rated at no freezing or condensation.

## ■ Specifications

### ● DC 3-wire type

Model	PR08-1.5DN PR08-1.5DP PR08-1.5DN2 PR08-1.5DP2 PRL08-1.5DN PRL08-1.5DP PRL08-1.5DN2 PRL08-1.5DP2								PR08-2DN PR08-2DP PR08-2DN2 PR08-2DP2 PRL08-2DN PRL08-2DP PRL08-2DN2 PRL08-2DP2	PR12-2DN PR12-2DP PR12-2DN2 PR12-2DP2 PRS12-2DN PRS12-2DP PRS12-2DN2 PRS12-2DP2	PR12-4DN PR12-4DP PR12-4DN2 PR12-4DP2 PRS12-4DN PRS12-4DP PRS12-4DN2 PRS12-4DP2 PRL12-4DN PRL12-4DP	PR18-5DN PR18-5DP PR18-5DN2 PR18-5DP2 PR18-5DN-V PRL18-5DN PRL18-5DP PRL18-5DN2 PRL18-5DP2	PR18-8DN PR18-8DP PR18-8DN2 PR18-8DP2 PRL18-8DN PRL18-8DP PRL18-8DN2 PRL18-8DP2	PR30-10DN PR30-10DP PR30-10DN2 PR30-10DP2 PRL30-10DN PRL30-10DP PRL30-10DN2 PRL30-10DP2	PR30-15DN PR30-15DP PR30-15DN2 PR30-15DP2 PRL30-15DN PRL30-15DP PRL30-15DN2 PRL30-15DP2
Appearances															
Sensing distance	1.5mm	2mm	2mm	4mm	5mm	8mm	10mm	15mm							
Hysteresis	Max. 10% of sensing distance														
Standard sensing target	8×8×1mm(Iron)			12×12×1mm(Iron)			18×18×1mm (Iron)	25×25×1mm (Iron)	30×30×1mm (Iron)	45×45×1mm (Iron)					
Setting distance	0 to 1.05mm	0 to 1.4mm	0 to 1.4mm	0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm							
Power supply (Operation voltage)	12-24VDC (10-30VDC)														
Current consumption	Max. 10mA														
Response frequency※1	1.5kHz	1kHz	1.5kHz	500Hz			350Hz	400Hz	200kHz						
Residual voltage	Max. 2.0V			Max. 1.5V											
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃, PR08 Series : Max. ±20%														
Control output	Max. 200mA														
Insulation resistance	Min. 50MΩ(at 500VDC megger)														
Dielectric strength	1500VAC 50/60Hz for 1minute														
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours														
Shock	500m/s²(approx. 50G) in X, Y, Z direction for 3 times														
Indicator	Operation indicator(red LED)														
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃													
	Ambient humidity	30 to 95%RH, storage: 35 to 95%RH													
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit														
Protection	IP67(IEC standard)														
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)														
Cable	ø3.5mm, 3-wire, 2m (AWG24, Core diameter: 0.08mm, Number of cores: 40, Insulator diameter: ø1mm)			ø4mm, 3-wire, 2m		ø5mm, 3-wire, 2m									
				AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)											
Approval	CE														
Weight※2	PR: Approx. 64g(approx. 52g) PRL: Approx. 66g(approx. 54g)			PR: Approx. 84g(approx. 72g) PRS: Approx. 82g(approx. 70g) PRL: Approx. 88g(approx. 76g)			PR: Approx. 122g(approx. 110g) PRL: Approx. 142g(approx. 130g)			PR: Approx. 207g(approx. 170g) PRL: Approx. 247g(approx. 210g)					

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: The weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply


Stepper motor& Driver&Controller

Graphic/Logic panel

Field network device

## ■ Specifications

### ● AC 2-wire type

Model	PR12-2AO PR12-2AC	PR12-4AO PR12-4AC	PR18-5AO PR18-5AC PRL18-5AO PRL18-5AC	PR18-8AO PR18-8AC PRL18-8AO PRL18-8AC	PR30-10AO PR30-10AC PRL30-10AO PRL30-10AC	PR30-15AO PR30-15AC PRL30-15AO PRL30-15AC
Appearances	<div><div>CE</div><div></div></div>					
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing 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 1.4mm	0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm
Power supply (Operation voltage)	100-240VAC (85-264VAC)					
Leakage current	Max. 2.5mA					
Response frequency <sup>※1</sup>	20Hz					
Residual voltage	Max. 10V					
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C					
Control output	5 to 150mA		5 to 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)					
Dielectric strength	2,500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s²(approx. 50G) in X, Y, Z direction for 3 times					
Indicator	Operation indicator(red LED)					
Environ- ment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C				
	Ambient humidity	30 to 95%RH, storage: 35 to 95%RH				
Protection circuit	Surge protection circuit					
Protection	IP67(IEC standard)					
Material	ø4, 2-wire, 2m		ø5, 2-wire, 2m			
	(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25)					
Insulation type	Double insulation or reinforced insulation (Mark: □, dielectric strength between the measuring input part and the power part: 1kV)					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC)					
Approval	CE					
Weight <sup>※2</sup>	Approx. 84g(approx. 66g)		PR: Approx. 130g(approx. 118g) PRL: Approx. 142g(approx. 130g)		PR: Approx. 207g(approx. 170g) PRL: Approx. 245g(approx. 208g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

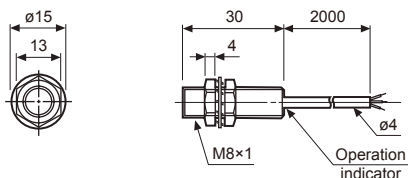
※2: The weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.

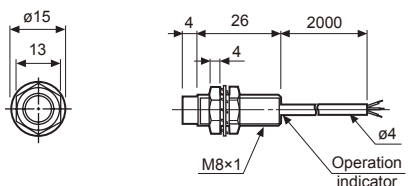
## ■ Dimensions

(unit: mm)

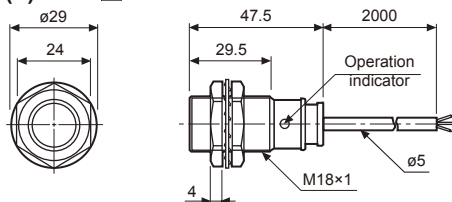
### ● PR(T)08-1.5D□



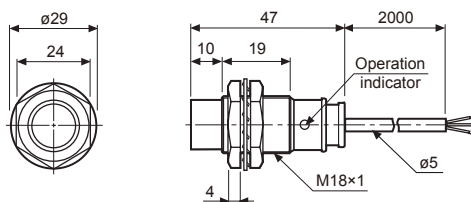
### ● PR(T)08-2D□



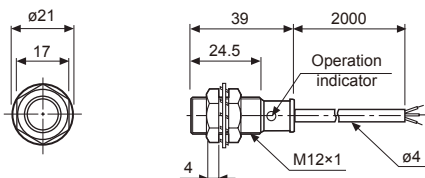
### ● PR(T)18-5D□



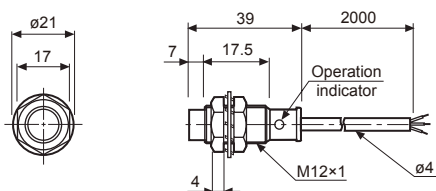
### ● PR(T)18-8D□



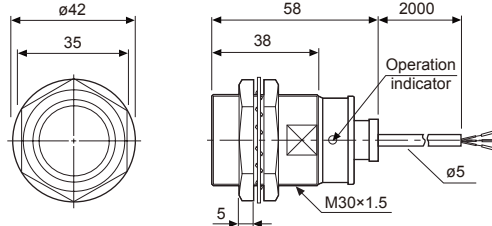
### ● PRS12-2D□



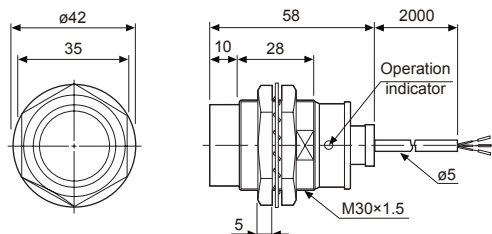
### ● PRS12-4D□



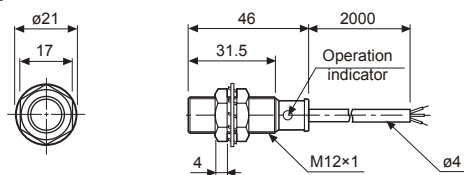
### ● PR(T)30-10D□



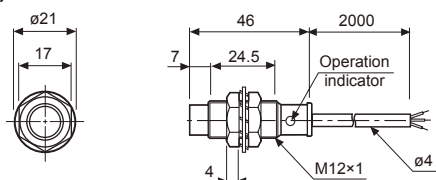
### ● PR(T)30-15D□



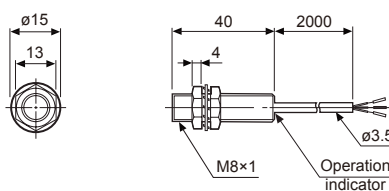
### ● PR(T)12-2D□



### ● PR(T)12-4D□



### ● PRL08-1.5D□



### ● PRL08-2D□

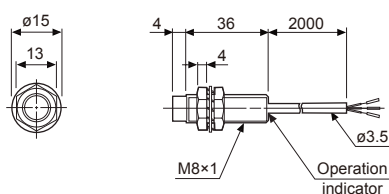
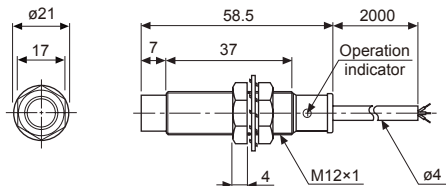


Photo electric sensor
Fiber optic sensor
Door/Area sensor
Proximity sensor
Pressure sensor
Rotary encoder
Connector/Socket
Temp. controller
SSR/ Power controller
Counter
Timer
Panel meter
Tacho/ Speed/ Pulse meter
Display unit
Sensor controller
Switching mode power supply
Stepper motor & Driver&Controller
Graphic/ Logic panel
Field network device

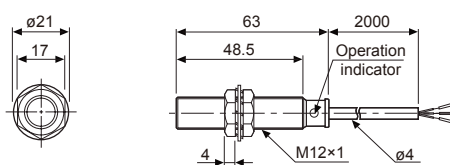
## ■ Dimensions

(unit: mm)

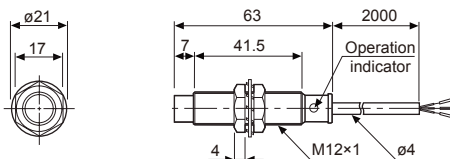
- PRL12-4D ☐



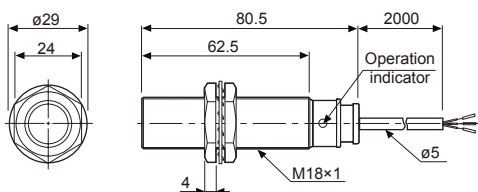
- PR12-2A ☐



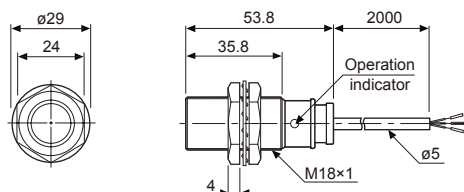
- PR12-4A ☐



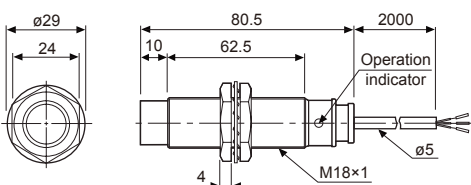
● PRL18-5D ☐    ● PRL18-5A ☐



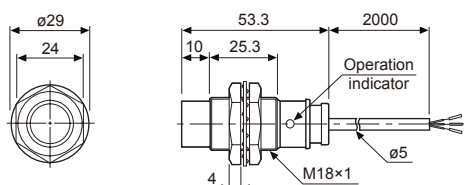
- PR18-5A ☐



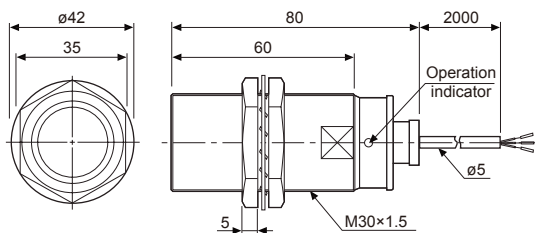
- PRL18-8D ☐
- PRL18-8A ☐



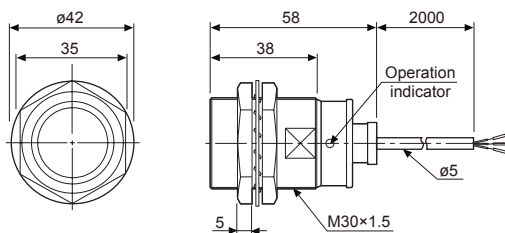
- PR18-8A ☐



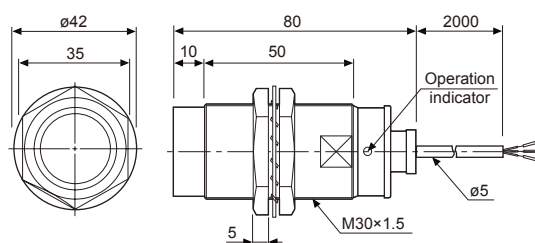
● PRL30-10D ☐    ● PRL30-10A ☐



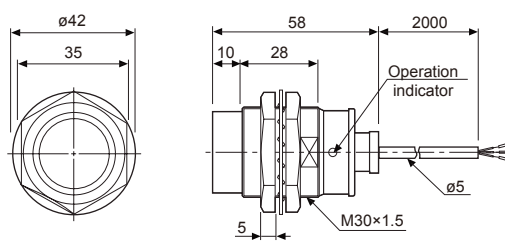
- PR30-10A ☐



● PRL30-15D ☐    ● PRL30-15A ☐



- PR30-15A ☐






# Cylindrical cable connector type proximity sensor

## • DC 2-wire type

※When the □ model name is X, it is non-polarity model.

Model	PRWT08-1.5DO PRWT08-1.5DC PRWT08-1.5DO-I PRWT08-1.5DC-I PRWT08-1.5DO-V PRWT08-1.5DC-V PRWT08-1.5DO-IV PRWT08-1.5DC-I V	PRWT08-2DO PRWT08-2DC PRWT08-2DO-I PRWT08-2DC-I PRWT08-2DO-IV PRWT08-2DC-IV	PRWT12-2□DO PRWT12-2□DC PRWT12-2□DO-I PRWT12-2□DC-I	PRWT12-4□DO PRWT12-4□DC PRWT12-4□DO-I PRWT12-4□DC-I	PRWT18-5□DO PRWT18-5□DC PRWT18-5□DO-I PRWT18-5□DC-I	PRWT18-8□DO PRWT18-8□DC PRWT18-8□DO-I PRWT18-8□DC-I	PRWT30-10□DO PRWT30-10□DC PRWT30-10□DO-I PRWT30-10□DC-I PRWT30-10□DO-V PRWT30-10□DC-IV	PRWT30-15□DO PRWT30-15□DC PRWT30-15□DO-I PRWT30-15□DC-I PRWT30-15□DO-I V PRWT30-15□DC-I V
Appearances	<div>Line-up 2-wire non-polarity</div> <div>CE</div> <div></div>							
Sensing distance	1.5mm	2mm	4mm	5mm	8mm	10mm	15mm	
Hysteresis	Max. 10% of sensing distance							
Standard sensing target	8×8×1mm(Iron)		12×12×1mm(Iron)		18×18×1mm(Iron)	25×25×1mm(Iron)	30×30×1mm(Iron)	45×45×1mm(Iron)
Setting distance	0 to 1.05mm	0 to 1.4mm		0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm
Power supply (Operation voltage)	12-24VDC (10-30VDC)							
Leakage current	Max. 0.6mA							
Response frequency※ <sup>1</sup>	1.5kHz	1kHz	1.5kHz	500Hz		350Hz	400Hz	200Hz
Residual voltage※ <sup>2</sup>	Max. 3.5V(Non-polarity type is Max. 5V)							
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃(for PRWT08 Series : ±20% Max.)							
Control output	2 to 100mA							
Insulation resistance	Min. 50MΩ(at 500VDC meggera)							
Dielectric strength	1500VAC 50/60Hz for 1 minute							
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours							
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times							
Indicator	Operation indicator(red LED)							
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃						
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH						
Protection circuit	Surge protection circuit		Surge protection circuit, Overcurrent protection circuit					
Protection	IP67(IEC standard)							
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)							
Cable	ø4mm, 2-wire, 300mm, M12 connector				ø5mm, 2-wire, 300mm, M12 connector			
Approval	CE							
Unit weight※ <sup>3</sup>	Approx. 44g(approx. 32g)		Approx. 54g(approx. 42g)		Approx. 70g(approx. 58g)		Approx. 134g(approx. 122g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: Before using non-polarity type, check the condition of connected device because residual voltage is 5V.

※3: The weight with packaging and the weight in parentheses is only unit weight.

※Please fasten the vibration part with Teflon tape.

※The '□' of model name is for power type. 'D' is 12-24VDC, 'X' is non-polarity 12-24VDC.

※The last 'V' of model name is for the model with oil-resistance reinforced cable.

※Environment resistance is rated at no freezing or condensation.

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply


Stepper motor& Driver&Controller

Graphic/Logic panel


Field network device

## ■ Specifications

### ● DC 3-wire type

Model	PRW08-1.5DN PRW08-1.5DP PRW08-1.5DN2 PRW08-1.5DP2 PRW08-1.5DN-V PRW08-1.5DP-V PRWL08-1.5DN PRWL08-1.5DP PRWL08-1.5DN2 PRWL08-1.5DP2	PRW08-2DN PRW08-2DP PRW08-2DN2 PRW08-2DP2 PRW08-2DN-V PRW08-2DP-V PRWL08-2DN PRWL08-2DP PRWL08-2DN2 PRWL08-2DP2	PRW12-2DN PRW12-2DP PRW12-2DN2 PRW12-2DP2	PRW12-4DN PRW12-4DP PRW12-4DN2 PRW12-4DP2	PRW18-5DN PRW18-5DP PRW18-5DN2 PRW18-5DP2 PRWL18-5DN PRWL18-5DP PRWL18-5DN2 PRWL18-5DP2	PRW18-8DN PRW18-8DP PRW18-8DN2 PRW18-8DP2 PRWL18-8DN PRWL18-8DP PRWL18-8DN2 PRWL18-8DP2	PRW30-10DN PRW30-10DP PRW30-10DN2 PRW30-10DP2 PRW30-10DN-V PRW30-10DP-V PRWL30-10DN PRWL30-10DP PRWL30-10DN2 PRWL30-10DP2	PRW30-15DN PRW30-15DP PRW30-15DN2 PRW30-15DP2 PRW30-15DN-V PRW30-15DP-V PRWL30-15DN PRWL30-15DP PRWL30-15DN2 PRWL30-15DP2
Appearances								
Sensing distance	1.5mm	2mm	4mm	5mm	8mm	10mm	15mm	
Hysteresis	Max. 10% of sensing distance							
Standard sensing target	8×8×1mm(Iron)		12×12×1mm(Iron)		18×18×1mm(Iron)	25×25×1mm(Iron)	30×30×1mm(Iron)	45×45×1mm(Iron)
Setting distance	0 to 1.05mm	0 to 1.4mm	0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm	
Power supply (Operation voltage)	12-24VDC (10-30VDC)							
Current consumption	Max. 10mA							
Response frequency※1	1.5kHz	1kHz	1.5kHz	500Hz	350Hz	400Hz	200Hz	
Residual voltage	Max. 2V		Max. 1.5V					
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C(for PRW(L)08 series : ±20% Max.)							
Control output	200mA							
Insulation resistance	Min. 50MΩ(at 500VDC megger)							
Dielectric strength	1500VAC 50/60Hz for 1minute							
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours							
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times							
Indicator	Operation indicator(red LED)							
Environment	-25 to 70°C, storage: -30 to 80°C							
	35 to 95%RH, storage: 35 to 95%RH							
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit							
Protection	IP67(IEC standard)							
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)							
Cable	ø4mm, 3-wire, 300mm, M12 connector				ø5mm, 3-wire, 300mm, M12 connector			
Approval	CE							
Unit weight※2	PRW: Approx. 44g(approx. 32g) PRWL: Approx. 46g(approx. 34g)		Approx. 54g(approx. 42g)		PRW: Approx. 70g(approx. 58g) PRWL: Approx. 90g(approx. 78g)		PRW: Approx. 134g(approx. 122g) PRWL: Approx. 195g(approx. 158g)	

### ● AC 2-wire type

Model	PRW12-2AO PRW12-2AC	PRW12-4AO PRW12-4AC	PRW18-5AO PRW18-5AC PRWL18-5AO PRWL18-5AC	PRW18-8AO PRW18-8AC PRWL18-8AO PRWL18-8AC	PRW30-10AO PRW30-10AC PRWL30-10AO PRWL30-10AC	PRW30-15AO PRW30-15AC PRWL30-15AO PRWL30-15AC
Appearances						
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12×12×1mm(Iron)		18×18×1mm(Iron)		30×30×1mm(Iron)	
Setting distance	0 to 1.4mm	0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm
Power supply (Operation voltage)	100-240VAC (85-264VAC)					
Leakage current	Max. 2.5mA					

Model	PRW12-2AO PRW12-2AC	PRW12-4AO PRW12-4AC	PRW18-5AO PRW18-5AC PRWL18-5AO PRWL18-5AC	PRW18-8AO PRW18-8AC PRWL18-8AO PRWL18-8AC	PRW30-10AO PRW30-10AC PRWL30-10AO PRWL30-10AC	PRW30-15AO PRW30-15AC PRWL30-15AO PRWL30-15AC
Response frequency※1	20Hz					
Residual voltage	Max. 10V					
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃					
Control output	5 to 150mA		5 to 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)					
Dielectric strength	2,500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃				
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH				
Protection circuit	Surge protection circuit					
Protection	IP67(IEC standard)					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC)					
Cable	ø4mm, 2-wire, 300mm, M12 connector		ø5mm, 2-wire, 300mm, M12 connector			
Approval	CE					
Unit weight※2	Approx. 54g(approx. 42g)		PRW: Approx. 78g (approx. 66g) PRWL: Approx. 90g (approx. 78g)		PRW: Approx. 134g(approx. 122g) PRWL: Approx. 195g(approx. 158g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

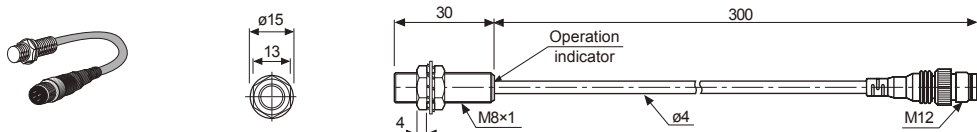
※2: The weight with packaging and the weight in parentheses is only unit weight.

※The last 'V' of model name is for the model with oil-resistance reinforced cable. ※Environment resistance is rated at no freezing or condensation.

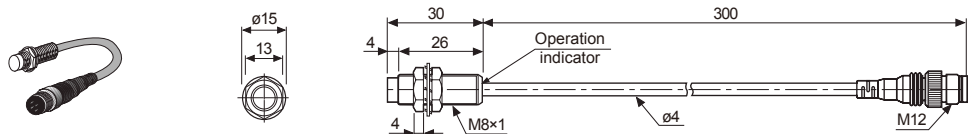
## Dimensions

(unit: mm)

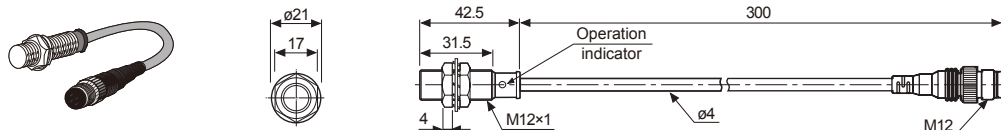
### • PRWT08-1.5D□(-I) • PRW08-1.5D□



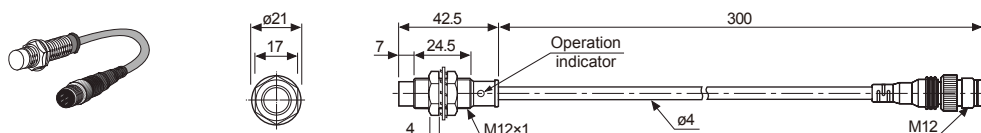
### • PRWT08-2D□(-I) • PRW08-2D□



### • PRWT12-2D□(-I) • PRW12-2D□



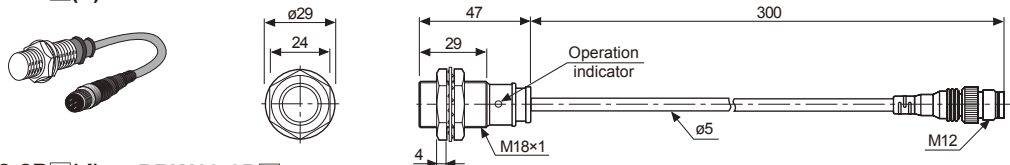
### • PRWT12-4D□(-I) • PRW12-4D□



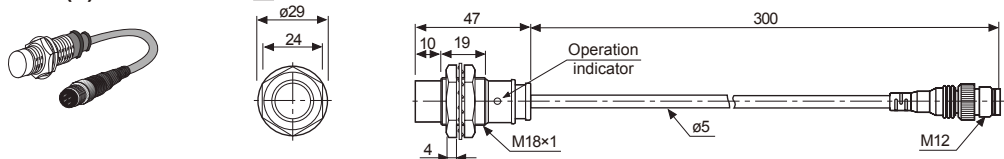
## ■ Dimensions

(unit: mm)

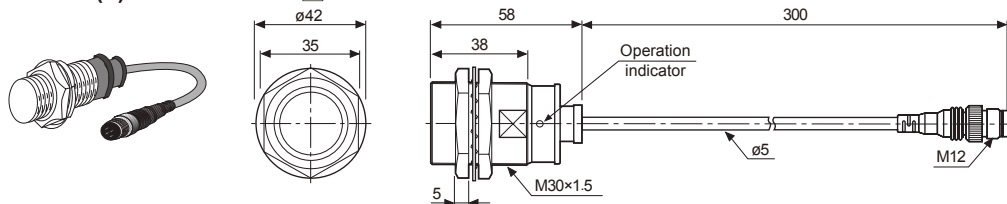
### ● PRWT18-5D□(-I) ● PRW18-5D□



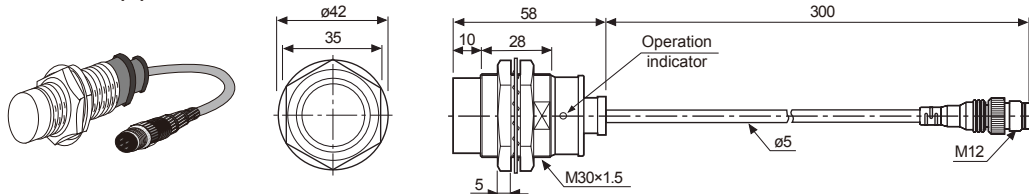
### ● PRWT18-8D□(-I) ● PRW18-8D□



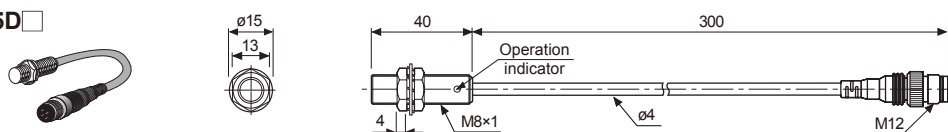
### ● PRWT30-10D□(-I) ● PRW30-10D□



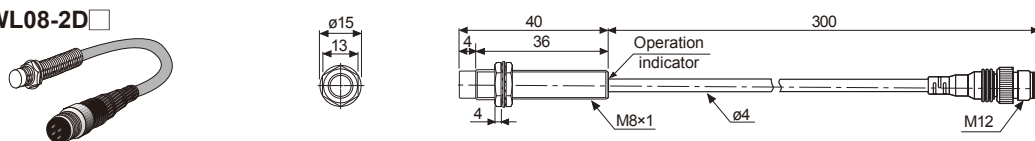
### ● PRWT30-15D□(-I) ● PRW30-15D□



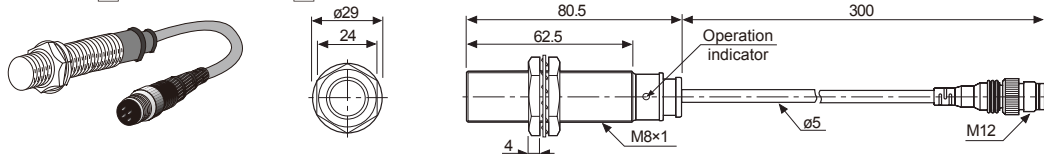
### ● PRWL08-1.5D□



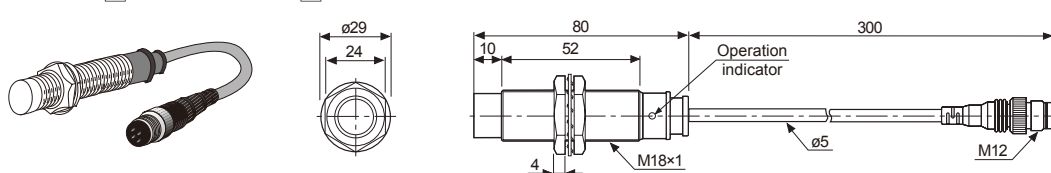
### ● PRWL08-2D□



### ● PRWL18-5D□ ● PRWL18-5A□



### ● PRWL18-8D□ ● PRWL18-8A□

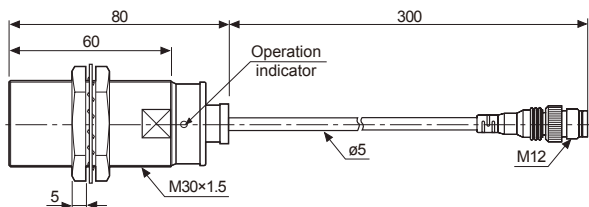
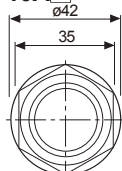
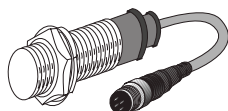


## ■ Dimensions

(unit: mm)

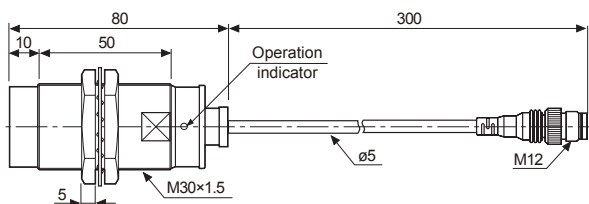
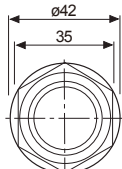
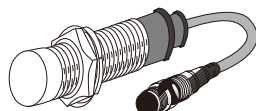
### • PRWL30-10D

### • PRWL30-10A

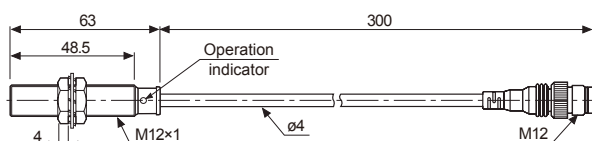


### • PRWL30-15D

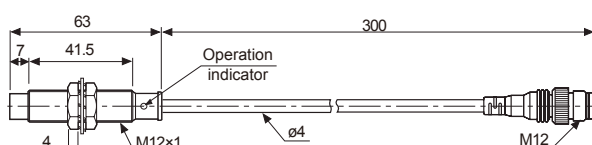
### • PRWL30-15A



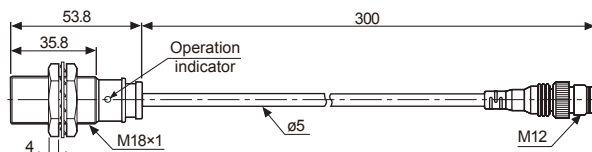
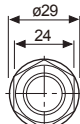
### • PRW12-2A



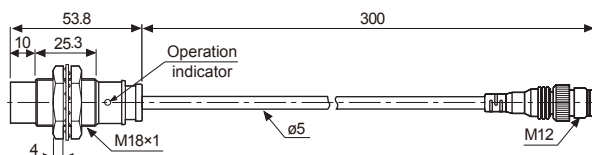
### • PRW12-4A



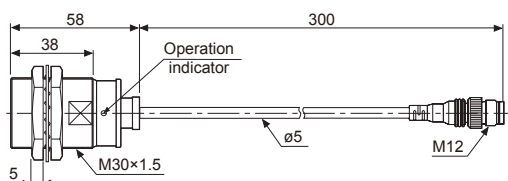
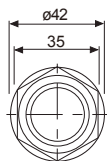
### • PRW18-5A



### • PRW18-8A



### • PRW30-10A



### • PRW30-15A

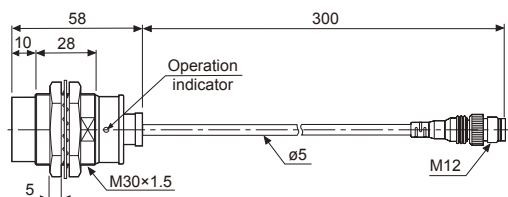
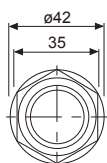


Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/ Power controller

Counter

Timer

Panel meter

Tacho/ Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor& Driver&Controller


Graphic/ Logic panel

Field network device

## Cylindrical connector type proximity sensor

### ■ Specifications

#### ● DC 2-wire type

Model	PRCMT12-2DO PRCMT12-2DC PRCMT12-2DO-I PRCMT12-2DC-I		PRCMT12-4DO PRCMT12-4DC PRCMT12-4DO-I PRCMT12-4DC-I		PRCMT18-5DO PRCMT18-5DC PRCMT18-5DO-I PRCMT18-5DC-I		PRCMT18-8DO PRCMT18-8DC PRCMT18-8DO-I PRCMT18-8DC-I		PRCMT30-10DO PRCMT30-10DC PRCMT30-10DO-I PRCMT30-10DC-I		PRCMT30-15DO PRCMT30-15DC PRCMT30-15DO-I PRCMT30-15DC-I	
Appearances	<div></div>											
Sensing distance	2mm		4mm		5mm		8mm		10mm		15mm	
Hysteresis	Max. 10% of sensing distance											
Standard sensing 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 1.4mm		0 to 2.8mm		0 to 3.5mm		0 to 5.6mm		0 to 7mm		0 to 10.5mm	
Power supply (Operating voltage)	12-24VDC (10-30VDC)											
Leakage current	Max. 0.6mA											
Response frequency <sup>※1</sup>	1.5kHz		500Hz		350Hz		400Hz		200Hz			
Residual voltage	Max. 3.5V											
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C											
Control output	2 to 100mA											
Insulation resistance	Min. 50MΩ(at 500VDC megger)											
Dielectric strength	1500VAC 50/60Hz for 1minute											
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours											
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times											
Indicator	Operation indicator(red LED)											
Environment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C										
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH										
Protection circuit	Surge protection circuit, Overcurrent protection											
Protection	IP67(IEC Standard)											
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT Standard Cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)											
Approval	CE											
Weight <sup>※2</sup>	Approx. 38g(approx. 26g)				Approx. 60g(approx. 48g)				Approx. 154g(approx. 142g)			

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.


※2: The weight with packaging and the weight in parentheses is only unit weight.

※There is IEC standard connector cable. Refer to the 148 page about IEC standard connector wires and specifications.

※Environment resistance is rated at no freezing or condensation.

## ■ Specifications

### ● DC 3-wire type

Model	PRCM12-2DN PRCM12-2DP PRCM12-2DN2 PRCM12-2DP2		PRCM12-4DN PRCM12-4DP PRCM12-4DN2 PRCM12-4DP2		PRCM18-5DN PRCM18-5DP PRCM18-5DN2 PRCM18-5DP2 PRCML18-5DN PRCML18-5DP PRCML18-5DN2 PRCML18-5DP2		PRCM18-8DN PRCM18-8DP PRCM18-8DN2 PRCM18-8DP2 PRCML18-8DN PRCML18-8DP PRCML18-8DN2 PRCML18-8DP2		PRCM30-10DN PRCM30-10DP PRCM30-10DN2 PRCM30-10DP2 PRCML30-10DN PRCML30-10DP PRCML30-10DN2 PRCML30-10DP2		PRCM30-15DN PRCM30-15DP PRCM30-15DN2 PRCM30-15DP2 PRCML30-15DN PRCML30-15DP PRCML30-15DN2 PRCML30-15DP2	
Appearances	<div><div>CE</div><div></div></div>											
Sensing distance	2mm		4mm		5mm		8mm		10mm		15mm	
Hysteresis	Max. 10% of sensing distance											
Standard sensing target	12×12×1mm(Iron)				18×18×1mm(Iron)		25×25×1mm(Iron)		30×30×1mm(Iron)		45×45×1mm(Iron)	
Sensing distance	0 to 1.4mm		0 to 2.8mm		0 to 3.5mm		0 to 5.6mm		0 to 7mm		0 to 10.5mm	
Power supply (Operating voltage)	12-24VDC (10-30VDC)											
Current consumption	Max. 10mA											
Response frequency※1	1.5kHz		500kHz		500kHz		350kHz		400kHz		200kHz	
Residual voltage	Max. 1.5V											
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃											
Control output	Max. 200mA											
Insulation resistance	Min. 50MQ(at 500VDC megger)											
Dielectric strength	1500VAC 50/60Hz for 1minute											
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours											
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times											
Indicator	Operation indicator(red LED)											
Environ- ment	Ambient temperature		-25 to 70℃, storage: -30 to 80℃									
	Ambient humidity		35 to 95%RH, storage: 35 to 95%RH									
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection											
Protection	IP67(IEC Standard)											
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT											
Approval	CE											
Weight※2	Approx. 38g(approx. 26g)				PRCM: Approx. 61g(approx. 49g) PRCML: Approx. 85g(approx. 73g)				PRCM: Approx. 146g(approx. 134g) PRCML: Approx. 181g(approx. 169g)			

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: The weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.

Photo  
electric  
sensor

Fiber  
optic  
sensor

Door/Area  
sensor

Proximity  
sensor

Pressure  
sensor

Rotary  
encoder

Connector/  
Socket

Temp.  
controller

SSR/  
Power  
controller

Counter

Timer

Panel  
meter

Tacho/  
Speed/  
Pulse  
meter

Display  
unit

Sensor  
controller

Switching  
mode power  
supply



Stepper  
motor &  
Driver&Controller

Graphic/  
Logic  
panel

Field  
network  
device

## ■ Specifications

### ● AC 2-wire type

Model	PRCM12-2AO PRCM12-2AC		PRCM12-4AO PRCM12-4AC	PRCM18-5AO PRCM18-5AC PRCML18-5AO PRCML18-5AC	PRCM18-8AO PRCM18-8AC PRCML18-8AO PRCML18-8AC	PRCM30-10AO PRCM30-10AC PRCML30-10AO PRCML30-10AC	PRCM30-15AO PRCM30-15AC PRCML30-15AO PRCML30-15AC
Appearances	<div><div>CE</div><div></div></div>						
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm	
Hysteresis	Max. 10% of sensing distance						
Standard sensing target	12×12×1mm(Iron)		18×18×1mm(Iron)		25×25×1mm(Iron)	30×30×1mm(Iron)	45×45×1mm(Iron)
Sensing distance	0 to 1.4mm	0 to 2.8mm	0 to 3.5mm		0 to 5.6mm	0 to 7mm	0 to 10.5mm
Power supply (Operating voltage)	100-240VAC (85-264VAC)						
Leakage current	Max. 2.5mA						
Response frequency※ <sup>1</sup>	20Hz						
Residual voltage	Max. 10V						
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃						
Control output	5 to 150mA			5 to 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)						
Dielectric strength	2,500VAC 50/60Hz for 1minute						
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours						
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times						
Indicator	Operation indicator(red LED)						
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃					
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH					
Protection circuit	Surge protection circuit						
Protection	IP67(IEC Standard)						
Insulation type	Double insulation or reinforced insulation (Mark:  , dielectric strength between the measuring input part and the power part: 1kV)						
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT						
Approval	CE						
Weight※ <sup>2</sup>	Approx. 42g(approx. 30g)			PRCM: Approx. 66g(approx. 54g) PRCML: Approx. 78g(approx. 66g)		PRCM: Approx. 154g(approx. 142g) PRCML: Approx. 194g(approx. 182g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: The weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.



## ■ Dimensions

(unit: mm)

<p>● <b>PRCM12-2D□ / PRCMT12-2D□(-I)</b></p>	<p>● <b>PRCM12-4D□ / PRCMT12-4D□(-I)</b></p>
<p>● <b>PRCM18-5D□ / PRCMT18-5D□(-I)</b></p>	<p>● <b>PRCM18-8D□ / PRCMT18-8D□(-I)</b></p>
<p>● <b>PRCM30-10D□ / PRCMT30-10D□(-I)</b></p>	<p>● <b>PRCM30-15D□ / PRCMT30-15D□(-I)</b></p>
<p>● <b>PRCM12-2A□</b></p>	<p>● <b>PRCM12-4A□</b></p>
<p>● <b>PRCM18-5A□</b></p>	<p>● <b>PRCM18-8A□</b></p>
<p>● <b>PRCM30-10A□</b></p>	<p>● <b>PRCM30-15A□</b></p>
<p>● <b>PRCML18-5D□ / PRCML18-5A□</b></p>	<p>● <b>PRCML18-8D□ / PRCML18-8A□</b></p>
<p>● <b>PRCML18-5D□ / PRCML18-5A□</b></p>	<p>● <b>PRCML30-15D□ / PRCML30-15A□</b></p>


Photo electric sensor
Fiber optic sensor
Door/Area sensor
Proximity sensor
Pressure sensor
Rotary encoder
Connector/ Socket
Temp. controller
SSR/ Power controller
Counter
Timer
Panel meter
Tacho/ Speed/ Pulse meter
Display unit
Sensor controller
Switching mode power supply
Stepper motor& Driver&Controller
Graphic/ Logic panel
Field network device

## Spatter-resistance type proximity sensor

### ■ Specifications

#### ● DC 2-wire type

※When the □ model name is X, it is non-polarity model.

Model	PRAT12-2□DO PRAT12-2□DC		PRAWT12-2□DO PRAWT12-2□DC PRAWT12-2□DO-I PRAWT12-2□DC-I	PRAT18-5□DO PRAT18-5□DC	PRAWT18-5□DO PRAWT18-5□DC PRAWT18-5□DO-I PRAWT18-5□DC-I	PRAT30-10□DO PRAT30-10□DC	PRAWT30-10□DO PRAWT30-10□DC PRAWT30-10□DO-I PRAWT30-10□DC-I
Appearances	<div><div>Line-up</div><div>2-wire non-polarity</div><div>CE</div><div></div></div>						
Sensing distance	2mm			5mm		10mm	
Hysteresis	Max. 10% of sensing distance						
Standard sensing target	12×12×1mm(Iron)			18×18×1mm(Iron)		30×30×1mm(Iron)	
Setting distance	0 to 1.4mm			0 to 3.5mm		0 to 7mm	
Power supply (Operating voltage)	12-24VDC (10 -30VDC)						
Leakage current	Max. 0.6mA						
Response frequency※1	1.5kHz			500Hz		400Hz	
Residual voltage※2	Max. 3.5V(Non-polarity type is Max. 5V)						
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃						
Control output	2 to 100mA						
Insulation resistance	Min. 50MΩ(at 500VDC megger)						
Dielectric strength	1500VAC 50/60Hz for 1 minute(between all terminals and case)						
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours						
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times						
Indicator	Operation indicator(red LED)						
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃					
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH					
Protection circuit	Surge protection circuit, Overcurrent protection circuit						
Protection	IP67(IEC standard)						
Cable	ø4mm, 2-wire, 2m			ø5mm, 2-wire, 2m			
	(for cable type, 300mm, M12 connector), (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)						
Material	Case/Nut: Teflon coated Brass, Washer: Teflon coated Iron, Sensing surface: Teflon, Standard cable(Black): Polyvinyl chloride(PVC)						
Approval	CE						
Weight※3	Approx. 84g (approx. 72g)	Approx. 54g (approx. 42g)	Approx. 122g (approx. 110g)	Approx. 70g (approx. 58g)	Approx. 207g (approx. 170g)	Approx. 134g (approx. 122g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※2: Before using non-polarity type, check the condition of connected device because residual voltage is 5V.

※3: The weight with packaging and the weight in parentheses is only unit weight.


※Environment resistance is rated at no freezing or condensation.

※Refer to the 148 page for IEC standard connector cables and specifications.

※The '□' of model name is for power type. 'D' is 12-24VDC, 'X' is non-polarity 12-24VDC.

## ■ Specifications

### ● DC 3-wire type

Model	PRA12-2DN PRA12-2DP PRA12-2DN2 PRA12-2DP2	PRA18-5DN PRA18-5DP PRA18-5DN2 PRA18-5DP2	PRA30-10DN PRA30-10DP PRA30-10DN2 PRA30-10DP2
Appearances			
Sensing distance	2mm	5mm	10mm
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	12×12×1mm(Iron)	18×18×1mm(Iron)	30×30×1mm(Iron)
Setting distance	0 to 1.4mm	0 to 3.5mm	0 to 7mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)		
Current consumption	Max. 10mA		
Response frequency <sup>※1</sup>	1.5kHz	500Hz	400Hz
Residual voltage	Max. 1.5V		
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C		
Control output	Max. 200mA		
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	1500VAC 50/60Hz for 1 minute		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Environment	Ambient temperature -25 to 70°C, storage: -30 to 80°C Ambient humidity 35 to 95%RH, storage: 35 to 95%RH		
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit		
Protection	IP67(IEC standard)		
Cable	ø4mm, 3-wire, 2m      ø5mm, 2-wire, 2m (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)		
Material	Case/Nut: Teflon coated Brass, Washer: Teflon coated Iron, Sensing surface: Teflon, Standard cable(Black): Polyvinyl chloride(PVC)		
Approval	CE		
Weight <sup>※2</sup>	Approx. 84g(approx. 72g)	Approx. 122g(approx. 110g)	Approx. 207g(approx. 170g)

### ● AC 2-wire type


Model	PRA12-2AO PRA12-2AC	PRA18-5AO PRA18-5AC	PRA30-10AO PRA30-10AC
Appearances			
Sensing distance	2mm	5mm	10mm
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	12×12×1mm(Iron)	18×18×1mm(Iron)	30×30×1mm(Iron)
Setting distance	0 to 1.4mm	0 to 3.5mm	0 to 7mm
Power supply (Operating voltage)	100-240VAC (85-264VAC)		
Leakage current	Max. 2.5mA		
Response frequency <sup>※1</sup>	20Hz		
Residual voltage	Max. 10V		
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C		

Photo  
electric  
sensor

Fiber  
optic  
sensor

Door/Area  
sensor

Proximity  
sensor

Pressure  
sensor

Rotary  
encoder

Connector/  
Socket

Temp.  
controller

SSR/  
Power  
controller

Counter

Timer

Panel  
meter

Tacho/  
Speed/ Pulse  
meter

Display  
unit

Sensor  
controller

Switching  
mode power  
supply

Stepper  
motor &  
Driver&Controller

Graphic/  
Logic  
panel

Field  
network  
device

## ■ Specifications

### ● AC 2-wire type

Model	PRA12-2AO PRA12-2AC	PRA18-5AO PRA18-5AC	PRA30-10AO PRA30-10AC
Control output	5 to 150mA	5 to 200mA	
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	2500VAC 50/60Hz for 1 minute		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Environment	Ambient temperature: -25 to 70°C, storage: -30 to 80°C		
	Ambient humidity: 35 to 95%RH, storage: 35 to 95%RH		
Protection circuit	Surge protection circuit		
Protection	IP67(IEC standard)		
Cable	ø4mm, 2-wire, 2m	ø5mm, 2-wire, 2m	
	(for cable type, 300mm, M12 connector), (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)		
Material	Case/Nut: Teflon coated Brass, Washer: Teflon coated Iron, Sensing surface: Teflon, Standard cable(Black): Polyvinyl chloride(PVC)		
Insulation type	Double insulation or reinforced insulation(Mark: □, Dielectric strength between the measuring input part and the power part: 1.5kVAC)		
Approval	CE		
Weight <sup>※2</sup>	Approx. 78g(approx. 66g)	Approx. 118g(approx. 106g)	Approx. 207g(approx. 170g)

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

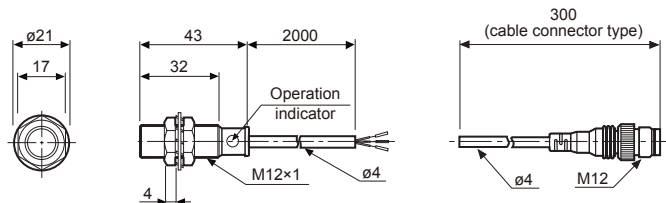
※2: The weight with packaging and the weight in parentheses is only unit weight.

※ Environment resistance is rated at no freezing or condensation.

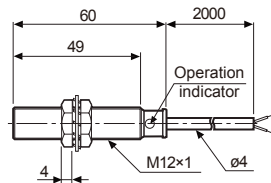
## ■ Dimensions

(unit: mm)

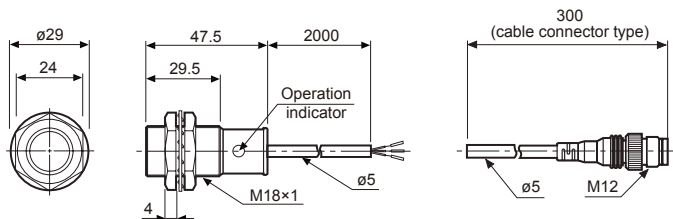
### ● PRA12-2D□ / PRAT12-2D□ / PRAWT12 -2D□



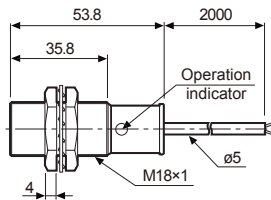
### ● PRA12-2A□



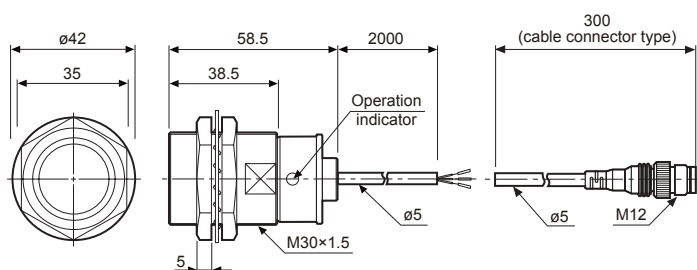
### ● PRA18-5D□ / PRAT18-5D□ / PRAWT18 -5D□



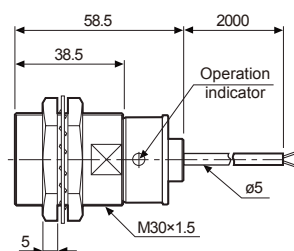
### ● PRA18-5A□



### ● PRA30-10D□ / PRAT30 -10D□ / PRAWT30 -10D□



### ● PRA 30-10A□




# Rectangular type proximity sensor

## ■ Specifications

### ● DC 2-wire type

※The existing PST17 is upgraded its function and design and changed as PSN17.  
 ※The case color of Normal Close type is changed from orange to gray.

Model	PSNT17-5DO PSNT17-5DC	PSNT17-5DOU PSNT17-5DCU
Appearances		
Sensing distance	5mm	
Hysteresis	Max. 10% of sensing distance	
Standard sensing target	18×18×1mm(Iron)	
Setting distance	0 to 3.5mm	
Power supply (Operating voltage)	12-24VDC (10-30VDC)	
Leakage current	Max. 0.6mA	
Response frequency※1	700Hz	
Residual voltage	Max. 3.5V	
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C	
Control output	2 to 100mA	
Insulation resistance	Min. 50MΩ(at 500VDC megger)	
Dielectric strength	1500VAC 50/60Hz for 1 minute	
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours	
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times	
Indicator	Operation indicator(red LED)	
Environ- ment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH
Protection circuit	Surge protection circuit, Overcurrent protection circuit	
Protection	IP67(IEC standard)	
Cable	ø4mm, 3-wire, 2m (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: ø1.25mm)	
Approval	CE	
Unit weight	Approx. 71g	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.

Photo  
electric  
sensor

Fiber  
optic  
sensor

Door/Area  
sensor

Proximity  
sensor

Pressure  
sensor

Rotary  
encoder

Connector/  
Socket

Temp.  
controller

SSR/  
Power  
controller

Counter

Timer

Panel  
meter

Tacho/  
Speed/ Pulse  
meter

Display  
unit

Sensor  
controller

Switching  
mode power  
supply

Stepper  
motor&  
Driver&Controller

Graphic/  
Logic  
panel


Field  
network  
device

# Selection Guide

## ■ Specifications

### ● DC 3-wire type

※The case color of PNP output type is changed from orange to gray.

Model	PS12-4DN PS12-4DP PS12-4DN2 PS12-4DNU PS12-4DPU PS12-4DN2U		PSN17-5DN PSN17-5DP PSN17-5DN2 PSN17-5DP2 PSN17-5DNU PSN17-5DN2U PSN17-5DPU PSN17-5DP2U PSN17-5DN-F		PSN17-8DN PSN17-8DP PSN17-8DN2 PSN17-8DP2 PSN17-8DNU PSN17-8DN2U PSN17-8DP2U		PSN17-8DN-F PSN17-8DP-F PSN17-8DN2-F PSN17-8DP2-F PSN17-8DNU-F PSN17-8DN2U-F PSN17-8DP2U-F		PSN25-5DN PSN25-5DP PSN25-5DN2 PSN25-5DP2		PSN30-10DN PSN30-10DP PSN30-10DN2 PSN30-10DP2		PSN30-15DN PSN30-15DP PSN30-15DN2 PSN30-15DP2		PSN40-20DN PSN40-20DP PSN40-20DN2 PSN40-20DP2		PS50-30DN PS50-30DP PS50-30DN2 PS50-30DP2		
Appearances	<div>CE</div> <div></div>																		
Sensing distance	4mm	5mm	8mm			5mm	10mm	15mm	20mm	30mm									
Hysteresis	Max. 10% of sensing distance																		
Standard sensing target	12×12×1mm (Iron)	18×18×1mm (Iron)	25×25×1mm(Iron)					30×30×1mm (Iron)	45×45×1mm (Iron)	60×60×1mm (Iron)	90×90×1mm (Iron)								
Setting distance	0 to 2.8mm	0 to 3.5mm	0 to 5mm			0 to 3.5mm	0 to 7mm	0 to 10.5mm	0 to 14mm	0 to 21mm									
Power supply (Operation voltage)	12-24VDC (10-30VDC)																		
Current consumption	Max. 10mA																		
Response frequency※1	500Hz	700Hz	200Hz			300Hz	250Hz	200Hz	100Hz	50Hz									
Residual voltage	Max. 1.5V																		
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃																		
Control output	Max. 200mA																		
Insulation resistance	Min. 50MΩ(at 500VDC megger)																		
Dielectric strength	1500VAC 50/60Hz for 1minute																		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours																		
Shock	500m/s²(approx. 50G) in each of X, Y, Z directions for 3 times																		
Indicator	Operation indicator(red LED)																		
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃																	
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH																	
Protection circuit	Surge protection circuit, Overcurrent protection circuit, Reverse polarity protection circuit																		
Protection	IP67(IEC standard)																		
Cable	ø4mm, 3-wire, 2m																	ø5mm, 3-wire, 2m	
	(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: ø1.25mm)																		
Material	Case: Heat-resistant ABS, Standard cable(Black): Polyvinyl chloride(PVC).																		
Approval	CE																		
Unit weight	Approx. 62g	Approx. 71g	Approx. 70g				Approx. 111g			Approx. 185g		Approx. 220g							




※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.

## ■ Specifications

### ● AC 2-wire type

※The case color of Normally Closed type is changed from orange to gray.

Model	PSN25-5AO PSN25-5AC	PSN30-10AO PSN30-10AC	PSN30-15AO PSN30-15AC	PSN40-20AO PSN40-20AC
Appearances	<div></div>			
Sensing distance	5mm	10mm	15mm	20mm
Hysteresis	Max. 10% of sensing distance			
Standard sensing target	25×25×1mm(Iron)	30×30×1mm(Iron)	45×45×1mm(Iron)	60×60×1mm(Iron)
Setting distance	0 to 3.5mm	0 to 7mm	0 to 10.5mm	0 to 14mm
Power supply(Operating voltage)	100-240VAC(85-264VAC)			
Leakage current	Max. 2.5mA			
Response frequency <sup>※1</sup>	20Hz			
Residual voltage	Max. 10V			
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃			
Control output	5 to 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1 minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s <sup>2</sup> (approx. 50G) in X, Y, Z direction for 3 times			
Indicator	Operation indicator(red LED)			
Environ-ment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃		
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH		
Protection circuit	Surge protection circuit			
Protection	IP67(IEC standard)			
Cable	ø4mm, 2-wire, 2m(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: ø1.25mm)			
Approval	CE			
Unit weight	Approx. 65g	Approx. 106g		Approx. 152g

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor& Driver&Controller

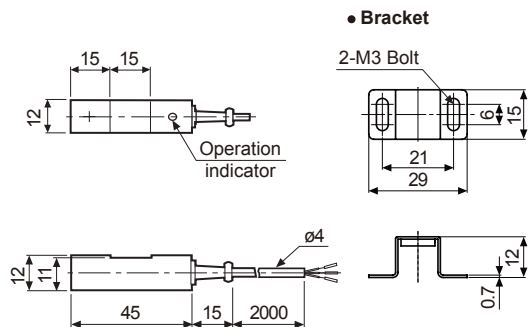
Graphic/Logic panel

Field network device

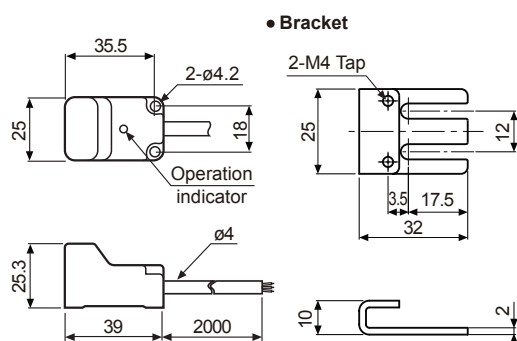
## ■ Dimensions

(unit: mm)

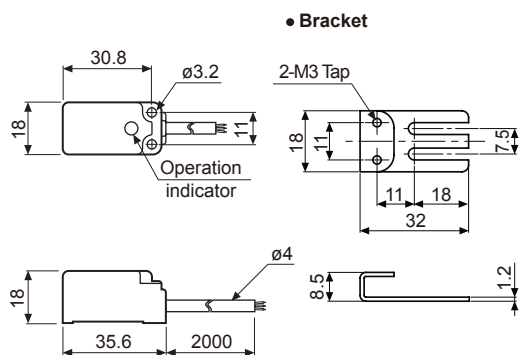
### ● PS12



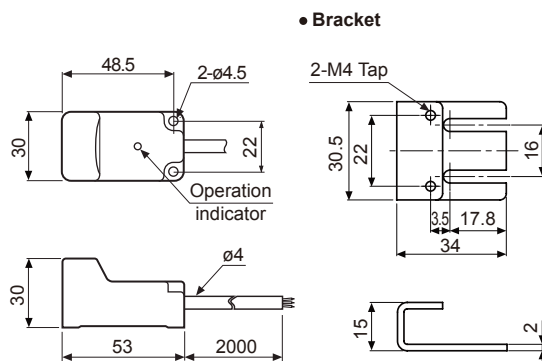
### ● PSN25



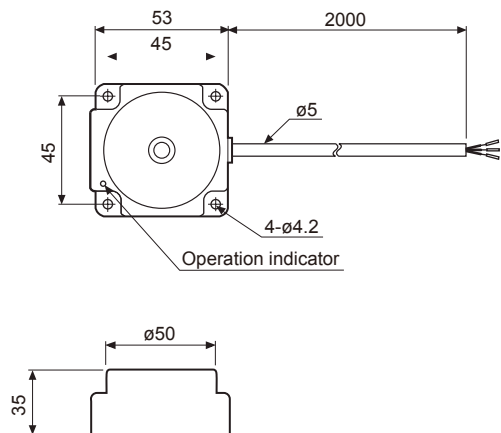
### ● PSN17 / PSNT17(former : PS17/ PST17)



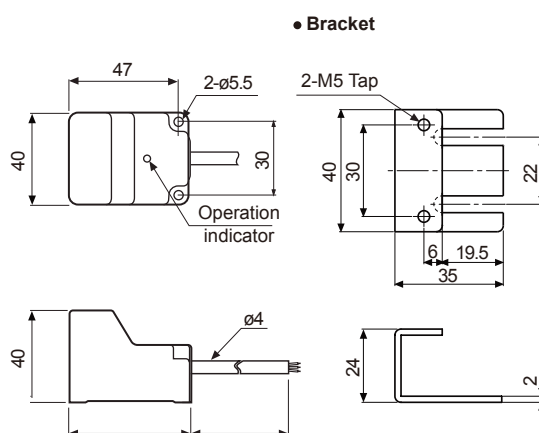
### ● PSN30



### ● PS50




### ● PSN40





## Flat type proximity sensor

## ■ Specification

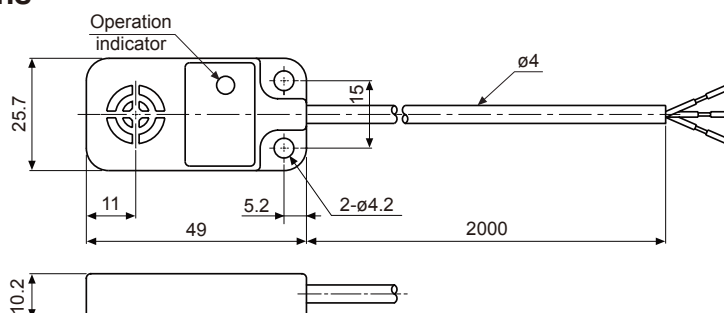
Model	PFI25-8DN PFI25-8DN2	PFI25-8DP PFI25-8DP2	PFI25-8AO PFI25-8AC
Appearances			
Sensing distance	8mm		
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	25×25×1mm(Iron)		
Setting distance	0 to 5.6mm		
Power supply (Operating voltage)	12-24VDC (10-30VDC)		100-240VAC (85-264VAC)
Current/Leakage consumption	Max. 10mA		Max. 2.5mA
Response frequency <sup>*1</sup>	200Hz		20Hz
Residual voltage	Max. 1.5V		Max. 10V
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃		
Control output	Max. 200mA		5 to 150mA
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	1,500VAC 50/60Hz for 1 minute		2,500VAC 50/60Hz for 1 minute
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Environ- ment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃	
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH	
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit		Surge protection circuit
Cable	ø4mm, 3-wire, 2m (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: ø1.25mm)		ø4mm, 2-wire, 2m
Material	Case: PPS, General cable(Black): Polyvinyl chloride(PVC)		
Protection	IP67(IEC standard)		
Approval	CE		
Unit weight	Approx. 70g		

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target. 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.


## ■ Dimensions

(unit: mm)



## Long sensing distance type proximity sensor

### ■ Specification

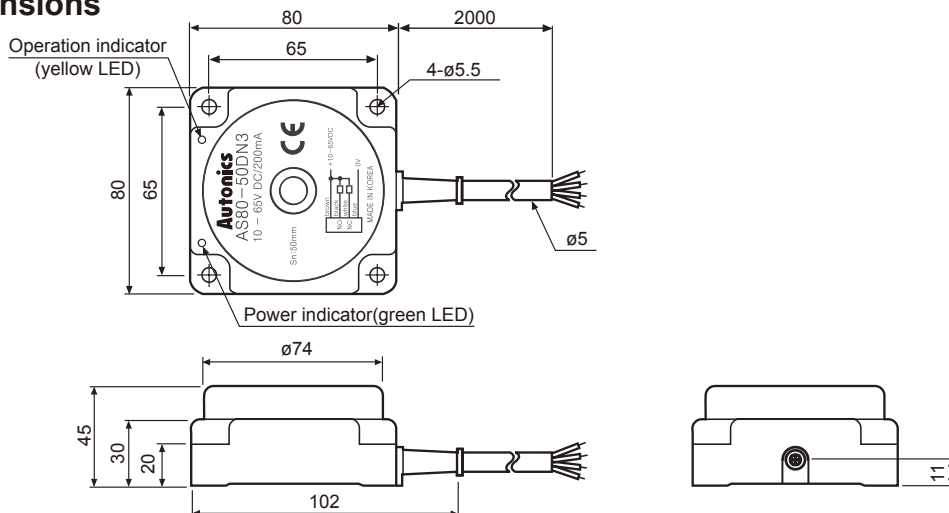
Model	AS80-50DN3	AS80-50DP3
Appearances		
Sensing type	NPN Normally Open + Normally Closed	PNP Normally Open + Normally Closed
Sensing distance	50mm	
Hysteresis	Max. 15% of sensing distance	
Standard sensing target	150×150×1mm(Iron)	
Setting distance	0 to 35mm	
Power supply (Operating voltage)	12-48VDC (10-65VDC)	
Current consumption	Max. 20mA	
Response frequency※1	30Hz	
Residual voltage	Max. 2V	
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C	
Control output	Max. 200mA	
Insulation resistance	Min. 50MΩ(at 500VDC megger)	
Dielectric strength	1500VAC 50/60Hz for 1 minute	
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours	
Shock	500m/s²(appox. 50G) in X, Y, Z direction for 3 times	
Indicator	Power indicator: green LED, Operation indicator: yellow LED	
Environment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit	
Cable	ø5mm, 4-wire, 2m(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25mm)	
Approval	CE	
Protection	IP67(IEC standard)	
Unit weight	Approx. 470g	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.


### ■ Dimensions

(unit: mm)



# Electric capacitive type proximity sensor

## ■ Specifications

Model	CR18-8DN CR18-3DP CR18-8DN2	CR30-15DN CR30-15DP CR30-15DN2	CR18-8AO CR18-8AC	CR30-15AO CR30-15AC
Appearances				
Sensing distance	8mm	15mm	8mm	15mm
Hysteresis	Max. 20% of sensing distance			
Standard sensing target	50×50×1mm(Iron)			
Sensing distance	0 to 5.6mm	0 to 10.5mm	0 to 5.6mm	0 to 10.5mm
Power supply (Operating voltage)	12-24VDC(10-30VDC)		100-240VAC 50/60Hz(85-264VAC)	
Current consumption	Max. 15mA		—	
Leakage current	—		Max. 2.2mA	
Response frequency※ <sup>1</sup>	50Hz		20Hz	
Residual voltage	Max. 1.5V		Max. 20V	
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃			
Control output	Max. 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s <sup>2</sup> (approx. 50G) in each of X, Y, Z directions for 3 times			
Indicator	Operation indicator(red LED)			
Environment	Ambient temperature -25 to 70℃, storage: -30 to 80℃			
	Ambient humidity 35 to 95%RH, storage: 35 to 95%RH			
Protection circuit	Reverse polarity protection, Surge protection		Serge protection circuit	
Protection	IP66(IEC standard)	IP65(IEC standard)	IP66(IEC standard)	IP65(IEC standard)
Cable	ø4mm, 3-wire, 2m	ø5mm, 3-wire, 2m	ø4mm, 2-wire, 2m	ø5mm, 2-wire, 2m
	(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: ø1.25mm)			
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Black): Polyvinyl chloride(PVC), Oil resistant cable(Gray): Oil resistant Polyvinyl chloride(PVC)			
Weight※ <sup>2</sup>	Approx. 64g(approx. 52g)		Approx.84g(approx. 72g)	

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

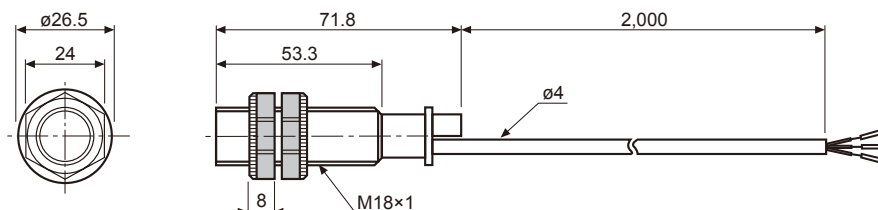
※2: The weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.

## ■ Dimensions

(unit: mm)

### ● CR18-8□□



### ● CR30-15□□

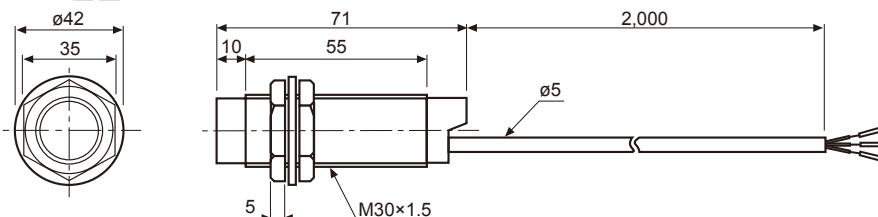



Photo electric sensor
Fiber optic sensor
Door/Area sensor
Proximity sensor
Pressure sensor
Rotary encoder
Connector/Socket
Temp. controller
SSR/Power controller
Counter
Timer
Panel meter
Tacho/Speed/ Pulse meter
Display unit
Sensor controller
Switching mode power supply
Stepper motor& Driver&Controller
Graphic/Logic panel
Field network device

## Tranmission coupler

### ■ Specifications

Model		PET18-5			
Appearances					
Transmitting distance		5mm			
Set transmitting distance		1 to 4.5mm			
Responce time		Max. 1ms			
Insulation resistance		Min. 50MΩ(at 500VDC megger)			
Dielectric strength		1,500VAC 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/s²(approx. 50G) in each of X, Y, Z directions for 3 times			
Environ- ment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃			
	Ambient humidity	35 to 95% RH, storage: 35 to 95% RH			
Protection		IP67(IEC standards)			
Cable		Ø5mm, 2-wire, 2m(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: Ø1.25mm)			
Material		Case and nut: Nickel-plated brass, Washer: Nickel-plated steel, Sensing part: PBT, General cable(Black): Polyvinyl chloride(PVC)			
Weight※¹		Approx. 133g(approx. 121g)			
Application of proximity sensor		PR18-5DN PR18-5DP PR18-5DN2 PR18-5DP2 PRW18-5DN PRW18-5DP PRW18-5DN2 PRW18-5DP2	PRCM18-5DN PRCM18-5DP PRCM18-5DN2 PRCM18-5DP2 PRWL18-5DN PRWL18-5DP PRWL18-5DN2 PRWL18-5DP2	PRL18-5DN PRL18-5DP PRL18-5DN2 PRL18-5DP2 PRCML18-5DN PRCML18-5DP PRCML18-5DN2 PRCML18-5DP2	PRT18-5DO PRT18-5DC PRCMT18-5DO PRCMT18-5DC

※1: The Weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.

### ■ Dimensions

