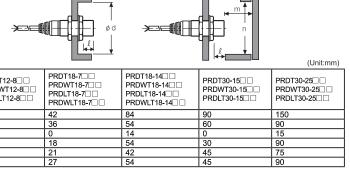
Autonics	Specifications						
INDUCTIVE PROXIMITY SENSOR LONG CYLINDRICAL TYPE DC 2WIRE	Model	PRDT124_CO PRDT124_CO PRDT124_CC PRDT124_CC PRDT124_CV PRDT124_CC PRDT124_CV PRDT124_CC PRDT124_CC PRDT124_CC PRDT124_CC PRDT124_CC PRDT124_CC PRDT124_CC PRDT124_CC PRDLT124_CC PRDLT124_CC PRDLT124_CC PRDLT124_CC PRDLT124_CC PRDWT124_CC PRDWT124_CD PRDWT124_CO PRDWT124_CD PRDWT124_CO PRDWT124_CD PRDWT124_CO PRDWT124_CD PRDWT124_CD PRDWT124_CD PRDWT124_CD PRDWT124_CD PRDWT124_CD PRDWT124_CD	PRDT18-7_0 PRDT18-14_0 PRDT18-7_C PRDT18-14_0 PRDT18-7_C-V PRDT18-14_0-V PRDT18-7_C-V PRDT18-14_0-V PRDT18-7_C-V PRDT18-14_0-V PRDT18-7_C-V PRDT18-14_0-V PRDLT18-7_C-V PRDLT18-14_0-V PRDLT18-7_C-V PRDLT18-14_0-V PRDLT18-7_C-V PRDLT18-14_0-V PRDWT18-7_C-V PRDWT18-14_0-V PRDWT18-7_C-V PRDWT18-14_0-V PRDWT18-7_C-V PRDWT18-14_0-V PRDWT18-7_C-V PRDWT18-14_0-V PRDWT18-7_C-V PRDWT18-14_0-V	PRDT30-15_0 PRDT30-25_0 PRDT30-15_C PRDT30-25_C PRDT30-15_O-V PRDT30-25_C-V PRDT30-15_O-V PRDT30-25_C-V PRDT30-15_C-V PRDT30-25_C-V PRDLT30-15_C-V PRDLT30-25_C-V PRDLT30-15_C-V PRDLT30-25_C-V PRDLT30-15_C-V PRDLT30-25_C-V PRDLT30-15_C-V PRDLT30-25_C-V PRDLT30-15_C-V PRDLT30-25_C-V PRDWT30-15_C-V PRDLT30-25_C-V PRDWT30-15_C-V PRDLT30-25_C-V PRDWT30-15_C-V PRDWT30-25_C-V PRDWT30-15_C-V PRDWT30-25_C-V PRDWT30-15_C-V PRDWT30-25_C-V PRDWT30-15_C-V PRDWT30-25_C-V	Mutual-interference When several proximity sensors are mou sure to provide a minimum distance betw Face to Face		
	Sensing distance Hysteresis Standard sensing target	PRDWT124_0-W PR0WT128_0-W PRDWT124_0-W PRDWT128_0-W 4mm 8mm Max. 10% of sensing distance	PROWT18-T_O-IV PROWT18	PRDVT3015OV PRDVT3025_OV PRDVT3015_OV PRDVT3025_OV 15mm 25mm 45×45×1mm(fron) 75×75×1mm (fron)	Influence by surrounding metals When sensors are mounted on metallic pa Therefore, be sure to provide a minimum de termination of the sure to provide a minimum de termination of the sure termination of te		
Thank you very much for selecting Autonics products.	Setting distance Power supply (Operating voltage) Leakage current Response frequency (<u>%</u> Residual voltage (<u>%</u> 2) Affection by Temp.	0 to 2.8mm 0 to 5.6mm 12-24VDC (10-30VDC) Max. 0.6mA (max. 5V for non-polarit (1) 400Hz Max. 3.5V (Max.5V non-polarity type Within ±10% max. of sensing distant	0 to 4.9mm 0 to 9.8mm ty type) 250Hz 200Hz	0 to 10.5mm 0 to 17.5mm	Model PRDT12-40 PRDT12-40 PRDT12-40 PRDLT12-40 PRDLT12-		
For your safety, please read the following before using.	Control output Insulation resistance Dielectric strength	2 to 100mA Max. 50№ (at 500VDC megger) 1.500VAC 50/60Hz for 1 minute			A 24 48 B 24 36		
Caution for your safety	Vibration Shock	1mm amplitude at frequency 10~55Hz 500m∜(50G) X, Y, Z directions for 3 tir	in each of X, Y, Z directions for 2 hours mes		ℓ 0 11 ød 12 36 m 12 24		
※Please keep these instructions and review them before using this unit. ※Please observe the cautions that follow:	Indicator	Operating indicator(Red LED) -25 to 70°C, Storage: -30 to 80°C			n 18 36		
Warning Serious injury may result if instructions are not followed.	Ambient humidit	ty 35 to 95%RH, Storage: 35 to 95%R	н		Setting distance		
Caution Product may be damaged, or injury may result if instructions are not followed. *The following is an explanation of the symbols used in the operation manual.	Protection circuit Protection						
Caution: Injury or danger may occur under special conditions.	Materials	Moving direction Moving					
	Approval	PRDT PRDT	PRDT PRDT :Approx. 115g :Approx. 110g	PRDT PRDT	Moving direction		
 In case of using this unit with machinery (Ex: nuclear power control, medical equipment, ship, vehicle, train, airplane, combustion apparatus, safety device, crime/disaster prevention equipment, etc) which may cause damages to human life or property, it is required to install fail-safe device. It may cause a fire, human injury or damage to property. Do not connect power directly without load. 	Unit weight	Approx. 74g:Approx. 72gPRDLTPRDLT:Approx. 94g:Approx. 92gPRDWTPRDWT:Approx. 44g:Approx. 42g	PRDLT PRDLT :Approx. 145g :Approx. 140g PRDWT PRDWT :Approx. 80g :Approx. 75g PRDWLT PRDWLT :Approx. 110g :Approx. 105g	Approx. 175g:Approx. 180gPRDLTPRDLT:Approx. 215g:Approx. 220gPRDWTPRDWT:Approx. 140g:Approx. 145g	(a) Sn:Sensing distance (70% of Sn) (b)		
It may result in damage to inner components or burn them out.	the sensing dista	ance for the distance.	rd sensing target is used and the width is set as nnected device because residual voltage is 5V.	2 times of the standard sensing target, 1/2 of	Caution for using This equipment shall not be used outdoors or		
Caution Do not use this unit in place where there are flammable, explosive gas, chemical or strong alkalis, acids.	X Condition for use in	 2. Do not apply over tensile strength of cord. (ø4 3. Do not use the same conduit with cord of this 					
It may cause a fire or explosion. 2. Do not impact on this unit.	Dimensi	Cable outgoing type	Cable outgoing connector	(Unit:mm)	4. Do not put overload to tighten nut, please use		
It may result in malfunction or damage to the product.	Туре	PRDT(M12, M18, M30)	PRDWT(M12, M18, M30	Nut & Washer	Head Nut		
3. Do not supply AC power and observe the rated specification. It may result in serious damage to the product.	_			G			
Ordering information	Flush				Front Rear		
PRDWLTTB TB TDO Standard cable I Standard cable(IEC standards model) V Oil resistant cable					[Picture 1]		
Cable type V Oil resistant cable IV Oil resistant cable(IEC standards model) Control output O Normally Open(N.O.)			B *F		Note1)Allowable tightening torque of a nut may and rear parts, refer to [Table 1] and at		
C Normally Closed(N.C.) Power supply X 12-24VDC (Non-polarity)	Non- Flush				Please apply a tightening torque of the f Note2)The allowable tightening torque denotes 5. Please check the voltage changes of power		
Standard sensing distance				M12×1	6. Do not use this unit during transient time(87. It might result in damage to this product, if		
Dimension Number Sensing distance(Unit : mm)	Туре	A B	C D E F	G H I J	 8. Please make wire as short as possible in c 9. Be sure to use cable as indicated specific water-proof. 		
T DC 2wire	M12	PRDWT M12×1 52 31		4 3.5 4 17 21	 10. It is possible to extend cable with over 0.3mm² in the target is plated, the operating distance car 		
Body size Standard L Long body			9.5 4 - 2,000 -	4	 12. It may result in malfunction by metal particle on 13. If there are machines(motor, welding etc), which 		
Connection Cable outgoing type W Cable outgoing connector type	Flush M18	PRDWT M18×1 62 38 PRDLT M18×1 86 62 PRDWLT M18×1 86 62	2 4 - 2,000 -	3.5 5 24 29 3.5 5 5 5	though there is built-in surge absorber in this u 14. If connecting the load with big inrush current(Du		
Feature D Long sensing distance type	M30	PRDWL1 M18×1 86 62 PRDT M30×1.5 62 38 PRDWT M30×1.5 62 38	3 5 - 2,000 -	3.5 5 5 5 3.5 5 3.5 5	flows, the resistance of load will be bigger, ther If you use DC type bulb, please connect extra re 15. If making a transceiver close to proximity sense		
R Cylindrical type Item P Inductive proximity sensor		PRDLT M30×1.5 84 60 PRDT M12×1 52 24	5 - 2,000 -		16. In case of the load current is small: Make the re		
Connections		PRDWT M12×1 52 24 PRDLT M12×1 64 37	4.5 4 7 300 4 7 4 7 2,000 -	3.5 4 17 21 4 4 17 21	Vs:Power supply, Io:Min.operating current proximity sensor, Ioff:Return current of Ioa		
DC 2wire standard Connector Connector IEC standards model	Non- M18	PRDT M18×1 53 19 PRDWT M18×1 62 29	9 4 10 300 4	5 3.5 5 24 29	P:Resistance W of Bleeder resistor		
Brown Load O + 24VDC Blue Blue Blue Blue Blue Blue Blue Blue	M30	PRDLT M18×1 86 52 PRDWLT M18×1 86 52 PRDT M30×1.5 62 28 PRDWT M30×1.5 62 22 PRDLT M30×1.5 84 50	2 4 10 300 4 3 5 10 2,000 - 3 5 10 300 4 0 5 10 2,000 -	$\begin{array}{c c} 5 \\ 3.5 \\ 5 \\ \hline 3.5 \\ 5 \\ \hline 5 \\ \hline 5 \\ \end{array}$	 It may cause malfunction if above instr Major products 		
	%"F" type standard: C %"H" type: ø4, 2 cores	Cable outgoing type/2,000mm, Cable outg s/ø5, 2 cores(Conductor cross section:0	oing connector type/300mm .3mm², Insulator diameter:ø1.25)		Photoelectric sensors Temperature controllers		
Brown O+24VDC Blue D out	Control	output diagram & L	Normall	ly Open Normally Closed	Fiber optic sensors Temperature/Humidity tr Door sensors SSR/Power controllers Door side sensors Counters		
Blue Blue 0 V (b) N.C. (Normally Closed) Type (b) N.C. (Normally Closed) Type (b) N.C. (Normally Closed) Type (c) N.C. (Normally Closed) Type (c) N.C. (Normally Closed) Type	iccuit	Brown Load O +\	V Sensing target Presence Nothing -	Presence Nothing	 ▲ Area sensors ▲ Timers ▲ Proximity sensors ▲ Panel meters 		
XLoad can be wired to any direction.	Main c		Load Operation Return	Operation Return	Pressure sensors Tachometer/Pulse(Rate) Rotary encoders Display units		
 XNo need to consider polarity for non-polarity type of power supply. X The above specifications are subject to change and some models may be discontinued without notice. 			/ Indicator ON (LED) OFF -	ON OFF	Connector/Sockets Sensor controllers		

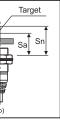
& Influence by surrounding metals

mounted closely, malfunction of sensor may be caused due to mutual interference. Therefore, be between the two sensors with referring to the chart below.



c panel, it is required to protect the sensors from being affected by any metallic object except target. Im distance as below chart.





 Sensing distance can be changed by the shape, size or material of the target.
 Therefore please check the sensing distance like (a), then pass the target within range of setting distance(Sa).

 Setting distance(Sa) = Sensing distance(Sn) × 70%

Ex)PRDT18-7DO

Setting distance(Sa) = 7mm × 0.7 = 4.9mm

rs or beyond specified temperature range.

I. (ø4: 30N max., ø5: 50N max.) f this unit and electric power line or power line.

e use the supplied washer for tightening.

		/	Strength	Front		Rear
Washer Mounting bracket	Model		Size	Torque	Torque	
	PRDT12 Series	Flush	13mm	65kgf ·cm	120kgf cm (11.76N m)	
		Non-🖄sh	7mm	(6.37N·m)		
		PRDT18	Flush	-	150kgf ·cm	
	Series	Non-刘sh	-	(14.7N·m)		
	PRDT30 Series	Flush	26mm	500kgf · cm	800kgf cm (78.4N m)	
		Non-刘sh	12mm	(49N · m)		
[Picture 2]					13	

[Table 1] It may be different by the distance from the head. For allowable tightening torque and the range of front and above [Picture 1] respectively. The rear part includes a nut on the head side(see above [Picture 1]). If the front part when the nut on the front is located in the front part.

otes a torque value when using a provided washer as above [Picture 2].

ower source in order not to excess rating power input.

power source include not be consistently power input ime(80ms) after apply power. uct, if use automatic transformer. So please use insulated transformer.

e, in use automatic functions. So please use insulated transformer. s in order to avoid noise. ecification on this product. If wrong cable or bended cable is used, it shall not maintain the

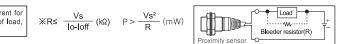
mm² and max. 200m. e can be changed by the plating material.

e on product.

which occurs big surge around this unit, please install the varistor or absorber to source of surge, even nis unit.

ins unit. ht(DC type bulb) to this unit, the big inrush current will flow since the initial resistance is low. If the current then it will return to standard current. In this case, proximity sensor might be damaged by inrush current. xtra relay or resistance in order to protect proximity sensor from. sensor or wire connection, it may cause malfunction.

he residual current is less than return current to connect the bleeder resistor to load in parallel.



instructions are not followed.



- Switching mode power supplies dity transducers Control switches/Lamps/Buzzers
 - I/O Terminal Blocks & Cables
 - Stepper motors/drivers/motion controllers Graphic/Logic panels

 - Field network devices
- Rate) meters Laser marking system(Fiber, CO₂, Nd:YAG) Laser welding/soldering system
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EP-KE-07-0490C