T Series	1-color/2-color display	Applicable cylinder	SCPD3/SCM/SSD2/STM/STG/MRL2/LCR/LCG/LCX/GRC

CE (except for T1 and T8)


T*H/T*WH


T*V/T*WV


T1H


T1V


T8H/T*YH T2JH


T8V/T*YV T2JV

Specifications

Descriptions	Proximity 2-wire						Proximity 3-wire			
	T1H/T1V	T2H/T2V	T2HR3/T2VR3 (With Bend tolerant lead wire)	T2JH/T2JV (Off-delay)	T2YH/T2YV (2-color-display)	T2WH/T2WV (2-color display)	T3H/T3V	T3PH/T3PV (PNP output)	T3YH/T3YV (2-color display)	T3WH/T3WV (2-color display)
Applications	Programmable controller, relay, small solenoid valve	Programmable controller					Programmable controller, relay			
Output method	-						NPN output	PNP output	NPN output	NPN output
Power supply voltage	-						10 to 28 VDC			
Load voltage	85 to 265 VAC	10 to 30 VDC				24 VDC ±10%	30 VDC or less			
Load current	5 to 100 mA	5 to 20 mA (*1)					100 mA or less		50 mA or less	
Current consumption	-	-					10 mA or less at 24 VDC	12 mA or less at 24 VDC	10 mA or less at 24 VDC	
Internal voltage drop	10% or less of load voltage	4 V or less					0.5 V or less			
Off delay time	-			200 ±50 ms	-		-			
Indicator lamp	Red LED (Lit when ON)				Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	Red LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	
Leakage current	1 mA or less with 100 VAC 2 mA or less with 200 VAC	1 mA or less					10 μA or less			
Lead wire length *6	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.3 mm^2)	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.2 mm^2)	3 m (bend-resistant, oil resistant vinyl cabtire cable 2-conductor 0.2 mm^2)	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.3 mm^2)		1 m (oil resistant vinyl cabtyre cable 2-conductor 0.2 mm^2)	1 m (oil resistant vinyl cabtyre cable 3-conductor 0.2 mm^2)		1 m (oil resistant vinyl cabtyre cable 3-conductor 0.3 mm^2)	1 m (oil resistant vinyl cabtyre cable 3-conductor 0.2 mm^2)
Max. shock resistance	980 m/s^2									
Insulation resistance	100 MΩ and over with 500 VDC megger	20 MΩ and over with 500 VDC megger		100 MΩ and over with 500 VDC megger		20 MΩ and over with 500 VDC megger	20 MΩ and over with 500 VDC megger		100 MΩ and over with 500 VDC megger	20 MΩ and over with 500 VDC megger
Withstand voltage	No abnormality after application of 1500 VAC for 1 minute.	No abnormality after application of 1000 VAC for 1 minute.								
Ambient temperature	-10 to +60°C									
Degree of protection	IEC Standards IP67, JIS C0920 (waterproof)									
Weight	1 m: 33 g 3 m: 87 g 5 m: 142 g	1 m: 18 g 3 m: 49 g 5 m: 80 g		1 m: 33 g 3 m: 87 g 5 m: 142 g		1 m: 18 g 3 m: 49 g 5 m: 80 g	1 m: 18 g 3 m: 49 g 5 m: 80 g		1 m: 33 g 3 m: 87 g 5 m: 142g	1 m: 18 g 3 m: 49 g 5 m: 80g

Descriptions	Reed 2 wire						
	T0H/T0V		T5H/T5V		T8H/T8V		
Applications	Programmable controller, relay		Programmable controller, relay IC circuit (without indicator lamp), serial connection		Programmable controller, relay		
Power supply voltage	-						
Load voltage	12/24 VDC	110 VAC	5/12/24 VDC	110 VAC	12/24 VDC	110 VAC	220 VAC
Load current	5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA
Current consumption	-						
Internal voltage drop	3 V or less		0.1 V or less (*6)		4 V or less		
Indicator lamp	Red LED (Lit when ON)		Without indicator lamp		Red LED (Lit when ON)		
Leakage current	0 mA						
Lead wire length	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.2 mm^2)				1 m (oil resistant vinyl cabtyre cable 2-conductor 0.3 mm^2)		
Max. shock resistance	294 m/s^2						
Insulation resistance	20 MΩ and over with 500 VDC megger				100 MΩ and over with 500 VDC megger		
Withstand voltage	No abnormality after application of 1000 VAC for 1 minute.				No abnormality after application of 1500 VAC for 1 minute.		
Ambient temperature	-10 to +60°C						
Degree of protection	IEC Standards IP67, JIS C0920 (waterproof)						
Contact protection circuit	No				Yes		
Weight	1 m: 18 g 3 m: 49 g 5 m: 80 g				1 m: 33 g 3 m: 87 g 5 m: 142 g		

*1: The maximum load current of 20 mA is for 25°C. The current will be lower than 20 mA when operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)
*2: T2HR3, T2VR3, T3PH and T3PV switches are available as custom order when installed onto applicable cylinders.
*3: T2JH and T2JV switches are available as custom order when installed onto MRL2 or LCR cylinders.
*4: Some cylinders accept only certain types of switches. Refer to each cylinder page for the details.
*5: Contact CKD for cylinder switches with a connector.
*6: Internal resistance of 0.5 Ω or less
*7: For details of the contact protections measures, refer to page 320.

T Series	AC magnetic field	Applicable cylinder	STG/SSD2/SCM

T2YD

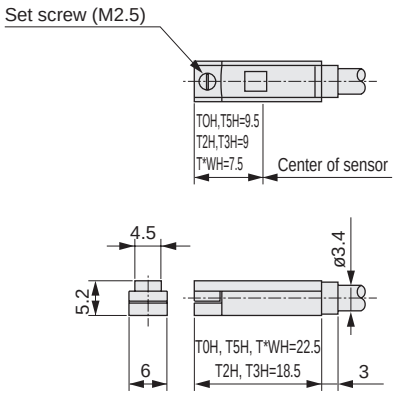
Specifications

Descriptions	Proximity 2-wire		
	T2YD	T2YDT	T2YDU (custom order)
Applications	Programmable controller		
Indicator lamp	Red/green LED (Lit when ON)		
Load voltage	24 VDC ±10%		
Load current	5 to 20 mA		
Internal voltage drop	6 V or less		
Leakage current	1.0 mA or less		
Output delay time *1 (Delay ON, delay OFF)	60 ms or less		
Lead wire length	1 m (oil resistant vinyl cabtyre cable ø6, 0.5 mm^2 × 2-conductor) *2	1 m (flame-resistant cabtire cable ø6, 0.5 mm^2 × 2-conductor) *2	0.3 m (flame-resistant vinyl cabtire cable with M12 cable connector, AWG20, 2-conductor)
Insulation resistance	100 MΩ and over with 500 VDC megger		
Withstand voltage	No failure impressed at 1000 VAC for 1 minute		
Max. shock resistance	980 m/s^2		
Ambient temperature	-10 to +60°C		
Degree of protection	JIS C0920 (waterproof), IEC standards IP67		
Weight	1 m: 61 g 3 m: 166 g 5 m: 272 g		35 g

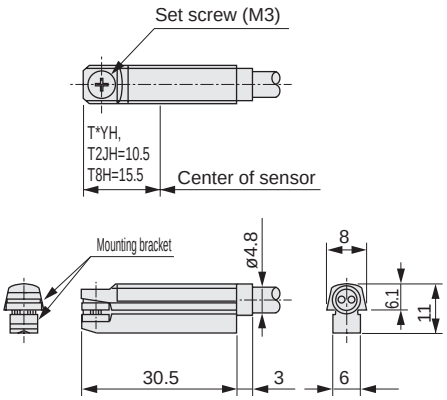
*1: The time taken after detecting magnet until signal output.
*2: 3 m and 5 m lead wires are available as options.
3: As the switch for AC magnetic field (T2YD) is for spot welding machine, it cannot be used with arc welding machine (DC).
*4: Contact CKD for cylinder switches with a connector.

Dimensions

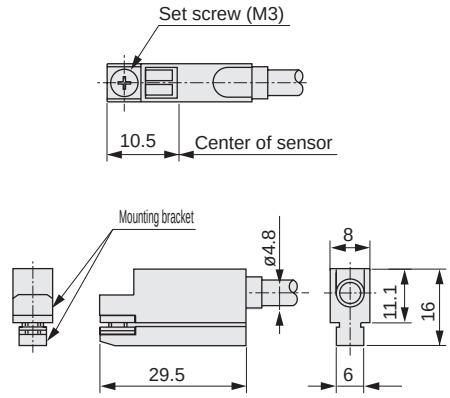
● T*H/T*WH Series
(lead wire straight)



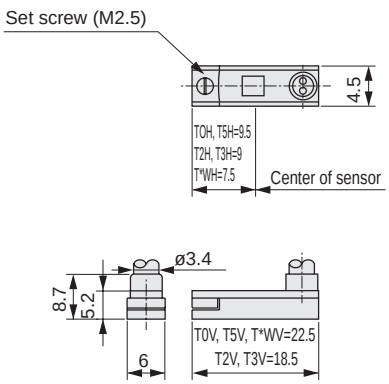
● T*YH/T2JH/T8H Series
(lead wire straight)



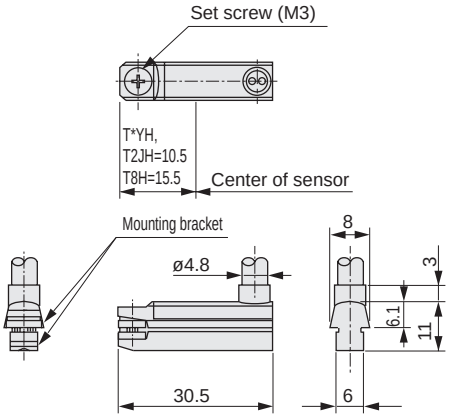
● T1H Series
(lead wire straight)



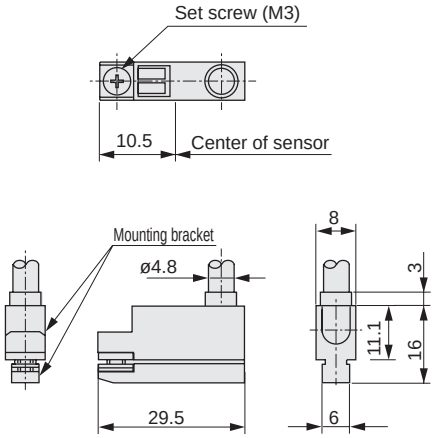
● T*V/T*WV Series
(lead wire L-shaped)



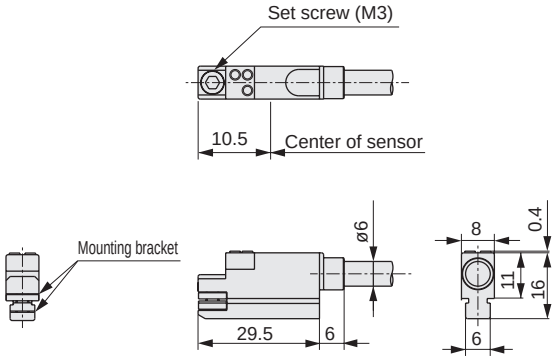
● T*YV/T2JV/T8V Series
(lead wire L-shaped)



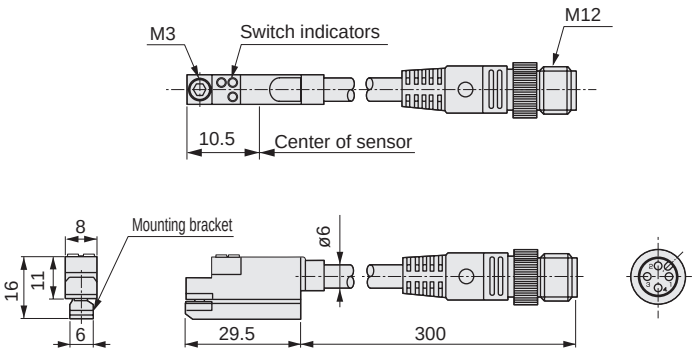
● T1V Series
(lead wire L-shaped)



● T2YD (switch for AC magnetic field)

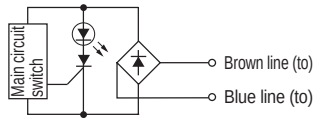


● T2YDU (switch for AC magnetic field with M12 cable connector provided)

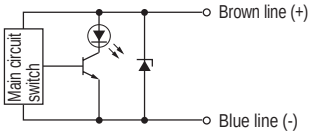


Switch internal circuit diagram

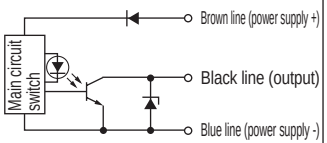
● T1H/T1V



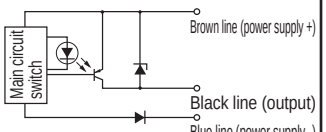
● T2H/T2V/T2YH/T2YV/T2WH/ T2WV/T2JH/T2JV



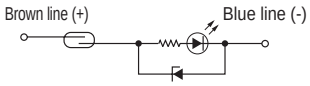
● T3H/T3V/T3YH/T3YV/T3WH/ T3WV



● T3PH/T3PV

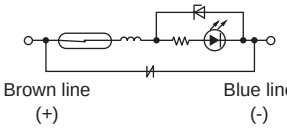


● T0H/T0V

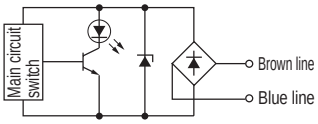


● T5H/T5V

● T8H/T8V



● T2YD/T2YDT



This switch is not polarized.