

K Series	Applicable cylinder	SMG STR2
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K\*H  
K\*PH



K\*V  
K\*PV



K\*YH



K\*YV

## Specifications

Descriptions	Proximity 2-wire		Proximity 3-wire		
	K2H/K2V	K2YH/K2YV	K3H/V (NPN output)	K3PH/V (PNP output)	K3YH/V (2-color display)
Applications	Dedicated for programmable controller		For programmable controller, relay		
Output method	-		NPN output	PNP output	NPN output
Power supply voltage	-		10 to 28 VDC		
Load voltage	10 to 30 VDC		30 VDC or less		
Load current	5 to 20 mA (*1)		50 mA or less		
Current consumption	-		10 mA or less with 24 VDC	12 mA or less with 24 VDC	10 mA or less with 24 VDC
Internal voltage drop	4 V or less		0.5 V or less		
Indicator lamp	Red 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		10 μA or less		
Lead wire length	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.2 mm <sup>2</sup> )	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.3 mm <sup>2</sup> )	1 m (oil resistant vinyl cabtyre cable 3-conductor 0.2 mm <sup>2</sup> )		1 m (oil resistant vinyl cabtyre cable 3-conductor 0.2 mm <sup>2</sup> )
Shock resistance	980 m/s <sup>2</sup>				
Insulation resistance	20 MΩ and over with 500 VDC megger	100 MΩ and over with 500 VDC megger	20 MΩ and over with 500 VDC megger		100 MΩ and over with 500 VDC megger
Withstand voltage	No failure after 1 minute of 1,000 VAC application.				
Ambient temperature	-10 (14°F) to +60°C (140°F)				
Degree of protection	IEC Standard IP67, JIS C0920 (water-tight), oil resistance				
Weight	1 m:18 g 3 m:49 g 5 m:80 g	1 m:31 g 3 m:85 g 5 m:139 g	1 m:18 g 3 m:49 g 5 m:80 g		1 m:31 g 3 m:85 g 5 m:142 g

Descriptions	Reed 2-wire			
	K0H/K0V		K5H/K5V	
Applications	For programmable controller, relay		For programming controller relay (no indicator lamp), serial connection	
Power supply voltage	-			
Load voltage	12/24 VDC	110 VAC	5/12/24 VDC	110 VAC
Load current	5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less
Current consumption	-			
Internal voltage drop	3 V or less		0.1 V or less (*3)	
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 <sup>2</sup> )			
Shock resistance	294 m/s <sup>2</sup>			
Insulation resistance	20 MΩ and over with 500 VDC megger			
Withstand voltage	No failure after 1 minute of 1,000 VAC application.			
Ambient temperature	-10 (14°F) to +60°C (140°F)			
Degree of protection	IEC Standard IP67, JIS C0920 (water-tight), oil resistance			
Contact protection circuit *4	None			
Weight	1 m:18 g   3 m:49 g   5 m:80 g			

\*1: The above max. load current is the value at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

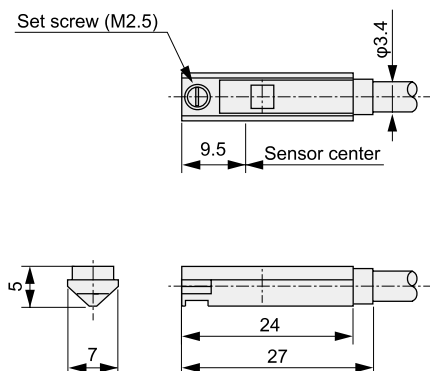
\*2: Installation of K3PH, K3PV onto cylinders is a custom order.

\*3: Internal resistance 0.5 Ω or less.

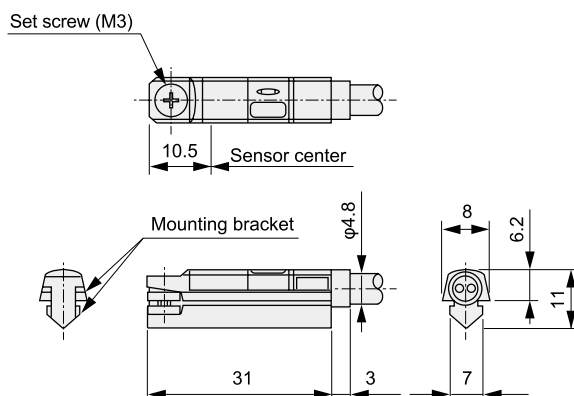
\*4: Refer to Intro Page 80 for contact protective measures.

## Dimensions

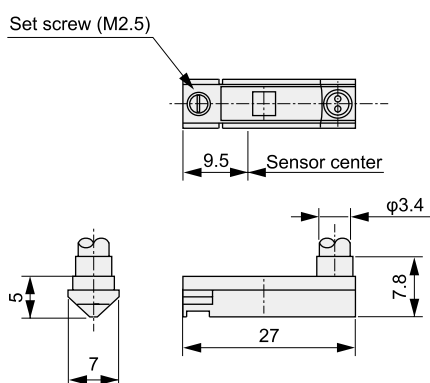
### ● K\*H Series (axial lead wire)



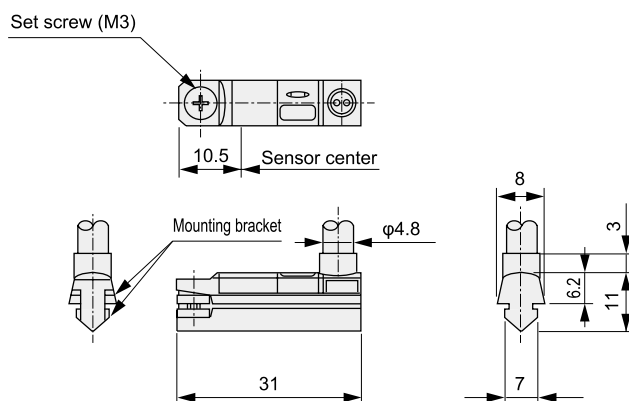
### ● K\*YH Series (2-color display, axial lead wire)



### ● K\*V Series (radial lead wire)



### ● K\*YV Series (2-color display, radial lead wire)



## Switch internal circuit diagram

● K2H/K2V/K2YH/K2YV	● K3H/K3V/K3YH/K3YV	● K3PH/K3PV
● K0H/K0V	● K5H/K5V	

Cylinder switch

Ending