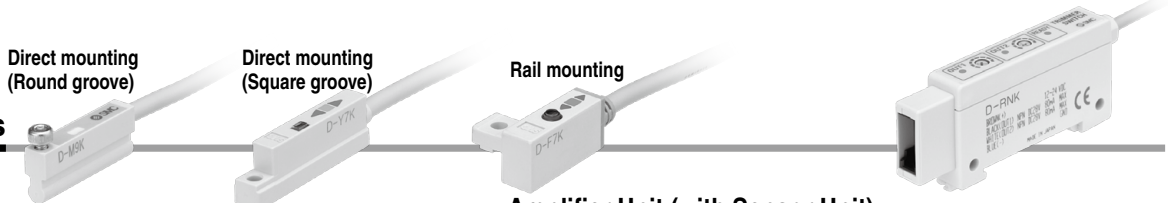


Trimmer Auto Switch

D-M9K/D-□7K/D-R□K



Specifications

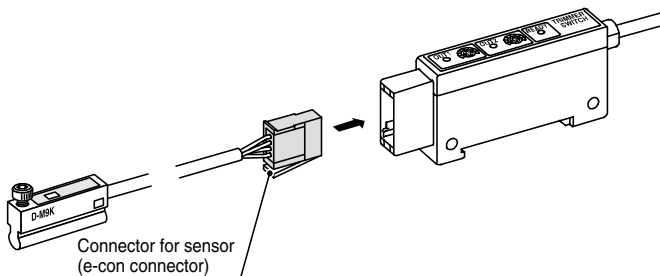


Sensor Unit

Auto switch model	D-M9K	D-Y7K	D-F7K
Mounting	Direct mounting (Round groove)	Direct mounting (Square groove)	Rail mounting
Applicable amplifier unit	D-RNK, D-RPK		
Indicator lamp	Red lights ON at sensitive position. Green lights ON at optimum detecting position.		
Electrical entry	Grommet		
Impact resistance	980 m/s ²		
Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between lead wire and case		
Withstand voltage	1000 VAC for 1 minute (between lead wire and case)		
Ambient temperature	-10 to 60°C		
Enclosure	IP67		
Weight (with connector)	55 g	58 g	
Standard	CE Marking		

Oilproof Heavy-duty Cable

Auto switch model		D-M9K	D-Y7K	D-F7K
Sheath	Outside diameter [mm]	ø3.5		
Insulator	Number of cores	4 cores (Brown/Blue/Black/White)		
	Outside diameter [mm]	ø1.0		
Conductor	Effective area [mm ²]	0.15 (AWG26)		
	Strand diameter [mm]	ø0.08		
Minimum bending radius [mm] (Reference value)		21		

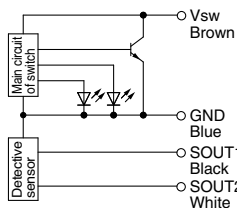


Note) The connector for sensor (e-con connector) is not attached to the lead wire. It will be supplied loose in the same shipment (1 pc.).

Internal Circuit

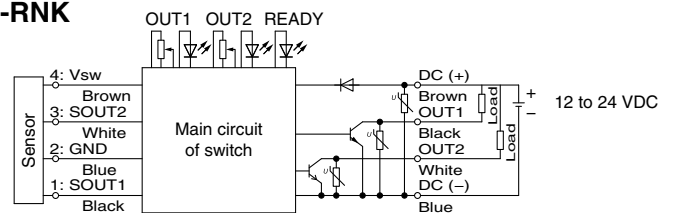
Sensor Unit

D-M9K/D-□7K

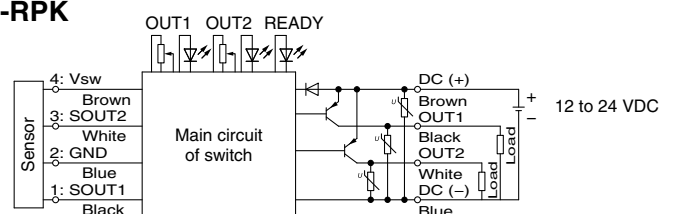


Amplifier Unit

D-RNK



D-RPK



Series D-M9K/D-□7K/D-R□K

The operating ranges are provided as guidelines including the hysteresis and are not guaranteed value. Please consult with SMC for alternative actuators other than those shown below.

Applicable Actuators and Operating Range (Angle)

Sensor Unit D-M9K



Air Grippers (The operating range for grippers is measured when both ends are open.)

(mm)

Description/Series		Bore size												
		10	16	20	25	32	40	50	63	80	100	125		
Parallel style	MHZ2	—	3.0	5.5	6.5	8.0	7.5	—	—	—	—	—	—	—
Parallel style	MHZJ2	—	3.0	5.5	6.5	—	—	—	—	—	—	—	—	—
Parallel style	MHS2 (2 fingers)	—	—	4.0	4.0	*				—	—	—	—	
Parallel style	MHS3 (3 fingers)	—	—	5.0	4.0	*				—	—	—	—	
Parallel style	MHS4 (4 fingers)	—	—	5.0	3.0	*				—	—	—	—	

Air Cylinders

(mm)

Description/Series		Bore size														
		12	16	20	25	32	40	50	63	80	100	125	140	160	180	200
Compact cylinder	CQ2-Z	3.5	4.5	4.5	5.0	5.5	5.0	5.0	6.0	6.0	6.0	7.5	7.5	8.0	7.0	7.0
Compact cylinder guide rod type	CQM	3.5	4.0	4.5	4.5	5.0	5.0	5.0	6.0	5.5	6.0	—	—	—	—	—
3 position cylinder	RZQ	—	—	—	—	5.0	5.0	5.0	5.5	—	—	—	—	—	—	—
Rotary clamp cylinder	MK-Z	3.0	3.5	3.5	4.0	4.5	4.0	4.5	4.5	—	—	—	—	—	—	—
Compact guide cylinder	MGP-Z	3.5	5.0	4.5	5.0	5.5	5.5	5.5	5.5	5.5	5.5	—	—	—	—	—

*1 When using the MHS series (bore size ø32 or more), use the D-Y7K.

Sensor Unit D-Y7K



Air Grippers (The operating range for grippers is measured when both ends are open.)

(mm) or (°)

Description/Series		Bore size											
		10	12	16	20	25	32	40	50	63	80	100	
Parallel style	MHZ2	3.0	—	5.0	7.0	7.0	8.0	8.5	—	—	—	—	—
Parallel style	MHZL2	6.0	—	7.0	10.0	11.0	—	—	—	—	—	—	—
Wide type	MHL2	7.0	—	8.0	8.5	10.5	11.0	12.5	—	—	—	—	—
Parallel style	MHS2 (2 fingers)	—	—	—	—	—	6.5	7.0	7.5	8.5	—	—	—
Parallel style	MHS3 (3 fingers)/MHS(L)3	—	—	—	—	—	6.5	7.0	7.5	8.0	—	—	—
Parallel style	MHS4 (4 fingers)	—	—	—	—	—	6.5	7.0	7.5	8.5	—	—	—
Angular style	MHC2	30° to -10°	—	30° to -10°	30° to -10°	22.5° to -10°	—	—	—	—	—	—	—
180° Angular style	MHW2	—	—	—	88° to -5°	54° to -6°	58° to -5°	41° to -5°	30° to -4°	—	—	—	—

Air Cylinders

(mm)

Description/Series		Bore size											
		10	12	16	20	25	32	40	50	63	80	100	
Compact guide cylinder	MGP	—	3.5	5.0	4.5	4.5	5.5	5.5	5.5	5.5	5.5	5.5	6.0
Non-rotating double power cylinder	MGZ	—	—	—	—	—	—	5.5	6.5	6.5	—	—	—
Air cylinder	CA2	—	—	—	—	—	—	4.0	4.0	6.0	6.0	6.0	6.0

Sensor Unit D-F7K



Air Cylinders

(mm)

Description/Series		Bore size													
		10	12	16	20	25	32	40	50	63	80	100	125	140	160
Air cylinder	CJ2	4.0	—	4.5	—	—	—	—	—	—	—	—	—	—	—
Air cylinder	CM2 ^{*2}	—	—	—	3.5	3.5	3.5	3.5	—	—	—	—	—	—	—
Compact cylinder	CQ2 ^{*3}	4.5	4.5	5.5	5.5	5.0	5.5	5.5	6.0	5.5	6.0	7.5	7.5	7.5	
Plate cylinder	MU	—	—	—	—	5.5	6.5	6.5	6.5	6.5	—	—	—	—	
Rotary clamp cylinder	MK/MK2	—	—	—	5.0	5.0	6.5	6.0	6.0	6.5	—	—	—	—	

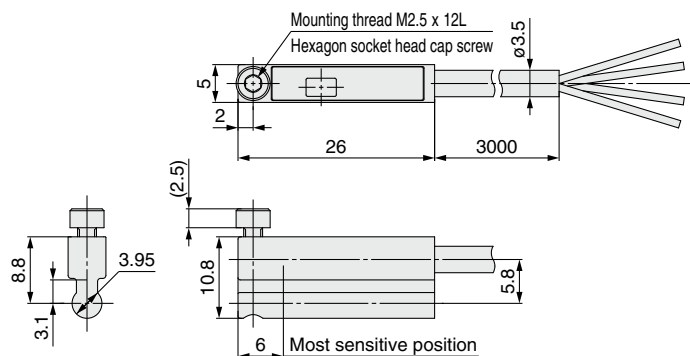
*2 Use the Made-to-Order product (-XC13: Auto switch rail mounting type) for the CM2 series.

*3 Not applicable to the CQ2-Z series.

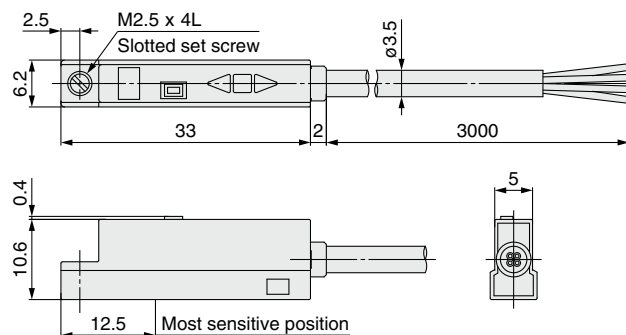
Dimensions

Sensor Unit

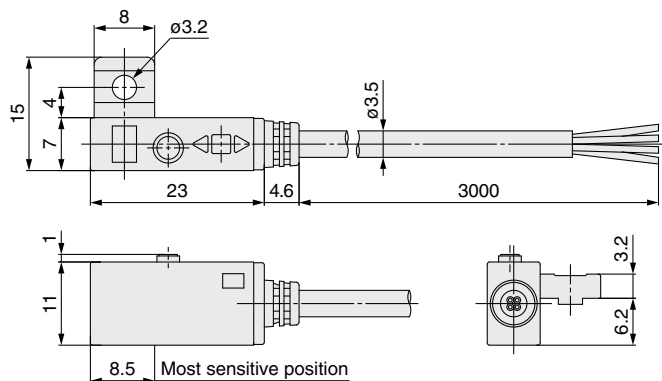
D-M9K



D-Y7K



D-F7K



Amplifier Unit

D-R□K

