

Applicable Cylinder Series 3

Cylinder series		RSDQ		RSDG	RSH	MIS/MIW	CEP1	CE1	CE2	ML2B	CVQ	CVQM	CDVJ5	CDVJ3	CDVM5	CDVM5K	CDVM3	CDVM3K	CDV3	CDV3K	CDVS1	CDVS1K	MVGQ		
Bore size		ø12	ø16, ø20	ø32, ø40, ø50	ø40, ø50	ø20 to ø80	ø8, ø12, ø20, ø25, ø32	ø12, ø20	ø12, ø20	ø32 to ø63	ø40 to ø100	ø25 to ø40	ø32 to ø63	ø32 to ø63	ø10, ø16	ø10, ø16	ø20 to ø40	ø20 to ø40	ø20 to ø40	ø20 to ø40	ø40 to ø100	ø40 to ø63	ø40 to ø100	ø40 to ø63	ø12 to ø100
Solid state auto switches	D-H7																								
	D-H7C																								
	D-H7BAL																								
	D-H7NF																								
	D-H7□W																								
	D-G5/K5																								
	D-G5BAL																								
	D-G59F																								
	D-G5NTL																								
	D-G5□W/K59W																								
	D-G39/K39																								
	D-G39A/K39A																								
	D-F7/J7																								
	D-J79C																								
	D-F79F																								
	D-F7BAL																								
	D-F7BAVL																								
	D-F7□V																								
	D-F7NTL																								
	D-F7□W (V)																								
	D-F5/J5																								
	D-F5BAL																								
	D-F5□W/J59W																								
	D-F59F																								
	D-F5NTL																								
	D-G39C/K39C																								
	D-M9																								
	D-M9□V																								
	D-M9□W																								
	D-M9□WV																								
	D-M9□AL																								
	D-M9□AVL																								
	D-Y5/Y6/Y7□/Y7□V																								
	D-Y7BAL																								
	D-Y7□W/Y7□WV																								
	D-M5																								
	D-M5□W																								
	D-M5□TL																								
	D-P3DW□																								
	D-P4DWL																								
	D-F9G/H																								
	D-Y7G/H																								
	D-G5NBL																								
	D-F7NJL																								
	D-F6□																								
	D-F8□																								
Reed auto switches	D-C7/C8																								
	D-C73C/C80C																								
	D-B5/B6																								
	D-B59W																								
	D-A3/A4																								
	D-A3□A/A44A																								
	D-A3□C/A44C																								
	D-A7/A8																								
	D-A7□H/A80H																								
	D-A73C/A80C																								
	D-A79W																								
	D-A5/A6																								
	D-A59W																								
	D-A9																								
	D-A9□V																								
	D-E7□A/E80A																								
	D-Z7/Z8																								
	D-P7																								
	D-B3																								
Actuator page reference (●: Best Pneumatics)		③ P.1371			③ P.1387	③ P.1401	③ P.1415	③ P.1437	③ P.1483	③ P.1505	③ P.1527		③ P.1542			③ P.1563			③ P.1604	③ P.1624		③ P.1643			

Auto Switch Variations 2

Function	Type	Auto switch mounting style	Electrical entry	Auto switch model	Page
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The diagnostic output signal can be detected in an unsteady detecting area.

2-color indication auto switch with diagnostic output	Solid state	Band	Grommet	D-H7NF	1302
		Rail	Grommet	D-G59F	1303
		Tie-rod	Grommet	D-F79F	1304
		Tie-rod	Grommet	D-F59F	1305

Water resistant (coolant) type

Water resistant 2-color indication auto switch	Solid state	Band	Grommet	D-H7BAL	1306
		Rail	Grommet	D-G5BAL	1307
		Tie-rod	Grommet	D-F7BAL	1308
		Tie-rod	Grommet	D-F7BAVL	
		Direct	Grommet	D-F5BAL	1309
		Direct	Grommet	D-M9□A*	1310
				D-M9□AV*	
				D-Y7BAL**	1311

Hygienic type

Hygienic	Solid state	Direct	Grommet	D-F6N/F6P/F6B	1312
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With built-in OFF-delay timer (200 ms)

Auto switch with timer	Solid state	Band	Grommet	D-G5NTL	1313
		Rail	Grommet	D-F7NTL	1314
		Tie-rod	Grommet	D-F5NTL	1315
		Direct	Grommet	D-M5NTL/M5PTL	1316

Can be used in an environment where magnetic field disturbances are generated.

Magnetic field resistant auto switch	Solid state	Rail, Tie-rod, Direct	Grommet	D-P3DWSC/P3DWSE	1317-1
		Rail, Tie-rod, Direct	Grommet	D-P3DW	1317-2
		Rail	Grommet	D-P4DWSC/P4DWSE	1317-3
	Reed	Rail	Grommet	D-P4DWL	1318
		Rod	Grommet	D-P79WSE	1348
		Rod	Grommet	D-P74	1349

Can be used in a high-temperature environment (Max. 150°C).

Heat resistant auto switch	Solid state	Sensor unit: Rail Amplifier unit: DIN rail	Grommet	D-F7NJL	1319
	Reed	Band	Terminal conduit Grommet	D-B30/31/35 D-B30J/31J/35J	1351

Wide range detection type

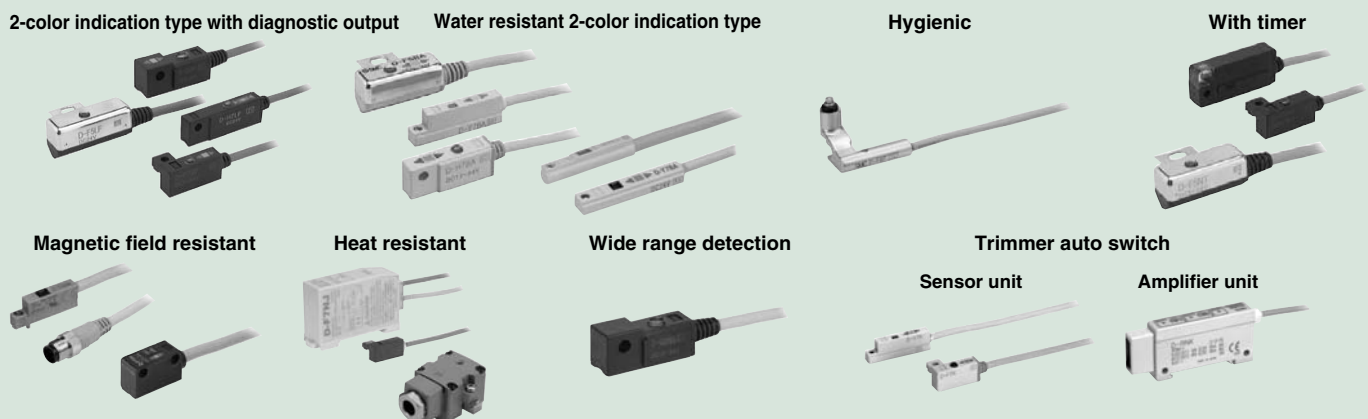
Wide range detection auto switch	Solid state	Band	Grommet	D-G5NBL	1320
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Simple workpiece recognition is possible.

Trimmer auto switch	Solid state	Rail Direct	Grommet	D-F7K/Y7K (D-RNK/RPK is required.)	1321
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* These auto switches can be mounted with a band (except D-M9□WV and M9□AVL), a rail, a tie-rod or a square groove when auto switch mounting brackets are used. Refer to pages 1356, 1360, 1364, 1368 and 1369 for details.

** These auto switches can be mounted with a tie-rod when auto switch mounting brackets are used. Refer to page 1367 for details.



Water Resistant 2-Color Indication Type Solid State Auto Switch: Rail Mounting Style D-F7BA(V)L



Refer to SMC website for the details of the products conforming to the international standards.

Auto Switch Specifications

PLC: Programmable Logic Controller

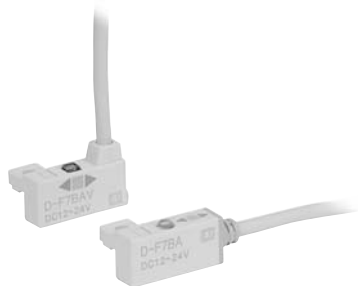
D-F7BA(V)L (With indicator light)

Auto switch model	D-F7BAL	D-F7BAVL
Electrical entry direction	In-line	Perpendicular
Wiring type	2-wire	
Output type	—	
Applicable load	24 VDC Relay, PLC	
Power supply voltage	—	
Current consumption	—	
Load voltage	24 VDC (10 to 28 VDC)	
Load current	5 to 40 mA	
Internal voltage drop	4 V or less	
Leakage current	0.8 mA or less at 24 VDC	
Indicator light	Operating range Red LED illuminates. Proper operating range Green LED illuminates.	
Standard	CE marking	

• Lead wires — Oilproof heavy-duty vinyl cord, $\phi 3.4$, 0.2 mm², 2 cores (Brown, Blue), 3 m (Standard)
Note 1) Refer to page 1272 for solid state auto switch common specifications.
Note 2) Refer to page 1272 for lead wire lengths.

Grommet

- Water (coolant) resistant type
- The proper operating range can be determined by the color of the light.
(Red → Green ← Red)



Caution

Precautions

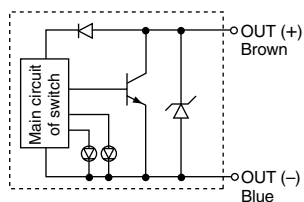
Please consult with SMC if using coolant liquid other than water based solution.

Mass

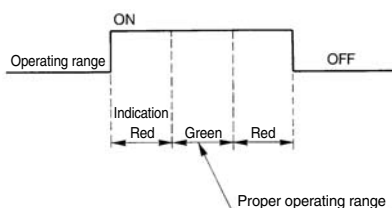
(g)

Auto switch model		D-F7BA	D-F7BAV
Lead wire length (m)	0.5	—	—
	3	50	50
	5	81	81

Auto Switch Internal Circuit



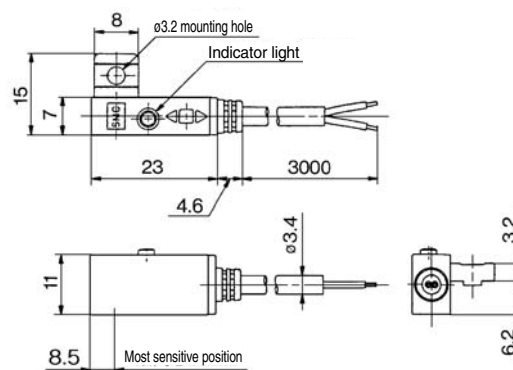
Indicator light/Display method



Dimensions

(mm)

D-F7BAL



D-F7BAVL

