

Auto Switch Guide



Simplify your onsite inventory control.

Auto Switch Guide Select an auto switch model according to the series and the mounting style.

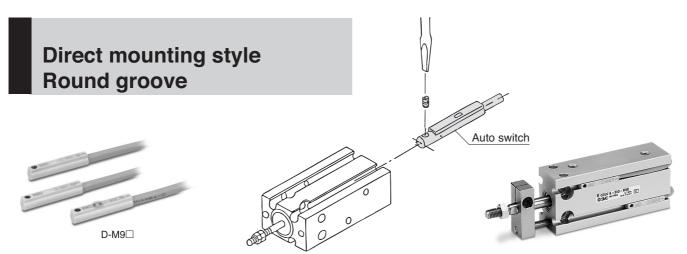
C	Di Contra	r cooperation	PO 100 100 100 100 100		, , , ,
O BOND			Q.	10 11 10	885 D

Series *	Size		Q ¹⁰⁰	100 110	0350	Auto Switch Mounting Style Notes	Page No.
C55	20 to 63					Direct (Round Groove)	.4
C76	32, 40					Band	.8
C85	8 to 25					Band	.8
C95	32 to 250					Tie rod	.7
C35	40 to 100					Tie rod	.7
CAZ							
CE1	12 to 25					Rail	.6
	32 to 63					Direct (Round Groove)	.4
CG1	20 to 100					Band	.8
CG5S	20 to 100					Band (use D-G5BAL) Water resistant	.8
CJ2	6, 10, 16					Band	.8
CJP2	4, 6, 10, 16					Direct (Round Groove)	.4
CJ5S	10, 16					Band (use D-H7BAL) Water resistant	.8
CL1	40 to 160					Tie rod	.7
CLG1	20 to 40					Band	.8
CLJ2	16					Band	.8
CLM2	20 to 40					Band	.8
CLQ	20 to 100					Direct (Round Groove)	.4
CLS	125 to 200					Tie rod for cylinder unit	.7
510	125 to 250					Direct (Round Groove) for lock unit	.4
CM2	20 to 40					Band	.8
CNA	40 to 100					Tie rod	.7
CNG	20 to 40					Band	.8
CNS	125, 140, 160					Tie rod	.7
CP95	32 to 100						.5
CP95						Direct (Rectangular Groove)	
	12 to 25					Rail	.6
CQ2	32 to 100					Direct (Round Groove)	.4
	125 to 200					Direct (Rectangular Groove)	.5
CQM	12 to 50					Direct (Round Groove)	.4
CQS	12 to 25					Direct (Round Groove)	.4
	30					Rail (for rotary actuators)	.10
CRA1	50 to 100					Direct (for rotary actuators)	.10
CRB1	50 to 100					Direct (for rotary actuators)	.10
CRB2	10 to 40					Direct (for rotary actuators)	.10
CRBU	10 to 40					Direct (for rotary actuators)	.10
CRJ	0.5, 1					Direct (Round Groove)	.4
CRQ2	10 to 40					Direct (Round Groove)	.4
CS1	125 to 200					Tie rod	.7
CU	6 to 32					Direct (Round Groove)	.4
CUJ	6 to 10					Direct (Round Groove, use D-F8 type)	.4
CXS	6 to 32					Direct (Rectangular Groove)	.5
CXSJ	6 to 32					Direct (Round Groove)	.4
CXT	12 to 40	-				Direct (Round Groove)	.4
CXW	10 to 32					Rail	.6
CY1F	10, 15, 25					Direct (Round Groove)	.4
CY1H/HT	10 to 32					Direct (Rectangular Groove)	.5
CY1L	6 to 40					Rail	.6
CY1S	6 to 40					Rail	.6
	6 to 20				1	Direct (Round Groove)	.4
CY3R	25 to 63					Direct (Rectangular Groove)	.5
E-MY2	16, 25					Direct (Round Groove)	.4
MB	32 to 125					Tie rod	.4
MB1	32 to 100					Direct (Rectangular Groove)	.5
MDHR2	10 to 30					Direct (use solid state switch)	.4
MDHR3	10, 15					Direct (use solid state switch)	.4
MGC	20 to 50					Band	.8
MGF	40, 63, 100					Direct (Rectangular Groove)	.5
MGG	20 to 100					Band	.8
MGJ	6, 10					Direct (Round Groove, use D-F8 type)	.4
MGP	12 to 100					Direct (Rectangular Groove)	.4
WGP							
MGT	63, 80, 100					Cylinder unit: Direct (Rectangular Groove)	.5
	63, 80, 100					Table unit: Direct (Round Groove)	.4
MGZ(R)	20, 25, 32					Direct (Round Groove)	.4
	40 to 80					Direct (Rectangular Groove)	.5

				, C ×0	> <i>'</i> /	<u></u>	/ x/		
Series *	Size	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0,00	De la	i.e.	Ball	Auto Switch Mounting Style Notes	Page No.
MHC2	10 to 25							Direct (use solid state switch)	.5
-	6	_						Direct (use solid state switch)	.4
MHF2	8 to 20 12 to 25	_						Direct (use solid state switch) Direct (use solid state switch)	.4
MHK2 MHL2	10 to 40							Direct (use solid state switch)	.4
	16 to 25							Direct (use solid state switch)	.4
MHS	32 to 125							Direct (use solid state switch)	.5
MHT2	32 to 63							Direct (Round Groove)	.4
MHW2	20 to 50							Direct (use solid state switch)	.5
MHY2	10 to 25							Direct (use solid state switch)	.4
MHZ2	10 to 40							Direct (use solid state switch)	.4
	6							Direct (use solid state switch)	.5
MHZJ2	6 to 25							Direct (use solid state switch)	.4
MHZL2	16 to 25	_						Direct (use solid state switch)	.4
	10 0 to 22	_						Direct (use solid state switch)	.5
MIW/MIS	8 to 32							Direct (Round Groove)	.4
MK	12, 16, 32 to 63 20, 25							Direct (Round Groove) Rail	.4 .6
	32 to 63							Direct (Round Groove)	.0
MK2	20, 25							Rail	.4
MLGP	20 to 100							Direct (Rectangular Groove)	.5
MLU	25 to 50							Rail	.6
MNB	32 to 100							Tie rod	.7
MRHQ	10 to 25							Rotation unit: Direct (In-line type)	.4
WINING	10 to 25							Gripper unit: Direct (Perpendicular type)	.4
MRQ	32, 40							Rail	.6
MSQ	1 to 7							Direct (use solid state switch)	.4
	10 to 200							Direct (Round Groove)	.4
MSU	1 to 20	-						Direct (for rotary actuators)	.10
MSZ MTS	10 to 50							Direct (Round Groove)	.4
MU	8 to 40 25 to 63							Direct (Round Groove) Rail	.4
MXF	8 to 20							Direct (Round Groove)	.0
MXH	6 to 20							Direct (Round Groove)	.4
MXJ	4.5, 6, 8							Direct (Round Groove)	.4
MXP	6 to 16							Direct (Round Groove)	.4
MXQ	6 to 25							Direct (Round Groove)	.4
MXS	6 to 25							Direct (Round Groove)	.4
MXU	6 to 16							Direct (Round Groove)	.4
MXW	8 to 25							Direct (Round Groove)	.4
MXY	6 to 12							Direct (Round Groove)	.4
MY100	10, 16, 20							Direct (Round Groove)	.4
14/0	25 to 100							Direct (Rectangular Groove)	.5
MY2 MY3A/3B/3M	16, 25, 40							Direct (Round Groove)	.4
REAH/HT	16 to 63							Direct (Round Groove)	.4 .5
REAL	10 to 32 10 to 40							Direct (Rectangular Groove)	.5
	10, 15, 20							Direct (Round Groove)	.0
REAR	25, 32, 40							Direct (Rectangular Groove)	.5
REAS	10 to 40							Rail	.6
REBH/HT	15, 25, 32							Direct (Rectangular Groove)	.5
REBR	15							Direct (Round Groove)	.4
	25, 32							Direct (Rectangular Groove)	.5
REC	20 to 40							Band	.8
RHC	20 to 100							Band	.8
RLQ	32 to 63							Direct (Round Groove)	.4
RQ	20 to 100							Direct (Round Groove)	.4
RSA RSG	50, 63, 80							Direct (Rectangular Groove)	.5
RSH/RS1H	40, 50							Band Direct (use solid state switch)	.8 .5
	20 to 80 12, 32 to 50							Direct (use solid state switch) Direct (Round Groove)	.5 .4
RSQ	12, 32 10 50							Rail	.4
RZQ	32 to 63							Direct (Round Groove)	.0
SGC	-							Direct (use solid state switch)	.4
The basic cyli									

* The basic cylinder series is shown here. To use auto switches the magnetic version must be specified, unless a magnet for auto switches is standard. Eg. for CQ2 cylinders CDQ2 must be specified. See individual catalogue sections for details.





Applicable Auto Switch/Direct mounting

		Reed switch type		Solid state switch type	e	
Applicab Series		24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
C55 CJP2 CE1 (ø32~63) CLQ CLS CQ2 (ø32~100) CQM CQS CRJ * CRQ2 CU CXSJ CXT	MIW/MIS * MK (#12, 16, 32–63) MK2 (#32~63) MRHQ MSQ (1~7) * MSQ (10~200) MSZ MTS MXF MXF MXH MXJ MXP MXQ	D-A93L	D-M9PL	D-M9NL	D-M9PWL	 Lead wire length = 3 m, refer to page 11 for other lengths.
CY1F CY3R (o6~20) E-MY2B ** E-MY2C/H/HT MDHR2 MDHR3 MGT MGZ(R) (o20~32) ** MHC2 (o6) MHF2 * MHK2 * MHS (o16~25) * MH72 MH72 * MH72 * MH72 (o6,16~40) * MH7J2 *	MXS MXU MXW MXY MY1□ (ø10~20) MY2 MY3 ** REAR (ø10~20) REBR (ø15) RLQ RQ, RSQ (ø12,32~50) RZQ SGC *		D-M9PSAPC	D-M9NSAPC	D-M9PWSAPC	Auto switch with pre-wired connector (M8-3pin).

• Since there are other applicable auto switches than those listed, refer to pages 11 to 15 or SMC's Best Pneumatics catalogue for details. (*) Only solid state switches can be used.

(**) Bracket BMY3-016 is also required.





Short body type

Applicable Auto Switch/Short Body Type/Direct mounting

		Solid state s	switch type		
Applicable Series	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
CUJ MGJ CRJ * MSQ (1~7) *	D-F8BL	D-F8PL	D-F8NL		 Lead wire length = 3 m, refer to page 11 for other lengths.

(*) Also applicable to these models for short strokes.



Direct mounting style Rectangular groove

Applicable Auto Switch + Mounting Bracket (BMG2-012)

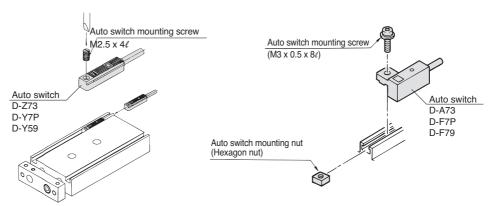
	Reed switch type		Solid state switch type	9	
Applicable Series	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
CP95 ** MHW2 * MB1 ** MHZ2 (ø10) * CQ2 (ø125~200) MHZL2 (ø10) * CY3R (ø25~63) MLGP MGF * MY1□ (ø25~100) ***	D-A93L + BMG2-012	D-M9PL BMG2-012	D-M9NL + BMG2-012	D-M9PWL BMG2-012	 Lead wire length = 3 m, refer to page 11 for other lengths.
MGF * MY1Ll (@25-100) *** MGP REAR (@25-40) MGT REBR (@25, 32) MGZ(R) (ø40-80) ** RSA * MHC2 (ø10-25) * RSA (012, 32-63) MHL2 * RSH/RS1H * MHS (ø32-125) * RSH		D-M9PSAPC + BMG2-012	D-M9NSAPC + BMG2-012	D-M9PWSAPC BMG2-012	Auto switch with pre-wired connector (M8-3pin). • Lead wire length = 0.5 m, refer to page 15 for other lengths.

• Since there are other applicable auto switches than those listed, refer to pages 11 to 15 or SMC's Best Pneumatics catalogue for details.

(*) Only solid state switches can be used.

(**) Bracket BMP1-032 is also required.

(***) Solid state switches must be used for all MY1 types and bore sizes. MY1B (ø40), MY1M (ø25, ø40), MY1C (ø40) and MY1HT (ø50, ø63) use different switches, see separate table below.



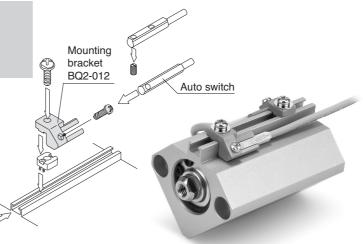
Applicable Auto Switch (MY1B, bore sizes ø25 to ø100 and MY1HT bore sizes ø50, ø63) (CXS bore sizes ø6 to ø32 and CXSW bore sizes ø6 to ø32)

	Reed switch type		Solid state switch type)	
Applicable Series	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
MY1B (ø40) CXS MY1M (ø25, ø40) CXSW	D-Z73L	D-Y7PL	D-Y59AL	D-Y7PWL	With lead wire length = 3 m Consult SMC for other lengths.
MY1C (ø40) MY1HT	_	D-Y7PSAPC	D-Y59ASAPC	D-Y7PWSAPC	With pre-wired connector (M8-3pin). Lead wire length =
CXW	D-A73HL	D-F7PL	D-F79L	D-F7PWL	With lead wire length = 3 m Consult SMC for other lengths.
	_	D-F7PSAPC	D-F79SAPC	D-F7PWSAPC	With pre-wired connector (M8-3pin). Lead wire length =



Rail mounting style





Applicable Auto Switch + Mounting Bracket (BQ2-012)

	Reed switch type		Solid state switch type	Э	
	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
CE1 (ø12 to 25) ** CJ2 (ø10, 16) CQ2 (ø12 to 25) MK (ø20, 25)	D-A93L + BQ2-012 ***	D-M9PL + BQ2-012 ***	D-M9NL + BQ2-012 ***	D-M9PWL + BQ2-012 ***	 Lead wire length = 3 m, refer to page 11 for other lengths.
MK2 (ø20, 25) MU * MLU * MRQ RSQ (ø16, 20)		D-M9PSAPC BQ2-012 ***	D-M9NSAPC + BQ2-012 ***	D-M9PWSAPC + BQ2-012 ***	Auto switch with pre-wired connector (M8-3pin). • Lead wire length = 0.5 m, refer to page 15 for other lengths.

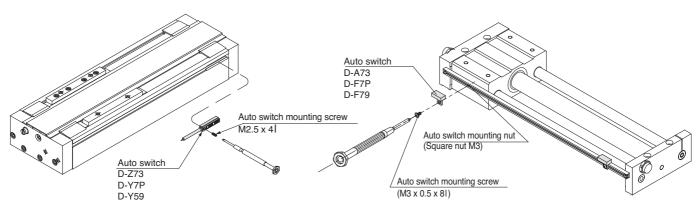
• Since there are other applicable auto switches than those listed, refer to SMC's Best Pneumatics catalogue for details.

(*) Only solid state switches can be used.

(**) ø12 - Only solid state switches can be used.

(***) CE1, CQ2, MK, MK2, RSQ use BQ-1 and BQ2-012 as a set. MU, MLU use BMU2-025 and BQ2-012 as a set.

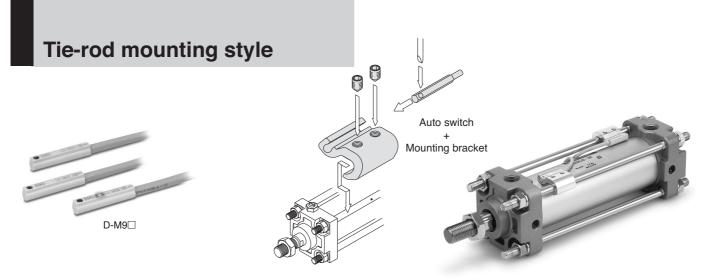
MRQ use BQ-2 and BQ2-012 as a set.



Applicable Auto Switch (CY1, REA, bore size ø6 to ø100)

	Reed switch type		Solid state switch type	Э	
Applicable Series	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
CY1H CY1HT	D-Z73L	D-Y7PL	D-Y59AL	D-Y7PWL	With lead wire length = 3 m Consult SMC for other lengths.
REAH/REBH REAHT/REBHT	_	D-Y7PSAPC	D-Y59ASAPC	D-Y7PWSAPC	With pre-wired connector (M8-3pin). Lead wire length =
CY1S CY1L	D-A73HL	D-F7PL	D-F79L	D-F7PWL	With lead wire length = 3 m Consult SMC for other lengths.
REAL REAS	_	D-F7PSAPC	D-F79SAPC	D-F7PWSAPC	With pre-wired connector (M8-3pin). Lead wire length =





Applicable Auto Switch + Mounting bracket

		Reed switch type		Solid state switch type	e	
Applicable Series	Bore size (mm)	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Auto switch with pre-wired connector
	32, 40	D-A93L +	D-M9PL +	D-M9NL +	D-M9PWL +	and the second sec
		BMB5-032	BMB5-032	BMB5-032	BMB5-032	
	50, 63	D-A93L +	D-M9PL	D-M9NL	D-M9PWL	
	00,00	BA7-040	BA7-040	BA7-040	BA7-040	
C95 **	80, 100	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
MB (ø32 to 125)	00, 100	BA7-063	+ BA7-063	BA7-063	+ BA7-063	
MNB (ø32 to 100)	105	D-A93L	D-M9PL	D-M9NL	D-M9PWL	24 VDC 3-wire (PNP):
	125	+ BA7-080	+ BA7-080	+ BA7-080	+ BA7-080	D-M9PSAPC
	100,000	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
	160, 200	+ BS5-160	+ BS5-160	+ BS5-160	+ BS5-160	24 VDC 3-wire (NPN):
	10.50	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
	40, 50	+ BA7-040	+ BA7-040	+ BA7-040	+ BA7-040	D-M9NSAPC
CA2 * CNA *		D-A93L	D-M9PL	D-M9NL	D-M9PWL	24 VDC
CL1 *	63	BA7-063	+ BA7-063	BA7-063	+ BA7-063	Diagnostic indication
	80, 100	D-A93L	D-M9PL	D-M9NL	D-M9PWL	(2-colour indication) 3-wire (PNP):
	80, 100	+ BA7-080	BA7-080	BA7-080	BA7-080	D-M9PWSAPC
	105 140	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
	125, 140	+ BS5-125	+ BS5-125	+ BS5-125	+ BS5-125	1 4
	160	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
CS1	160	+ BS5-160	+ BS5-160	+ BS5-160	+ BS5-160	
CLS *** CNS (ø125 to 160)	180	D-A93L	D-M9PL	D-M9NL	D-M9PWL	3
CL1 (ø125 to 160)	180	+ BS5-180	+ BS5-180	+ BS5-180	+ BS5-180	M8 ⁻³ pin
	200	D-A93L	D-M9PL	D-M9NL	D-M9PWL	• Lead wire length = 0.5 m, refer
	200	BS5-200	BS5-200	BS5-200	BS5-200	to page 15 for other lengths.

Lead wire length = 3 m, refer to page 11 for other lengths.
Since there are other applicable auto switches than those listed, refer to pages 11 to 15 or SMC's Best Pneumatics catalogue for details.

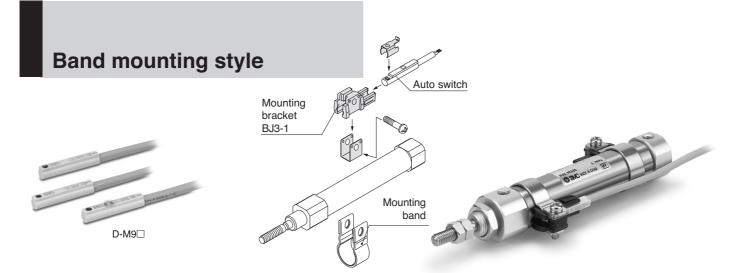
(*) Only solid state switches can be used on ø50 cylinders.

(**) See separate table for C95 with 250mm bore size. (***) Autoswitches cannot be fitted to CLS ø250 cylinder part.

Applicable Auto Switch + Mounting bracket (C95, bore size ø250mm)

		Reed switch type		Solid state switch type		
Applicable Series	Bore size (mm)	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
	050	D-A54L + BT-20	D-F5PL + BT-20	D-F59L + BT-20	D-F5PWL + BT-20	With lead wire length = 3 m Consult SMC for other lengths.
C95	250	-	D-F5PSAPC + BT-20	D-F59SAPC + BT-20	D-F5PWSAPC + BT-20	With pre-wired connector (M8-3pin). Lead wire length =





Applicable Auto Switch + Mounting Bracket (BJ3-1) + Mounting band

		Reed switch type		Solid state switch type	2	
Applicable Series	Bore size (mm)	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Auto switch with pre-wired connector
	6	D-A93L	D-M9PL	D-M9NL	D-M9PWL	and the second se
	0	+ BJ3-1 + BJ2-006	+ BJ3-1 + BJ2-006	+ BJ3-1 + BJ2-006	+ BJ3-1 + BJ2-006	
	8	_	D-M9PL	D-M9NL	D-M9PWL	
	0		+ BJ3-1 + BJ2-008	BJ3-1 + BJ2-008	BJ3-1 + BJ2-008	
C85 (ø8 to 16) *	10	D-A93L	D-M9PL	D-M9NL	D-M9PWL	2
CJ2 (ø6, 10, 16) CLJ2 (ø16)	10	т ВЈЗ-1 + ВЈ2-010	+ BJ3-1 + BJ2-010	БЈЗ-1 + ВЈ2-010	т ВЈЗ-1 + ВЈ2-010	
OLJZ (010)	12	_	D-M9PL	D-M9NL	D-M9PWL	24 VDC 3-wire (PNP):
	12	_	т ВЈЗ-1 + ВЈ2-012	 ВЈЗ-1 + ВЈ2-012	т ВЈЗ-1 + ВЈ2-012	D-M9PSAPC
	16	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
	10	+ BJ3-1 + BJ2-016	+ BJ3-1 + BJ2-016	+ BJ3-1 + BJ2-016	+ BJ3-1 + BJ2-016	24 VDC 3-wire (NPN):
	20	D-A93L	D-M9PL	D-M9NL	D-M9PWL	D-M9NSAPC
	20	+ BJ3-1 + BM2-020	BJ3-1 + BM2-020	+ BJ3-1 + BM2-020	+ BJ3-1 + BM2-020	D-MANSAFC
	25	D-A93L	D-M9PL	D-M9NL	D-M9PWL	24 VDC
C85 (ø20, 25) *	25	+ BJ3-1 + BM2-025	+ BJ3-1 + BM2-025	+ BJ3-1 + BM2-025	+ BJ3-1 + BM2-025	Diagnostic indication
C76 (ø32, 40) CM2	32	D-A93L	D-M9PL	D-M9NL	D-M9PWL	(2-color indication) 3-wire (PNP):
CLM2	52	BJ3-1 + BM2-032	BJ3-1 + BM2-032	BJ3-1 + BM2-032	BJ3-1 + BM2-032	D-M9PWSAPC
	40	D-A93L	D-M9PL	D-M9NL	D-M9PWL	D-MOI WOAI O
	40	BJ3-1 + BM2-040	BJ3-1 + BM2-040	BJ3-1 + BM2-040	BJ3-1 + BM2-040	1 4
	20	D-A93L	D-M9PL	D-M9NL	D-M9PWL +	
		BJ3-1 + BMA2-020	BJ3-1 + BMA2-020	BJ3-1 + BMA2-020	BJ3-1 + BMA2-020	
	25	D-A93L	D-M9PL	D-M9NL	D-M9PWL	3
CG1 **	20	BJ3-1 + BMA2-025	+ BJ3-1 + BMA2-025	BJ3-1 + BMA2-025	BJ3-1 + BMA2-025	M8–3 pin
CLG1 (ø20 to 40) CNG (ø20 to 40)	32	D-A93L	D-M9PL	D-M9NL	D-M9PWL	• Lead wire length = 0.5 m, refer
MGC (ø20 to 50)		BJ3-1 + BMA2-032	BJ3-1 + BMA2-032	BJ3-1 + BMA2-032	BJ3-1 + BMA2-032	to page 15 for other lengths.
MGG REC (ø20 to 40)	40	D-A93L +	D-M9PL	D-M9NL +	D-M9PWL	
RHC **		BJ3-1 + BMA2-040	BJ3-1 + BMA2-040	BJ3-1 + BMA2-040	BJ3-1 + BMA2-040	
RSG (ø40, 50)	50	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
		BJ3-1 + BMA2-050	BJ3-1 + BMA2-050	BJ3-1 + BMA2-050	BJ3-1 + BMA2-050	
	63	D-A93L	D-M9PL	D-M9NL	D-M9PWL	
		BJ3-1 + BMA2-063	BJ3-1 + BMA2-063	BJ3-1 + BMA2-063	BJ3-1 + BMA2-063	

Lead wire length = 3 m, refer to page 11 for other lengths.
Since there are other applicable auto switches than those listed, refer to pages 11 to 15 or SMC's Best Pneumatics catalogue for details.

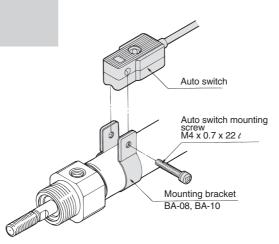
(*) Ø8 to Ø12, solid state switches only can be used.

(**) See separate table for CG1 and RHC with 80 and 100mm bore size.

Stainless Steel Cylinder:	Series CJ5-S	;		Series	CG	5-S							
	Auto switch	Mounting	g bracket no.	Auto sw	ritch			Mo	ounting l	bracket	10.		
Water resistant 2-colour indication type. Solid state switch, 2-wire, 24VDC	model	ø10	ø16	mode	model	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
	D-H7BAL	BJ2- 010S	BJ2- 016S	D-G5E	BAL	NBA- 088S	NBA- 106S	BGS1 -032S	BAF -04S	BAF -05S	BAF -06S	BAF -08S	BAF -10S



Band mounting style



Applicable Auto Switch + Mounting Bracket (CG1, RHC, bore size ø80, ø100)

		Reed switch type		Solid state switch type	Э	
Applicable Series	Bore size (mm)	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description
	80	D-B54L	D-G5PL	D-G59L	D-G5PWL	With lead wire length = 3 m Consult SMC for other lengths.
		BA-08	BA-08	BA-08	BA-08	
		_	D-G5PSAPC	D-G59SAPC	D-G5PWSAPC	With pre-wired connector (M8- 3pin). Lead wire length = 0.5m
CG1			BA-08	BA-08	BA-08	Consult SMC for other lengths.
RHC	100	D-B54L	D-G5PL	D-G59L	D-G5PWL	With lead wire length = 3 m
		BA-10	BA-10	BA-10	BA-10	Consult SMC for other lengths.
		_	D-G5PSAPC	D-G59SAPC	D-G5PWSAPC	With pre-wired connector (M8-
			BA-10	BA-10	BA-10	3pin). Lead wire length = 0.5m Consult SMC for other lengths.

Direct mounting style For rotary actuators (CRB2, CRBU2, CRB1, MSU)



D-93AL Size (1, 3, 10, 15)



D-S99/D-S9P (size 1, 3, 10, 15)



D-R73/D-S79/D-S7P (Size 7, 20, 30, 40, 50, 63, 80, 100)

Applicable Auto Switch/ Rotary actuators (CRB2, CRBU2, CRB1, MSU)

		-			-	
Applicable		Reed switch type	Solid state s	witch type		
Series	Size	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	Description	
	1 3	D-93AL	D-S9P1L [*] D-S9P2L	D-S991L [*] D-S992L	 Lead wire length = 3 m, consult SMC for other lengths. 	
CRB2 CRBU2	BU2 B1	-	D-S9P1SAPC [*] D-S9P2SAPC	D-S991SAPC [*] + D-S992SAPC	Auto switch with pre-wired connector (M8-3pin). • Lead wire length = 0.5 m,	
CRB1 MSU		+	D-S791L [*] D-S792L	 Lead wire length = 3 m, consult SMC for other lengths. 		
	50 63 80 100	_	D-S7P1SAPC [*] D-S7P2SAPC	D-S791SAPC [*] D-S792SAPC	Auto switch with pre-wired connector (M8-3pin). • Lead wire length = 0.5 m, consult SMC for other lengths.	

Note, left handed and right handed switches are needed so order one off each part number.
 Since there are other applicable auto switches than those listed, refer to pages 11 to 15 or SMC's Best Pneumatics catalogue for details.

Applicable Auto Switch/ Rotary actuators (CRA1)

		Reed switch type	So	lid state switch	type			
Applicable Series	Size	24 VDC 2-wire	24 VDC 3-wire (PNP)	24 VDC 3-wire (NPN)	24 VDC (2-colour indication) 3-wire (PNP)	Description		
	D-		D-F7PL	D-F79L	D-F7PWL	 Lead wire length = 3 m, consult SMC for other lengths. 		
CRA1	30	30	30	_	D-F7PSAPC	D-F79SAPC	D-F7PWSAPC	Auto switch with pre-wired connector (M8-3pin). • Lead wire length = 0.5 m, consult SMC for other lengths.
Chai	50 63	D-A53L	D-F5PL	D-F59L	D-F5PWL	 Lead wire length = 3 m, consult SMC for other lengths. 		
	80 100	_	D-F5PSAPC	D-F59SAPC	D-F5PWSAPC	Auto switch with pre-wired connector (M8-3pin). • Lead wire length = 0.5 m, consult SMC for other lengths.		

· Since there are other applicable auto switches than listed, refer to SMC's Pneumatics catalogue for details.

Applicable Auto Switch/ Rotary actuators (CRJ, CRQ2, MSQ, MSZ)

• Refer to section "Direct mounting style/Round groove" on page 4.

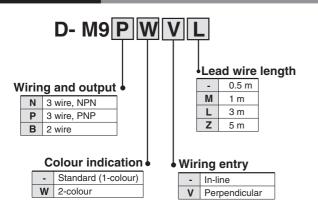


Auto Switch Specifications

Auto Switch Common Specifications

Туре	Reed switch	Solid state switch					
Leakage current	None	3-wire: 100 µA or less 2-wire: 0.8 mA or less					
Operating time	1.2 ms	1 ms or less					
Impact resistance	300 m/s ²	1000 m/s ²					
Insulation resistance	50 M Ω or more at 500 Mega VD	50 M Ω or more at 500 Mega VDC (between lead wire and case)					
Withstand voltage	1000 VAC for 1 minute (between lead wire and case)	1000 VAC for 1 minute (between lead wire and case)					
Ambient temperature	-10 to 60°C						
Enclosure	IEC529 standard IP67, JIS C 0920 waterproof construction						
Standard	Conforming to	CE Standards					

How to Order



Note 1) Applicable auto switch with 5 m lead wire "Z"

Solid state switch: Manufactured upon receipt of order as standard. Note 2) For 1 m(M), available with D-M9 \Box W(V) only.

Contact Protection Boxes: CD-P11, CD-P12

<Applicable switch model>

D-A9/A9□V

The auto switches above do not have a built-in contact protection circuit. Therefore, please use a contact protection box with the switch for any of the following cases:

(1) Where the operation load is an inductive load.

(2) Where the wiring length to load is greater than 5 m.

③ Where the load voltage is 100 VAC.

The contact life may be shortened. (Due to permanent energising conditions.)

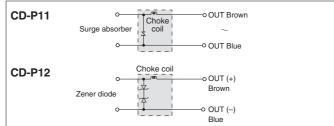
Specifications

Part no.	CD-	CD-P12	
Load voltage	100 VAC	200 VAC	24 VDC
Maximum load current	25 mA	12.5 mA	50 mA

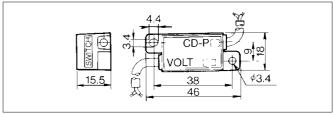
* Lead wire length — Switch connection side 0.5 m



Internal Circuit



Dimensions



Connection

To connect a switch unit to a contact protection box, connect the lead wire from the side of the contact protection box marked SWITCH to the lead wire coming out of the switch unit. Keep the switch as close as possible to the contact protection box, with a lead wire length of no more than 1 metre.

Applicable Wire Stripper

When the cable sheath is stripped, confirm the stripping direction. The insulator may be split or damaged depending on the direction. $(D-M9\Box(V) \text{ only})$



Recommended Tool

Model name	Model no.						
Wire stripper	D-M9N-SWY						
* Stripper for a round cable (ø2.0) can be used for a 2-wire type cable.							

SMC

Solid State Switch: Direct Mounting Style D-M9N(V)/D-M9P(V)/D-M9B(V) (€

Grommet

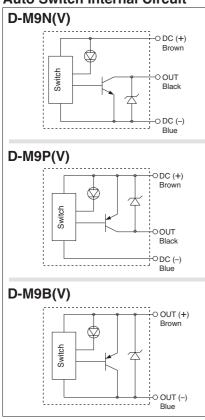
- 2-wire load current is reduced (2.5 to 40 mA).
- Lead free
- UL certified (style 2844) lead cable is used.
- Flexibility is 1.5 times greater than the conventional model (SMC comparison).
- Using flexible cable as standard spec.



▲Caution Operating Precautions

Fix the switch with the existing screw installed on the switch body. The switch may be damaged if a screw other than the one supplied, is used.

Auto Switch Internal Circuit



Auto Switch Specifications

				PLC: Progr	ammable Lo	gic Controller			
D-M9□/D-M9□V (With indicator light)									
Auto switch part no.	D-M9N	D-M9NV	D-M9P	D-M9PV	D-M9B	D-M9BV			
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular			
Wiring type		3-w	/ire		2-1	wire			
Output type	N	PN	PI	NP	-	_			
Applicable load		IC circuit, F	Relay, PLC		24 VDC relay, PLC				
Power supply voltage	Ę	5, 12, 24 VDC (4.5 to 28 V)							
Current consumption		10 mA	or less		_				
Load voltage	28 VDC	C or less	-	_	24 VDC (10 to 28 VDC)				
Load current		40 mA	or less		2.5 to 40 mA				
Internal voltage drop	0.8 V or less				4 V or less				
Leakage current	100 A or less at 24 VDC				0.8 mA	or less			
Indicator light		Red LED illuminates when ON.							
Standard		Conforming to CE Standards							

Lead wires

Oilproof heavy-duty vinyl cable: ø2.7 x 3.2 ellipse

D-M9B(V) 0.15 mm² x 2 cores

D-M9N(V), D-M9P(V) 0.15 mm² x 3 cores

Note 1) Refer to page 15 for details of solid state switch with pre-wired connector.

Note 2) Refer to page 11 for solid state switch common specifications and for lead wire lengths.

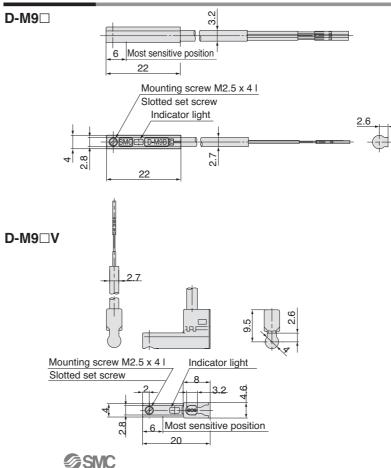
Weight

Unit: g

Auto switch part no.		D-M9N(V)	D-M9P(V)	D-M9B(V)	
	0.5 (-)	8	8	7	
Lead wire length	1 (M)	14	14	13	
(m)	3 (L)	41	41	38	
	5 (Z)	68	68	63	

Dimensions

Unit: mm



Normally Closed Solid State Auto Switch Direct Mounting Type D-M9NE(V)/D-M9PE(V)/D-M9BE(V) **C E** (ROHS)

Grommet

- Output signal turns on when no magnetic force is detected.
- Can be used for the actuator adopted by the solid state auto switch D-M9 series (excluding special order products)



Precautions

Fix the auto switch with the existing screw installed on the auto switch body. The auto switch may be damaged if a screw other than the one supplied is used.

Auto Switch Specifications

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

PLC: Programmable Log	ic Controller

(g)

D-M9□E, D-M	D-M9 E, D-M9 EV (With indicator light)								
Auto switch model	D-M9NE	D-M9NEV	D-M9PE	D-M9PEV	D-M9BE	D-M9BEV			
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular			
Wiring type		3-w	vire		2-v	vire			
Output type	NPN PNP				—				
Applicable load		IC circuit, F	24 VDC relay, PLC						
Power supply voltage	5, 12, 24 VDC (4.5 to 28 V)				—				
Current consumption		10 mA	or less		—				
Load voltage	28 VDC	or less	-	_	24 VDC (10 to 28 VDC)				
Load current		40 mA	or less		2.5 to 40 mA				
Internal voltage drop	0.8 V or less at 10 mA (2 V or less at 40 mA)				4 V or less				
Leakage current	100 μA or less at 24 VDC				0.8 mA	or less			
Indicator light		Red LED illuminates when turned ON.							
Standard			CE marki	ng, RoHS					

Oilproof Heavy-duty Lead Wire Specifications

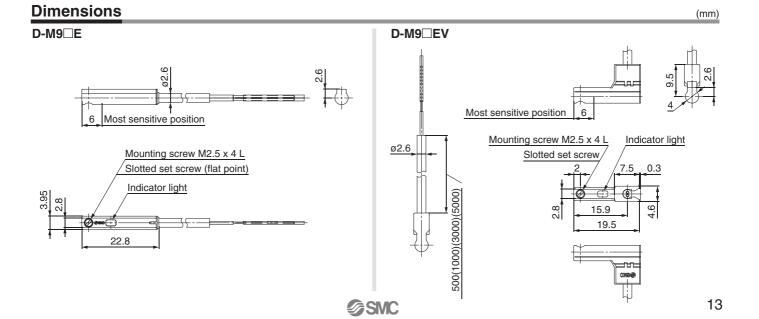
Auto swi	tch model	D-M9NE(V)	D-M9PE(V)	D-M9BE(V)		
Sheath	Outside diameter [mm]	2.6				
Inculator	Number of cores	3 cores (Brow	3 cores (Brown/Blue/Black)			
Insulator	Outside diameter [mm]	0.88				
Orandorates	Effective area [mm ²]	0.15				
Conductor	Strand diameter [mm]	0.05				
Minimum bending radius [mm] (Reference values)		17				

Note 1) Refer to page 11 for solid state auto switch common specifications. Note 2) Refer to page 11 for lead wire lengths.

Weight

Auto switch model		D-M9NE(V)	D-M9PE(V)	D-M9BE(V)				
Lead wire length	0.5 m (—)	8		7				
	1 m (M)*	1-	13					
	3 m (L)	4	38					
	5 m (Z)*	6	63					
. The 1 me and 5			of our low					

The 1 m and 5 m options are produced upon receipt of order.



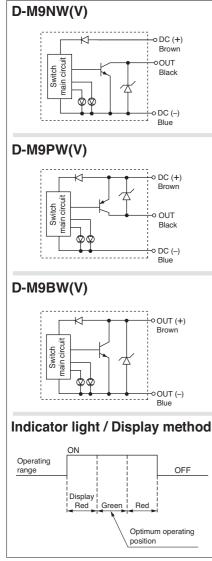
2-Colour Indication Solid State Switch: Direct Mounting Style D-M9NW(V)/D-M9PW(V)/D-M9BW(V) (€

Grommet

- 2-wire load current is reduced (2.5 to 40 mA).
- RoHS compliant
- UL certified (style 2844) lead cable is used.
- Flexibility is 1.5 times greater than the conventional model (SMC comparison).
- Using flexible cable as standard spec.
 The optimum operating position can be determined by the colour of the light.



Auto Switch Internal Circuit



Auto Switch Specifications

PLC: Programmable Logic Controller

Unit: g

Unit: mm

D-M9 W/D-M9 WV (With indicator light)								
Auto switch part no.	D-M9NW	D-M9NWV	D-M9PW	D-M9PWV	D-M9BW	D-M9BWV		
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular		
Wiring type		3-w	/ire		2-\	vire		
Output type	N	PN	PI	NP	-	_		
Applicable load	IC circuit, Relay IC, PLC				24 VDC relay, PLC			
Power supply voltage	5,	12, 24 VDC (C)	—				
Current consumption		10 mA		—				
Load voltage	28 VD0	C or less	-	_	24 VDC (10 to 28 VDC)			
Load current		40 mA	or less		2.5 to 40 mA			
Internal voltage drop	0.8 V or l	ess at 10 mA	(2 V or less	at 40 mA)	4 V or less			
Leakage current		100 A or les	s at 24 VDC		0.8 mA or less			
Internal voltage	Operating position Red LED illuminates.							
drop	Optimum operating position Green LED illuminates.							
Standard	Conforming to CE Standards							

Lead wires

Oilproof heavy-duty vinyl cable: ø2.7 x 3.2 ellipse

D-M9BW(V) 0.15 mm² x 2 cores D-M9NW(V), D-M9PW(V) 0.15 mm² x 3 cores

Note 1) Refer to page 15 for details of solid state switch with pre-wired connector.

Note 2) Refer to page 11 for solid state switch common specifications and for lead wire lengths.

Weight

Auto switch part no.		D-M9NW(V) D-M9PW(V)		D-M9BW(V)
	0.5	8	8	7
Lead wire length	1	14	14	13
(m)	3	41	41	38
	5	68	68	63

Dimensions

D-M9□W 3.2 6 Most sensitive position 22 Mounting screw M2.5 x 4 I Slotted set screw Indicator light 2.6 8. 20 4 2.7 22 D-M9 WV 2.7 Mounting screw M2.5 x 4 I Indicator light Slotted set screw 8 <u>3.2</u> 0. œ 6 Most sensitive position ~i 20

SMC

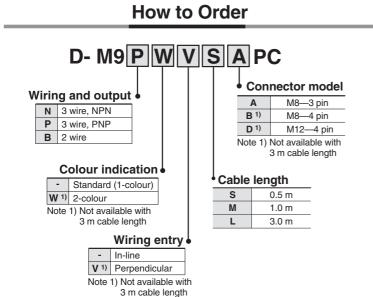
Solid State Switch With Pre-wired Connector

With Pre-wired Connector

• Eliminates the harnessing work by cable with connector specifications

- Adopts global standardized connector (IEC947-5-2)
- IP67 construction





Connector Specifications

Connector model	M8-3 pin	M8-4 pin	M12-4 pin		
Pin arrangement					
Conformed standard	JIS C 4524, JIS C 4525, IEC 947-5-2, NECA 0402				
Impact resistance	IP-67 (IEC529 standard) 100 MΩ or more (at 500 VDC measured via Megohmmeter)				
Enclosure					
Insulation resistance					
Withstand voltage					

Connector Pin Arrangement

O an a sub man	Colour distinction of lead wire				Meaning of contact number			
Sensor type	1 pin	2 pin	3 pin	4 pin	1 pin	2 pin	3 pin	4 pin
DC 2-wire type	Brown	—	—	Blue	OUT (+)	—	—	OUT (-)
DC 3-wire type	Brown	—	Blue	Black	DC (+)	—	DC (–)	OUT

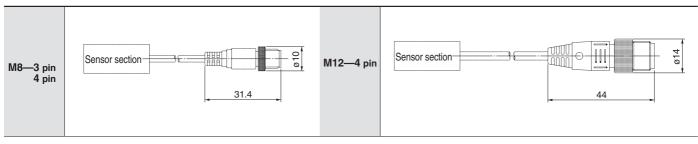
Weight

M8 connector type:								
Auto switch part	Auto switch part no.		Auto switch part po			D-M9N⊟BPC		
			D-M9B□APC	D-M9P□BPC	D-M9B⊟BPC			
Lead wire length	0.5	11	11	11	11			
(m)	1	18	18	18	18			
	3	46	46	_	—			

M12 connector type:

A		D-M9N DPC		
Auto switch part no	Auto switch part no.		D-M9B□DPC	
Lead wire length	0.5	19	18	
(m)	1	26	25	

Dimensions

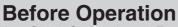


Unit: g

Other Available Switches

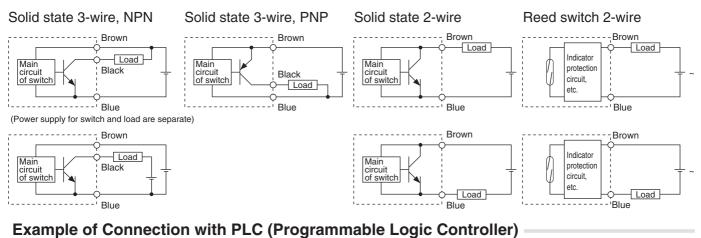
Since there are other applicable auto switches than those listed, refer to SMC's Best Pneumatics catalogue for details.

Trimmer Auto Switch	Without indicator With diagnostic output				
One auto switch allows work pieces to be distinguished easily.	For light free enviroments.	Displacement of the detecting position is detected at the PLC side.			
With timer (with OFF delay timer)	Operating range: wide-area detection type	OUT OFF COFF			
Can detect an intermediate position of a high-speed cylinder.	Operating range: 35 to 50 mm	Optimum operating Operating range			
Resistant to strong magnetic fields	Water, oil resistant	Heat resistant For use in enviroments of 150°C, 130°C, 120°C.			
For use in enviroments where AC current is 16,000A or more.	For water, coolant splash enviroments.				

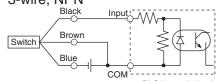


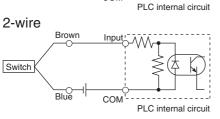
Auto Switch Connection and Example

Basic Wiring



 Sink input specifications 3-wire, NPN





 Source input specifications 3-wire, PNP Black Input Brown (女 Switch 6 Blue COM - - - - - -PLC internal circuit 2-wire Blue Input Ϋ́ Switch

COM

PLC internal circuit

Connect according to the applicable PLC input specifications, as the connection method will vary depending on the PLC input specifications.

Brown

▲ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

I

etc.

Caution indicates a hazard with a low level of risk ▲ Caution: which, if not avoided, could result in minor or moderate injury. Warning indicates a hazard with a medium level of risk **A** Warning: which, if not avoided, could result in death or serious

injury. Danger indicates a hazard with a high level of risk

A Danger : Which, if not avoided, will result in death or serious injury. _____

🗥 Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

- 3.Do not service or attempt to remove product and machinery/equipment until safety is confirmed.
 - 1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
 - 2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
 - 3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.
- 4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.
 - 1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
 - 2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalogue.
 - 3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
 - 4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation

A Caution

1. The product is provided for use in manufacturing industries. The product herein described is basically provided for peaceful use in manufacturing industries

If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.

If anything is unclear, contact your nearest sales branch.

*1) ISO 4414: Pneumatic fluid power - General rules relating to systems. ISO 4413: Hydraulic fluid power - General rules relating to systems. IEC 60204-1: Safety of machinery - Electrical equipment of machines. (Part 1: General requirements) ISO 10218-1: Manipulating industrial robots - Safety.

Limited warranty and Disclaimer/ **Compliance Requirements**

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements". Read and accept them before using the product.

Limited warranty and Disclaimer

- 1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, wichever is first.*2) Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
- 2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
- 3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogue for the particular products.

*2) Vacuum pads are excluded from this 1 year warranty. A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty

Compliance Requirements

- 1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
- 2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

∧ Caution

SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country. Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

✓ Safety Instructions Be sure to read "Handling Precautions for SMC Products" (M-E03-3) before using.

Austria	2 +43 (0)2262622800	www.smc.at	office@smc.at	Lithuania	🕿 +370 5 2308118	www.smclt.lt	info@smclt.lt
Belgium	2 +32 (0)33551464	www.smcpneumatics.be	info@smcpneumatics.be	Netherlands	🕿 +31 (0)205318888	www.smcpneumatics.nl	info@smcpneumatics.nl
Bulgaria	2 +359 (0)2807670	www.smc.bg	office@smc.bg	Norway	2 +47 67129020	www.smc-norge.no	post@smc-norge.no
Croatia	2 +385 (0)13707288	www.smc.hr	office@smc.hr	Poland	2 +48 222119600	www.smc.pl	office@smc.pl
Czech Republic	2 +420 541424611	www.smc.cz	office@smc.cz	Portugal	2 +351 226166570	www.smc.eu	postpt@smc.smces.es
Denmark	2 +45 70252900	www.smcdk.com	smc@smcdk.com	Romania	🕿 +40 213205111	www.smcromania.ro	smcromania@smcromania.ro
Estonia	2 +372 6510370	www.smcpneumatics.ee	smc@smcpneumatics.ee	Russia	🕿 +7 8127185445	www.smc-pneumatik.ru	info@smc-pneumatik.ru
Finland	🕿 +358 207513513	www.smc.fi	smcfi@smc.fi	Slovakia	🕿 +421 (0)413213212	www.smc.sk	office@smc.sk
France	2 +33 (0)164761000	www.smc-france.fr	info@smc-france.fr	Slovenia	2 +386 (0)73885412	www.smc.si	office@smc.si
Germany	2 +49 (0)61034020	www.smc.de	info@smc.de	Spain	2 +34 902184100	www.smc.eu	post@smc.smces.es
Greece	2 +30 210 2717265	www.smchellas.gr	sales@smchellas.gr	Sweden	2 +46 (0)86031200	www.smc.nu	post@smc.nu
Hungary	2 +36 23513000	www.smc.hu	office@smc.hu	Switzerland	2 +41 (0)523963131	www.smc.ch	info@smc.ch
Ireland	🕿 +353 (0)14039000	www.smcpneumatics.ie	sales@smcpneumatics.ie	Turkey	🕿 +90 212 489 0 440	www.smcpnomatik.com.tr	info@smcpnomatik.com.tr
Italy	2 +39 0292711	www.smcitalia.it	mailbox@smcitalia.it	UK	🕿 +44 (0)845 121 5122	www.smcpneumatics.co.uk	sales@smcpneumatics.co.uk
Latvia	🕿 +371 67817700	www.smclv.lv	info@smclv.lv				

SMC CORPORATION Akihabara UDX 15F, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, JAPAN Phone: 03-5207-8249 FAX: 03-5298-5362 1st printing WW printing WW 00 Printed in Spain Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.