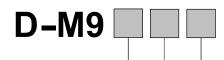
# **Model Indication and How to Order**



# Output type •

Symbol	Specification			
N	3-wire, NPN			
Р	3-wire, PNP			
В	2-wire			

### Electric entry •

Symbol	Specification
NIL	In line
V	Perpendicular

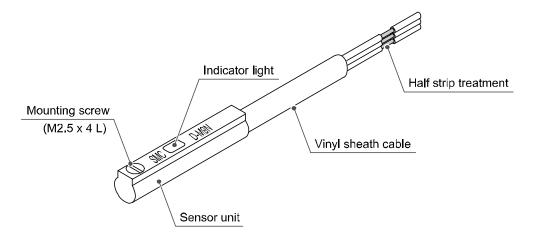
### Lead wire length

Symbol	Specification				
NIL	500 mm (Ha <b>l</b> f strip)				
М	1000 mm (Half strip)				
L	3000 mm (Half strip)				
Z	5000 mm (Half strip)				
SAPC	500 mm (M8 3 pin pre-wired)				
SBPC	500 mm (M8 4 pin pre-wired)				
SDPC	500 mm (M12 4 pin pre-wired)				
MAPC	1000 mm (M8 3 pin pre-wired)				
MBPC	1000 mm (M8 4 pin pre-wired)				
MDPC	1000 mm (M12 4 pin pre-wired)				

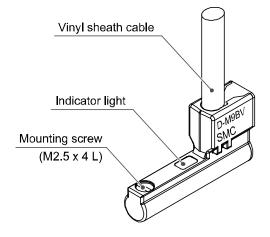


# **Summary of Product parts**

•Summary of Product parts D-M9B/M9N/M9P



#### D-M9BV/M9NV/M9PV





■Definition and terminology

	nition and terminology  Term	Meaning and definition					
2	2-wire Auto switch	Auto switch which has only signal line and COM line.					
С	Current leakage	The current flowing to the load when the Auto switch turns off.					
Н	Hysteresis	The difference between the points when the Auto switch turns on and off, which is provided to prevent chattering.  Piston moving direction  Piston moving direction  Piston moving direction  Piston moving direction  OFF position					
I	Internal voltage drop	The voltage applied between the COM and signal line when the Auto switch turns on.					
L	Load current	The current flowing to the load when the Auto switch turns on.					
М	Most sensitive position	The center position of the sensor unit (which gets the strongest reaction of the sensor unit), which means the center position of an operating range as well.					
N	NPN output	Auto switch which sinks current from the signal line when turning on.  DC(+) Brown  OUT Black Load  Power supply  DC(-) Blue					
P	PNP output	Auto switch which sources current from the signal line when turning on.  DC(+) Brown  OUT Black Load  Power supply  DC(-) Blue					
R	Reed Auto switch	Auto switch which generates on and off outputs with a mechanical contact.					
S	Sequence controller (PLC)	The device to perform sequence control, which performs controlling such as receipt of inputs from the Auto switch along with programming and sending of the output to other machines.  Auto switch which generates on and off outputs with or without mechanical contact such as a transistor.					
	Solid state Auto switch						

#### Internal circuit D-M9N(V) D-M9P(V) DC(+) Brown DC(+) Brown Switch main circuit Switch main circuit 本 **OUT** Black Load OUT Black Load Power Power supply supply DC(-) Blue DC(-) Blue D-M9B(V) (Sink input mode) D-M9B(V) (Source input mode) DC(+) Brown Load DC(+) Brown Switch main circuit Switch main circuit 本 Power Power supply supply DC(-) Blue DC(-) Blue Load

\*: The number marked on each lead wire color shows the pin number of pre-wired connector.

# **Maintenance**

After the power has been disconnected, please observe the following precautions:-

Regarding the actuator operation set up, the contents of the program may be maintained by the customer's application system.

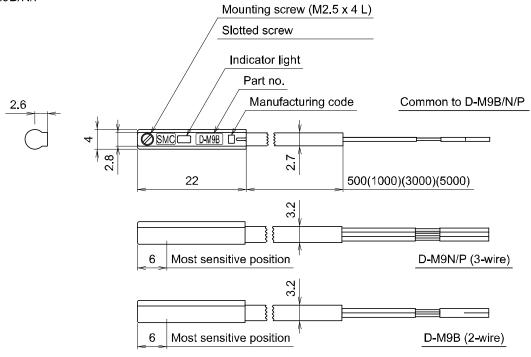
Take care to confirm safety when the power is re-connected, and the actuator operation is resumed, because the operation may have stopped in an unstable condition.

# Specifications

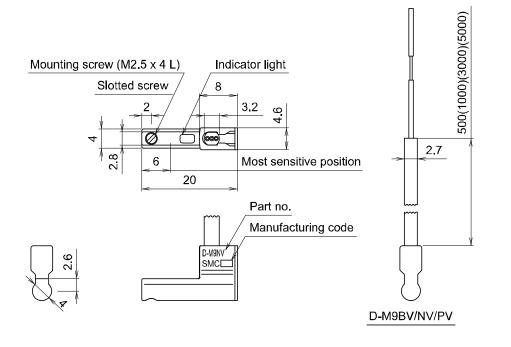
# ■Specification

Opecinication								
Switch part no.	D-M9N	D-M9NV	D-M9P	D-M9PV	D-M9B	D-M9BV		
Wiring		3-wire			2-wire			
Output	NPN		PI	PNP		_		
Lead wire orientation	In line	Perpendicular	In line	Perpendicular	In line	Perpendicular		
Applicable load		IC circuit/Relay/PLC				24 VDC Relay/PLC		
Power supply voltage		5/12/24 VDC	-					
Current consumption		10 mA	-					
Load voltage	28 VD	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 loa (2 V or less at loa	4 V or less					
Current leakage		100 μA or le	0.8 mA or less					
Operating time	1 ms or less							
Indication light	Operating position: The Red LED lights up.							
Electrical entry	Grommet							
Lead wire	Vinyl sheath cable 2.7 x 3.2 oval, 0.15 mm <sup>2</sup> , 2-wire (D-M9B(V)), 3-wire (D-M9N(V),D-M9P(V))							
Impact proof	1000 m/s <sup>2</sup>							
Insulation resistance	$50~\text{M}\Omega$ or more under the test voltage 500 VDC (between case and cable)							
Withstand voltage	1000 VAC 1 min. (between case and cable)							
Ambient temperature	−10 to 60 °C							
Enclosure	IEC 60529 criteria IP67, JISC0920 watertight construction							

### ■Dimensions D-M9B/N/P



#### D-M9BV/NV/PV



### Revision history

- A: Add the D-M9\*V series and the applicable Actuator.
- B: Add the applicable Actuator.

  Change the torque range for mounting switch.

  Change the product spec.
- C: Modify the contents.
- D: Modify the contents.
- E: Limited warranty and Disclaimer are added.

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