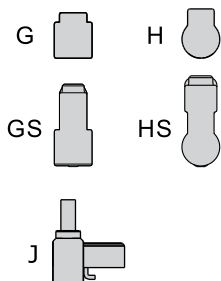


**MOTIONUSA**

DMS、CMS Series Sensor



Ordering code for DMS

**DMS G-□ 020-□**

1 2 3 4 5

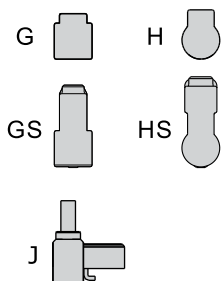
C08

C12

①Model	DMS: Solid State Sensor					
②Specifications	G	GS	H	HS	E	J
③Output type	Blank: 2 wire		N: NPN		P: PNP	
④Lead wire length	020: 2m		030: 3m	050: 5m	100: 10m	
	C08:150mm with M8 plug connector			C12:150mm with M12 plug connector		
⑤Additional specification	Blank: General type		W:Waterproof type IP68 [note1]			

[Note 1] There is no waterproof type for C08, C12 & J, GS, HS. The sockets of C08 and C12 need additional order.

Ordering code for CMS

**CMS G-020-□**

1 2 3 4

C08

C12

① Model	CMS: Reed Sensor			
② Specifications	G	H	J	E
③ Lead wire length	020: 2m	030: 3m	050: 5m	100: 10m
④ Additional specification	C08:150mm with M8 plug connector		C12:150mm with M12 plug connector	
	Blank: General type		H:Heat resistant [note2]	

[Note 2] There is no heat resistant type for C08 & C12. The sockets of C08 and C12 need additional order.

Ordering code for Socket

**F-DMS C08 2 020**

1 2 3 4 5

① Catagory code	F: Accessory			
② Specification code	DMS: Digital Magnetic Sensor			
③ Socket type	C08:M8 socket		C12:M12 socket	
④ Wire type	2: 2-wire type		3:3-wire type	
⑤ Wire length	020: 2 meters	030:3meters	050:5meters	100: 10meters



Ordering code for Cylinder accessory



F - MQ ☐

1

2

3

① Category	F:Accessory								
② Model	MQ:Cylinder Accessory								
③ Cylinder	Aluminum alloy			Aluminum alloy (Thick type)			Stainless steel		
	Code	For series	For bore size	Code	For series	For bore size	Code	For series	For bore size
	A20: Φ20mm	MCK MBL	Φ20	A32T: Φ32mm	TWG	Φ32	S06: Φ6mm	PB/PBR MI MF MG MA/MAC	Φ6
	A25: Φ25mm		Φ25	A40T: Φ40mm		Φ40	S08: Φ8mm		Φ8
	A32: Φ32mm		Φ32	A50T: Φ50mm		Φ50	S10: Φ10mm		Φ10
	A40: Φ40mm		Φ40				S12: Φ12mm		Φ12
	A50: Φ50mm		Φ50				S16: Φ16mm		Φ16
	A63: Φ63mm		Φ63				S20: Φ20mm		Φ20
	A80: Φ80mm		Φ80				S25: Φ25mm		Φ25
							S32: Φ32mm		Φ32
							S40: Φ40mm		Φ40
							S50: Φ50mm		Φ50
							S63: Φ63mm		Φ63

Ordering code for NPB series Cylinder accessory



F - MQN S5/16

1

2

3

① Category	F:Accessory	
② Model	MQN:NPB Series Cylinder Accessory	
③ Bore size	S5/16: Φ5/16 inch	
	S7/16: Φ7/16 inch	
	S9/16: Φ9/16 inch	
	S3/4: Φ3/4 inch	
	S7/8: Φ7/8 inch	
	S1-1/16: Φ1-1/16 inch	
	S1-1/4: Φ1-1/4 inch	
	S1-1/2: Φ1-1/2 inch	
	S1-3/4: Φ1-3/4 inch	
	S2: Φ2 inch	
	S2-1/2: Φ2-1/2 inch	

Ordering code for Tie Rod Cylinder accessory



F - SC ☐ **SH**

1

2

3

4

①Category	F: Accessory		
②Model	SC:Tie Rod Cylinder Accessory		
③Cylinder	Code	For series	For bore size
	32	SC SGC	Φ32, Φ40, Φ50
	63		Φ63
	80		Φ80, Φ100
	125		Φ125
	160		Φ160, Φ200
	250		Φ250
④Attached			

DMS、CMS Series

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DMS Specifications

Item	DMS		
Model	2-wire	NPN	PNP
Power supply voltage	10V ~ 28V DC	5V ~ 30V DC	
Switching current	2.5mA ~ 100mA	30V/200mA Max.	
Contact capacity	2.8W Max.	6.0W Max.	
Current consumption	3mA Max.	5mA Max.	
Internal voltage drop	2.7V Max.	0.7V Max.	
Leakage current	0.05mA Max.	0.01mA Max.	
Switching frequency	1000Hz		
Impact resistance	50G		
Circuit protection	Reverse polarity protection Surge protection		
Operating Temp.	-10℃ ~ 70℃		
Enclosure	IP64/IP68		
Standard	CE marking, RoHS		

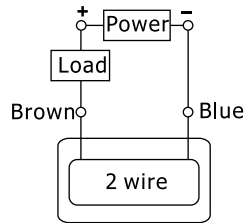
CMS Specifications

Item	CMS	
Model	General	Heat resistant
Power supply voltage	5V ~ 240V AC/DC	
Switching current	100mA	
Contact capacity	10W Max.	
Current consumption	N/A	
Internal voltage drop	2.5V Max. @100mA DC	N/A
Leakage current	N/A	
Switching frequency	200Hz	
Impact resistance	50G	
Circuit protection	N/A	
Operating Temp.	-10℃ ~ 70℃	-10℃ ~ 125℃
Enclosure	IP64	
Standard	CE marking, RoHS	

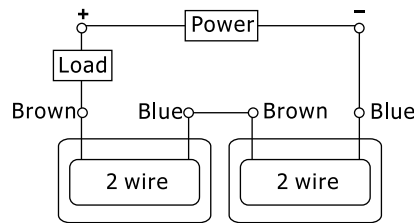
Connection method

2 wire, reed sensor connection

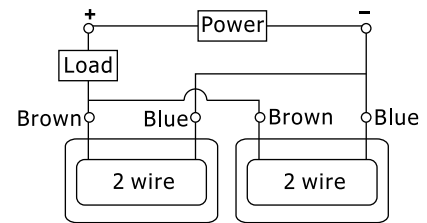
1.General connection



2.Series connection(And)



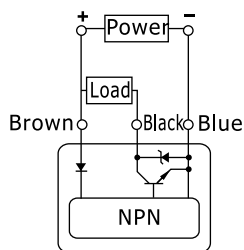
3.Parallel connection(OR)



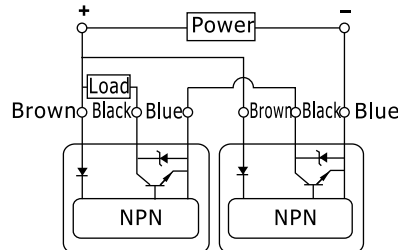
3 wire, solid state NPN connection

Note: The indicator lights will light up when both auto switches are turned NO.

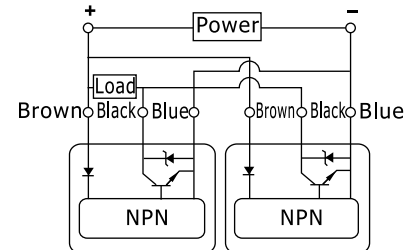
1.General connection



2.Series connection(And)



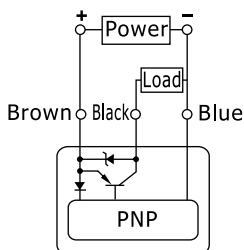
3.Parallel connection(OR)



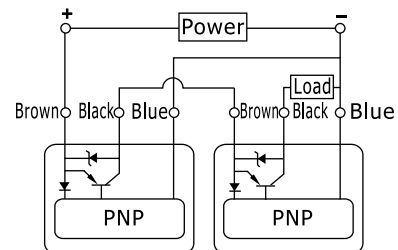
3 wire, solid state PNP connection

Note: The indicator lights will light up when both auto switches are turned NO.

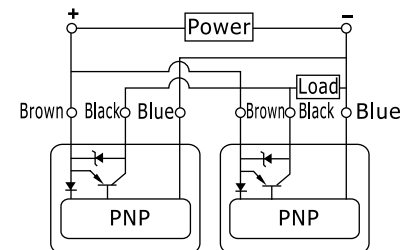
1.General connection



2.Series connection(And)



3.Parallel connection(OR)



Sensor

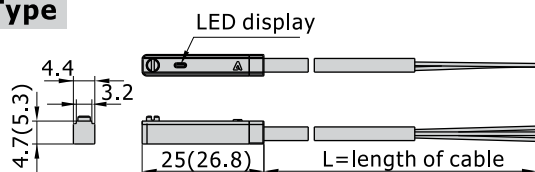
DMS、CMS Series

AIRTAC

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Dimensions

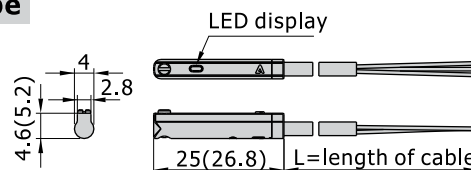
G Type



Note:a number in the bracket is the dimension of CMSSG.

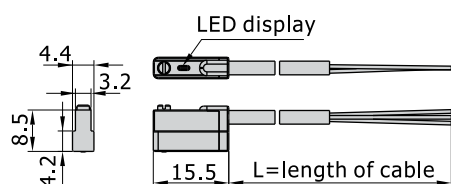
H Type

[Unit: mm]

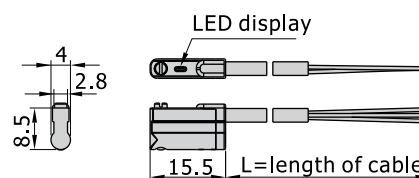


Note:a number in the bracket is the dimension of CMSSH.

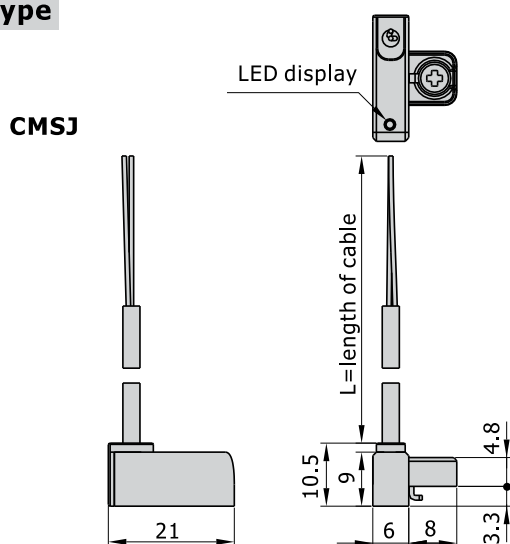
GS Type



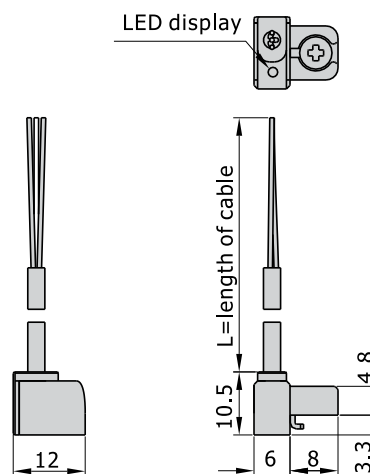
HS Type



J Type

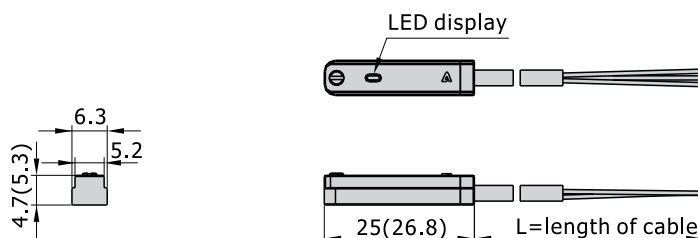


DMSJ



length of cable specification	length of cable(L)
020 Type	2000mm
030 Type	3000mm
050 Type	5000mm

E Type



Note:a number in the bracket is the dimension of CMSE.

Sensor

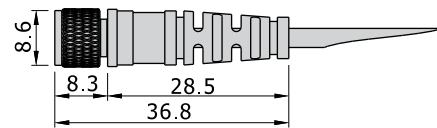
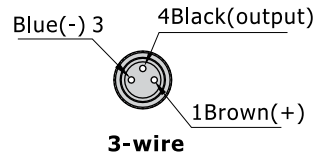
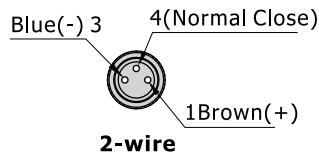
DMS、CMS Series

AirTAC

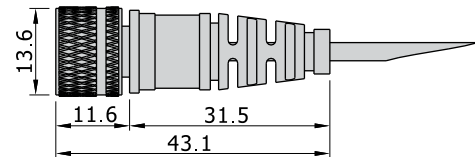
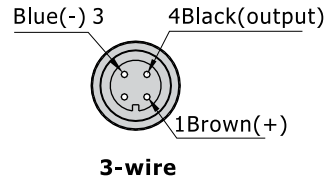
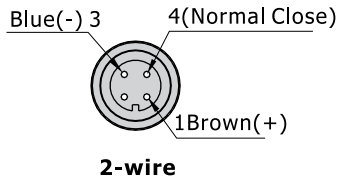
MOTIONUSA

Socket

M8 socket



M12 socket



How to selection

DMSG(S)	CMSG	NSU						HFKP					HFKL		
		1-1/2	2	2-1/2	3-1/4	4	5	16	20	25	32	40	16	20	25
		●	●	●	●	●	●	●	●	●	●	●	●	●	●

DMSG(S)	CMSG	NPB										
 		5/16	7/16	9/16	3/4	7/8	1-1/16	1-1/4	1-1/2	1-3/4	2	2-1/2
		●	●	●	●	●	●	●	●	●	●	●
	It needs an accessory to mount a sense on a cylinder											

DMSH(S)	CMSH	NACF								NACQ									
		9/16	3/4	1-1/16	1-1/2	2	2-1/2	3	4	12	16	20	25	32	40	50	63	80	100
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		HFD				HFKP				HFCQ									
		8	12	16	20	25	10	16	20	25	32	40	16	20	25	32	40	50	63
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		HFKL				HGS													
		10	16	20	25	6	8	10	12										
		●	●	●	●	●	●	●	●										

AirTAC

How to selection



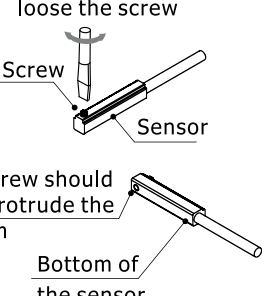
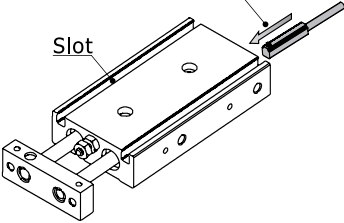
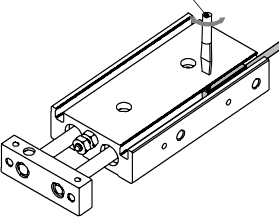
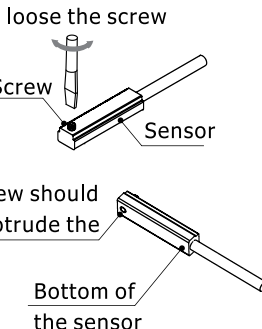
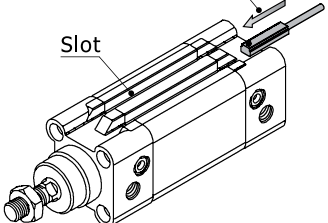
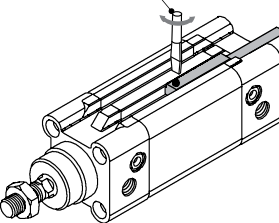
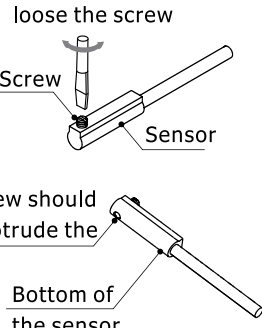
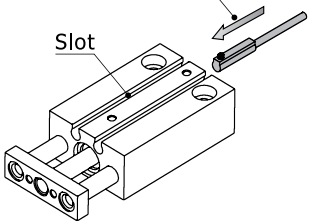
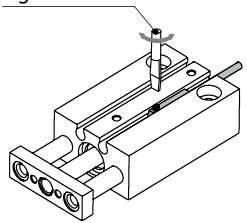
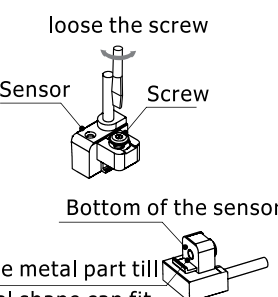
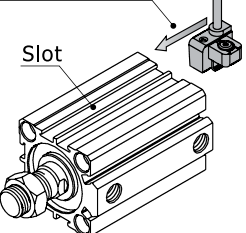
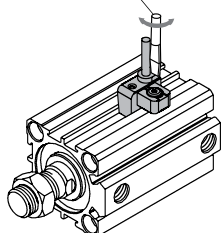
The image shows a wooden handle with a blue band and a metal tip. Below the handle are two cross-sectional diagrams. The left diagram shows a simple circular cross-section. The right diagram shows a more complex cross-section with a central rectangular void and a wider base.



Sensor

DMS、CMS Series

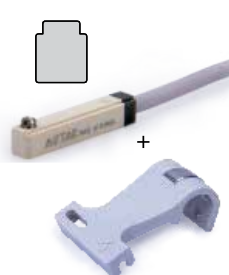
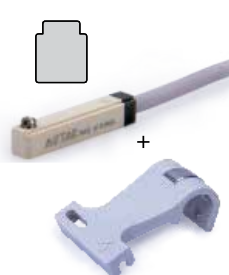
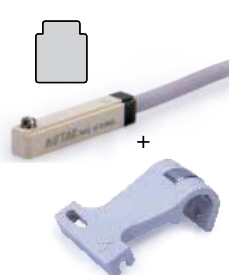
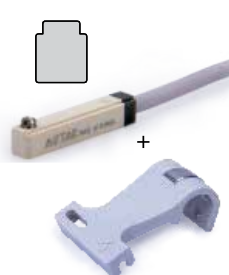
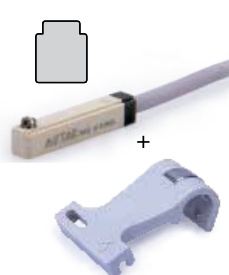
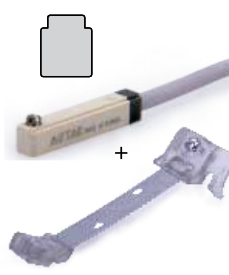
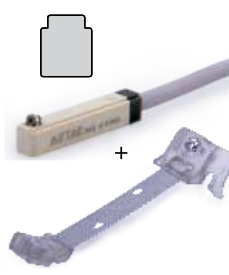
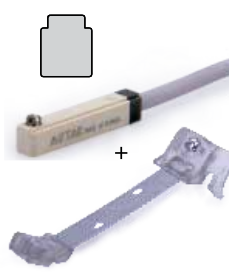
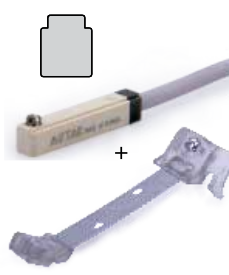
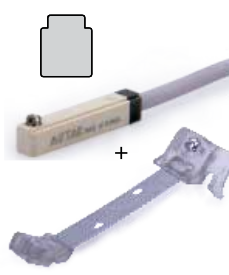
How to mounting

Sensor model	Procedure		
DMSG(S)/CMMSG	1  loose the screw Screw Sensor The screw should NOT protrude the bottom Bottom of the sensor	2  Insert the sensor into the slot and adjust it to desired position Slot	3  Tighten the screw
DMSE/CMSE	1  loose the screw Screw Sensor The screw should NOT protrude the bottom Bottom of the sensor	2  Insert the sensor into the slot and adjust it to desired position Slot	3  Tighten the screw
DMSH(S)/CMSH	1  loose the screw Screw Sensor The screw should NOT protrude the bottom Bottom of the sensor	2  Insert the sensor into the slot and adjust it to desired position Slot	3  Tighten the screw
DMSJ/CMSJ	1  loose the screw Sensor Screw Bottom of the sensor Adjust the metal part till the lateral shape can fit the slot of the cylinder	2  Insert the sensor into the slot and adjust it to desired position Slot	3  Tighten the screw

Sensor

DMS、CMS Series

How to mounting

Sensor model	Procedure	
DMSG+(F-SC□SH) CMSG+(F-SC□SH) 	1 	2 
	3 	4 
DMSG+(F-MQ□) CMSG+(F-MQ□) 	1 	2 
	3 	4 

Instruction

1. Sensor shall not fall down or bear great impact when it is installed.
2. The wire of the Sensor shall not move with the action of cylinder.
3. Clamping torque shall be within the allowable scope when the Sensor is installed(0.15~0.2Nm).
4. Sensor shall be installed in the middle position of the action scope.
5. Sensor wiring:
 - A. The wire is unable to bear repetitive torsion and tension. Please wire an external load before switch the power on.
 - B. No poor insulation in wire.
 - C. Do not wire with power line, high voltage line or use one wiring pipe.
 - D. Please wire the circuit correctly base on the circuit diagram.
6. Execute scheduled maintenance by the following guidelines:
 - A. Make sure the sensor is firmly fixed.
 - B. Make sure the wire is intact.
 - C. Make sure that LED indicate the movement of cylinder correctly.
7. Application of environment:
 - A. It is Not allow to use the sensor in the environment with explosive gas.
 - B. Magnetic sensor shall not be used in the environment with external magnetism.
 - C. Magnetic sensor shall not be used in the environment that is always eroded by water.
 - D. Magnetic sensor shall not be used in the environment with oil moisture or chemical substance.
 - E. Magnetic sensor shall not be used in the environment with periodically changing temperature.
 - F. Magnetic sensor shall not be used in the environment with excessively great impact.
 - G. Magnetic sensor shall not be used in the environment with sources of electrical pulse.
 - H. Avoid the environment with accumulated iron power and dense magnetic objects.