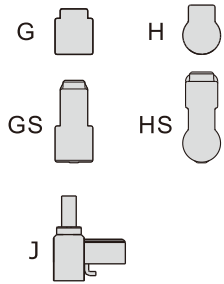




DMS、CMS Series Sensor

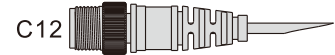
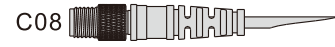


Ordering code for DMS



DMS G - □ 020 - □

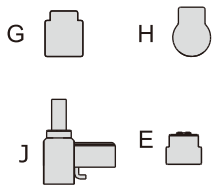
① ② ③ ④ ⑤



① Model	DMS: Solid State Sensor					
② Specifications	G	GS	H	HS	E	J
③ Output type	Blank: 2 wire		N : NPN		P : PNP	
④ Lead wire length	020: 2m		030: 3m	050: 5m	100: 10m	
⑤ Additional specification	C08:150mm with M8 plug connector		C12:150mm with M12 plug connector			
⑥ Additional specification	Blank: General type		W:Waterproof type IP68 [note1]			

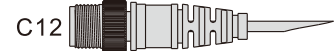
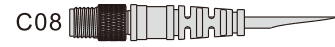
[Note 1] There is no waterproof type for C08 ,C12 & J, GS, HS. The sockets of C08 and C12 need additional order.

Ordering code for CMS



CMS G-020-□

① ② ③ ④



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	
⑤ Additional specification	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 Category 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



DMS、CMS Series

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	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	MBL	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

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

DMS、CMS Series

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°C ~ 70°C		
Enclosure	IP64/IP68		
Standard	CE marking, RoHS		

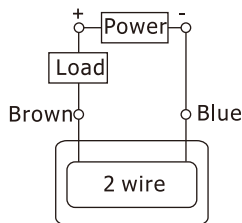
CMS Specifications

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°C ~ 70°C	-10°C ~ 125°C
Enclosure	IP64	
Standard	CE marking, RoHS	

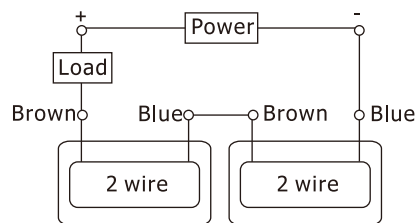
Connection method

2 wire, reed sensor connection

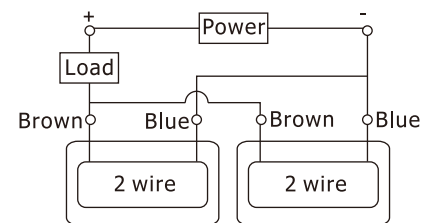
1.General connection



2.Series connection(And)



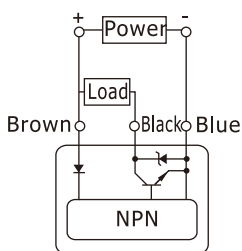
3.Parallel connection(OR)



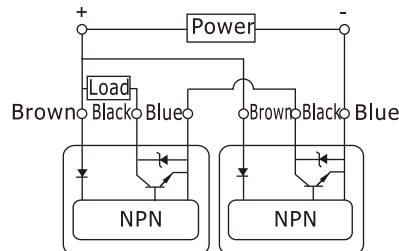
3 wire, solid state NPN connection

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

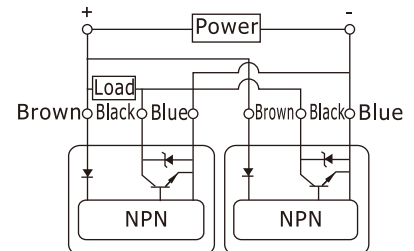
1.General connection



2.Series connection(And)



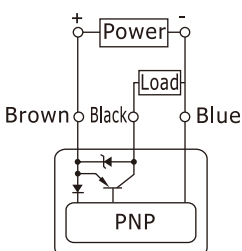
3.Parallel connection(OR)



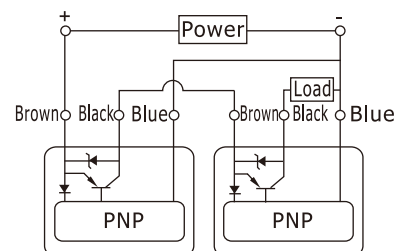
3 wire, solid state PNP connection

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

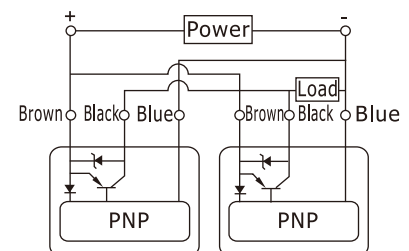
1.General connection



2.Series connection(And)



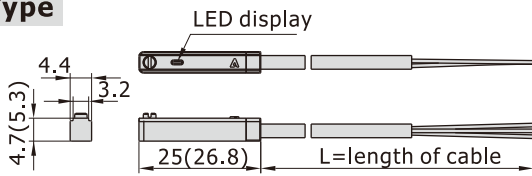
3.Parallel connection(OR)



DMS, CMS Series

Dimensions

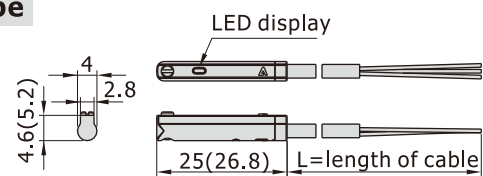
G Type



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

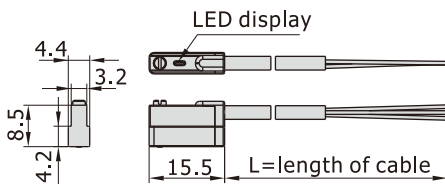
H Type

[Unit: mm]

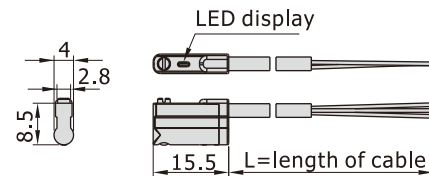


Note: a number in the bracket is the dimension of CMSE.

GS Type

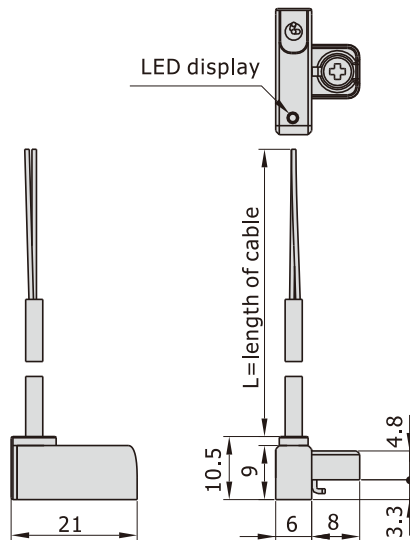


HS Type

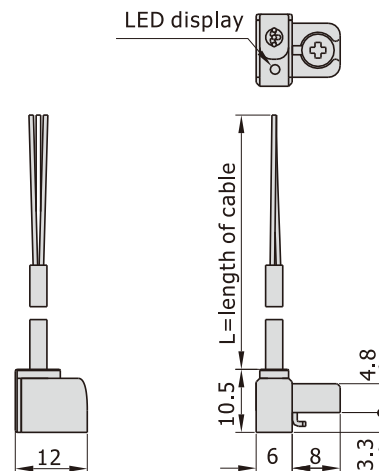


J Type

CMSJ

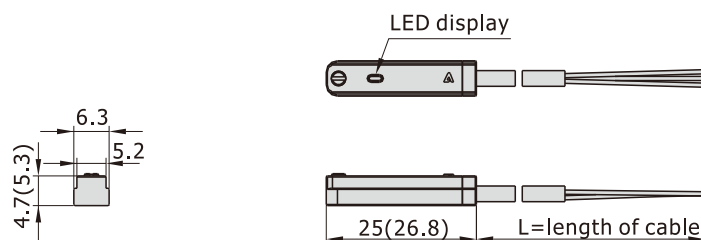


DMSJ



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

E Type

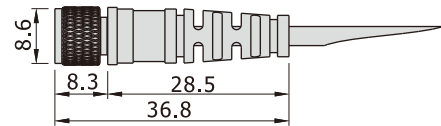
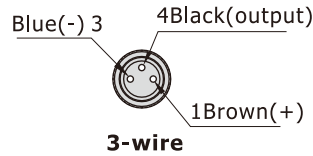
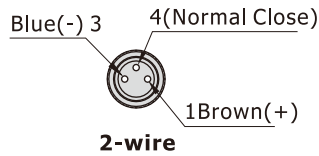


Note: a number in the bracket is the dimension of CMSE.

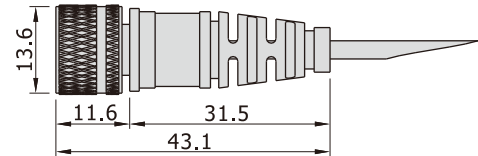
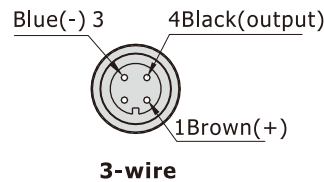
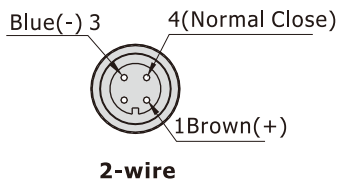
DMS、CMS Series

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												
●	●	●	●	●	●	●	●												

DMS, CMS Series

How to selection

DMSG(S)	CMSG	HFK						ACQ\TACQ												SDA														
		10	16	20	25	32	40	12	16	20	25	32	40	50	63	80	100	125	140	160	12	16	20	25	32	40	50	63	80	100				
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
		TWQ						TCL\TCM						QCK						TWH\TWM														
		20	25	32	40	50	6	10	12	16	20	25	32	40	50	63	80	100	12	16	20	25	32	40	50	63	20	25	32	40	50	63	80	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		SAU				HFZ				HFY				HFP				MD\MK																
	32	40	50	63	80	100	6	10	16	20	25	32	40	6	10	16	20	25	32	10	16	20	25	32	6	10	16	20	25	32				
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	TR			STW			RMT			RMTL																								
	6	10	16	20	25	32	10	16	20	25	32	16	20	25	32	40	10	16	20	25	32	40												
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		Stainless steel																																
		PB\PBR				MI				MF				MG				MA\MAC																
		6	8	10	12	16	8	10	12	16	20	25	32	40	20	25	32	40	50	63	16	20	25	32	40	50	63							
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		Aluminum alloy														Aluminum alloy (Thick type)																		
		MBL						MCK						TWG						It needs an accessory to mount a sense on a cylinder														
	20	25	32	40	50	63	25	32	40	50	63	80	32	40	50																			
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		SC						SGC						It needs an accessory to mount a sense on a cylinder																				
		32	40	50	63	80	100	125	160	200	250	125	160													200	250							
		●	●	●	●	●	●	●	●	●	●	●	●													●	●	●	●	●	●	●	●	●

DMSJ	CMSJ	ACQ\TACQ						SDA								TWQ			QCK			QDK			TN								
		32	40	50	63	80	100	12	16	20	25	32	40	50	63	80	100	32	40	50	32	40	50	63	20	25	32	40	10	16	20	25	32
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		TWH\TWM																															
		20	25	32	40	50	63	80																									
		●	●	●	●	●	●	●																									

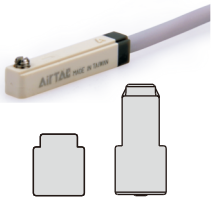
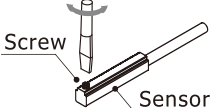
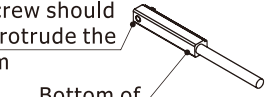
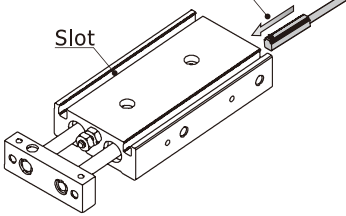
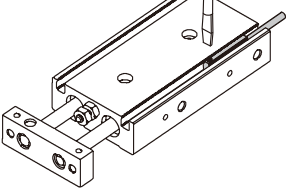
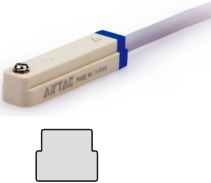


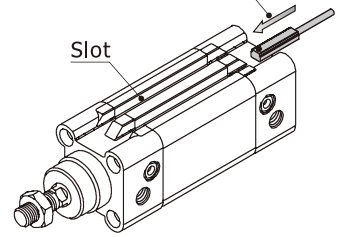
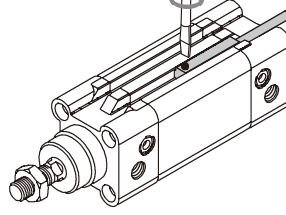
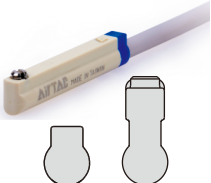
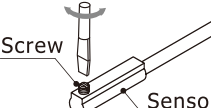

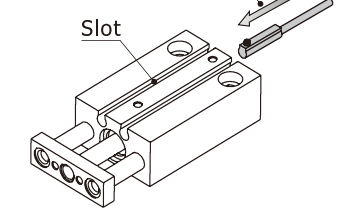
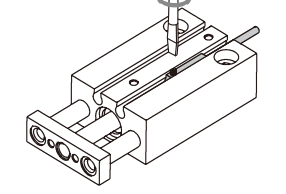
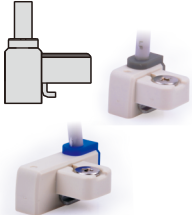
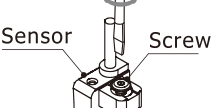

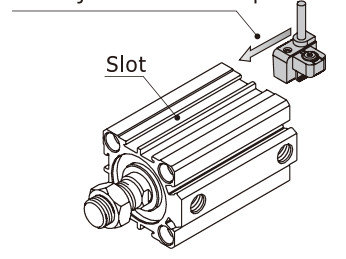
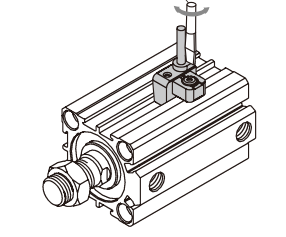
DMSH(S)	CMSH	ACQ\TACQ			TC		HFZ				HFY		HFP		HFR				HFC						HFT								
		125	140	160	6	10	6	10	16	20	25	32	40	6	32	10	16	20	25	32	16	20	25	32	40	50	63	10	16	20	25	32	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		QDK			HLQ\HLQL				HLS\HLSL				MU				HLH			MPG													
		20	25	32	40	6	8	12	16	20	25	6	8	12	16	20	25	6	8	10	12	16	20	6	10	16	20	6	8	10	12	16	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		HRQ						HFK				RMH																					
		2	3	7	10	20	30	50	70	100	200	10	16	20	25	32	40	10	16	20	25												
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

DMSE	CMSE	SE/BSE						SAI						ACE															
		32	40	50	63	80	100	125	32	40	50	63	80	100	125	160	200	12	16	20	25	32	40	50	63	80	100	125	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Sensor

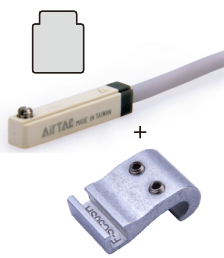
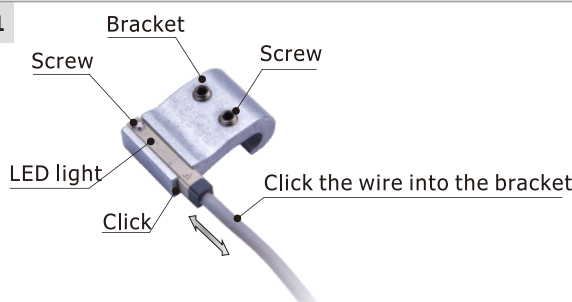
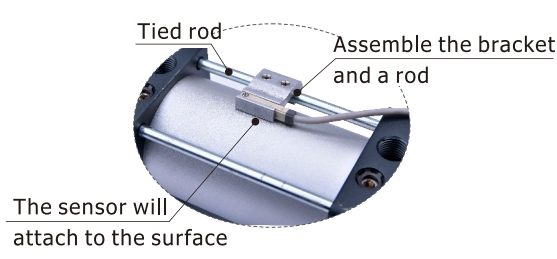
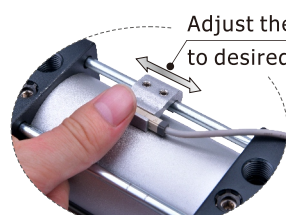

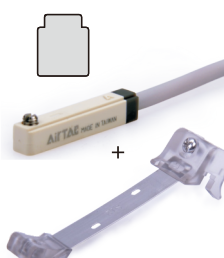
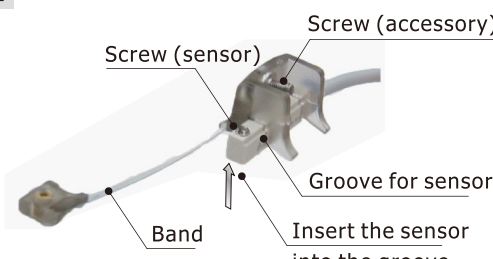
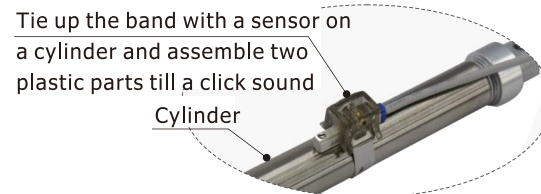
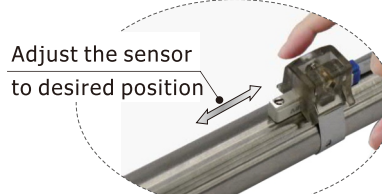
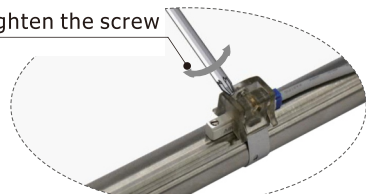
DMS, CMS Series

How to mounting

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

DMSG, 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. Pleas 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.