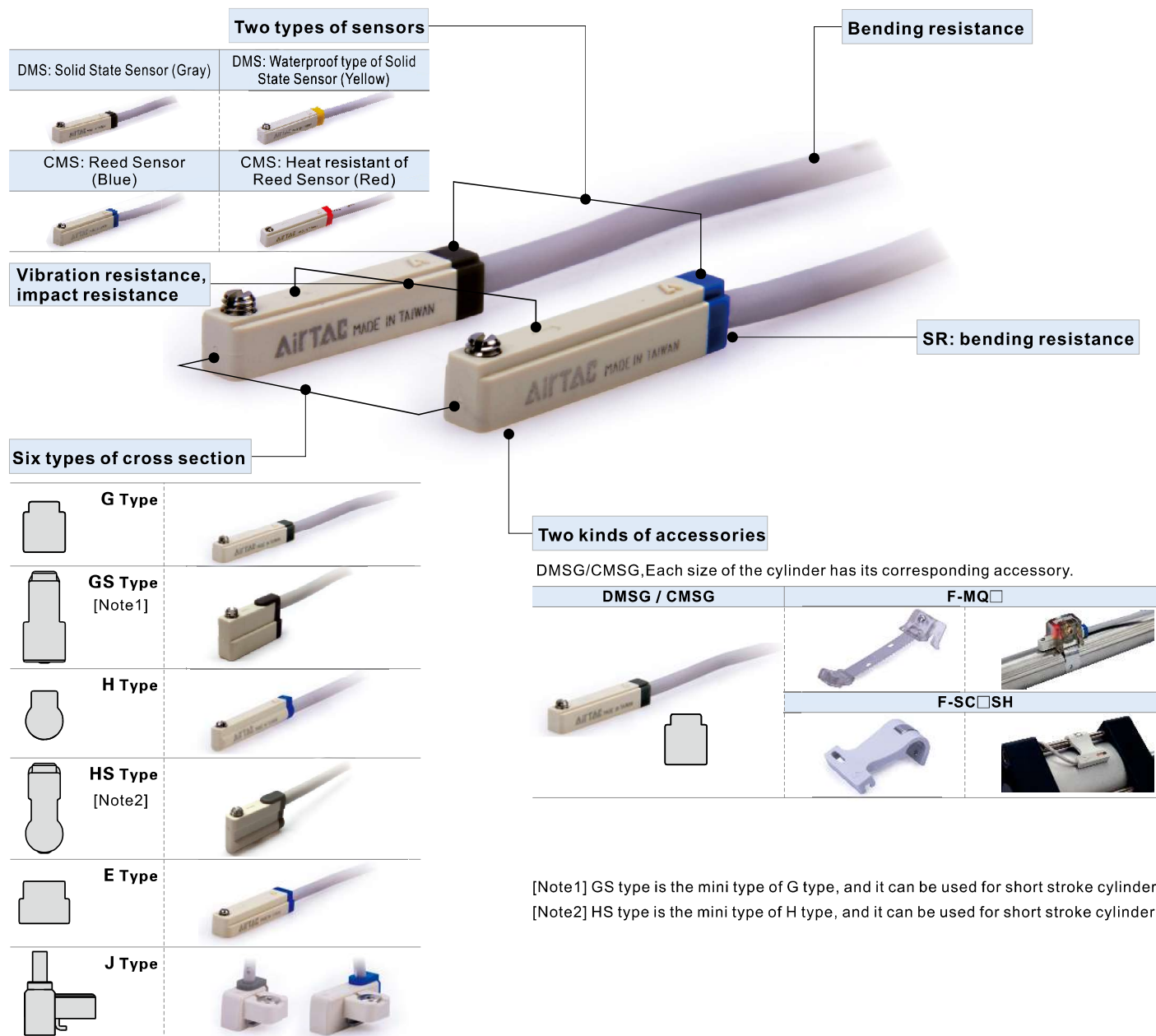




DMS、CMS Series sensor

Compendium of 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℃ ~ 70℃		
Enclosure	IP64/IP68		
Standard	CE marking, RoHS		

CMS Specifications

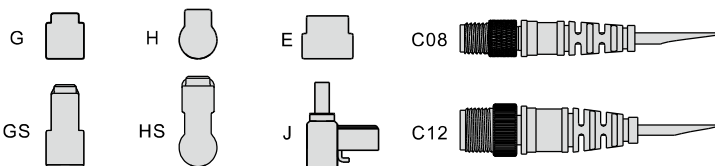
Item	CMS	
	General	Heat resistant
Model		
Power supply voltage	5V ~ 240V AC/DC	
Switching current	100mA	
Contact capacity	10W Max.	
Current consumption	N/A	
Internal voltage drop	2.5V Max. @100mA DC	N/A
Leakage current	N/A	
Switching frequency	200Hz	
Impact resistance	50G	
Circuit protection	N/A	
Operating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



Ordering code for DMS

DMS G - □ 020 - □

① ② ③ ④ ⑤



① Model	DMS: Solid State Sensor			
② Specifications	G	GS	H	HS
③ Output type	Blank: 2 wire		N: NPN	
④ Lead wire length	020: 2m		030: 3m	
⑤ Additional specification	Blank: General type		W: Waterproof type IP68 [note 1]	

[Note 1] There is no waterproof type for C08 / C12 & J/GS/HS.
The sockets of C08 and C12 need additional order. Please check on page 537.

Ordering code for CMS

CMS G - 020 - □

① ② ③ ④

① Model	CMS: Reed Sensor			
② Specifications	G	H	E	J
③ Lead wire length	020: 2m		030: 3m	
④ Additional specification	Blank: General type		H: Heat resistant [note 2]	

[Note 2] There is no heat resistant type for C08 & C12.
The sockets of C08 and C12 need additional order. Please check on page 537.

Ordering code for accessories

F - MQ □

Cylinder Accessory

① ② ③

① Category	F: Accessory					
② Model	MQ: Cylinder Accessory					
③ Cylinder	Aluminum alloy			Stainless steel		
	Code	For series	For bore size	Code	For series	For bore size
	A20: Φ20mm	MCK	Φ20	S06: Φ6mm	PB/PBR MI MF MG	Φ6
	A25: Φ25mm		Φ25	S08: Φ8mm		Φ8
	A32: Φ32mm		Φ32	S10: Φ10mm		Φ10
	A40: Φ40mm		Φ40	S12: Φ12mm		Φ12
	A50: Φ50mm	MBL	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



F - SC □ SH

Tie Rod Cylinder Accessory

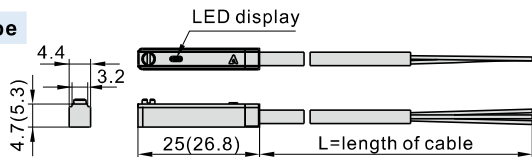
① ② ③ ④

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



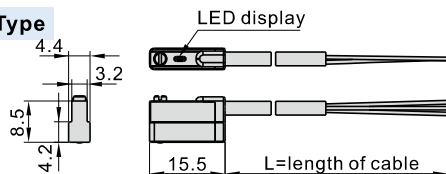
Dimensions

G Type

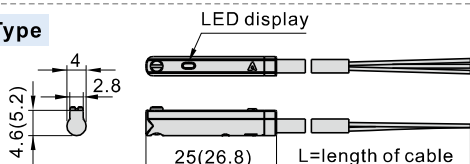


Note: a number in the bracket is the dimension of CMSG.

GS Type

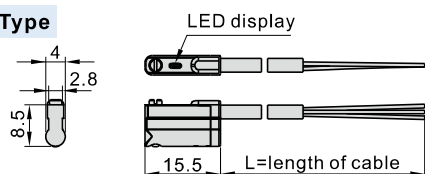


H Type

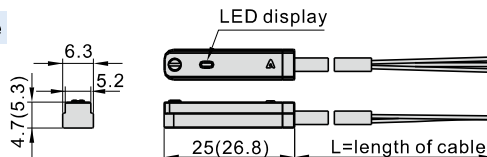


Note: a number in the bracket is the dimension of CMSH.

HS Type

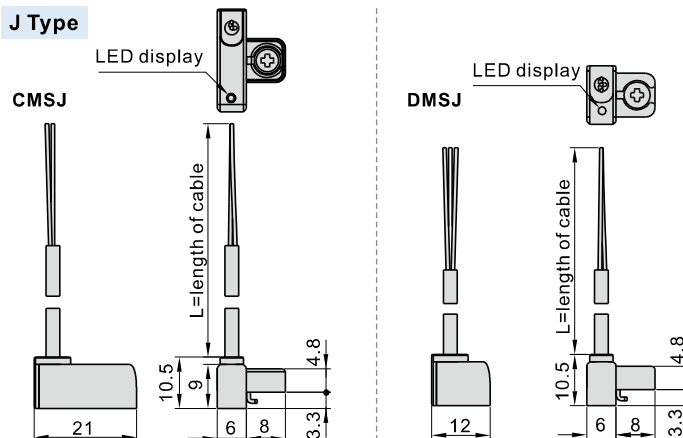


E Type



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

J Type

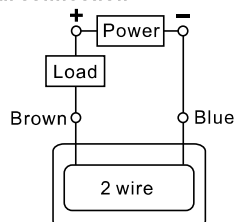


length of cable specification	length of cable(L)
020 Type	2000mm
030 Type	3000mm
050 Type	5000mm

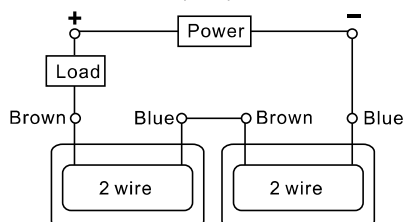
Connection method

2 wire, reed sensor connection

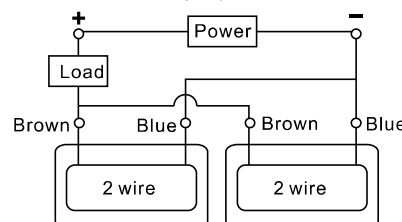
1.General connection



2.Series connection(And)

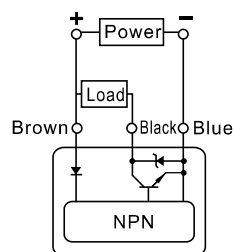


3.Parallel connection(OR)



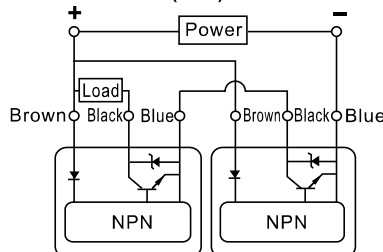
3 wire, solid state NPN connection

1.General connection

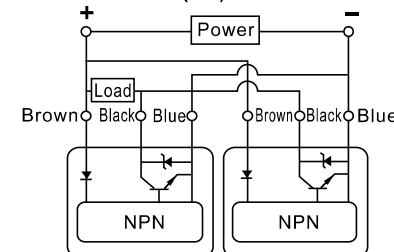


Note: The indicator lights will light up when both auto switches are turned NO.

2.Series connection(And)

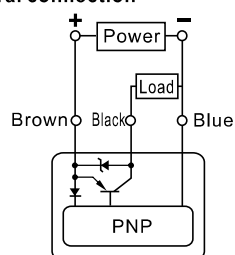


3.Parallel connection(OR)



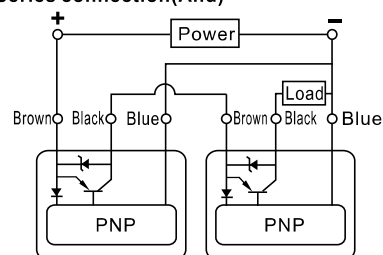
3 wire, solid state PNP connection

1.General connection

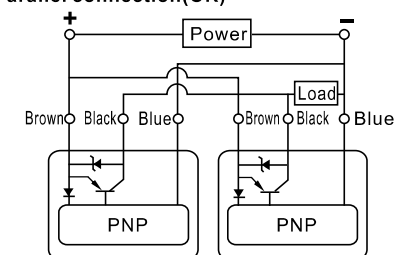


Note: The indicator lights will light up when both auto switches are turned NO.

2.Series connection(And)



3.Parallel connection(OR)



A diagram showing a syringe and a vial. The syringe is on the left, with a plunger and a needle. The vial is on the right, with a stopper and a label. The syringe is shown drawing liquid from the vial.

Replacement

New		Previous	
DMSG / DMSGs / CMSG		DS1-G / CS1-G	
Ordering code			
	DMSG(S)-020	DS1G020	
	DMSG(S)-030	DS1G030	
	DMSG(S)-050	DS1G050	
	DMSG(S)-C08	DS1GC08	
	DMSG(S)-C12	DS1GC12	
	DMSG(S)-020-W	-	
	DMSG(S)-030-W	-	
	DMSG(S)-050-W	-	
	DMSG(S)-N020(-W)	DS1GN020(No Waterproof type)	
	DMSG(S)-N030(-W)	DS1GN030(No Waterproof type)	
	DMSG(S)-N050(-W)	DS1GN050(No Waterproof type)	
	DMSG(S)-NC08	DS1GNC08	
	DMSG(S)-NC12	DS1GNC12	
	DMSG(S)-P020(-W)	DS1GP020(No Waterproof type)	
	DMSG(S)-P030(-W)	DS1GP030(No Waterproof type)	
	DMSG(S)-P050(-W)	DS1GP050(No Waterproof type)	
	DMSG(S)-PC08	DS1GPC08	
	DMSG(S)-PC12	DS1GPC12	
	CMSG-020	CS1G020	
	CMSG-030	CS1G030	
	CMSG-050	CS1G050	
	CMSG-C08	CS1GC08	
	CMSG-C12	CS1GC12	
	CMSG-020-H	CS1G020HT	
	CMSG-030-H	CS1G030HT	
	CMSG-050-H	CS1G050HT	
	-	CS1GC08HT	
	-	CS1GC12HT	

New		Previous	
DMSJ / CMSJ		DS1-J / CS1-J	
Ordering code			
	DMSJ-020	DS1J020	
	DMSJ-030	DS1J030	
	DMSJ-050	DS1J050	
	DMSJ-C08	DS1JC08	
	DMSJ-C12	DS1JC12	
	DMSJ-020-W	-	
	DMSJ-030-W	-	
	DMSJ-050-W	-	
	DMSJ-N020(-W)	DS1JN020(No Waterproof type)	
	DMSJ-N030(-W)	DS1JN030(No Waterproof type)	
	DMSJ-N050(-W)	DS1JN050(No Waterproof type)	
	DMSJ-NC08	DS1JNC08	
	DMSJ-NC12	DS1JNC12	
	DMSJ-P020(-W)	DS1JP020(No Waterproof type)	
	DMSJ-P030(-W)	DS1JP030(No Waterproof type)	
	DMSJ-P050(-W)	DS1JP050(No Waterproof type)	
	DMSJ-PC08	DS1JPC08	
	DMSJ-PC12	DS1JPC12	
	CMSJ-020	CS1J020	
	CMSJ-030	CS1J030	
	CMSJ-050	CS1J050	
	CMSJ-C08	CS1JC08	
	CMSJ-C12	CS1JC12	
	CMSJ-020-H	CS1J020HT	
	CMSJ-030-H	CS1J030HT	
	CMSJ-050-H	CS1J050HT	
	-	CS1JC08HT	
	-	CS1JC12HT	

New		Previous	
DMSE / CMSE		DS1-E / CS1-E	
Ordering code			
	DMSE-020	DS1E020	
	DMSE-030	DS1E030	
	DMSE-050	DS1E050	
	DMSE-C08	DS1EC08	
	DMSE-C12	DS1EC12	
	DMSE-020-W	-	
	DMSE-030-W	-	
	DMSE-050-W	-	
	DMSE-N020(-W)	DS1EN020(No Waterproof type)	
	DMSE-N030(-W)	DS1EN030(No Waterproof type)	
	DMSE-N050(-W)	DS1EN050(No Waterproof type)	
	DMSE-NC08	DS1ENC08	
	DMSE-NC12	DS1ENC12	
	DMSE-P020(-W)	DS1EP020(No Waterproof type)	
	DMSE-P030(-W)	DS1EP030(No Waterproof type)	
	DMSE-P050(-W)	DS1EP050(No Waterproof type)	
	DMSE-PC08	DS1EPC08	
	DMSE-PC12	DS1EPC12	
	CMSE-020	CS1E020	
	CMSE-030	CS1E030	
	CMSE-050	CS1E050	
	CMSE-C08	CS1EC08	
	CMSE-C12	CS1EC12	
	CMSE-020-H	CS1E020HT	
	CMSE-030-H	CS1E030HT	
	CMSE-050-H	CS1E050HT	
	-	CS1EC08HT	
	-	CS1EC12HT	

New		Previous	
DMSH / DMSHS / CMSH		DS1-H / CS1-H	
Ordering code			
	DMSH(S)-020	DS1H020	
	DMSH(S)-030	DS1H030	
	DMSH(S)-050	DS1H050	
	DMSH(S)-C08	DS1HC08	
	DMSH(S)-C12	DS1HC12	
	DMSH(S)-020-W	-	
	DMSH(S)-030-W	-	
	DMSH(S)-050-W	-	
	DMSH(S)-N020(-W)	DS1HN020(No Waterproof type)	
	DMSH(S)-N030(-W)	DS1HN030(No Waterproof type)	
	DMSH(S)-N050(-W)	DS1HN050(No Waterproof type)	
	DMSH(S)-NC08	DS1HNC08	
	DMSH(S)-NC12	DS1HNC12	
	DMSH(S)-P020(-W)	DS1HP020(No Waterproof type)	
	DMSH(S)-P030(-W)	DS1HP030(No Waterproof type)	
	DMSH(S)-P050(-W)	DS1HP050(No Waterproof type)	
	DMSH(S)-PC08	DS1HPC08	
	DMSH(S)-PC12	DS1HPC12	
	CMSH-020	CS1H020	
	CMSH-030	CS1H030	
	CMSH-050	CS1H050	
	CMSH-C08	CS1HC08	
	CMSH-C12	CS1HC12	
	CMSH-020-H	CS1H020HT	
	CMSH-030-H	CS1H030HT	
	CMSH-050-H	CS1H050HT	
	-	CS1HC08HT	
	-	CS1HC12HT	

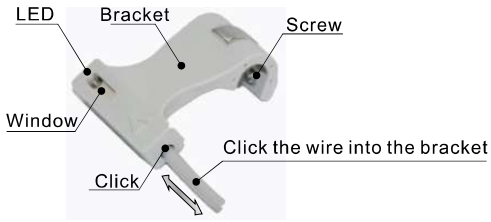
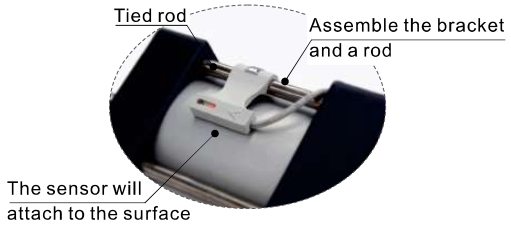
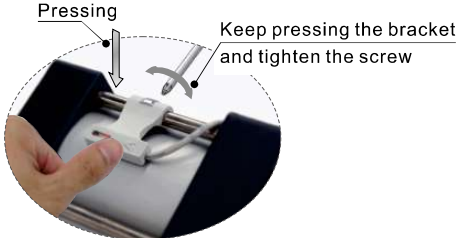
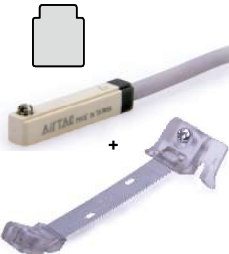
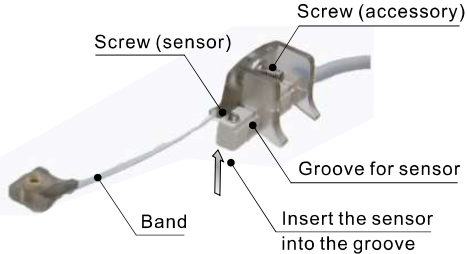
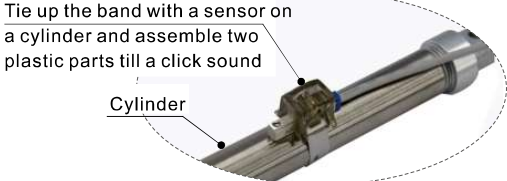
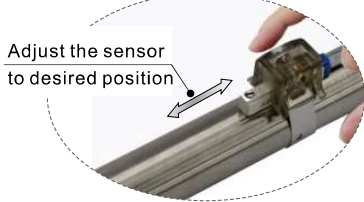
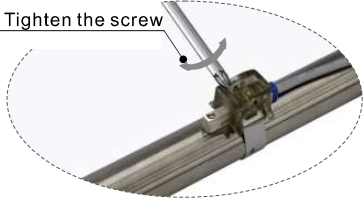
Replacement of previous sensor

New sensor + Tie Rod Cylinder Accessory		Previous sensor + Accessory			
DMSG/CMSG + F-SC□SH		previous sensor		previous sensor + Accessory	
Ordering code	Ordering code	Ordering code		Ordering code	
	DMSG + CMSG +			DS1F CS1F	
				DS1U CS1U	
		F-SC32SH			
		F-SC63SH			
		F-SC80SH			
		F-SC125SH			
F-SC160SH					
F-SC250SH				Ordering code	
				F-SC32H	
				F-SC63H	
				F-SC80H	
				-	
				-	
				-	

new sensor + band		previous sensor + band			
DMSG/CMSG + F-MQ□		previous sensor		previous sensor + band	
Ordering code	Ordering code	Ordering code		Ordering code	
	DMSG + CMSG +	F-MQA20			
		F-MQA25			
		F-MQA32			
		F-MQA40			
		F-MQA50			
		F-MQA63			
		F-MQA80			
		F-MQ32T			
		F-MQ40T			
		F-MQ50T			
		F-MQS06		D(C)S1T□A32	
		F-MQS08		D(C)S1T□A40	
		F-MQS10		D(C)S1T□A50	
		F-MQS12			
		F-MQS16			
		F-MQS20			
		F-MQS25			
		F-MQS32			
		F-MQS40			
		F-MQS50			
		F-MQS63			
</					

Installation

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

Sensor for "米" shape cylinder

SAI, SAU series will substitute for SI, SU series. And the corresponding sensors have some adjustments as the chart below.

New type(SAI)		Previous type(SI)	
Cylinder	Sensor	Cylinder	Sensor
Cylinder and accessory 	 CMSE \ DMSE		 CS1B1 / DS1B1 CS1B2 / DS1B2 CS1B3 / DS1B3 CS1B4 / DS1B4 CS1B5 / DS1B5 CS1B6 / DS1B6 CS1B7 / DS1B7 CS1F/DS1F/CS1U/DS1U + F-SI32H/F-SI40H F-SI50H/F-SI63H F-SI80H/F-SI100H F-SI125H/F-SI160H F-SI200H
Installation 			 Sensor (CS1F/DS1F/CS1U/DS1U) Mounting bracket (F-SI32H~F-SI200H) "米" shape cylinder (SI series)

New type(SAU)		Previous type(SU)	
Cylinder	Sensor	Cylinder	Sensor
Cylinder and accessory 	 CMSG \ DMSG		 CS1B1 / DS1B1 CS1B2 / DS1B2 CS1B3 / DS1B3 CS1B4 / DS1B4 CS1F/DS1F/CS1U/DS1U + F-SU32H/F-SU40H F-SU50H/F-SU63H F-SU80H/F-SU100H
Installation 			 Sensor (CS1F/DS1F/CS1U/DS1U) Mounting bracket (F-SU32H~F-SU100H) "米" shape cylinder (SU series)