DIC2550＋スミ

Rod type switching sensor
without mechanical contact

CS series

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It makes Technological Sense

STC SANTEST

CS series

Rod type switching sensor
without mechanical contact

◎Main Specification

- ●Effective stroke：15～1000mm
- ●Adjustable range of output：±6mm(forward)、±10mm(backward)
- ●Temperature drift：±5μm／℃(sensor)
- ●Output：Open collector(Option：relay output)
- ●Power supply：DC24V0.1A
- ●Max. pressure：35MPa
- ●Operating temperature：−40～＋100℃
- ●Vibration：6G
- ●Shock：100G
- ●Protection：IP67

It makes Technological Sense

SANTEST

Rod type switching sensor
without mechanical contact

CS series

Model CS Series
– Rod type switching sensor without mechanical contact

CS series is a switching sensor adopting magneto-inductive principle without mechanical contact. Combined with CSC controller, forward/backward limit points are output; furthermore the both points can be individually adjusted by trimmer integrated in the controller. As a sensor rod is completely sealed, the sensor can be installed inside hydraulic/pneumatic cylinders. Integrated coils inside sensor rod detect locations of movable magnet utilizing a change of inductance according to magneto-inductive principle. Since CS series has no mechanical contact as seen in coventional lead switches and also has no mechanical wear-out, a long life and reliability can be expected. Moreover the remote adjustment for detecting points is possible because switching points can be changed by trimmer in the controller.

■Feature

- High resistant to vibration and shock.
- Point output can be adjusted by trimmer integrated in the controller.
- Mechanical life is infinite as probe rod and magnet are non-contact.

■Specification

Effective stroke		15～1000mm※
Adjustable range of output		±6mm(forward)
		±10mm(backward)
Temp drift	sensor	±5μm/℃
	controller	±20μm/℃
Outputs	open collector (standard)	30V 0.1A
	relay output (optional)	rated load AC250V 2A
		DC30V 2A 1a contact
Carrier frequency		10kHz
Power supply		DC24V 0.1A
Environment	Max pressure	35MPa(sensor rod)
	Operating temp	−40～100℃(sensor)
		0～60℃(controller)
	Vibration	6G(40Hz 2mmp-p)
	Shock	100G(2msec)
	Protection	IP67(10kPa, 30min)(sensor)
Cable		1m standard(Max10m)

※Arbitrary effective length between 15 and 1000mm is possible. As to an effective length shorter than 15mm and other length than 30mm(backward)/40m(foreward), consult factory.
※CS series can be also used as a liquid level detecting switch...consult factory.

■Connection

Terminal	Name	Open collector	Relay output
1	24V	＋24VDC	＋24VDC
2	GND	0V	0V
3	S	Sensor shield ※1	Sensor shield ※1
4	W	Sensor signal(White)	Sensor signal(White)
5	B	Sensor signal(Black)	Sensor signal(Black)
6	R	Sensor signal(Red)	Sensor signal(Red)
7	A1	FWD open collector output	FWD contact point 1
8	A2	COM ※2	FWD contact point 2
9	B1	BWD open collector output	BWD contact point 1
10	B2	COM ※2	BWD contact point 2

※1 S is connected to electrical GND in cotroller.
※2 COM is equivalent to electrical GND.

■Model

●Sensor

CS－□□□－□

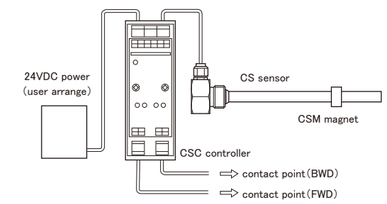
- Cable length(m) Std 1m, Max 10m
- Effective stroke(mm): 15、30、50、75、100, 300、500、700、1000

●Controller

CSC－□□□－□

- Output: Nil: open collector, R: relay
- Effective stroke(mm)

■Construction



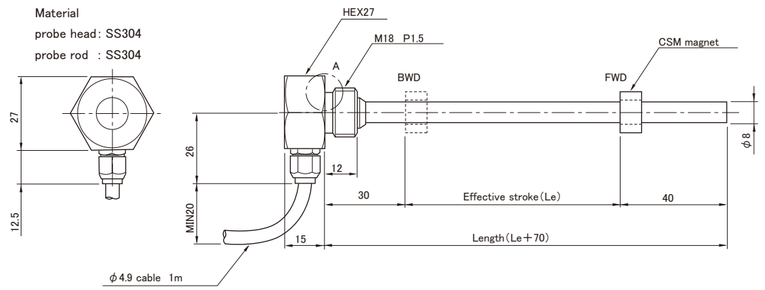
■Terminal

Phoenix contact
: Model No.MKDS3/2-5.08

■Dimension

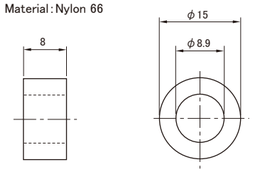
●CS sensor

Material
probe head : SS304
probe rod : SS304



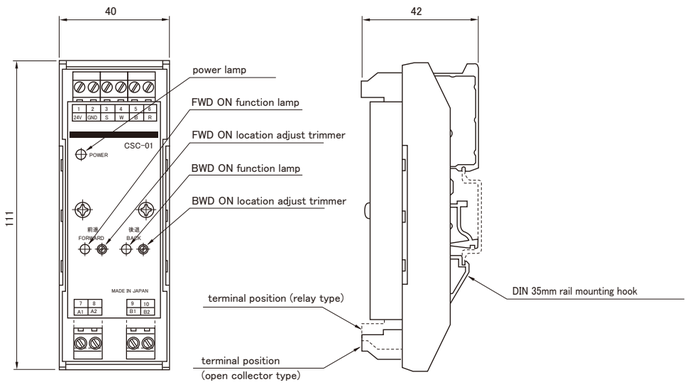
●CSM magnet

Material : Nylon 66

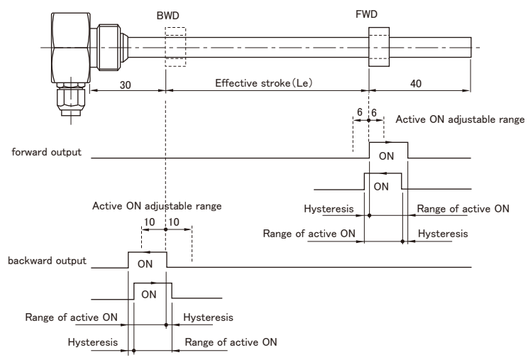


※Do not mind inserting direction of magnet

●CSC controller



■Operational range



Range of active ON : approx. 25mm
Hysteresis : approx. 1mm set in factory