

GYSE-AM Probe

Analogue

GPM

Noise
Cancel

CE

Analogue output with scale (detachable probe element)



The scale was carved in a rod of the high accuracy analog output type GYSE-A by 1mm pitch. The scale is doing etching processing by the scale based on JIS first grade, the magnet location can be confirmed by your eyes easily. 0 position of the scale is an end face of HEX46. Max. stroke is 400mm, rod diameter is $\Phi 8$.

Specifications

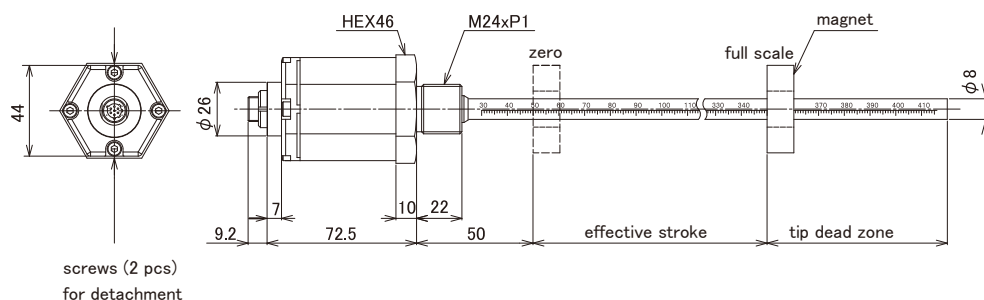
Accuracy	Non-linearity	$\leq \pm 0.025\%FS$ TYP
	Resolution	16bit (1/65536)
	Repeatability	$\leq \pm 0.001\%FS$ (Min. $\pm 3 \mu m$)
	Temp. drift	$\leq \pm 20ppmFS/^{\circ}C$
Output	Voltage output	0~10V or 10~0V (output current: Max.5mA, load: Min.2k Ω)
	Current output	4~20mA or 20~4mA (load: Max.500 Ω)
	Alarm	Open drain 50V 0.1A (for magnet missing)
Environment	Power supply	+24(± 2)VDC (70mA)
	Sampling freq.	1kHz
	Max. Pressure	35MPa (probe rod)
	Operating temp.	-20 $^{\circ}C$ ~+75 $^{\circ}C$
	Storage temp.	-40 $^{\circ}C$ ~+75 $^{\circ}C$
	Vibration	15G (20~100Hz)
	Shock	100G (2msec)
	IP grade	IP67

* The above mentioned accuracy applies to sensors with an effective stroke of 300mm or more.

* The specification of stroke less than 300mm is equal that of stroke 300mm.

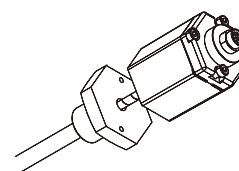
Dimensions

Probe

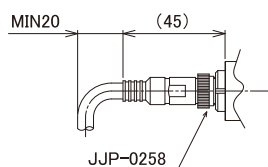


screws (2 pcs)
for detachment

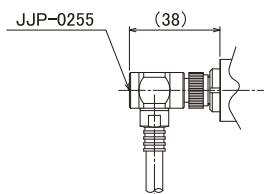
detachable probe element



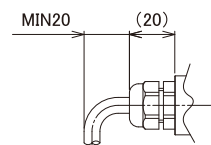
Connector type (straight) (STD)



Connector type (L-shaped) (option)



Pigtail type (option)



- materials ; Probe head : Al alloy, Probe rod : SS304
- magnet : Select one from group GG on page 109
- The tip dead zone length depends on the selected magnet or float.
- connector ; straight or L-shaped (housing parts : BS with Ni plating)
- Applied cable diameter : $\Phi 6.6 \sim \Phi 7.5$, Wire size : 0.5mm²
- cable length ; Max.10m (0~10V output), Max.100m (4~20mA output)

Cable

Cable color	Pin number	Function
red	1	+24VDC
white	2	0V
blue	3	OUT1
green	4	COM1
brown	5	OUT2
black	6	COM2
yellow	7	Alarm

* shield should be connected to FG of user's unit.

■ Probe

GYSE-AM-□□□□-□/□-□□-□□-□□-□□/N-□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Effective stroke

15~400mm

② Head dead zone

S: 50mm (STD)

□: □mm (option) (specified by customers)

• Possible Min. length depends on the selected magnet or float.

③ Tip dead zone

S: 70mm/90mm/100mm (STD)

• S (STD length) depends on the selected magnet or float in ⑤.

tip DZ	magnet	float
70mm	M2PN, M0SM, M0LM, M3, M11N	F25N, F28N
90mm		F28S, F30S
100mm	T144, T163	F40S, F42S, F50S, F54S

□: □mm (option) (specified by customers)

• Possible Min. length depends on the selected magnet or float.

④ Thread/Rod diameter

M8 : M24xP1.0, rod Φ8

N8 : M18xP1.5, rod Φ8

U8 : 3/4-16UNF-3A, rod Φ8

Z : EF (flexible element) only (without outer housing)

⑥ Cable connection

CN: connector (STD)

△G□F: pigtail / cable end: free

△G□A: pigtail / cable end: with connector for relay

(□: cable length (m), Max. 10m) (*)

(△: cable type

S: standard, H: high temp. cable, R: robot cable)

(*) In case of using extension cable

Voltage output: sensor cable (m) + extension cable (m) ≤ 10m

Current output: sensor cable (m) + extension cable (m) ≤ 100m

• Please consider extension cable on page 112.

• In case that you need loose mating connector, ordering connector (straight or L-shaped) separately is necessary.

⑦ Position output (OUT1)

AD: 0~10V (When magnet moves toward tip, output increase)

AR: 10~0V (When magnet moves toward tip, output decrease)

BD: 4~20mA (When magnet moves toward tip, output increase)

BR: 20~4mA (When magnet moves toward tip, output decrease)

CD□□: bipolar output (-□V~+□V)

(for example CD10: -10V~+10V)

CR□□: bipolar output (+□V~-□V)

(for example CR05: +5V~-5V)

V Z/F: option (specified voltage)

(for example V1/5: 1~5V, V9.5/0.5: 9.5~0.5V)

I Z/F: option (specified current)

(for example I5.2/20: 5.2~20mA, I18/5: 18~5mA)

[Z=output at zero position, F=output at full position]

⑤ Associated magnet or float

<magnet>

M2PN : No.2PN (STD)

M0SM : No.Φ SPM

M0LM : No.Φ LPM

M3 : No.3

M11N : No.11N

T144 : No.T14-M4

T163 : No.T16-M3

<float>

F28S : Φ28 SS316L

F30S : Φ30 SS316L

F40S : Φ40 SS316(B)

F42S : Φ42.5 SS316

F50S : Φ50 SS316L

F54S : Φ54 SS304

F25N : RF-A10 plastic

F28N : RF-A6 plastic

• Please consult if you select a magnet or a float of other than above.

• This Model code means only specifying associated magnet or float.

• When you need a magnet or float, please order separately.

⑧ Option : Analogue output (OUT2)

• N: without option (STD)

• Position output: select from ⑦

⑨ Option

blank: without option

H0: probe rod 100°C

• Please confirm the details of option on page 106.