

GYPD Probe

for built-in small hydraulic cylinder



GYPD probe is the sensor for built-in hydraulic cylinder which has analogue output. The sensor head is compact and screw side dead zone is also short, so its total length becomes space saving. With the dedicated software (GPM), zero and gain adjustment is possible at the user.

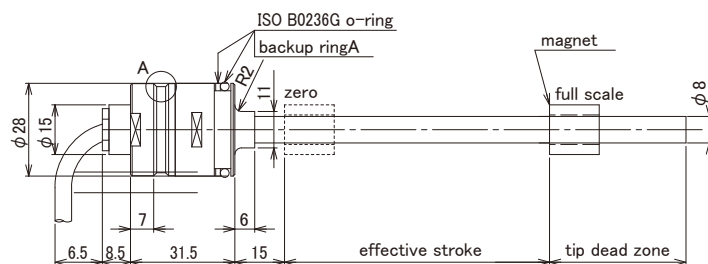
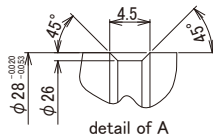
GPM

Specifications

Accuracy	Non-linearity	$\leq \pm 0.1\text{mm}$ (30~250mm) $\leq \pm 0.04\%\text{FS}$ ($\geq 251\text{mm}$)
	Resolution	$\leq 0.06\text{mm}$
	Repeatability	$\leq \pm 0.06\text{mm}$
	Temp. drift	$\leq \pm 0.006\%\text{FS}/^{\circ}\text{C}$
Output	Voltage output	0.25~4.75V or 0.5~4.5V (load : Min.2k Ω)
	Current output	4~20mA (load : Max.250 Ω)
	PWM output	1kHz 5V 95~5% (load : Min.5k Ω)
Power supply		+8~36VDC ($\leq 0.8\text{W}$)
Sampling freq.		4kHz ($\leq 250\text{mm}$) 2kHz (251~500mm) 1kHz ($\geq 501\text{mm}$)
Environment	Max. Pressure	45MPa (continuous operating pressure)
	Operating temp.	-40 $^{\circ}\text{C}$ ~ +100 $^{\circ}\text{C}$
	Storage temp.	-40 $^{\circ}\text{C}$ ~ +65 $^{\circ}\text{C}$
	Vibration	20G (5~2000Hz)
	Shock	100G (2msec)
IP grade		IP67

■ Dimensions

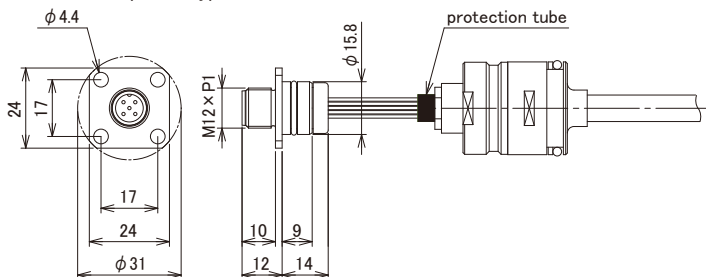
■ Probe



■ Cable

Cable color	Function
red	+12/24VDC
white	0V
black	Output
green	COM
yellow	for parameter setting

■ M12 receptacle type



■ Pin assignment "H"

Pin number	Function
1	+12/24VDC
2	Output
3	0V
4	COM
5	For parameter setting

■ Pin assignment "G"

Pin number	Function
1	+12/24VDC
2	COM
3	0V
4	Output
5	For parameter setting

- Materials ; Probe head : SS304, Probe rod : SS304
- Magnet : select one from group GG on page 109.
- The tip dead zone length depends on the selected magnet or float type.

■ Probe

GYPD-□□□□-□/□-**P8**-□□-□□-□□

①

②

③

④

⑤

⑥

⑦

① Effective stroke

30mm~1000mm

② Head dead zone

S: 15mm (STD)

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

• Possible Min. length depends on the selected magnet.

③ Tip dead zone

S: 70mm (STD)

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

• Possible Min. length depends on the selected magnet.

④ Mount/Rod diameter

P8 : O-ring, rod $\Phi 8$ (STD)

⑤ Associated magnet

<magnet>

M2PN : No.2PN

M3 : No.3

M0SM : No. ϕ SPM

- Please consult if you select a magnet or a float of other than above.
- This Model code means only means only specifying associated magnet.
When you need a magnet, please order separately.

⑥ Cable connection

RG□F: pigtail / cable end : free

RG□A: pigtail / cable end : with connector for relay
(□: cable length (m), Max.10m) (*)

KV□△F: M12 receptacle type

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

△: pin assignment (H: pin assignment "H",

G: pin assignment "G")

(*) In case of using extension cable

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

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

⑦ Position output

A1: 0.25~4.75V (When magnet moves toward tip, output increase.)

A2: 4.75~0.25V (When magnet moves toward tip, output decrease.)

A3: 0.5~4.5V (When magnet moves toward tip, output increase.)

A4: 4.5~0.5V (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.)

PWM1: 1kHz 5V (5~95%)

PWM2: 1kHz 5V (95~5%)

【Installation example】

