

GYRHP-MR6 Probe

AC

RS422

**Pressure resistance rod : 70MPa, heavy duty type
(with external controller)**



GYRHP-MR6, which is different from conventional GY series, achieved pressure-resistant 70MPa (rod) by redesign in head and rod part. Standard of protection grade is IP67, but you can select water-proof type (IP68) or cable conduit type (IP69K) by option. Between probe and controller, RS-422 differential line driver transmission, providing robustness against electrical noise, is used. In combination with a digital output controller, Min. 1 μ m resolution is possible. And by auto calibration function, difference in the output when you exchange the probe is adjusted automatically.

Specifications

Accuracy	Non-linearity	$\leq \pm 0.025\%$ FS TYP
	Resolution	(analogue) 16bit (digital) Min. 1 μ m
	Repeatability	$\leq \pm 0.001\%$ FS
	Temp. drift	$\leq \pm 20$ ppmFS/ $^{\circ}$ C
Environment	Max. Pressure	70MPa (probe rod)
	Operating temp.	-20° C $\sim$ $+80^{\circ}$ C
	Storage temp.	-40° C $\sim$ $+80^{\circ}$ C
	Vibration	20G (10 $\sim$ 100Hz)
	Shock	100G (2msec) / 800G (SRT option)
	IP grade	IP67 (STD), IP68 / IP69K (option)

• The specification of stroke less than 300mm is equal that of stroke 300mm.
The above mentioned accuracy applies to sensors with an effective stroke of 300mm or more. .

◆ associated controller

- analogue output: GYHC (page 52, 53)
- digital output: GYDC-S1 (page 56, 57), GYDC-05 (page 58, 59)
- IRDS-GY (page 61) : When using the IRDM, you can connect with CC-Link, CC-Link IE Field, PROFIBUS, EtherNet/IP, and EtherCAT.
- DC-Q (page 60) : MELSEC-Q built-in unit

Model

■ Probe

GYRHP-MR6-□□□□-□/□-F12-□□-□□-00-□

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②

③

④

⑤

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⑦

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① Effective stroke

15 $\sim$ 1000mm

② Head dead zone

S: 50mm (STD)

□: □mm (specified by customers)

• Possible Min. length depends on the selected magnet.

③ Tip dead zone

S: 70mm (in case ⑤ is BA)

100mm (in case ⑤ is T163)

□: □mm (specified by customers)

④ Mount/Rod diameter

F12: pressure-resistant flange, rod Φ 12 (STD)

⑤ Associated magnet

BA : No.2KYN-17-LG (STD)

T163 : No.T16-M3

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

⑥ Cable connection

○ Δ G□ $\Diamond$ F : pigtail / cable end : free (STD)

○ Δ G□ $\Diamond$ A : pigtail / cable end : with connector for relay

WP3G□ $\Diamond$ F : pigtail of water proof cable / cable end : free

WP3G□ $\Diamond$ A : pigtail pf water proof cable / cable end :
with connector for relay

○ : pigtail type (S : standard, C : cable conduit)

Δ : cable type (S : standard, H : high temp. cable, R : robot cable, UL : cUL cable)

□ : cable length (m) Max.10m (*)

$\Diamond$: head shape type (L : radial, S : axial)

(*) In case of using extension cable,
sensor cable (m) + extension cable (m) $\leq$ 200m

⑦ Position output

00: depends on external controller

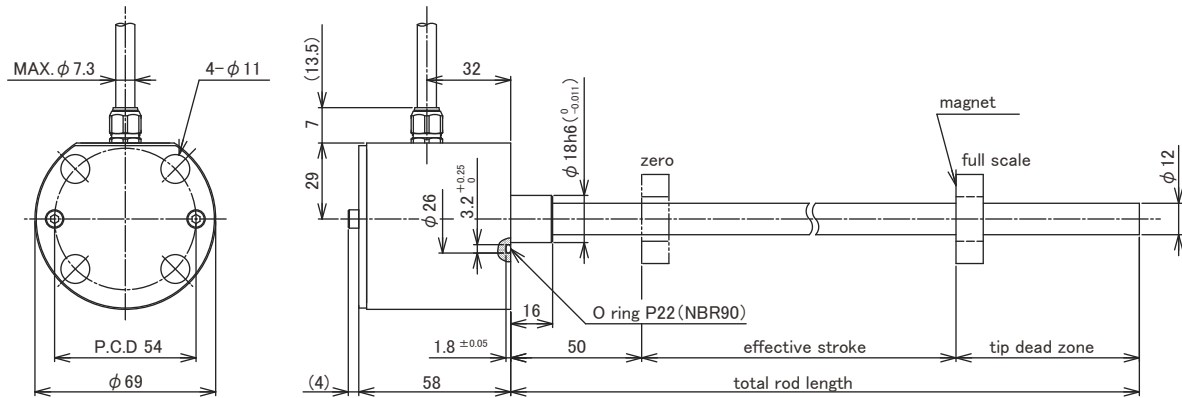
⑧ Option

blank: without option

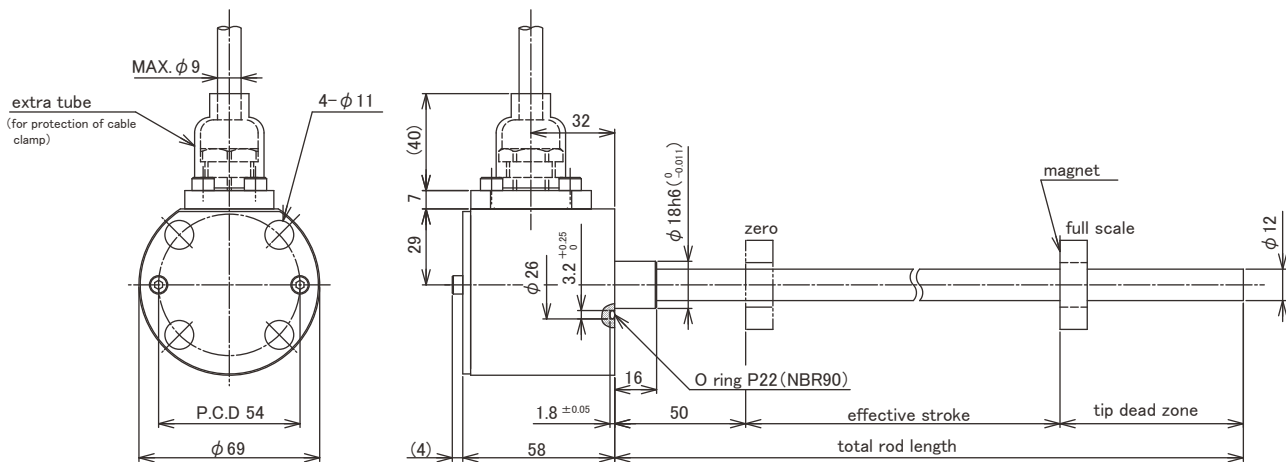
SRT: SRT option (800G)

Dimensions (radial type)

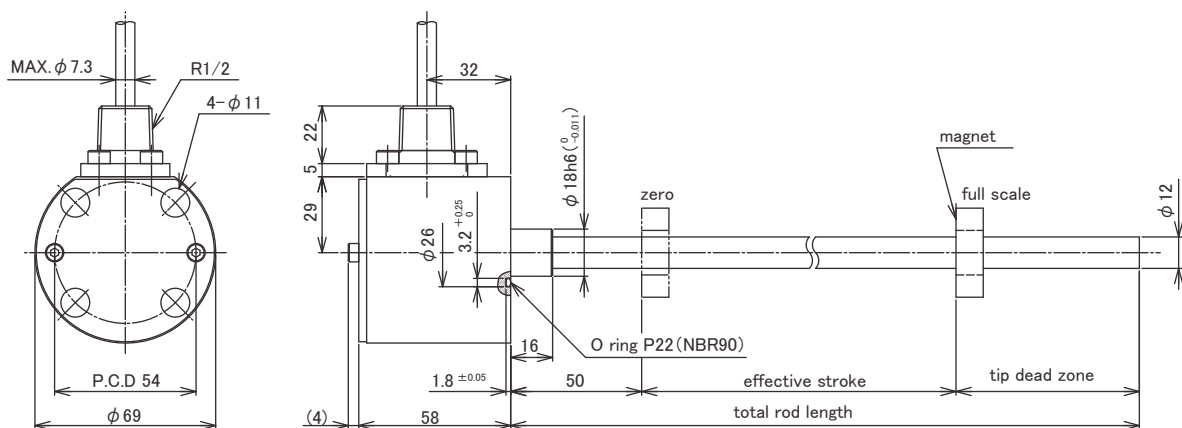
■ Radial / pigtail type (IP67) (Standard)(SSG□L*)



■ Radial / water proof type (IP68)(WP3G□L*)



■ Radial / conduit type (IP69K)(CSG□L*)



■ Model of extension cable

CL-PMR6-□-□□-□□

① ② ③ ④ ⑤

① Probe

PMR6: GYRHP-MR6

② Cable type

S : Standard cable
H : High temp. cable
R : Robot cable
W : Water proof cable

③ Cable length (m)

④ Cable end (sensor side)

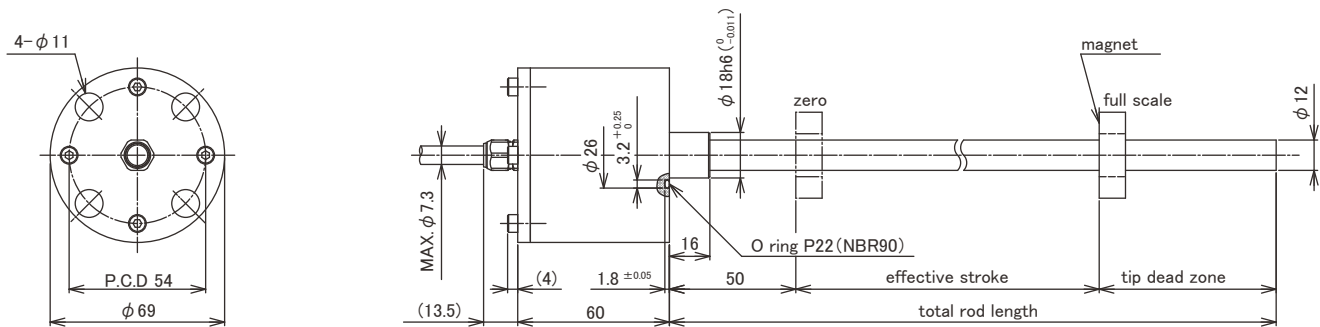
F : free
S : with straight connector

⑤ Cable end (controller side)

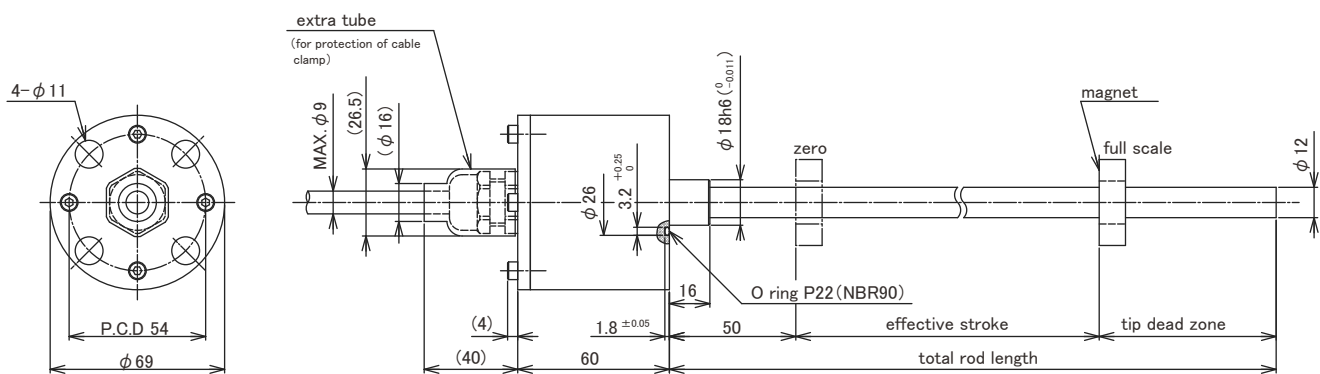
F : free
A : with connector for relay

Dimensions (axial type)

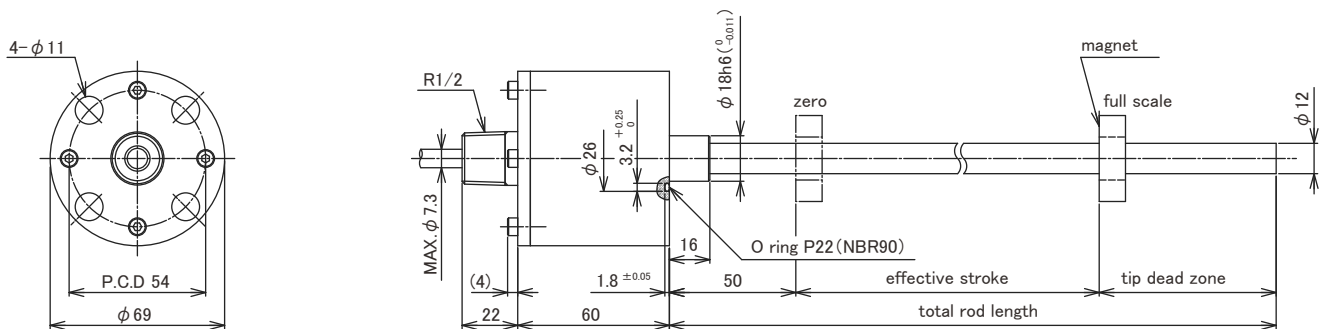
■ Axial / pigtail type (IP67)(SSG□S*)



■ Axial / Water proof type (IP68)(WP3G□S*)



■ Axial / conduit type (IP69K)(CSG□S*)



■ Cable

Function	cable end : free Wire color	cable end : with connector Pin number
sensor power	red	1
N.C.	yellow	2
0V	white	3
	shield / drain wire	
START(+)	green	4
STOP(+)	black	5
START(-)	blue	6
STOP(-)	brown	7

*shield should be connected to FG of User's side.