

High performance probe with controller

GYcRP Probe

RS422

High performance probe



Between probe and controller, RS422 differential line driver transmission is used, whose advantage is robust against electrical noise. In combination with GYDC-05 controller, Min. 1 μ m resolution is possible. SRT option and Probe rod 200°C option are available.

Specifications

Accuracy	Non-linearity	$\leq \pm 0.05\%FS$ TYP
	Resolution	(analogue) $\leq 0.01\%FS$ (with GYHC) (digital) 0.1mm (with GYDC-05)
	Repeatability	$\leq \pm 0.01\%FS$
	Temp. drift	$\leq \pm 50ppmFS/^{\circ}C$
Environment	Max. Pressure	35MPa (probe rod)
	Operating temp	-20°C ~ +80°C
	Storage temp.	-40°C ~ +80°C
	Vibration	6G (40Hz 2mmPP)
	Shock	100G (2msec)
	IP grade	IP67
Cable		Std 1.5m (Option Max.200m)

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

◆ associated controller

analogue output: GYHC (Page.42~43), GYFC2

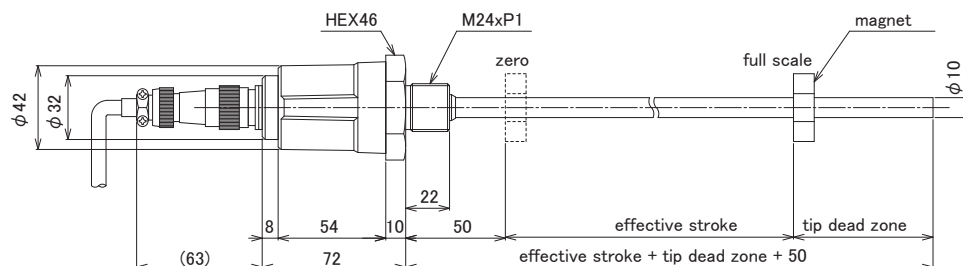
digital output: GYDC-05 (Page.46~47)

MelsecQ built-in: DC-Q(JCC) (Page.48)

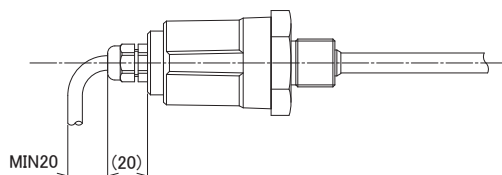
CC-Link: WAGO I/Osystem750-635 (Page.49)

Dimensions

■ Probe



■ Pigtail type (Option)



- materials ; Probe head : Al alloy, Probe rod : SS304
- magnet (float) ; Select one from group B on page 78 or from floats on page 79.
- The tip dead zone length depends on the selected magnet or float.
- Connector: Sanwa SNW-1607-PCF (Material: zinc alloy fluoroplastic)

■ Connection

Cable color	Pin number	Function
red	1	+24VDC
yellow	2	N.C.
white	3	0V
green	4	Start(+)
black	5	Stop(+)
blue	6	Start(-)
brown	7	Stop(-)

• shield should be connected with 0V at user side.

■ Probe

GYcRP-**-****/****-****-****-****-00-**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Effective stroke

15mm~5200mm

② Thread dead zone

S: 50mm(STD)

: mm(option)(specified by customers)

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	M2P, M0, M11	F25N, F28N
90mm		F28S, F30S
100mm	T142, T162	F40S, F42S, F50S

: mm(option)(specified by customers)

④ Thread/Rod diameter

M : M24xP1.0, rod Φ 10(STD)

N : M18xP1.5, rod Φ 10

U : 3/4-16UNF-3A, rod Φ 10

M8 : M24xP1.0, rod Φ 8

N8 : M18xP1.5, rod Φ 8

U8 : 3/4-16UNF-3A, rod Φ 8

M14: M24xP1.0, rod Φ 13.8

⑤ Associated magnet or float

<magnet>

M2P : No.2P (STD)

MG0 : No. Φ

M11 : No.11

T142 : No.T14-M2

T162 : No.T16-M2

MG : other magnet

<float>

F28S : Φ 28 SS316

F30S : Φ 30 SS316L

F40S : Φ 40 SS316(B)

F42S : Φ 42.5 SS316

F50S : Φ 50 SS316

F54S : Φ 54 SS304

F25N : RF-A10 plastic

F28N : RF-A6 plastic

FL : other float

⑥ Cable connection

CN: connector(STD)

Δ GF: pigtail / cable end : free

Δ GA: pigtail / cable end : with connector for relay

(: cable length(m))

(Δ : cable type

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

<Water proof option>

WPCN: submersible connector type

WP3GF: pigtail / cable end : free

WP3GA: pigtail / cable end : with connector for relay

(: cable length(m))

• P76 shows the detailed information

⑦ Output

00: depends on external controller

⑧ Option(see page 75~77)

blank: without option

SRT: SRT option

H0: probe rod 100°C

H1: probe rod 120°C

H2: probe rod 200°C

Ordering loose connector only.

• Standard connector

CN-SW-0-S

• Water proof connector

CN-TJ-0-S

※When ordering connector with cable,
please refer to Page 80.