GYKMR Probe

AC RS422

High accuracy with external controller

GYKMR is replacement model of GYKM-RS which head part became slim. And it was added auto calibration function. By the function, a difference in the output when you change the probe is adjusted automatically.

Specifications

Accuracy	Non-linearity	≦±0.025%FS TYP
	Resolution	(analogue) 16bit (digital) Min.1 μm
	Repeatability	≦±0.01%FS
	Temp. drift	≦±20ppmFS/℃
Environment	Operating temp.	0℃～+65℃
	Storage temp.	-20℃～+65℃
	Vibration	3G (or 40Hz 2mmPP)
	Shock	10G (2msec)
	IP grade	IP53, IP64, IP65

・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.
・resolution depends on associated controller.

・Mounting brackets (fixing clamps) are supplied.
stroke ＜600mm : 4 pcs (2 pcs)
600～1000mm : 6 pcs (3 pcs)
1001～1500mm : 8 pcs (4 pcs)
1501～2000mm : 10 pcs (5 pcs)

◆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

GYKMR-□□□□-S/S-□-□-00-□

① ⑤ ② ③ ④ ⑥

①Effective stroke
15mm～2000mm(rod type, T, TW, U)
15mm～500mm(both end universal joint types)
15mm～2500mm(TS)

②Magnet
R : rod Φ6 (M5 thread) (Standard) <IP53>
R2 : rod Φ6 (M5 thread) <IP64>
R88 : rod Φ8 (M8 thread) <IP64>
R85 : rod Φ8 (M5 thread) <IP64>
RW88 : Both end universal joint type (rod Φ8)
U : Slide magnet <IP65>
T : Floating magnet (gap 1mm) <IP65>
TS : Floating magnet (gap 4mm) <IP65>
TW : Floating magnet (gap 8mm) <IP65>
U-FX65 : Slide magnet + rod Φ6 (M5 thread) with linkball joint <IP65>
U-FX88 : Slide magnet + rod Φ8 (M8 thread) with linkball joint <IP65>

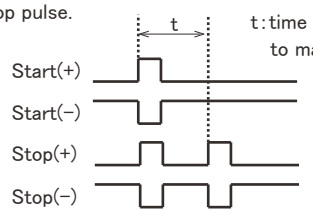
③Cable connection
△G□F : pigtail / cable end : free
△G□A : pigtail / cable end : with connector for relay
(□ : cable length (m)、Max.10m) (*)
(△ : cable type
S : standard, H : high temp. cable, R : robot cable, UL : cUL cable)
(*) In case of using extension cable, sensor cable (m) + extension cable (m) ≦ 200m
・Please consider extension cable on page 112.

④Output
00 : depends on external controller

⑤Dead zone
In case of an effective stroke 2001mm or more for floating magnet TS or TW, dead zone length for tip side is 80mm (standard length + 15mm). Model code of dead zone will be the actual length (mm).
・S/S : standard
・S/80 : 2001mm～(TS, TW type)

⑥Clamp
K38 : with mounting brackets
F50 : with fixing clamps
N : without mounting brackets and fixing clamps

【Start/Stop-Interface】
◆In case of using probe only,
probe outputs digital signals (start/stop) using RS422 differential line drivers. In response to user's interrogation (start) pulse, probe provides stop pulse.

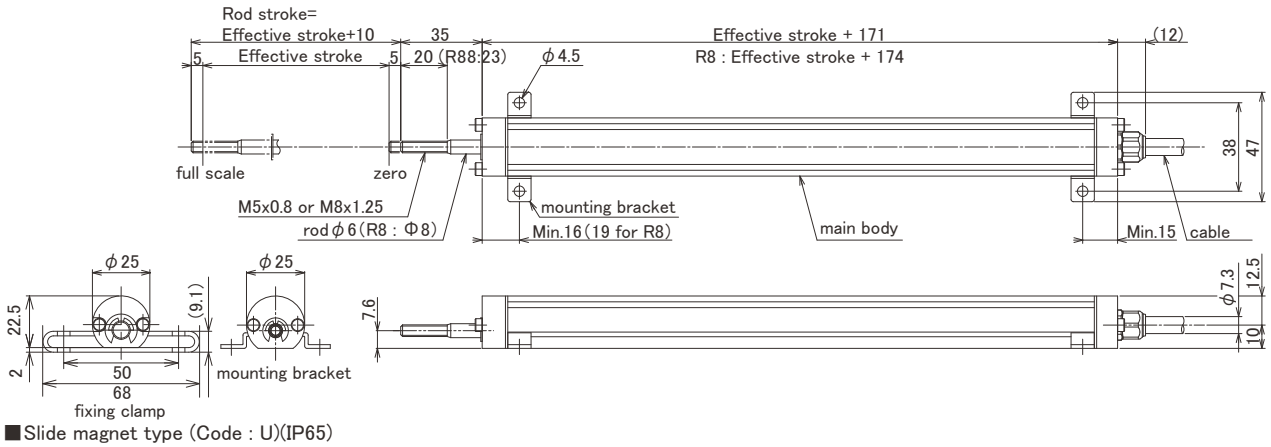


t : time corresponding to magnet position

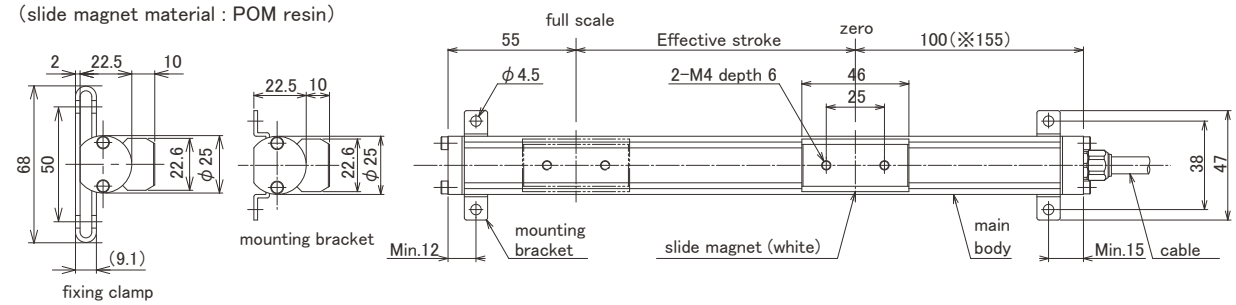
Dimensions

Detailed DWG of probe with fixing clamps is available.
Please inquire us.
Main body material is Aluminum

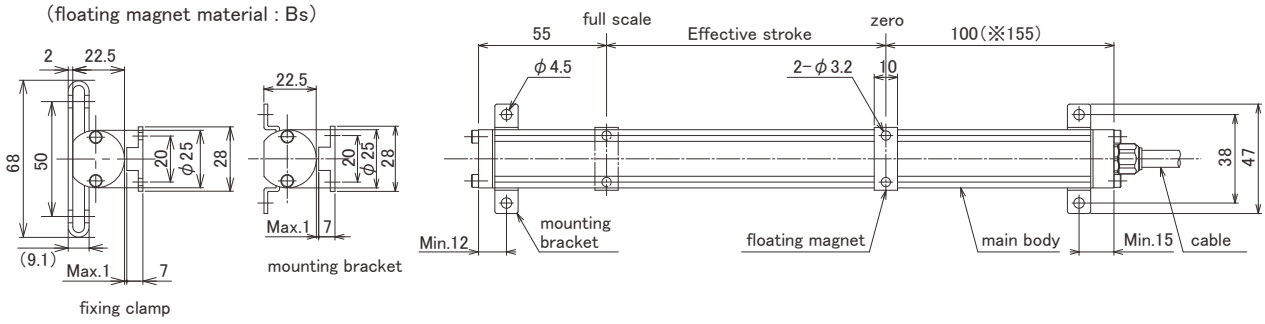
■Rod Φ6 type (Code : R)(IP53) [Rod Φ8 type (Code : R8)(IP64)]
(rod material)



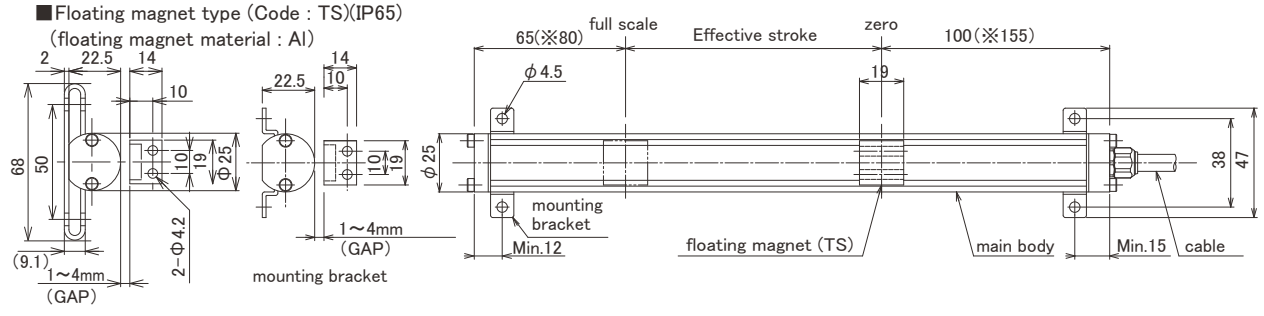
■Slide magnet type (Code : U)(IP65)
(slide magnet material : POM resin)



■Floating magnet type (Code : T)(IP65)
(floating magnet material : Bs)

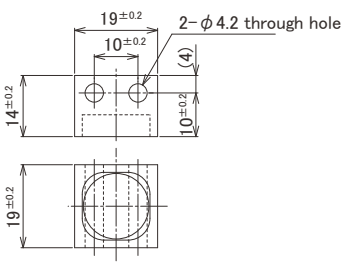


■Floating magnet type (Code : TS)(IP65)
(floating magnet material : Al)

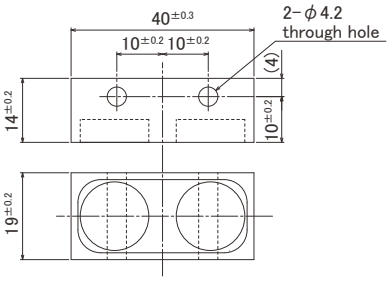


・(※80) : In case of stroke 2001mm or more, dead zone length for tip side is 80mm for TS, TW type.
・(※155) : In case of 1001mm or more, dead zone length for connector side is 155mm.

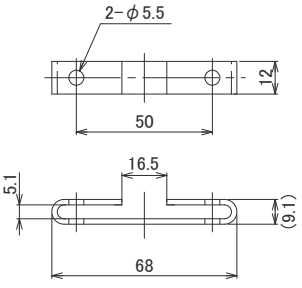
■Floating magnet (TS)
material : Al (GAP : 1～4mm)



■Floating magnet (TW)
(material : BS) (GAP : 4～8mm)



■Clamp



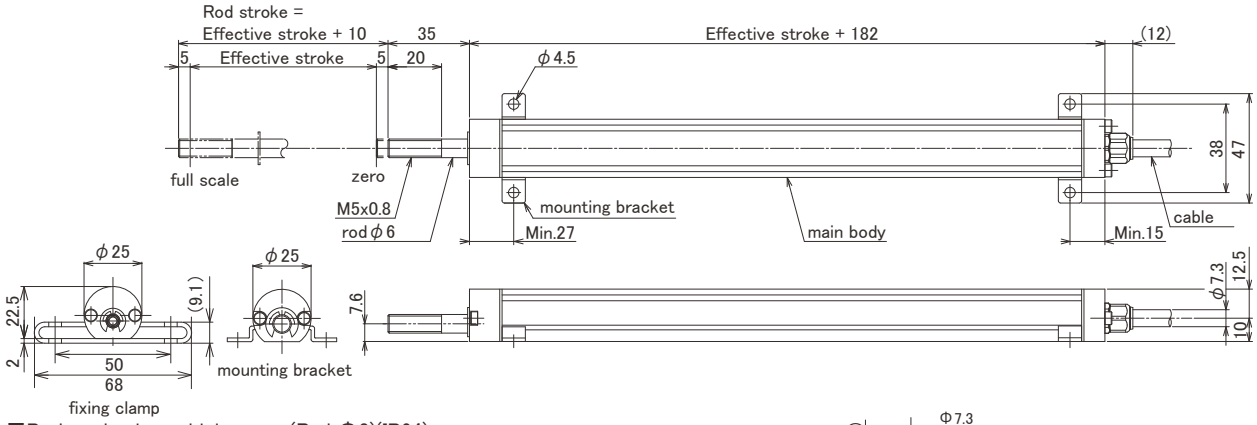
■Cable

Wire color	Function
red	Sensor power
white	0V
blue	Start(−)
green	Start(+)
brown	Stop(−)
black	Stop(+)
yellow	N.C.

・shield should be connected to shield terminal of the controller.

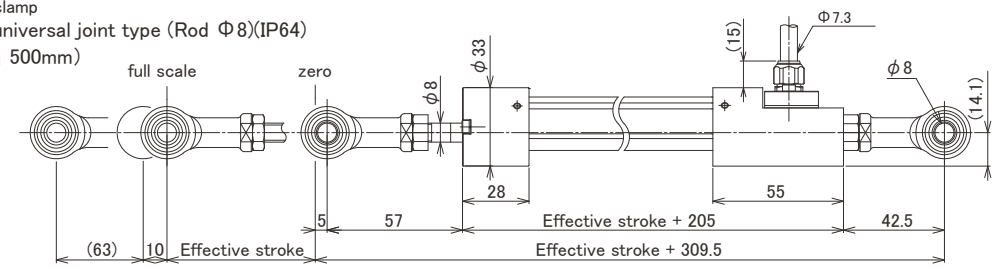
■Water-resistant rod (Φ6) type (IP64 dust and splash proof) (Code : R2)

Rod cap extended to 21mm, double packing used, IP64 grade protection is now available.



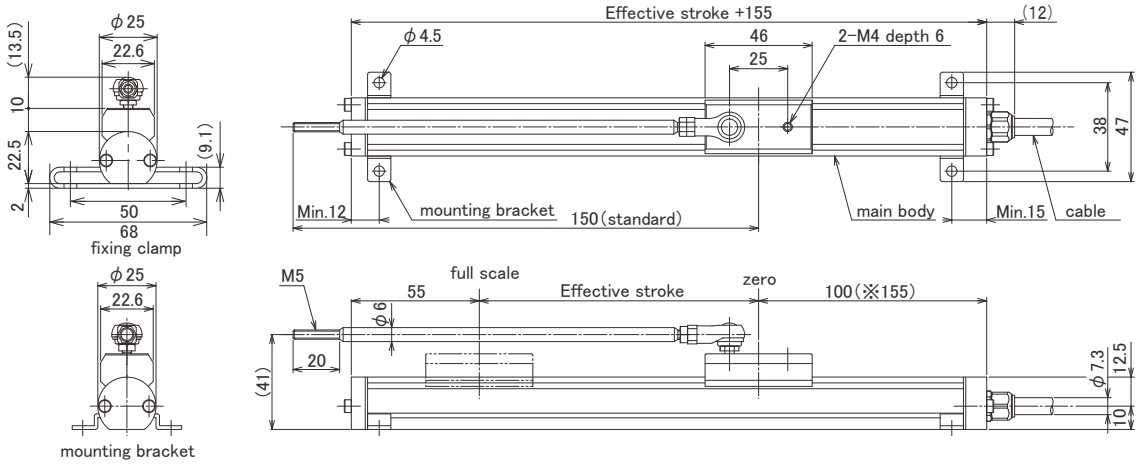
■Both end universal joint type (Rod Φ8)(IP64)

(stroke : ≦ 500mm)

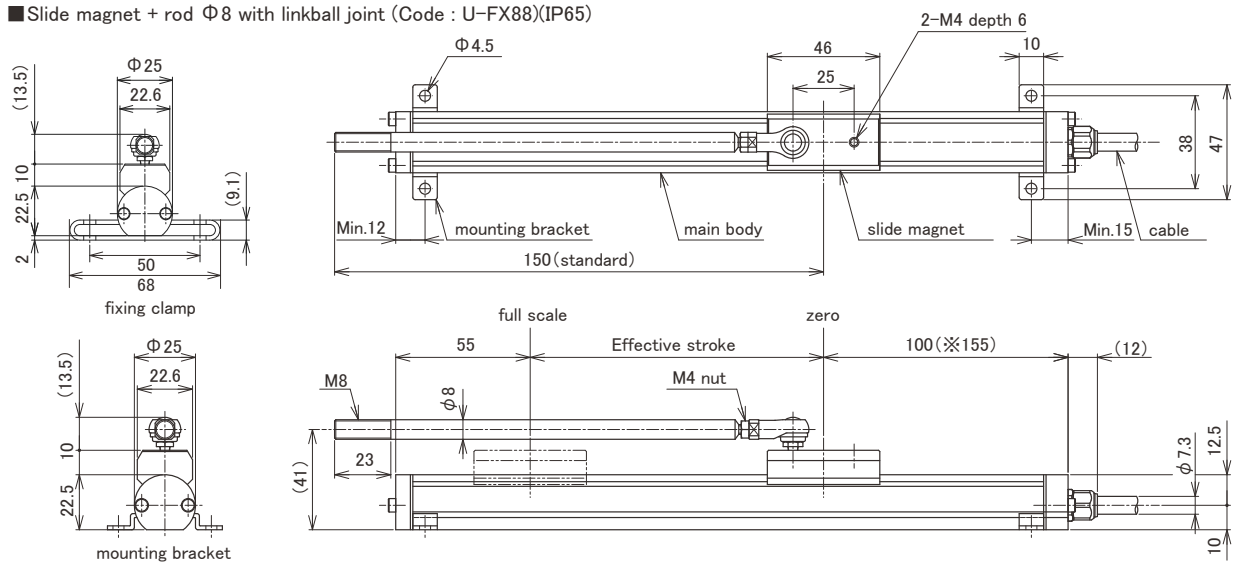


■Slide magnet + rod Φ6 with linkball joint (Code : U-FX65)(IP65)

For water splash application, U-FX65 option is available. Mounting Φ6 rod on the slide magnet with linkball joint, easy adjustment of rod misalignment is also possible.)



■Slide magnet + rod Φ8 with linkball joint (Code : U-FX88)(IP65)



・(※155) : In case of stroke 1001mm or more, dead zone length for connector side is 155mm.