

GYKM Probe GYMNC Controller

Linear Profile Version

The profile measuring $\phi 25\text{mm} \times \text{height } 22.5\text{mm}$ renders you a free mechanical design in adopting our "GY" series. Applications have been widened by mounting GYKM series to cylinders, machines, equipment and it gives infinite life time due to magnetostrictive non-contact sensor, well replacing conventional potentiometers. GYKM probe can also be used in combination with GYHC or GYDC-05 controller, which provides velocity output or digital output. (refer P.19, P.21)



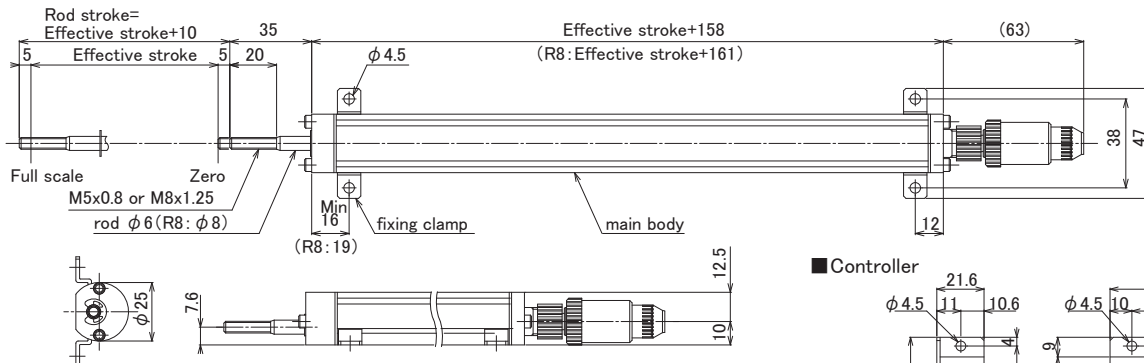
Specifications

Accuracy	Non-linearity	$< \pm 0.05\% \text{FS TYP}$
	Resolution	$< 0.01\% \text{FS}$
	Repeatability	$< \pm 0.01\% \text{FS}$
	Temp drift	$\pm 50 \text{ppmFS}/^\circ\text{C}$ (probe) $\pm 50 \text{ppmFS}/^\circ\text{C}$ (controller)
Output	Voltage output	$0 \sim 10\text{V}$ or $10 \sim 0\text{V}$ (output current: Max.5mA, load: Min.2k Ω)
	Current output	$4 \sim 20\text{mA}$ or $20 \sim 4\text{mA}$ (load: Min.500 Ω)
Power Supply		$+24 (\pm 2) \text{VDC}$ (100mA)
Frequency response		Std 1kHz (depending on stroke) sampling
Environment	Operating Temp	$0^\circ\text{C} \sim +65^\circ\text{C}$ (probe) $0^\circ\text{C} \sim +60^\circ\text{C}$ (controller)
	Storage Temp	$-20^\circ\text{C} \sim +65^\circ\text{C}$
	Vibration	3G (or 40Hz 1mmPP)
	Shock	10G (2msec)
	Protection	IP63~IP65 (probe)
Cable length		1.5m (Standard) (Option Max.100m)

- The above mentioned accuracy applies to sensors with an effective stroke of 300mm or more.
- Zero/Gain adjustments by trimmer of controller is possible, std within $\pm 3\% \text{FS}$.

Dimensions

- Rod $\phi 6$ Type (Code: R) (IP63) [Rod $\phi 8$ Type (Code: R8) (IP64)]
(rod material: SS304)



- Main body material of GYKM series is Al Shapes.
- Fixing clamps are supplied.
 - stroke $< 600\text{mm}$: 4 pcs
 - 600~1000mm : 6 pcs
 - 1001~1200mm : 8 pcs
- Connector: Omron XS2C-D4S1 (straight type) or D4S2 (L type) (Material: PBT plastic)

Model No.

Probe

GYKM-□□□□-□
① ②

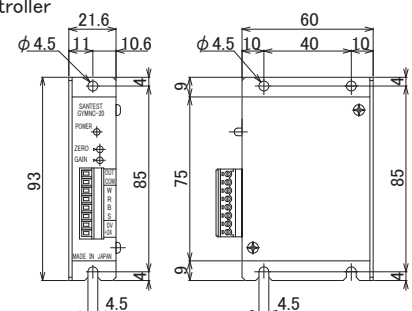
- ① effective stroke
 $15\text{mm} \sim 1200\text{mm}$
- ② Magnet type
R: rod $\phi 6$ (M5 thread) <Standard>
R2: rod $\phi 6$ (M5 thread), IP64
R88: rod $\phi 8$ (M8 thread)
R85: rod $\phi 8$ (M5 thread)
T: floating magnet type
U: sliding magnet type
U-FX65: sliding magnet type with flexible rod $\phi 6$ (M5 thread)
U2-FX88: sliding magnet type with flexible rod $\phi 8$ (M8 thread)

Controller

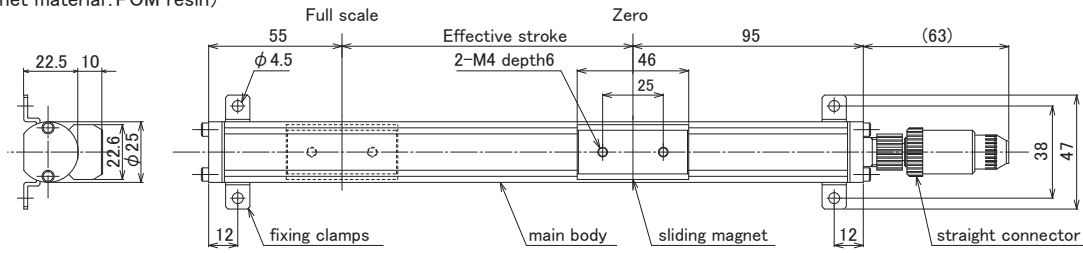
GYMNC-20-□-□□□□-□-KM
① ② ③

- ① Output
A: $0 \sim 10\text{V}$
B: $4 \sim 20\text{mA}$
C: others (bipolar)
- ② Effective stroke
 $15\text{mm} \sim 1200\text{mm}$
- ③ Direction of output (toward probe tip)
D: output increase
R: output decrease

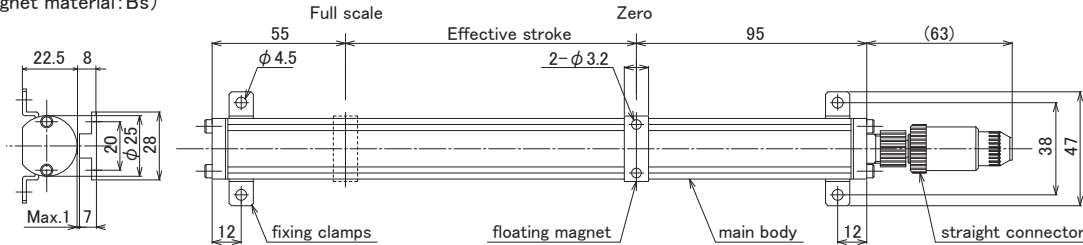
Controller



■ Sliding Magnet Type (Code: U) (IP65)
(sliding magnet material: POM resin)



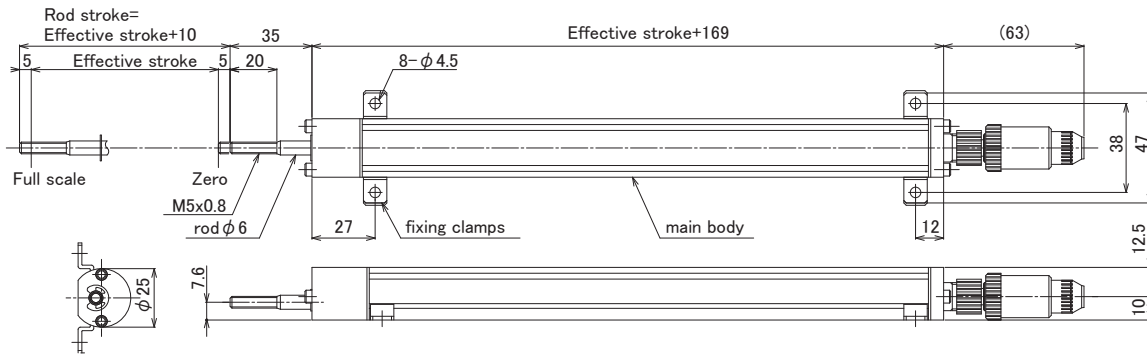
■ Floating Magnet Type (Code: T) (IP65)
(floating magnet material: Bs)



Options

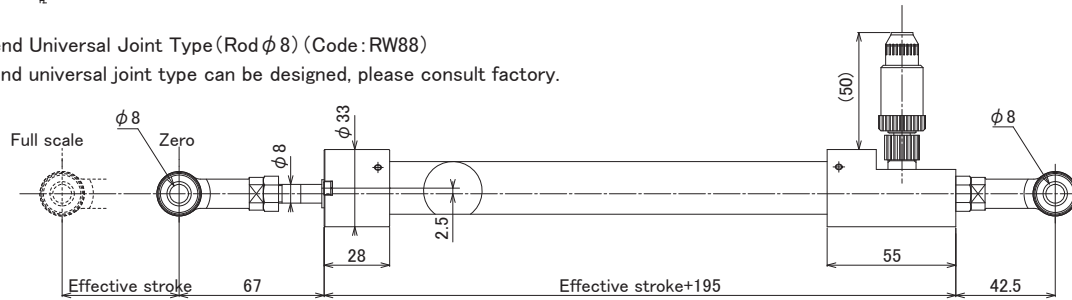
■ Water-Resistant Rod ($\phi 6$) Type (IP64 dust and splash proof) (Code: R2)

Rod cap extended to 21mm, double packing used, now IP64 protection grade has become possible.



■ Both end Universal Joint Type (Rod $\phi 8$) (Code: RW88)

Both end universal joint type can be designed, please consult factory.



■ Flexible Rod Type (Code: U-FX65)

As known, rod type transducer has disadvantage of weakness anti water-proof. Movement of rod prone to invite water drip inside transducer main body, thus degrades IP protection, We propose below sketch "outside rod design" which can be over IP65, in addition flexible joint allows smooth operation under misalignment.

