

# GYKS2

## Magnetostrictive linear sensor

GYKS2 is an all-in-one series of linear sensors with integrated electronics. With non-contact magnetostrictive sensor technology GYKS2 offer excellent life-time and accuracy.

GYKS2 are available in three different basic models: rod, sliding magnet shuttle and floating magnet. The models come in different variations and all three models are available with voltage or current output.



- Compact design
- Intergrated electronics
- High accuracy
- Long life time

### ORDER INFORMATION

GYKS2 -  - S/S -  - CN -  -

Example: GYKS2-0300-S/S-R-CN-BD-K38

#### 1 Stroke length

Specify measuring range\* xxxx

\*Example: 300 for 15...300 mm

#### 2 Dead zone

Standard S/S

For sliding and floating magnet types with strokes more than 1001 mm please consult Regal for correct dead zone x/x

#### 3 Model and magnet

Rod $\Phi$ 6 (M5 thread) <IP53>	R
Rod $\Phi$ 6 (M5 thread) <IP64>	R2
Rod $\Phi$ 8 (M8 thread) <IP64>	R8
Rod $\Phi$ 8 (M5 thread) <IP64>	R85
Both end Universal Joint Type (rod $\Phi$ 8) <IP64>	RW88
Slide magnet <IP65>	U
Slide magnet + rod $\Phi$ 6 (M5 thread) with linkball joint <IP65>	U-FX65
Slide magnet + rod $\Phi$ 8 (M8 thread) with linkball joint <IP65>	U-FX88
Floating magnet (gap 1mm) <IP65>	T
Floating magnet (gap 4mm) <IP65>	TS
Floating magnet (gap 8mm) <IP65>	TW

#### 4 Electrical Connection

Connector CN

Mating connector is not included, please order separate.

#### 5 Output

0-10 V AD

10-0 V AR

4-20 mA BD

20-4 mA BR

#### 6 Mounting brackets

Mounting brackets K38

Fixing clamps F50

Without any brackets/clamps N

### SPECIFICATIONS

Supply voltage	24 VDC $\pm$ 2 (<100mA)
Output	0-10 VDC or 10-0 VDC (Output current Max.5mA, load Min.2k $\Omega$ ) 4-20 mA or 20-4 mA (load Max.500 $\Omega$ )
Linearity	< $\pm$ 0.025% FS TYP
Resolution	< 0.01% FS
Repeatability	< $\pm$ 0.01% FS
Temperature drift	< $\pm$ 50 ppm FS/ $^{\circ}$ C
Sampling frequency	Std 1 kHz (up to stroke 1000mm) Rod type: 15...2000 mm Rod both end joint type (RW88): 15-500 mm Sliding & floating magnet: 15...2500 mm
Stroke length	
Operating temperature	0 $^{\circ}$ C...+65 $^{\circ}$ C
Storage temperature	-20 $^{\circ}$ C...+65 $^{\circ}$ C
Vibrations	3G (or 40Hz 1 mmPP)
Shock	10G (2ms)
Ingress protection housing	IP53, IP64, IP65
Material housing	Aluminium
Material rod	SS304
Material magnets	See specification in drawing of respective magnet type.

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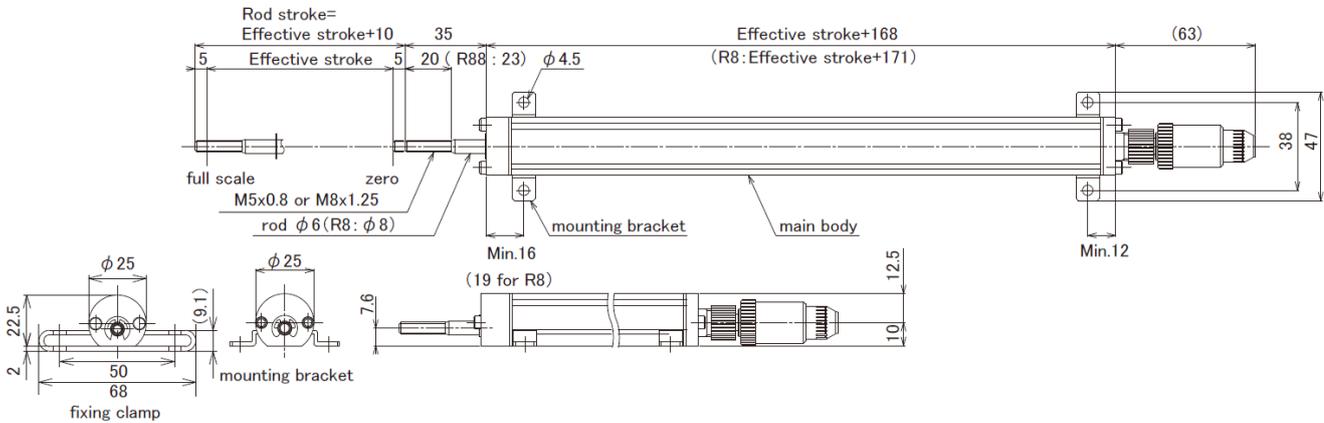
Magnetostrictive linear sensor

## DIMENSIONS ROD-TYPES

### CODE: R and R8

- Rod  $\phi 6$  type (Code:R) (IP53) [Rod  $\phi 8$  type (Code:R8) (IP64)]  
(rod material: SS304)

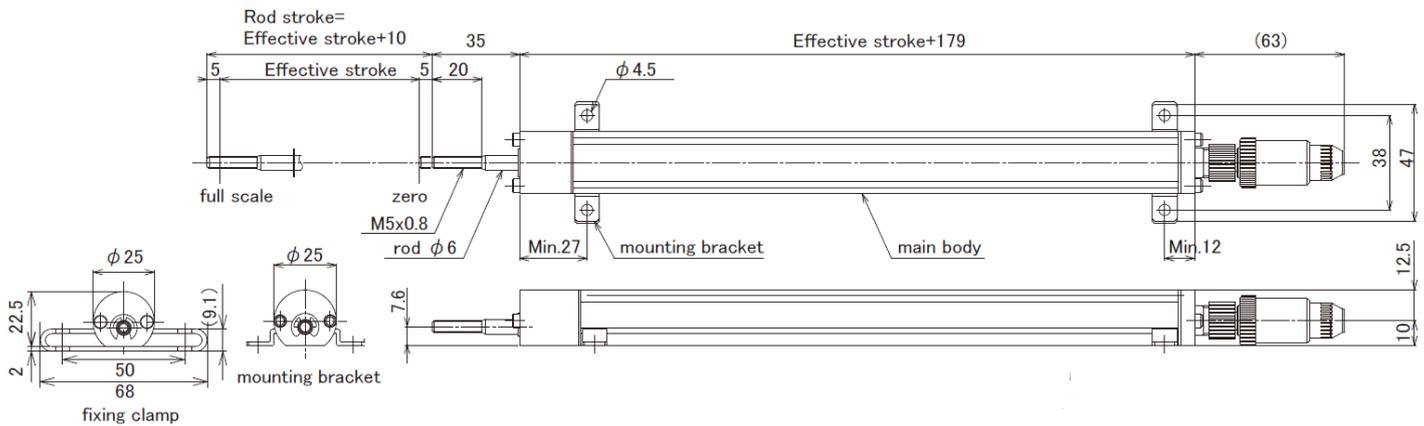
Main body material is Aluminum



### CODE: R2

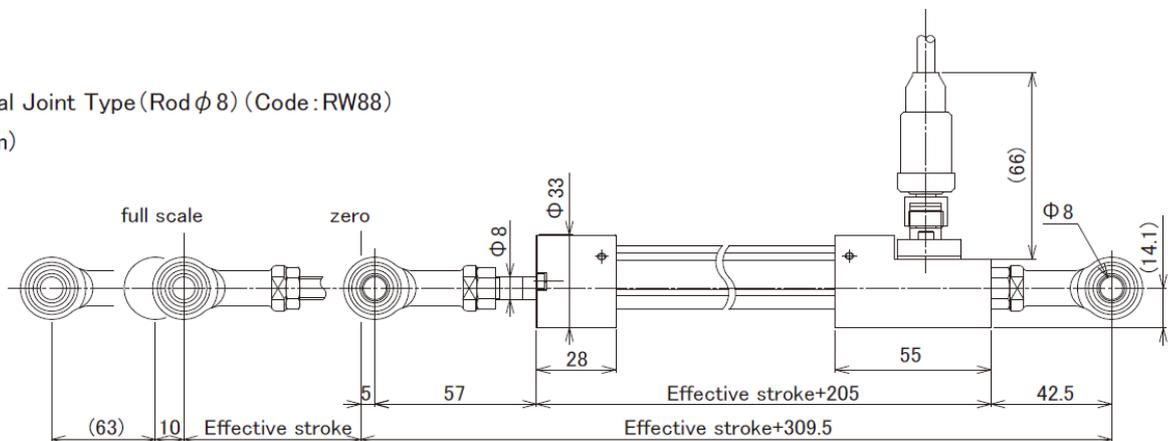
- Water-Resistant Rod ( $\phi 6$ ) Type (IP64 dust and splash proof) (Code:R2)

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



### CODE: RW88

- Both end Universal Joint Type (Rod  $\phi 8$ ) (Code: RW88)  
(stroke :  $\leq 500$ mm)



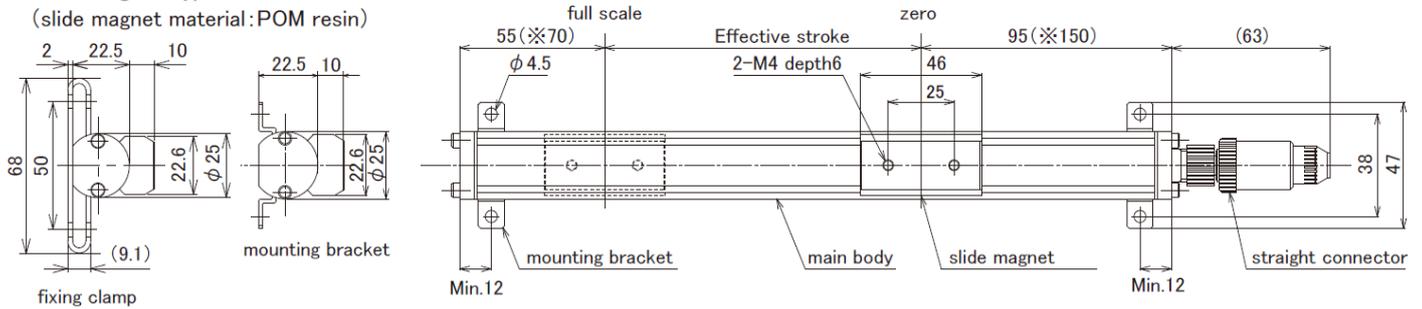
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## DIMENSIONS SLIDE-TYPES

CODE: U

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



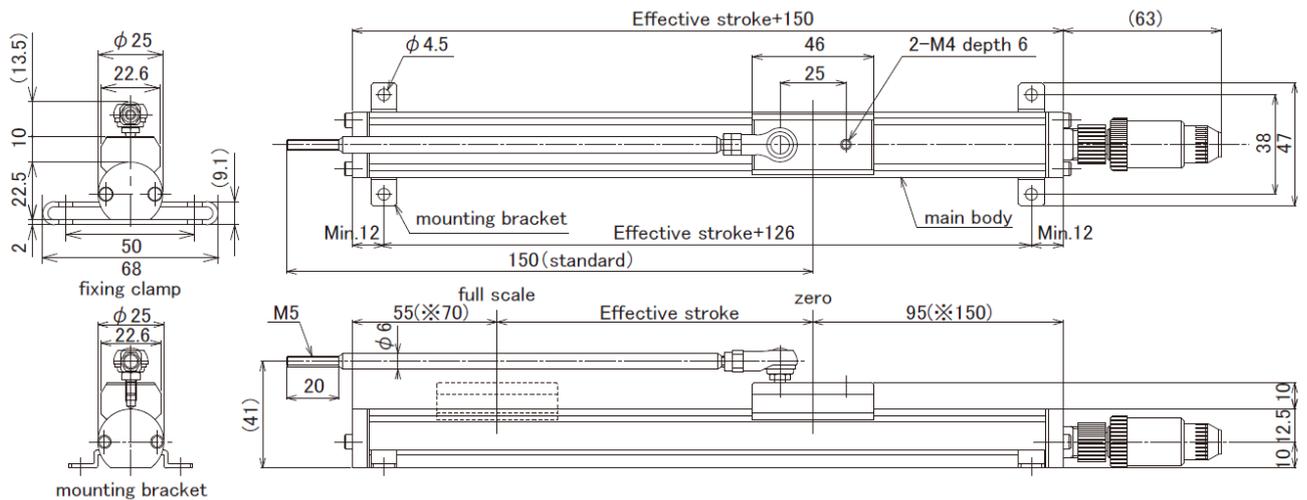
- ( $\times 150$ ): In case of stroke 1001mm or more, dead zone length for head side is 150mm.
- ( $\times 70$ ): In case of stroke 2001mm or more, dead zone length for tip side is 70mm.(U or T type)

CODE: U-FX65

■ Slide magnet + rod  $\phi 6$  with linkball joint (Code:U-FX65) (IP65)

For water splash application, U-FX65 option is available.

Mounting  $\phi 6$  rod on the slide magnet with linkball joint, easy adjustment of rod misalignment is also possible.



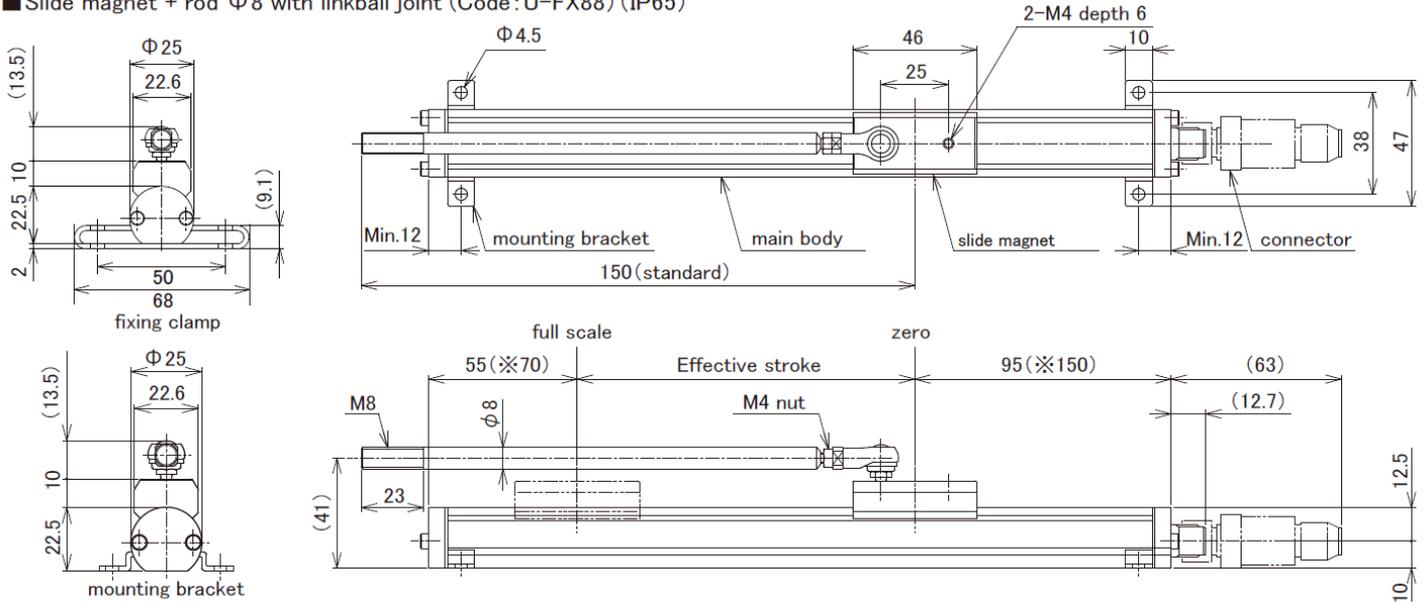
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## DIMENSIONS SLIDE-TYPES

CODE: U-FX88

■ Slide magnet + rod  $\Phi 8$  with linkball joint (Code : U-FX88) (IP65)



- ( $\times 150$ ) : In case of stroke 1001mm or more, dead zone length for head side is 150mm.
- ( $\times 70$ ) : In case of stroke 2001mm or more, dead zone length for tip side is 70mm.

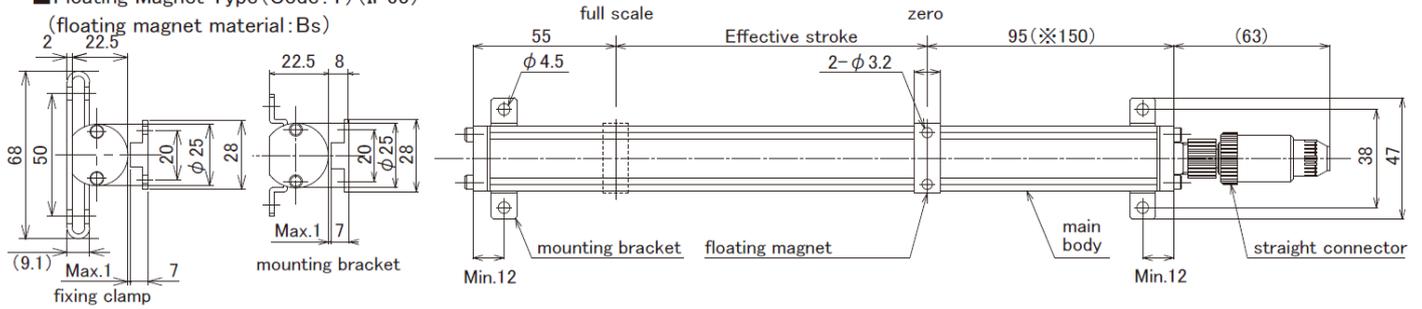
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## DIMENSIONS FLOAT-TYPES

CODE: T

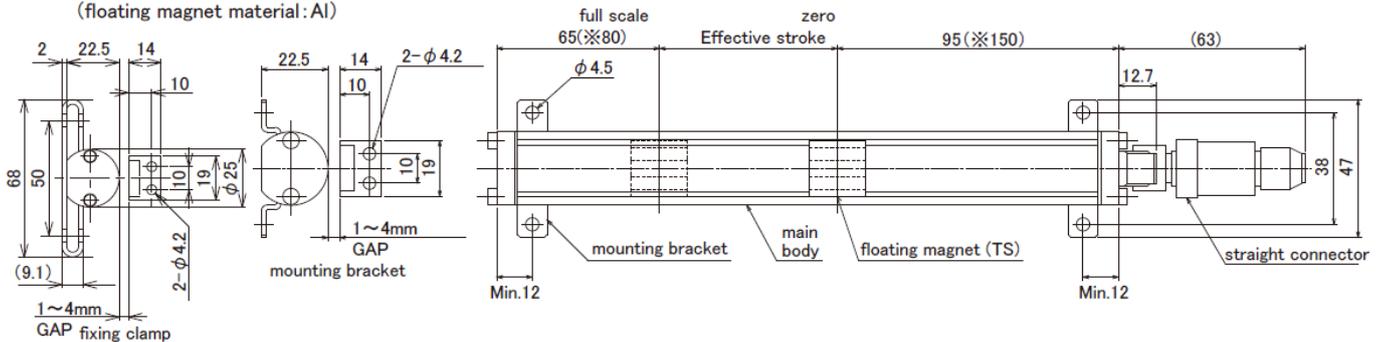
■ Floating Magnet Type (Code: T) (IP65)  
(floating magnet material: Bs)



- (※150) : In case of stroke 1001mm or more, dead zone length for head side is 150mm.
- (※70) : In case of stroke 2001mm or more, dead zone length for tip side is 70mm.

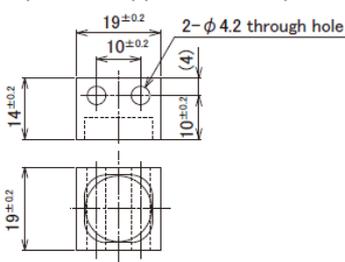
CODE: TS & TW

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

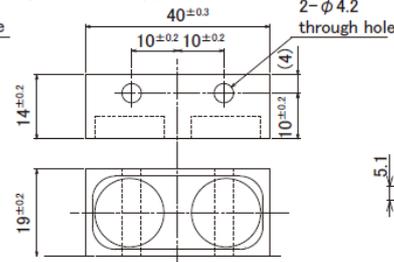


- (※150) : In case of stroke 1001mm or more, dead zone length for head side is 150mm.
- (※80) : In case of stroke 2001mm or more, dead zone length for tip side is 80mm.(TS or TW type)

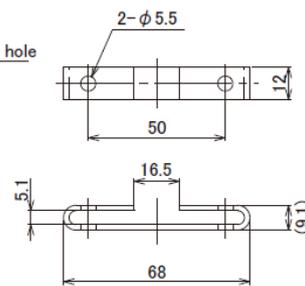
■ Floating magnet (TS)  
(material: Al) (GAP : 1 - 4mm)



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



■ Clamp



## OUTPUT CONNECTIONS

M12	PIN 1	PIN 2	PIN 3	PIN 4
Function	+24 VDC	0 V	OUT	COM