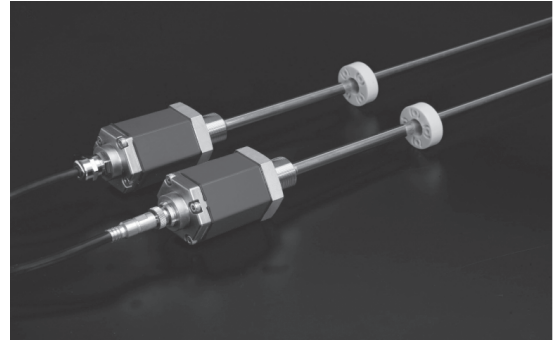


GYSE Probe

*High spec, All-in-one Probe
(easy to replace in field with screws)*

- The GYSE-probe is an all-in-one type sensor with positional resolution up to $1\ \mu\text{m}$.
- Position output is Analogue, SSI, or Incremental.
- Velocity output (option) is available for Analogue type.
- The positional difference between 2 magnets can be observable as well.
- This allows quick and easy sensor cartridge replacement.
- Sensor parameters (zero, full-scale or range) can be adjusted by using the Windows programming software (ISO9141).

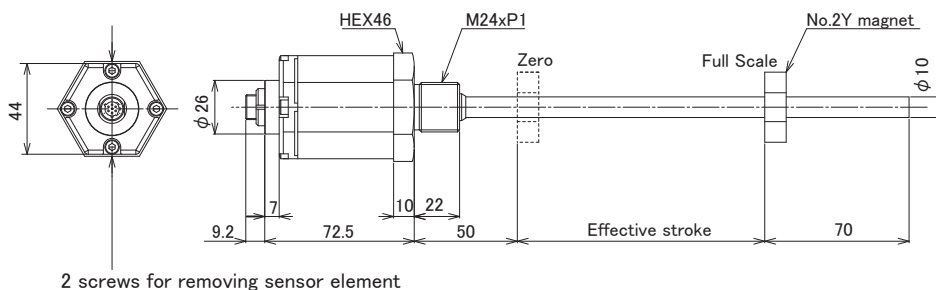


Specifications

Series	GYSE-A	GYSE-S	GYSE-Q	
Accuracy	Non-linearity	$< \pm 0.025\%FS$ (Min. $\pm 50\ \mu\text{m}$)		
	Resolution	16bit (1/65536)	0.01mm (Standard), 0.1mm, 0.05mm, 0.005mm, 0.002mm, 0.001mm	
	Repeatability	$\pm 0.001\%FS$ (Min. $\pm 3\ \mu\text{m}$)		
	Temp drift	$\pm 20\text{ppmFS}/^\circ\text{C}$	$\pm 15\text{ppmFS}/^\circ\text{C}$	
Output	Output	Analogue	SSI	Incremental
	Position output (Standard)	0~10V (output current: Max.5mA, load: Min.2k Ω) Or 4~20mA (load: Min.500 Ω)	SSI, 24bit Binary(Standard) or Gray code	A, /A and B, /B (Four interpolation) RS422 line driver
	Velocity output (Option)	$\pm 10V$ or 4~20mA Resolution: 16bit (1/65536)	Non-option	
	Alarm output	Open drain 50V 0.1A (Alarm signal for lost magnet)		
Power supply	+24 (± 2)VDC (80mA)			
Frequency response	Std 1kHz (depending on stroke) sampling			
Environment	Admissible press.	35MPa (probe rod)		
	Operating Temp	$-20^\circ\text{C} \sim +80^\circ\text{C}$		
	Storage Temp	$-40^\circ\text{C} \sim +80^\circ\text{C}$		
	Vibration	15G (10~2000Hz)		
	Shock	100G (2msec)		
	Protection	IP67 (Connecting mount or Pigtail type)		

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

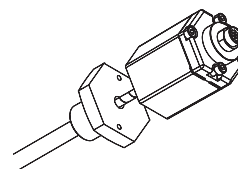
Dimensions



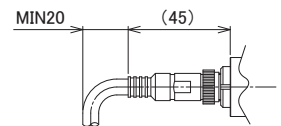
2 screws for removing sensor element

- Material probe head: Al diecast, probe rod: SS304
- Standard magnet: No.2Y.
Other magnets are available from Magnet Grouping 「GG」(P.33).
- The tip dead zone length (70mm) depends on the magnet or float type.
- Connector: LEMO connector (Material: brass with Ni plating)
(Standard: straight type, Option: L type)

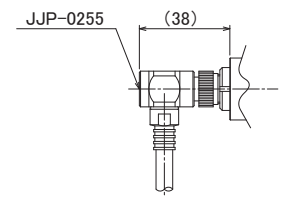
Removing sensor element



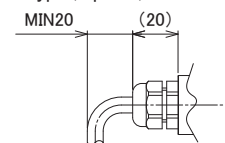
Connector type (Straight type) (Standard)



Connector type (L type) (Option)



Pigtail type (Option)



Model No.

GYSE-A-□□□□-□□-□-□/□
 ① ②③ ④ ⑤ ⑥

(Analogue Output)

GYSE-S-□□□□-□□-□-□□-□
 ① ②③ ④ ⑦⑧ ⑨

(SSI Output)

GYSE-Q-□□□□-□□-□-□□
 ① ②③ ④ ⑦⑧

(Incremental Output)

① Effective stroke
 15mm~5200mm

② Thread
 M: M24xP1.0 (Standard)
 N: M18xP1.5
 U: 3/4-16UNF-3A

③ Sensor rod diameter
 blank: ϕ 10 (Standard)
 8: ϕ 8
 14: ϕ 13.8

④ Cable connection
 CN: Connector (Standard)
 G※: Pigtail type
 (※: Cable length [m], Standard: 1.5m)
 • For CN type, only counter connector supplied.
 In case extra cable needed, specify the length.

⑤ Analogue position output (OUT1)

AD	0~10V (Standard)
AR	10~0V
BD	4~20mA
BR	20~4mA
CD or CR□□ bipolar output [ex] CD10 CR05	□□V~□□V -10V~+10V +5V~-5V
V Z/F [ex] V1/5 V9.5/0.5	Custom order 1~5V 9.5~0.5V
I Z/F [ex] I5.12/20 I20/5.38	Custom order 5.12~20mA 20~5.38mA

※Z=Zero positon
 F=Full scale position

⑥ Option: Analogue output (OUT2)

- Position: see ⑤
- Velocity output (Note)
 VA[] \pm 10V
 WB[] 4~20mA
 []: max velocity (1.00~999mm/sec)
 (ex.9R99: max velocity=9.99mm/sec)
- N: No option

⑦ Resolution

- D2: 0.1mm
- D3: 0.05mm
- D4: 0.01mm (Standard)
- D5: 0.005mm
- D7: 0.002mm
- D8: 0.001mm

⑧ Direction

- D: output data increase toward probe tip
- R: output data decrease toward probe tip

⑨ Output code

- B: binary (Standard)
- G: gray

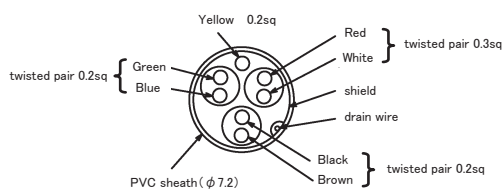
(Note)

VA: when magnet stops, output is 0V. when moving toward probe tip, +10V
 WB: when magnet stops, output is 4mA. when moving in any direction, 20mA.

Connection

Cable color	Connector pin number	GYSE-A	GYSE-S	GYSE-Q
Red	1	+24VDC	+24VDC	+24VDC
White	2	0V	0V	0V
Blue	3	OUT1	DATA+	A+
Green	4	COM1	DATA-	A-
Brown	5	OUT2	CLK+	B+
Black	6	COM2	CLK-	B-
Yellow	7	Alarm	Alarm	Alarm

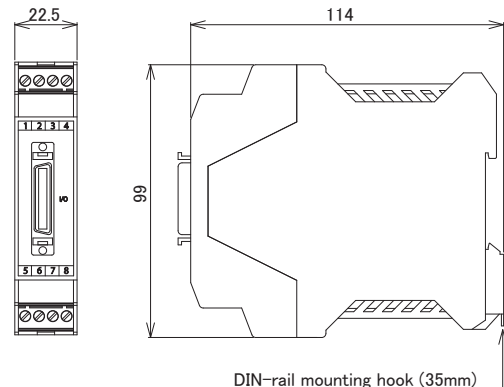
※shield to be connected to 0V at user side.



- The length of the cable should be less than 10m in case of using the voltage output type and 100m in case of using the current output type.
- Applied cable diameter: ϕ 6.6~ ϕ 7.5
- Wire size: Less than 0.5mm²

Accessories

■ Model No.: SSPC-01
 converting SSI to Parallel
 (Supply voltage: +24VDC (\pm 5%), 50mA)



Standard: with mating connector 10136-3000PE (Sumitomo 3M)
 Option: connector with 3m cable