

GS-51N5

Power-to-release Standard type NPN Standard cable 5 m

*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model			GS-51N5
Lock type			Power-to-release type
Type			Standard type
Response time	Lock	Lock→Unlock	220 ms*1*2
		Unlock→Lock	220 ms*1*2*3
Lock	Locking force (Fzh)		Min. 2,000 N
	Alignment tolerance of lock		±2 mm ±0.08"
	Mechanical life-span		1 million cycles or more (with door operation speed of 1 m/s)
	Acceptable operation frequency		1 Hz*4
	Door radius		Min. 250 mm 9.84"
	Auxiliary release		Front, back *5
Cascading			Max. 25 units
Control output (OSSD output)	Output		Transistor outputs × 2
	Max. load current		Max. 100 mA
	Residual voltage (during ON)		Max 2.5 V (with a cable length of 5 m 16.40')
	OFF state voltage		Max 2.0 V (with a cable length of 5 m 16.40')
	Leakage current		Max. 0.5 mA
	Max. capacitive load		2.2 μF
	Load wiring resistance		Max. 2.5 Ω
AUX (Non-safety related output)	Output		Transistor output
	Number of outputs		1
	Max. load current		50 mA
	Residual voltage (during ON)		Max 2.5 V (with a cable length of 5 m 16.40')
External input (Short-circuit current)	Safety input		Approx.1.5 mA × 2
	Reset/EDM input		-
	Lock control input		Approx. 2.5 mA × 1
	OSSD operation switching input		-
Applicable Standards (Safety)			EN 61508, IEC 61508(SIL2/SIL3) EN 62061, IEC62061(SIL CL2/SIL CL3) EN ISO13849-1: 2015(PLd, Category 2/PLe, Category 4) EN ISO14119(Type4) IEC 60947-5-3, EN 60947-5-3 UL 61010-1, CAN/CSA-C22.2 No.61010-1
Protection circuit			Reverse current protection, short-circuit protection and surge protection for each output
Power supply	Power voltage		24 V DC ±20 % (Ripple P-P 10 % or less, Class2)
	Power consumption		3.4 W*6

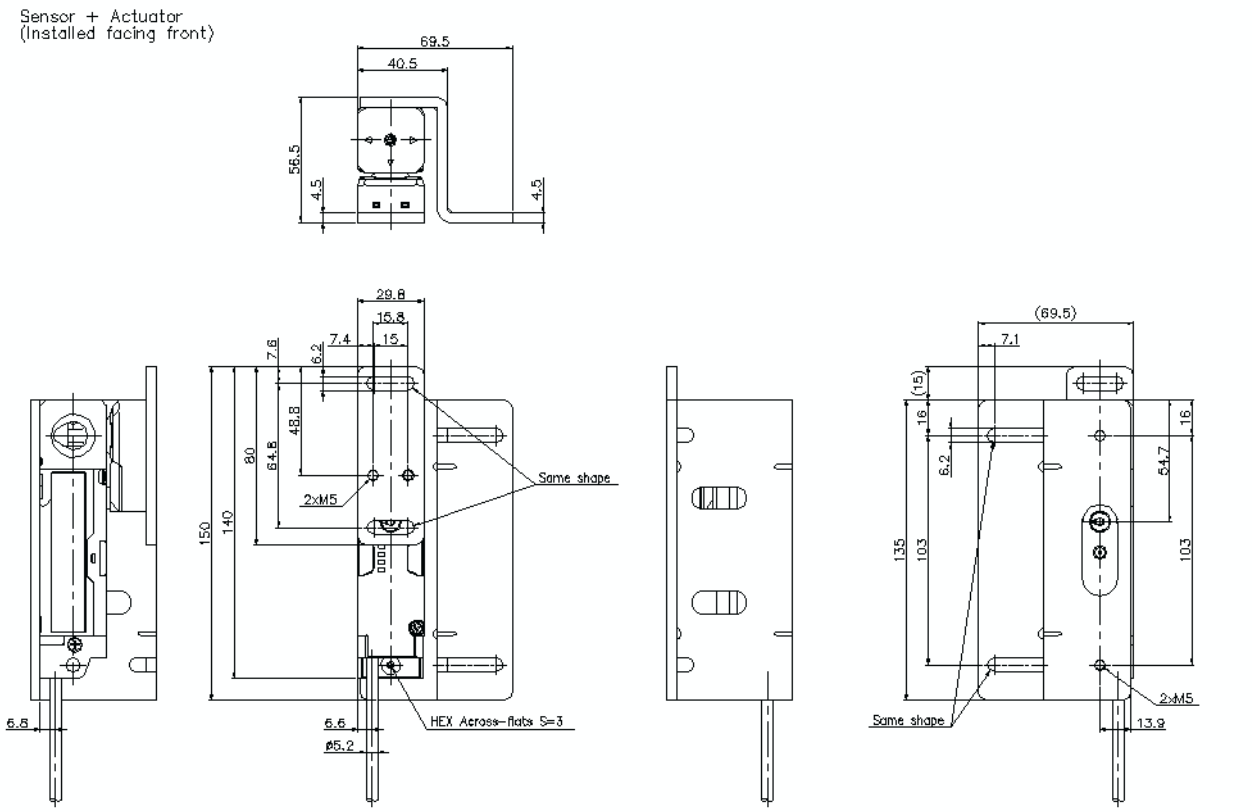
Environmental resistance	Enclosure rating		IP65/67(IEC60529), IP69K(ISO 20653) (TÜV SÜD certified), Enclosure Type 3/4X/12/13 (NEMA250)
	Operating ambient temperature		-20°C to +55C° -4°F to 131°F (No freezing)
	Operating relative humidity		5% to 95%RH
	Storage temperature		-25°C to +70°C -13°F to 158°F (No freezing)*7
	Storage relative humidity		5% to 95%RH
	Vibration resistance		10 to 55 Hz, Double amplitude 2.0 mm 0.08", 5 minutes in each of the X, Y, and Z directions (IEC 60947-5-3)
	Shock resistance		30 G in X, Y, Z directions 6 times each axis (IEC 60947-5-3)
Material	Sensor main unit	Case	SUS304, PPS, PBT, PAR, PA66, NBR
		Lock	Aluminum alloy, Zinc die cast (Nickel chrome plating)
		Cable	PVC
	Actuator	Case	PPS, PBT, NBR
		Lock	Aluminum alloy, SUS303
Weight			Approx. 560 g

*1 Risk time according to IEC60947-5-3 is 150 ms + 2 ms × (number of units cascaded -1).
*2 If the OSSD operation is open/close link mode, Detect→ Not detect: 20 ms + 2 ms × (number of units cascaded -1), Not detect → Detect: 30 ms + 25 ms × (number of units cascaded -1)
*3 430 ms when locked at the same time the actuator is detected.
*4 Acceptable door operation frequency is 3 Hz if the OSSD operation is open/close link mode. In that case, operation distance is Sao(OFF→ ON) = 3 mm 0.12", Sar(OFF→ ON) = 10.5 mm 0.41".
*5 Do not apply excessive torque (0.45N·m or higher).
*6 Power consumption temporarily increases (Max. 10.5 W, Approx. 0.2 s) when the lock control input(s) is(are) turned ON. After that, current consumption will be within the specification.
*7 When stored for a long period of time, please store it at a temperature of 55°C 131°F or lower.

Dimensions

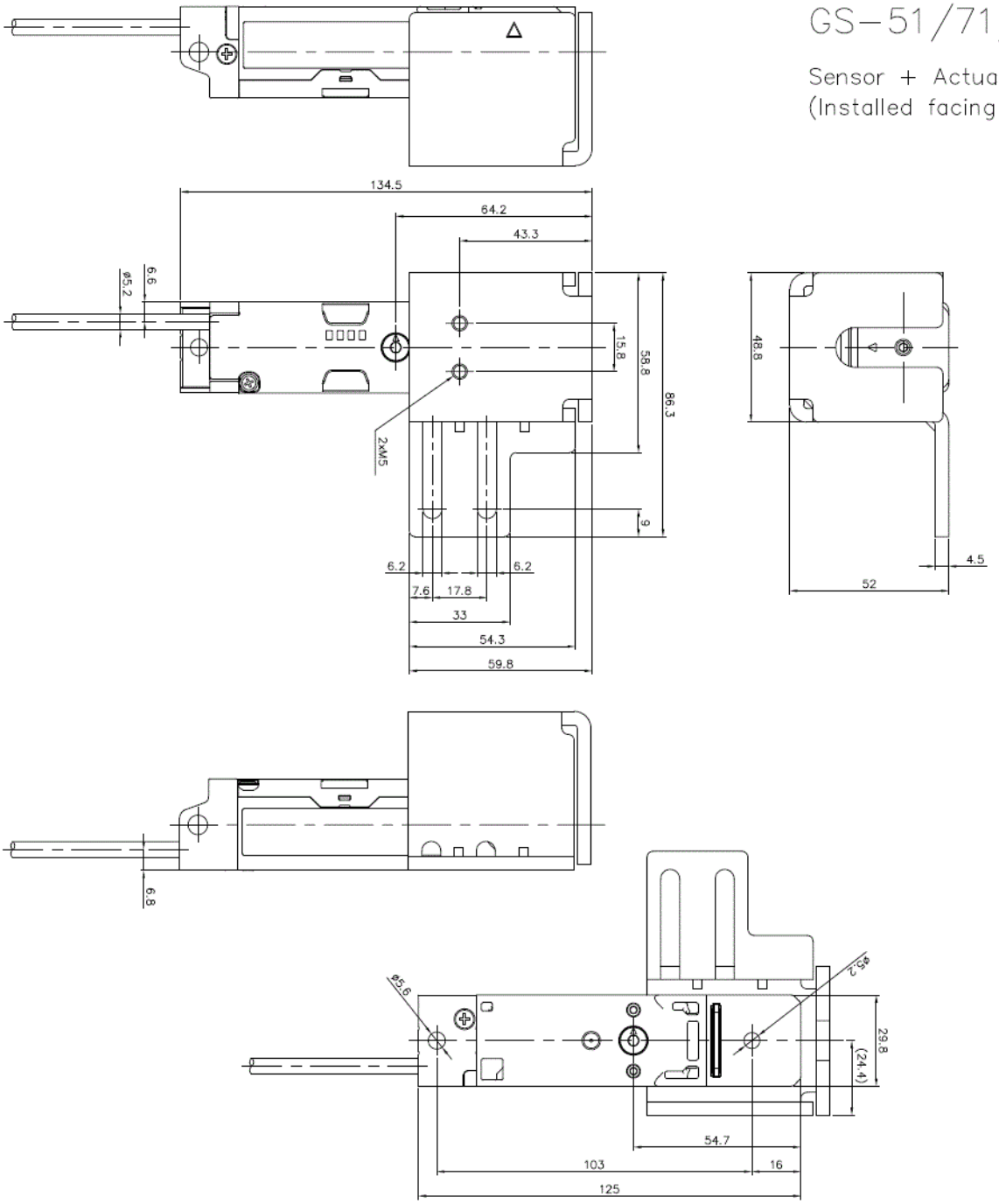
* Download CAD file or product manual for larger image/text and more detail.

GS-51P5/51N5/51P10/51N10/71P5/71N5/71P10/71N10+GS-B21



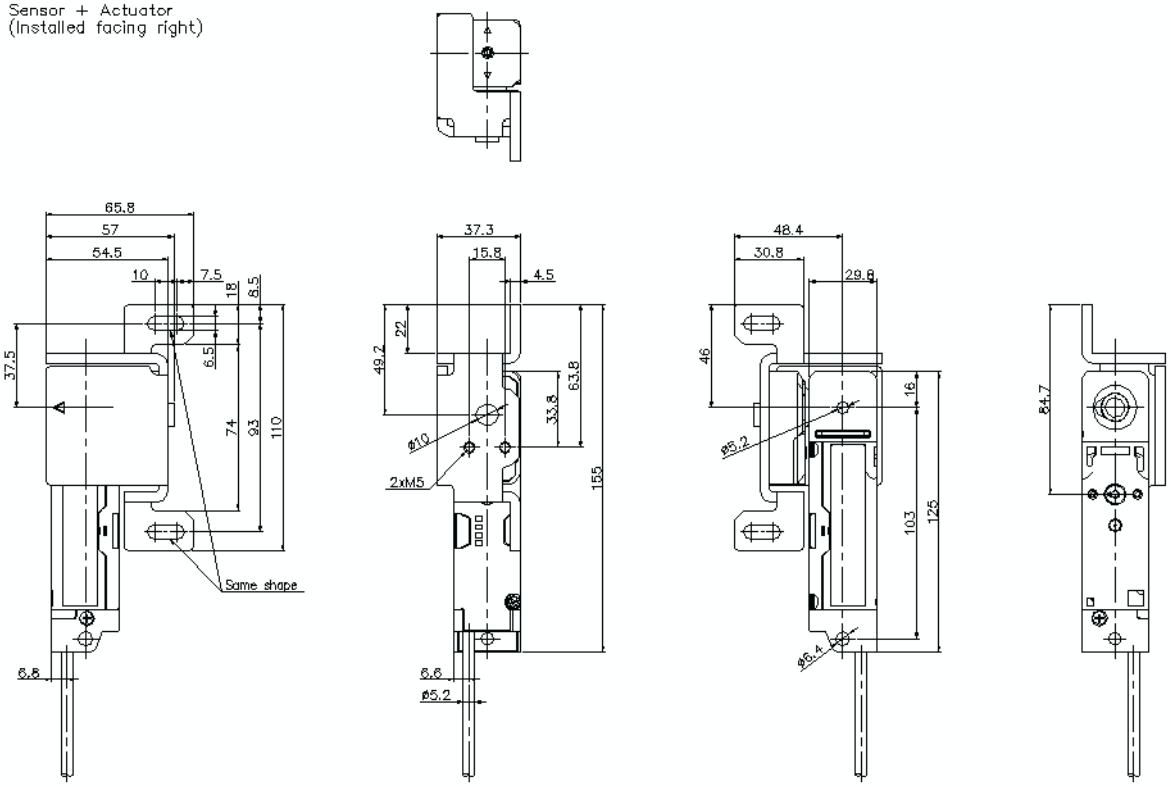
GS-51/71/B31

Sensor + Actuator
(Installed facing front)

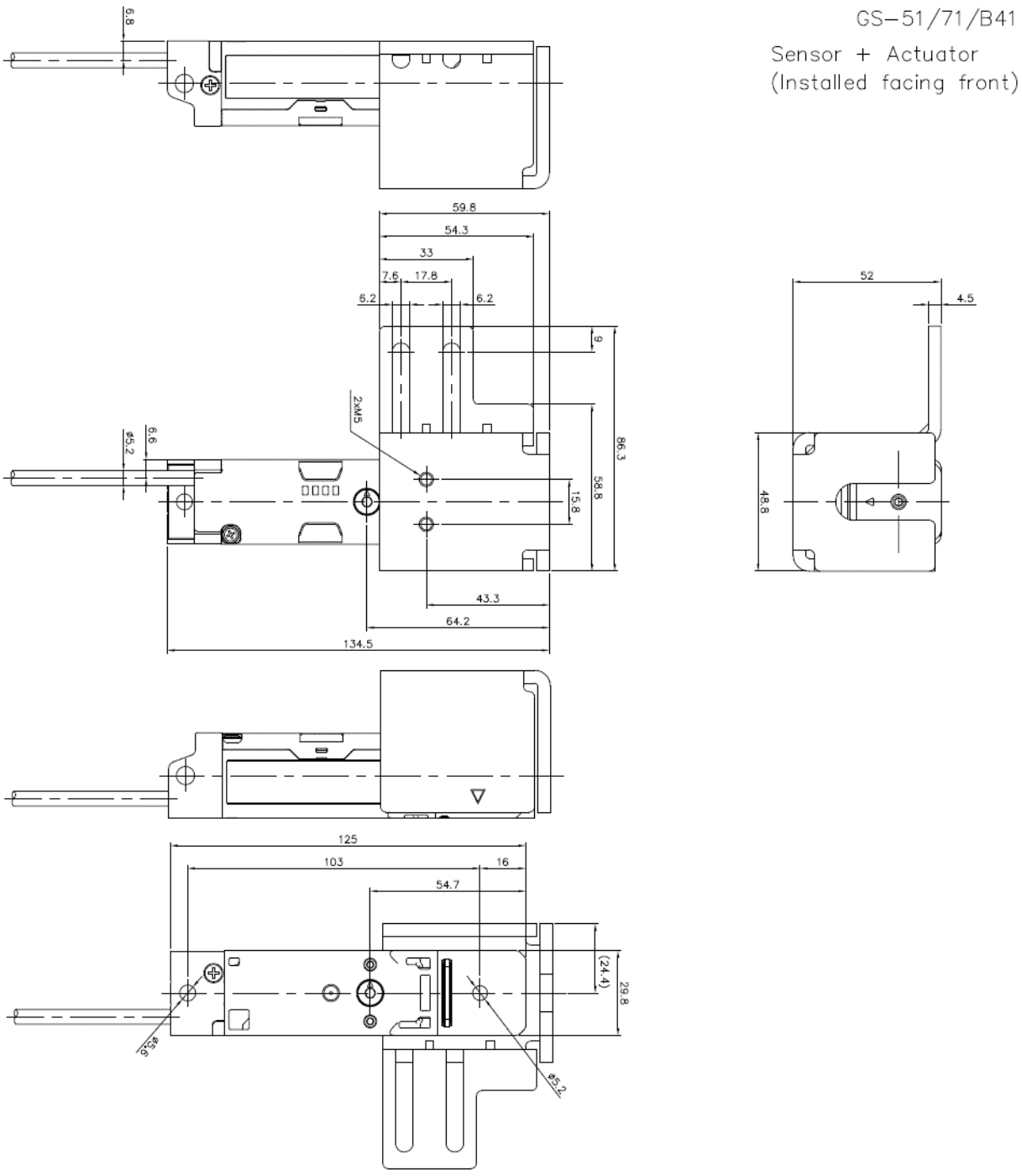


GS-51P5/51N5/51P10/51N10/71P5/71N5/71P10/71N10+GS-B33

Sensor + Actuator
(Installed facing right)

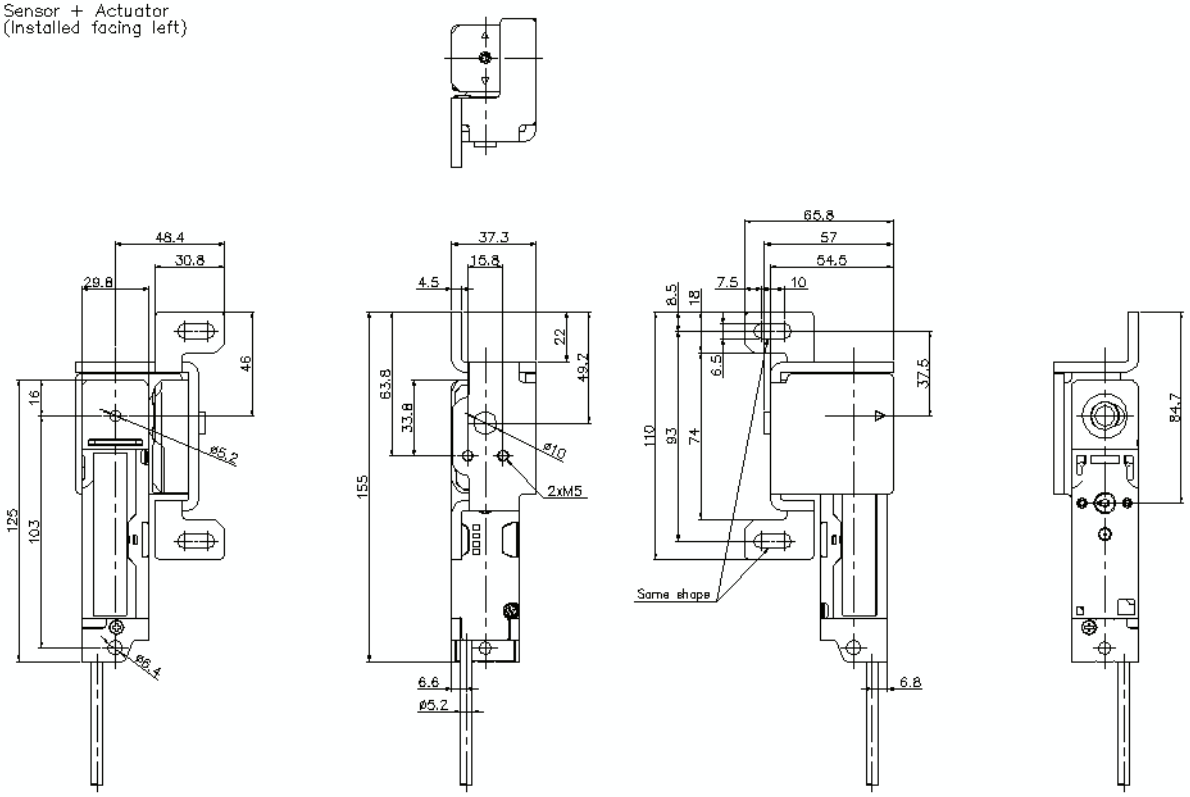


GS-51/71/B41
Sensor + Actuator
(Installed facing front)



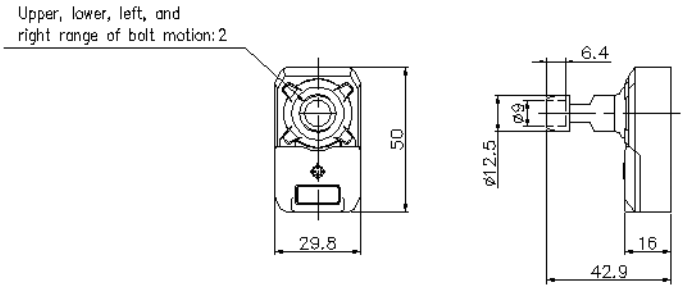
GS-51P5/51N5/51P10/51N10/71P5/71N5/71P10/71N10+GS-B43

Sensor + Actuator
(Installed facing left)

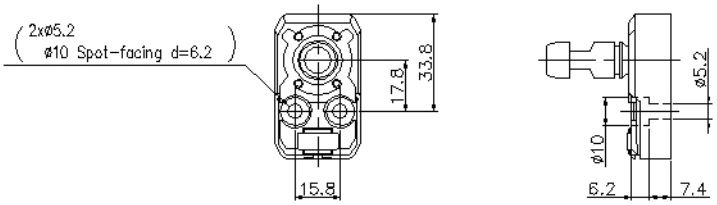


GS-51P5/51N5/51P10/51N10/71P5/71N5/71P10/71N10

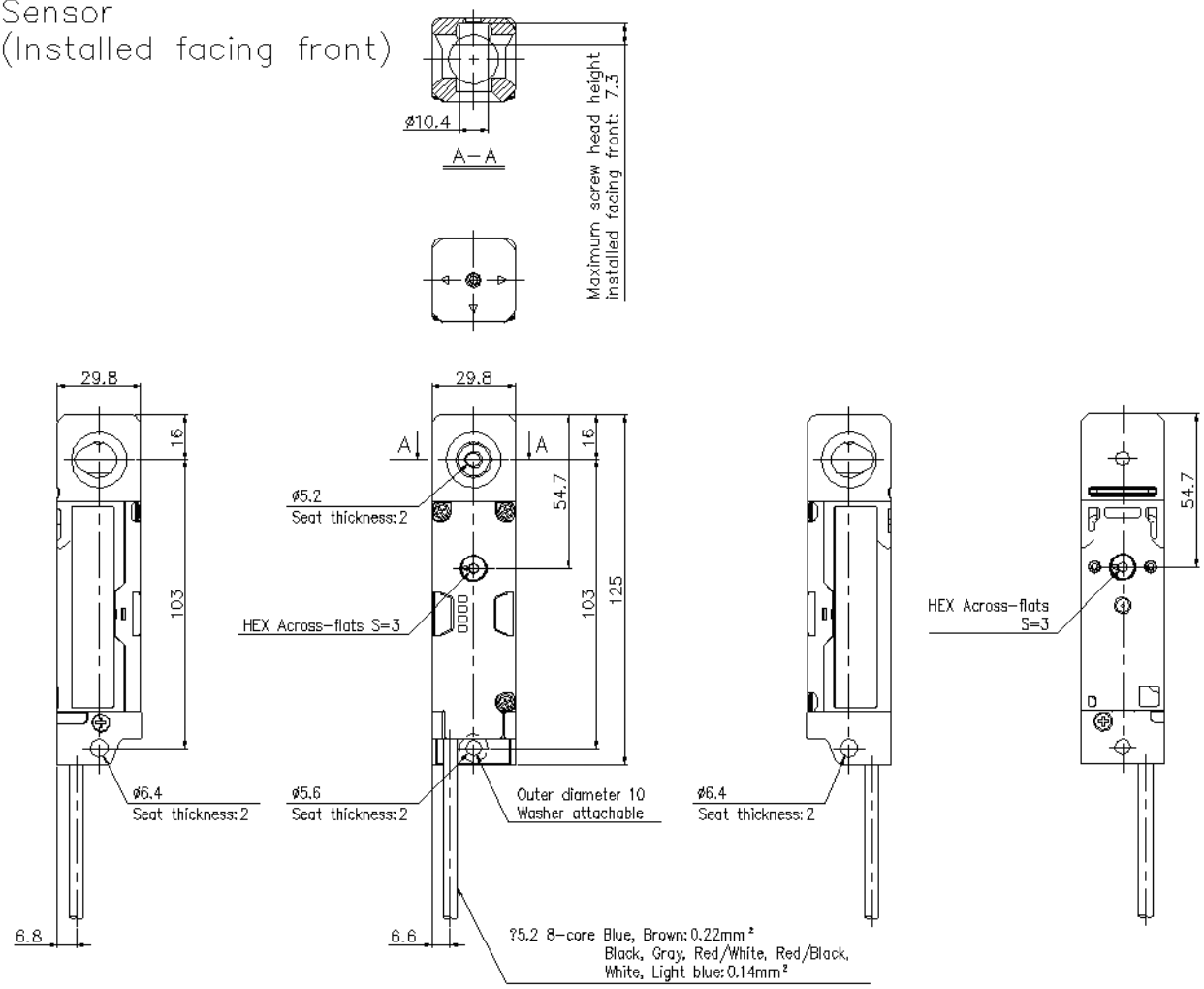
Actuator



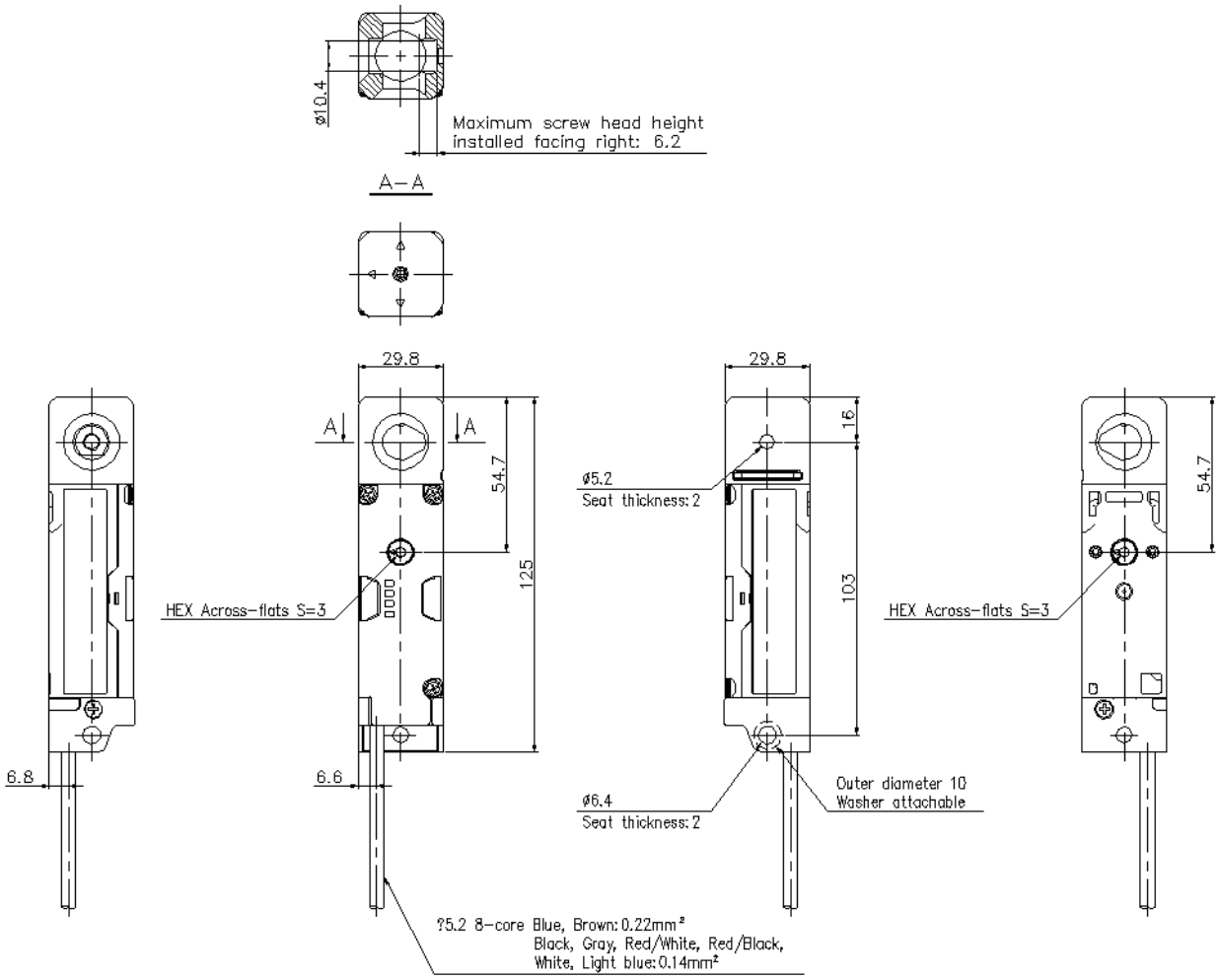
Without the cover

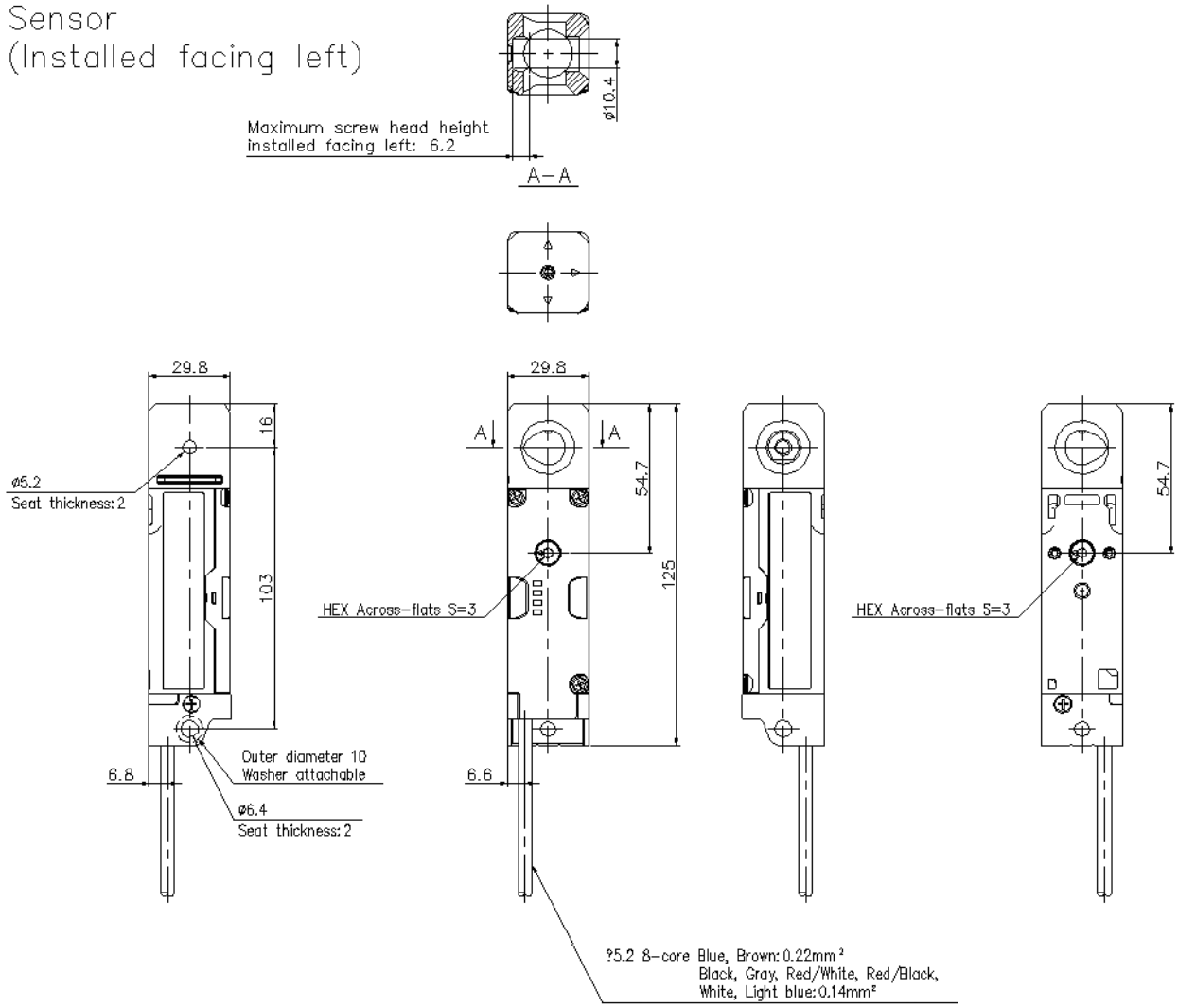


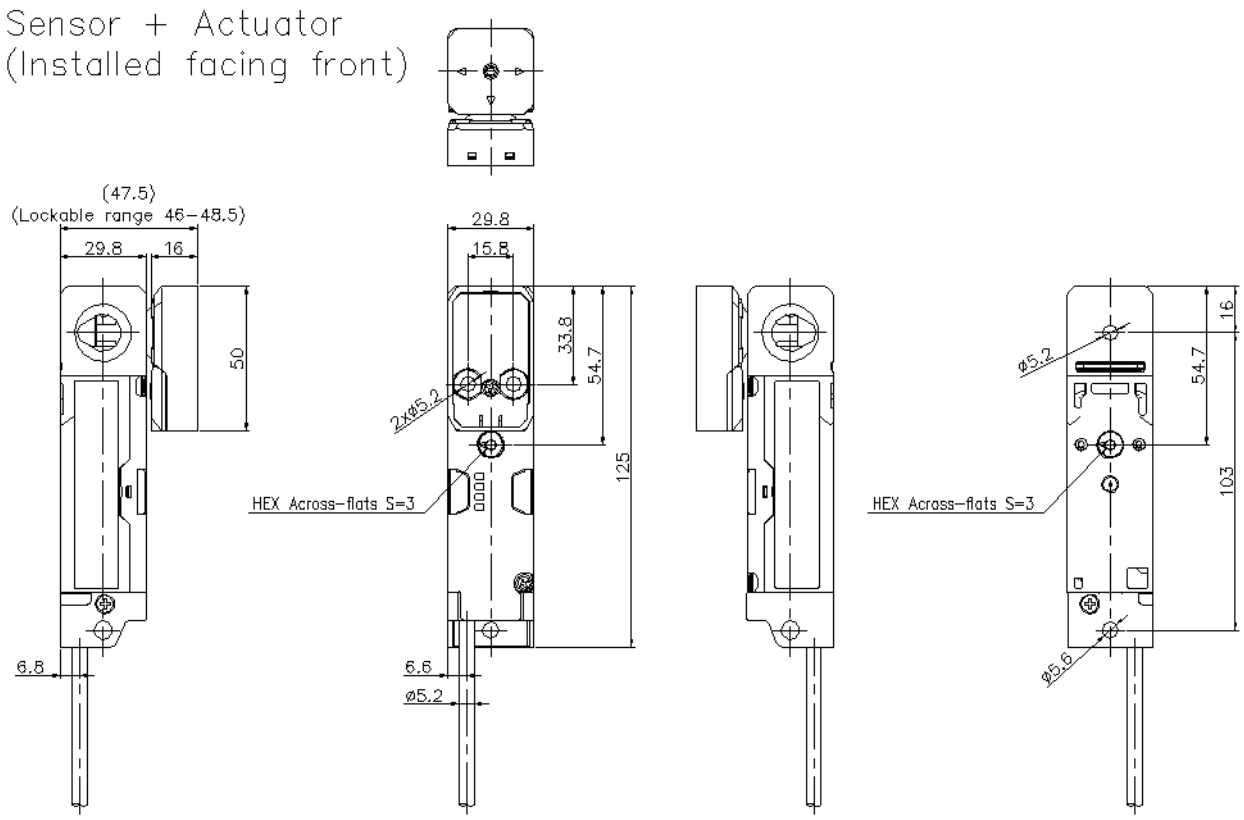
Sensor
(Installed facing front)



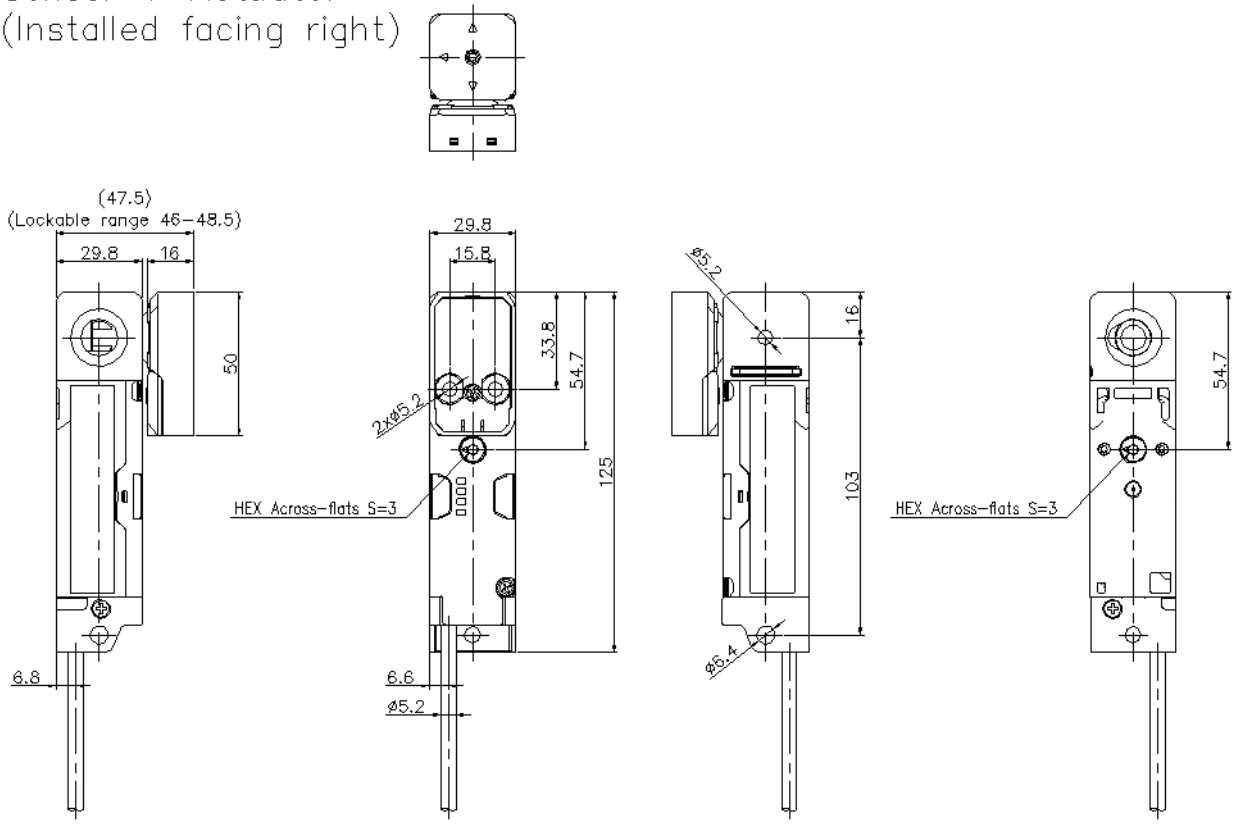
Sensor
(Installed facing right)




Sensor
(Installed facing left)
Maximum screw head height
installed facing left: 6.2
ø10.4
A–A
29.8
16
ø5.2
Seat thickness: 2
103
6.8
Outer diameter 10
Washer attachable
ø6.4
Seat thickness: 2
29.8
A
A
54.7
125
HEX Across-flats S=3
6.6
54.7
HEX Across-flats S=3
?5.2 8-core Blue, Brown: 0.22mm²
Black, Gray, Red/White, Red/Black,
White, Light blue: 0.14mm²


Sensor + Actuator
(Installed facing front)
(47.5)
(Lockable range 46–48.5)
29.8
16
50
6.8
29.8
15.8
33.8
54.7
2xø5.2
HEX Across-flats S=3
125
6.6
ø5.2
ø5.2
16
54.7
HEX Across-flats S=3
103
ø5.6

Sensor + Actuator
(Installed facing right)



Sensor + Actuator
(Installed facing left)

