

TCW4 ANALOG

ANALOG ABSOLUTE MULTI-TURN MODULAR SENSOR

Sensata-BEI Sensors' TCW4 sensors provide absolute multi-turn measurement with analog outputs in an over-molded, two-part modular design that offers flexibility and protection from the environment.



Features

- With its two-part design, the TCW4 absolute multi-turn offers maximum flexibility for installation
- Rugged and excellent resistance to shock and vibration
- Robust, proven magnetic technology
- Environmentally resistant, IP 67 standard (IP69K option)
- Extended operating range from -20° C to 85° C
- Uses universal supply 11 to 30 VDC – Analog output
- Available Resolution up to 12 bits per turn with up to 16 bits of turns counting
- Variety of magnet holders available

Applications

- Factory Automation
- Process Automation



SPECIFICATIONS

Mechanical

Terminations	PUR cable with M12 5 pin connector
Housing	Macromelt PA638
Weight	0,150 kg

Electrical

Electrical Angle	3600°
Output Function	0– 10 Vdc, 0.5 to 4.5 Vdc, or 4 – 20 mA
Minimal Cycle Time	1ms
Resolution	Multi-turn, 12 bits per turn with up to 16 bits of turns counting
Accuracy	+/-0.3% on 360°
Repeatability	+/-0.1% on 360°
Supply Voltage	11 - 30 Vdc or 15-30 Vdc
Start-up	< 1s
Response time	< 10 ms (5L2 and 3L1 electronics), <1ms (All other electronics)
Recommended Load	> 10 kOhms (voltage out), 500 Ohms (current out)
Current Requirements	< 40mA
Protection	Overvoltage Protection: Yes Reverse Polarity Protection: Yes Short Circuit Protection: Yes
EMC	IEC 61000-4-2 Electrostatic discharge (ESD) 4 kV, 8 kV IEC 61000-4-3 Electromagnetic fields 10 V/m (80MHz - 1GHz), 3V/m (1.4GHz - 2GHz), 1V/m (2GHz - 2.7GHz) IEC 61000-4-4 Electrical fast transients (burst) 1 kV IEC 61000-4-6 Conducted disturbances, induced by RF-fields 10 Veff.



ORDERING OPTIONS

Example : TCW4_00//3L13//03600// L5D020

(Contact the factory for special versions, ex : dimensions, connections...)

	TCW4	00	//	3L1	3	//	03600	//	L5	D020
Family	TCW4: Absolute Multi-turn Sensor									
Shaft Ø	00: Modular									
Supply / Output Stage	3L1: 15 to 30 Vdc, 0-10V Output 5L2: 11 to 30 with 0.5 to 4.5 Vdc Output 3L3: 15 to 30 Vdc, 4 – 20 mA Output									
Direction	3: with direction input									
Range	03600: 3600° range									
Connection	L5: 5 Conductor PVC Cable									
Connection Orientation	D020: Diagonal cable 2m long									

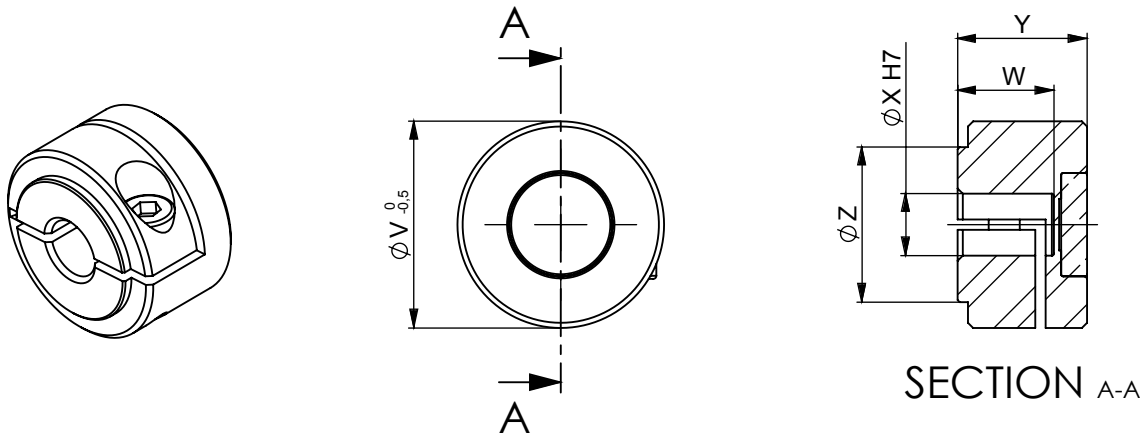


ACCESSORIES

Female magnet support + Magnet 8810/013

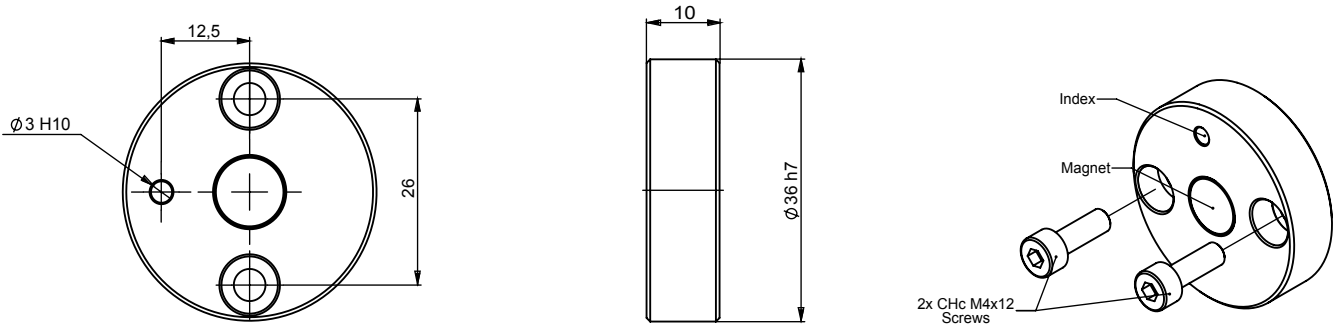
Ordering p/n : **M9105/Kxx**

KXX: Where XX is the shaft mounting diameter in mm. Standards are 06, 08, 10, 11, and 14 mm. i.e M9105/K10 mounts to a 10 mm shaft.

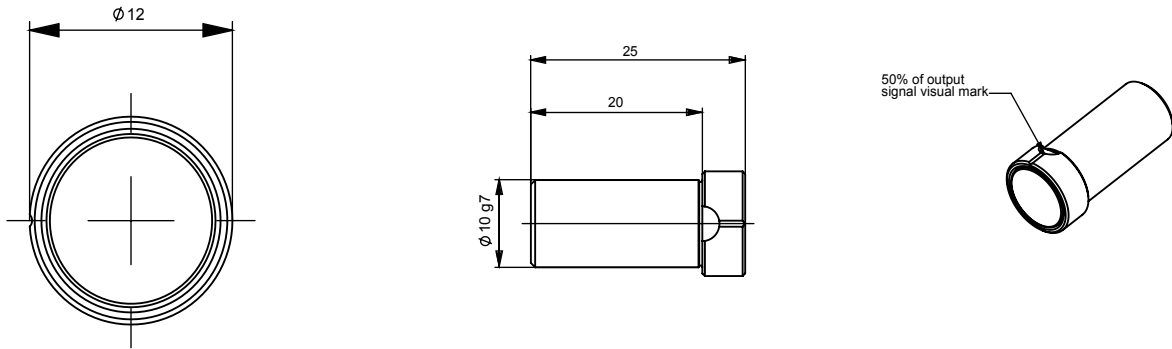


	M9105/K06	M9105/K08	M9105/K10	M9105/K11	M9105/K14
X	06 H7	08 H7	10 H7	11 H7	14 H7
V	20	20	26	26	29
W	9,3	9,3	10	10	10
Y	12,5	12,5	14	14	14
Z	15	15	15	15	18

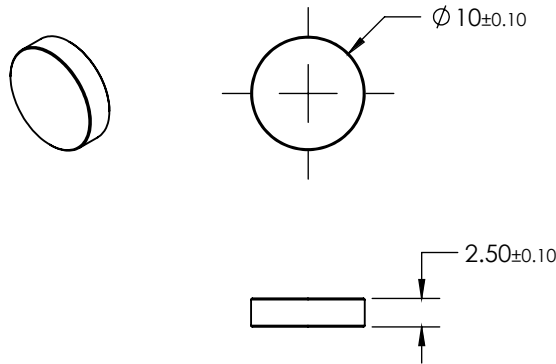
Frontal magnet support + Magnet 8810/013
 Ordering p/n : **M9105/F26**



Male magnet support + Magnet 8810/013
 Ordering p/n : **M9105/M10-01**



Magnet
 Ordering p/n : **8810/013**



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