

TCW4 ANALOG

ANALOG ABSOLUTE MULTI-TURN MODULAR



Features

- With its two-part design, the ACW4 absolute single-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 5 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

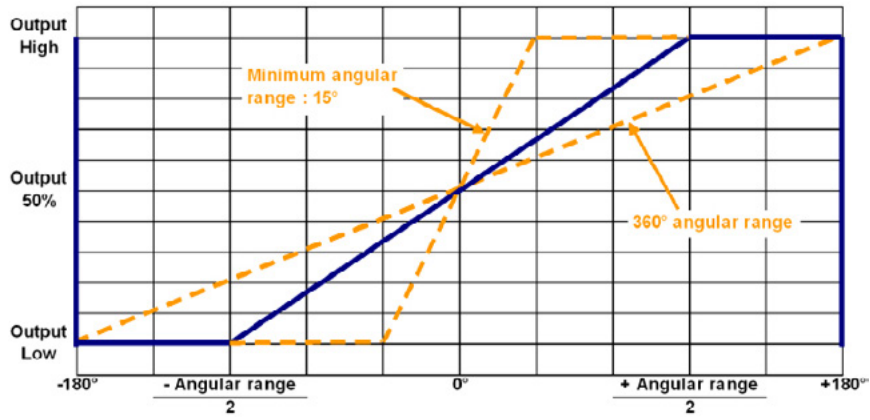
Mechanical

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

Electrical

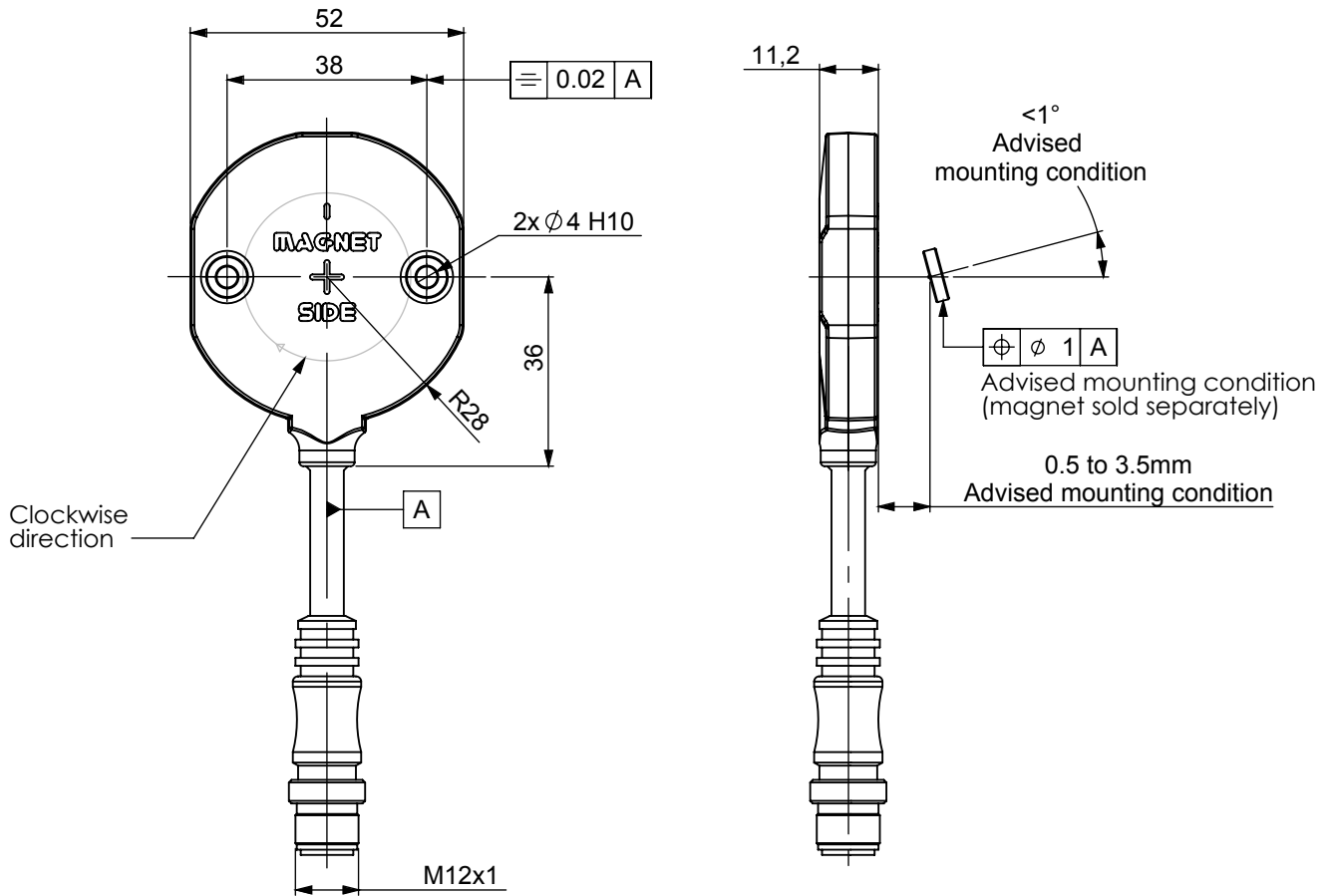
Electrical Angle	3600
Output Function	0– 10 Vdc, 0.5 to 4.5 Vdc, or 4 – 20 mA
Minimal Cycle Time	1ms
Resolution	Multi-turn, 12 bits per turn with up to 10 turns of turns counting
Accuracy	+/-0.3% on 360°
Repeatability	+/-0.1% on 360°
Supply Voltage	5-30 Vdc or 15-30 Vdc
Start-up	< 1s
Response time	< 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.

Analog Output



DIMENSIONS

All Dimensions are in millimeters.
 Shaft system with magnet to be ordered separately (see Accessories).





CONNECTOR PIN OUT

Function	Vcc	0V	Analog Out	Ground
Color	Brown BN	White WH	Green GN	Shield

NOTES

Stray magnetic fields can interfere with accuracy and repeatability of the signal.



ORDERING OPTIONS

Example : TCW4_00//3L11//14//L3R020

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

	TCW4	00	//	3L1	03600	//	L3	//	R020
Family	TCW4: Absolute Multi-turn Sensor								
Shaft Ø	00: Modular								
Supply	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								
Resolution	3600°								
Connection	L3: 3 conductor PVC cable								
Connection Orientation	R020: Radial cable 2m long								

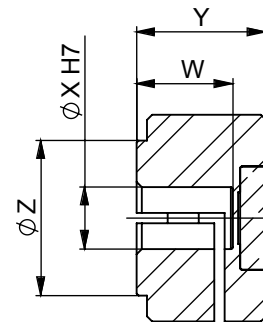
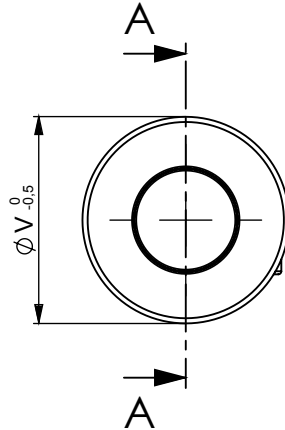
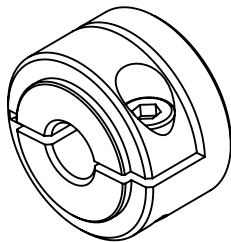


ACCESSORIES

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.



SECTION A-A

	M9105/K06	M9105/K08	M9105/K10	M9105/K11	M9105/K14
W	6 H7	8 H7	10 H7	11 H7	14 H7
X	20	20	26	26	29
Y	12,5	12,5	14	14	14
Z	15	15	15	15	18