ACW4 SSI

SSI ABSOLUTE SINGLE TURN MODULAR SENSOR

Sensata-BEI Sensors' ACW4 sensors provide absolute single turn measurement with an SSI output in an over-molded, two-part modular design that offers flexibility and environmental protection.

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 -40° C to 85° C
- Uses universal supply 5 to 30 VDC – SSI Output
- Available Resolution up to 12 bits per revolution
- Variety of magnet holders available

Applications

- Factory Automation
- Process Automation

CE

SPECIFICATIONS

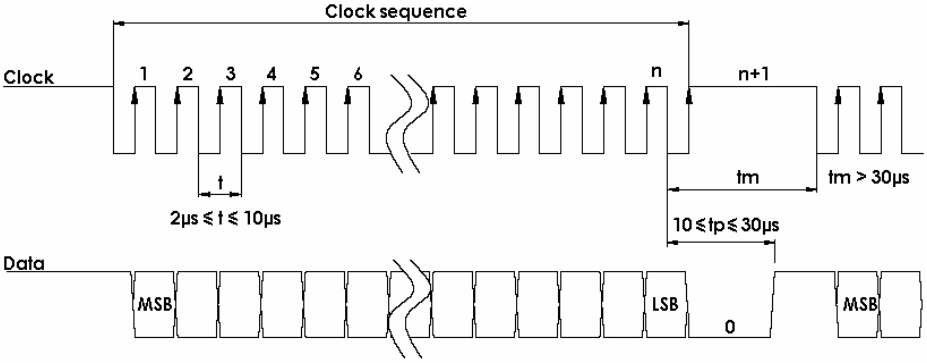
Mechanical

Terminations	PUR cable
Housing	Macromelt PA638
Weight	0,150 kg

Electrical

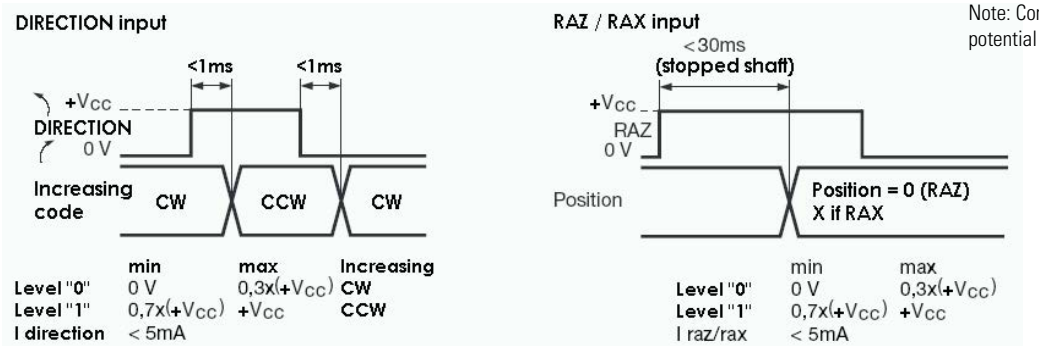
Electrical Angle	360°
Output Function	SSI, 2LP = 5Vdc; 5LP = 11 to 30 Vdc
Minimal Cycle Time	1ms
Resolution	Single –turn, 12 bits
Accuracy	+/-0.3% on 360°
Repeatability	+/-0.1% on 360°
Supply Voltage	5V to 30 Vdc
Start-up	< 1s
Response time	< 10 ms
Recommended Load	> 10 kOhms
Isolation	500 Veff
Current 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.

SSI Transmission



Transmission	Transmission up to 400m* at 100kHz as a function of the cable characteristics.
Cable	High security of transmission by using shielded cable and twisted pairs.

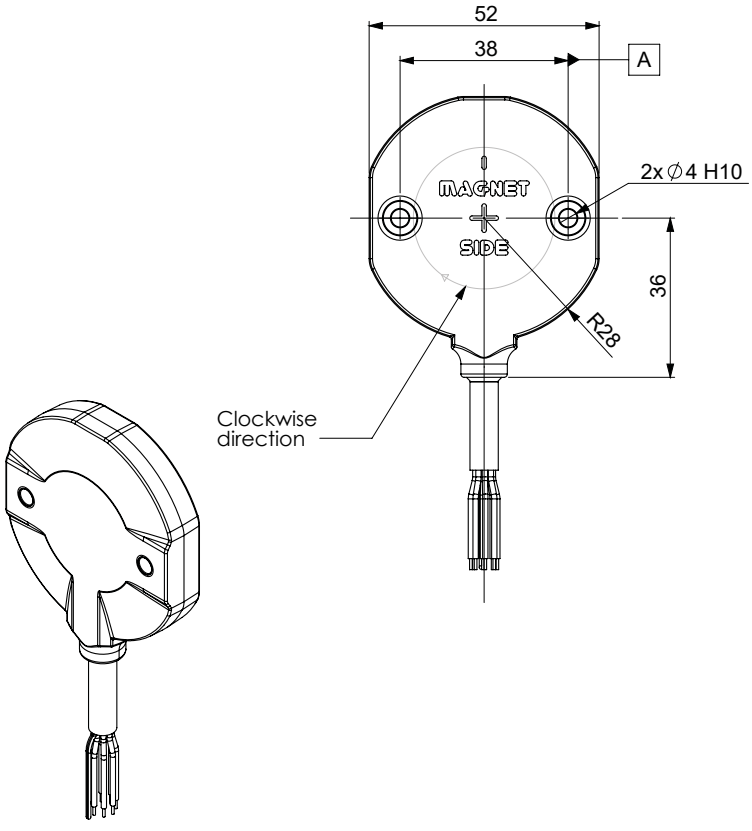
* Consult us for length > 100m.

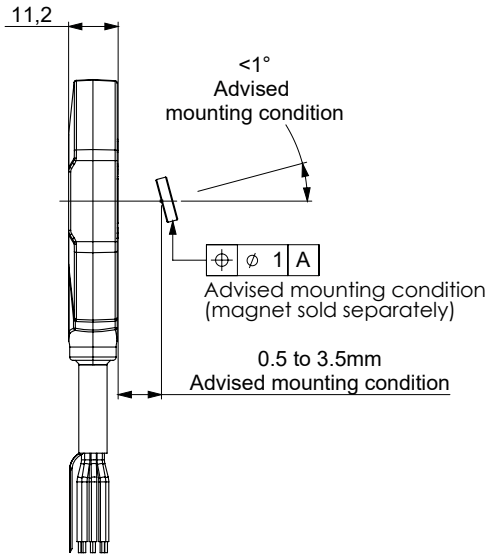


Note: Connect DIRECTION and RAZ/RAX to a potential (RAZ at 0V if not used)

DIMENSIONS

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





CONNECTIONS

Ref.	Type	+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	Direction	Ground

NOTES

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

ORDERING OPTIONS

Example : ACW4_00//PCSB//12//S5R005

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

ACW4 _ 00 // P CS B // 12 // S5 R005

Family

ACW4: Absolute Single-Turn Sensor

Shaft Ø

00: Modular

Supply

P: 5 to 30 Vdc

Output Stage

CS: SSI Without Parity

Code

B: Binary
G: Gray

Resolution

12: 12 bits

Connection

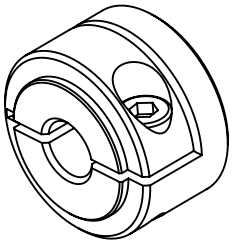
S5: SSI PUR Cable

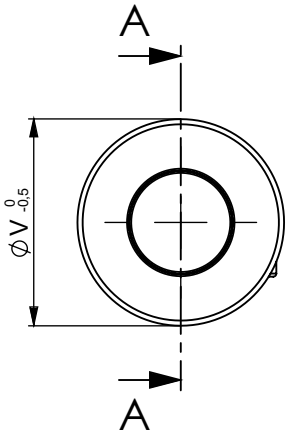
Orientation

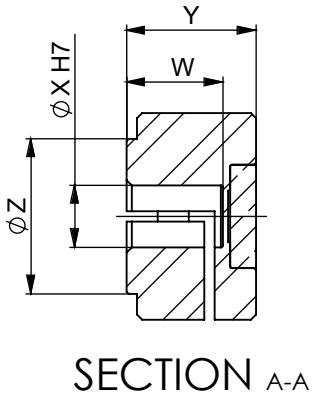
R005: Radial cable 50cm long

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.

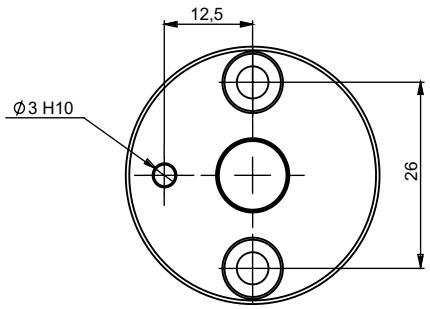


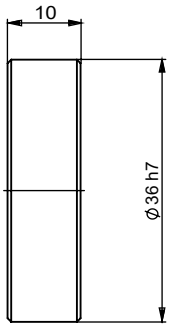


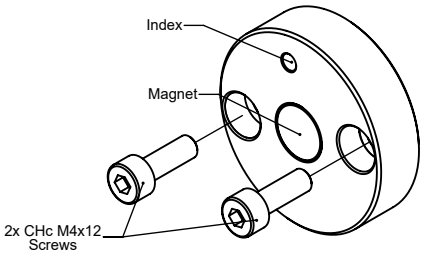


	M9105/K06	M9105/K08	M9105/K10	M9105/K11	M9105/K14
X	06 H7	08 H7	10 H7	11 H7	14 H7
V	20	20	26	26	29
W	9,3	9,3	10	10	10
Y	12,5	12,5	14	14	14
Z	15	15	15	15	18

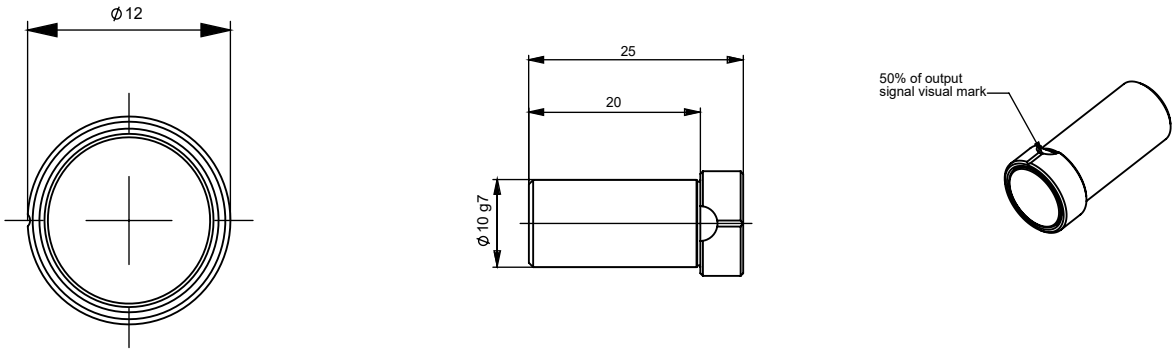
Frontal magnet support + Magnet 8810/013
Ordering p/n : **M9105/F26**



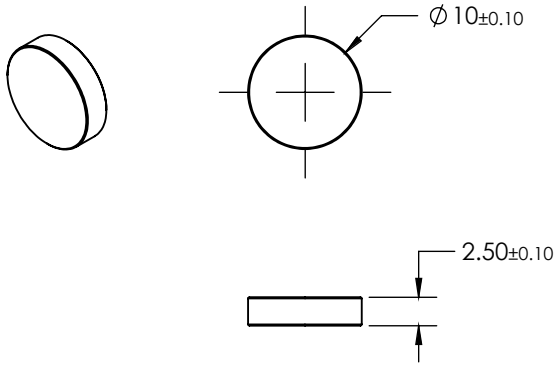




Male magnet support + Magnet 8810/013
Ordering p/n : **M9105/M10-01**



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



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