ACW4 IO-LINK

Introduction

The ACW4 **O**Link version provides a compact versatile single-turn absolute position indication. The two-part construction keeps the profile low, delivering a high degree of flexibility for tight installations. By using the IO-Link protocol, integration and set-up of sensors is greatly simplified, supporting the move to factory 4.0 and IIOT initiatives. The ACW4 IO-Link is sealed to IP65 making it suitable for even the harshest industrial environments.



Features

• With its two-part design, the ACW4 IO-Link absolute single-turn position sensor offers maximum flexibility during installation

Sensata

Technologies

- IO-Link with COM3 transmission rate
- Easy commissioning and configuration with IO-Link
- Simple device replacement with Data Storage capability
- Universal power supply through IO-Link Master
- Robust and excellent resistance to shock and vibration
- Robust magnetic technology
- Standard IP65 protection (IP69K option)
- Extended operating temperature range from -40°C to 85°C
- Resolution : programmable 12 bits per turn
- Standard M12 connector

Applications

- Factory Automation
- Process Automation

CE OIO-Link



Mechanical

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

Electrical

Electrical Angle	360°		
Output Function	IO-Link V1.1, COM3 (230,4 kBaud)		
Minimal Cycle Time	1ms		
Resolution	single-turn: 12 bits		
Accuracy	+/-0.3% on 360°		
Repeatability	+/-0.1% on 360°		
Supply Voltage	18 to 30 Vdc		
Current Requirements	<40mA		
Protection	Overvoltage Protection: Yes Reverse Polarity Protection: Yes Short Circuit Protection: Yes		

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Environmental

Protection Class (Sealing)		IP65	
Temperature Range	Operating	-40°C to 85°C	
	Storage	-40°C to 85°C	
Shock		\leq 2000 m.s ⁻² (6ms half-sine)	
Vibration		\leq 200 m.s ⁻² (55 2000 Hz)	



DIMENSIONS

All Dimensions are in millimeters.







Process data

- Position: single turn 12 bits maximum
- Magnetic field issue : flag triggered if problem with magnet detection

Programmable Parameters

- Resolution per turn: 1 to 12 bits
- Direction: clockwise or counter-clockwise, changes counting direction.
- Set zero point : reset position to zero

• Preset value : The position process data is set to the preset parameters. The preset parameter shall be a valid position value according to the resolution chosen.

Diagnostics

• Operating Hours : number of hours since factory reset



IO-link device class B (Male M12 5 pin)

Pin	Color	Signal
1	Brown	L+
2	White	N.C
3	Blue	L-
4	Black	IO-Link
5	Grey	N.C





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





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
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
Ζ	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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