



## ACW4 ANALOG

ANALOG ABSOLUTE SINGLE 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 -40° C to 85° C
- Uses universal supply 5 to 30 VDC – Analog output
- Available Resolution up to 12 bits per revolution
- Variety of magnet holders available

### Applications

- Factory Automation
- Process Automation



## SPECIFICATIONS

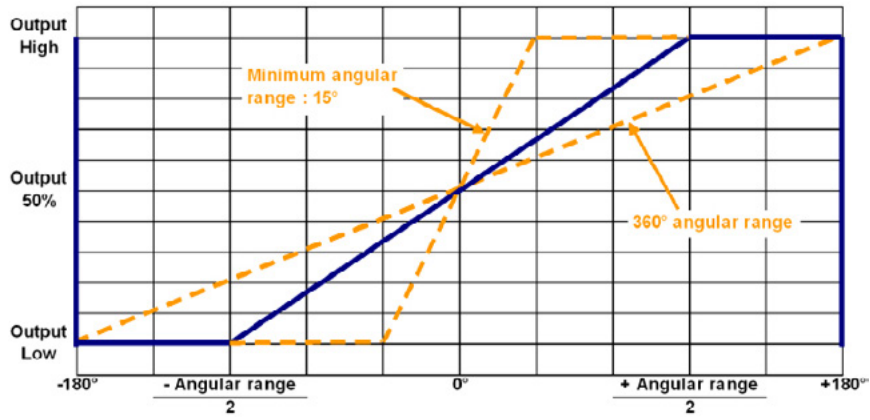
### Mechanical

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

### Electrical

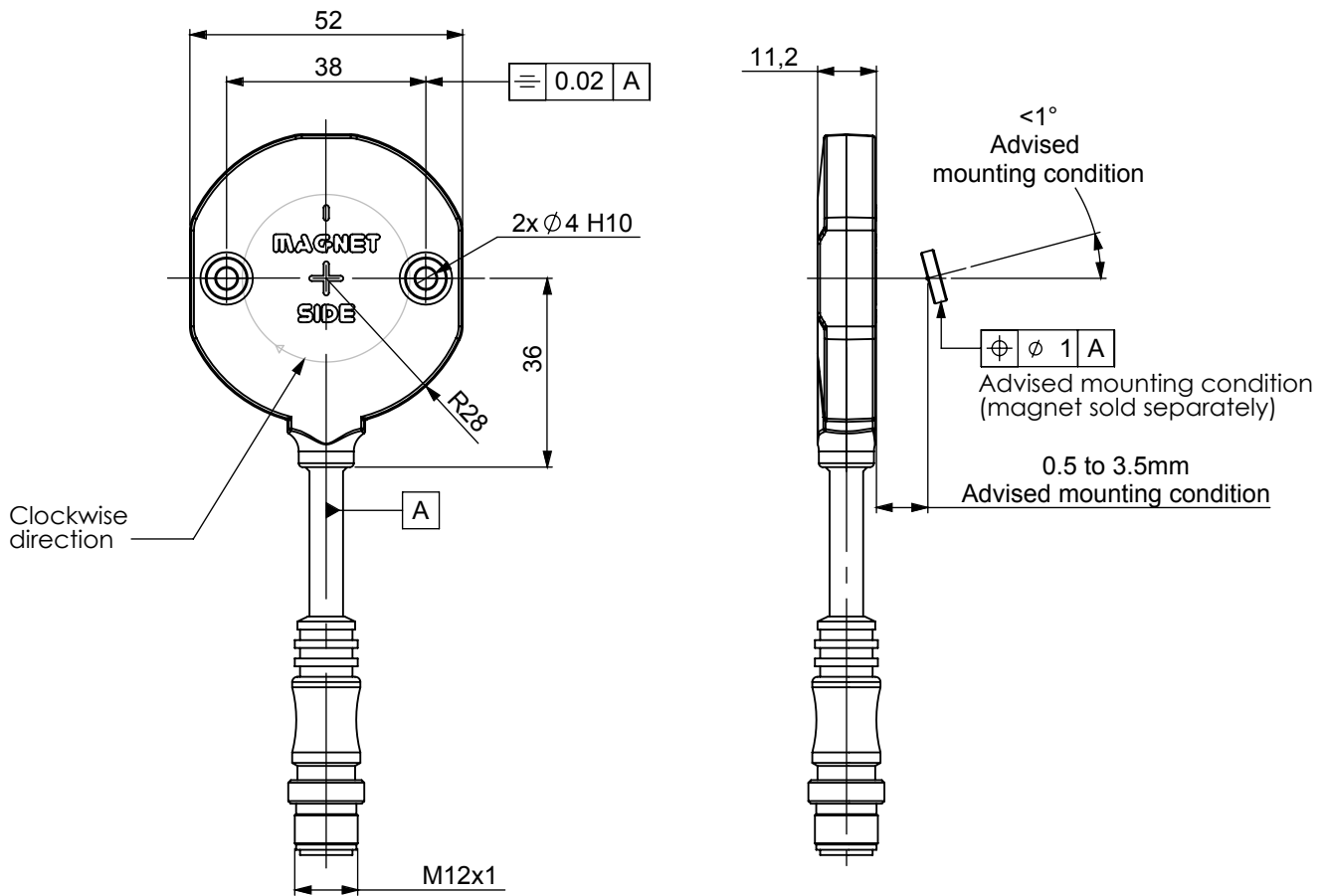
<b>Electrical Angle</b>	360°
<b>Output Function</b>	0– 10 Vdc, 0.5 to 4.5 Vdc, or 4 – 20 mA
<b>Minimal Cycle Time</b>	1ms
<b>Resolution</b>	Single –turn, 12 bits
<b>Accuracy</b>	+/-0.3% on 360°
<b>Repeatability</b>	+/-0.1% on 360°
<b>Supply Voltage</b>	5Vdc, 10 to 30 Vdc, or 15 to 30 Vdc
<b>Start-up</b>	< 1s
<b>Response time</b>	< 10 ms (5L2 and 3L1 electronics), <1ms (All other electronics)
<b>Recommended Load</b>	> 10 kOhms (voltage out), 500 Ohms (current out)
<b>Current Requirements</b>	< 40mA
<b>Protection</b>	Overvoltage Protection: Yes Reverse Polarity Protection: Yes Short Circuit Protection: Yes
<b>EMC</b>	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

<b>Function</b>	Vcc	0V	Analog Out	Ground
<b>Color</b>	Brown BN	White WH	Green GN	Shield

## NOTES

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



## ORDERING OPTIONS

Example : ACW4\_00//3L11//14//L3R020

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

<b>Family</b>	ACW4	00	//	3L1	1	//	14	//	L3	R020
<b>ACW4:</b>	Absolute Single-Turn Sensor									
<b>Shaft Ø</b>										
<b>00:</b>	Modular									
<b>Supply</b>										
<b>3L1:</b>	15 to 30 Vdc, 0-10V Output									
<b>5L2:</b>	10 to 30 Bdc, 0.5 -4.5 V Output									
<b>3L3:</b>	15 to 30 Vdc, 4 – 20 mA Output									
<b>2LR:</b>	5Vdc +/- 5%, Ratiometric 10 – 90% of Vcc									
<b>Direction</b>										
<b>1:</b>	CW, Clockwise positive									
<b>2:</b>	CCW, Counterclockwise positive									
<b>Resolution</b>										
<b>14:</b>	14bits single turn position									
<b>Connection</b>										
<b>L3:</b>	3 conductor PVC cable									
<b>Connection Orientation</b>										
<b>R020:</b>	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.



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