

## | ACW4 SSI

### SSI 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 – SSI Output
- Available Resolution up to 12 bits per revolution
- Variety of magnet holders available

#### Applications

- Factory Automation
- Process Automation



#### SPECIFICATIONS

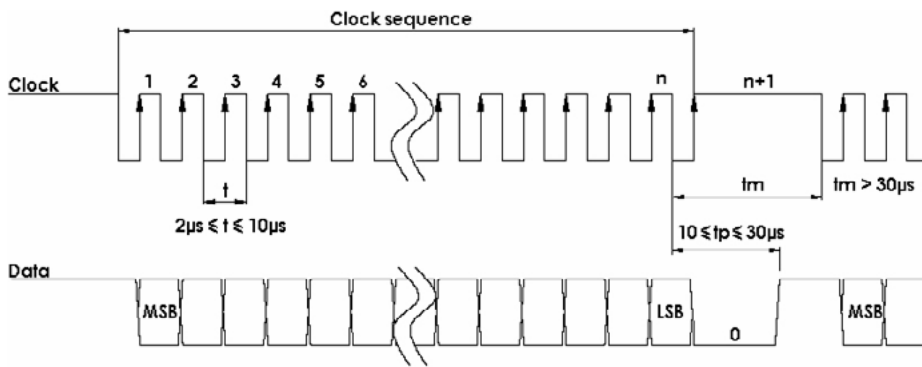
##### Mechanical

<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>	SSI, 10% to 90% Duty Cycle, 2LP = 5Vdc; 5LP = 11 to 30 Vdc
<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>	5V to 30 Vdc
<b>Start-up</b>	< 1s
<b>Response time</b>	< 10 ms
<b>Recommended Load</b>	> 10 kOhms
<b>Isolation</b>	500 Veff
<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.

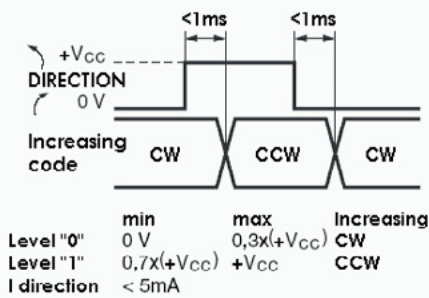
## SSI Transmission



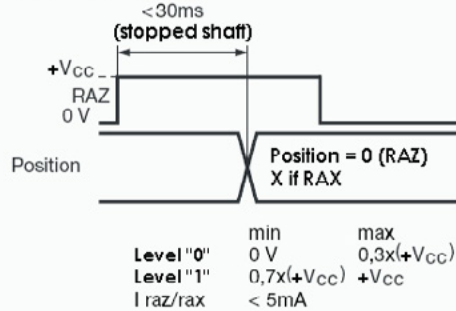
<b>Transmission</b>	Transmission up to 400m* at 100kHz in function of the cable characteristics.
<b>Cable</b>	High security of transmission by using shielded cable and twisted pairs.

\* Consult us for length > 100m.

### DIRECTION input



### RAZ / RAX Input



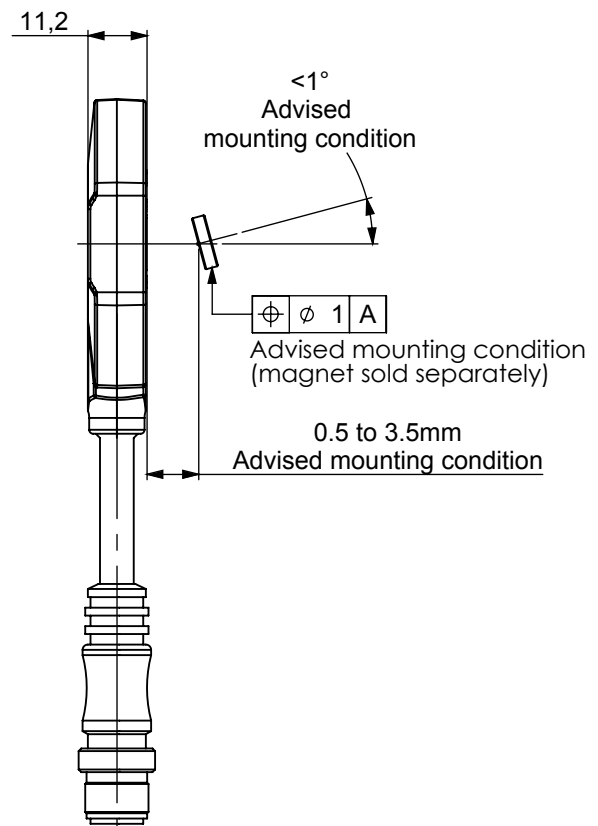
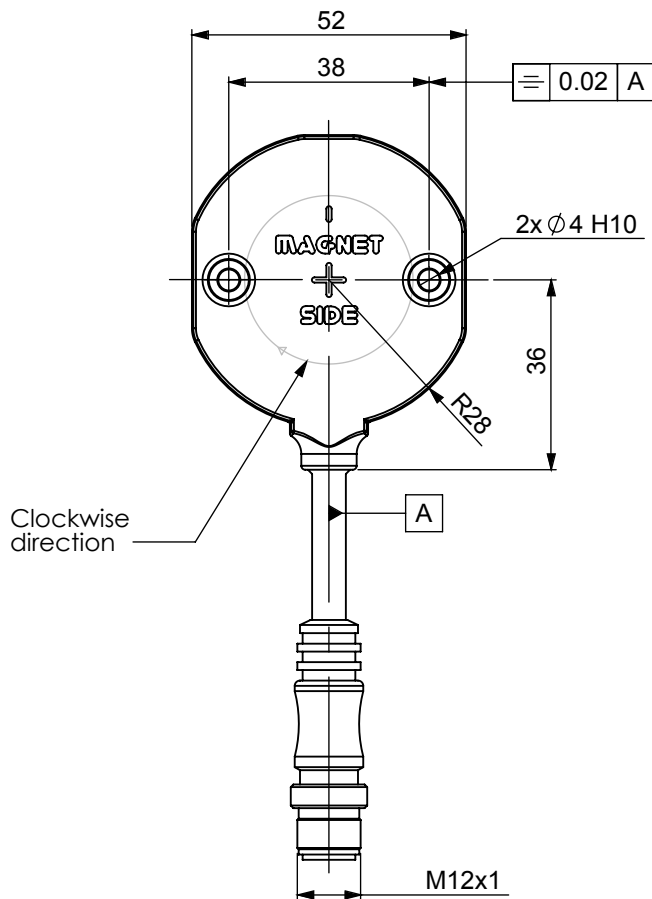
Nota : Note: Connect DIRECTION and RAZ/RAX to a potential (RAZ at 0V if not used)

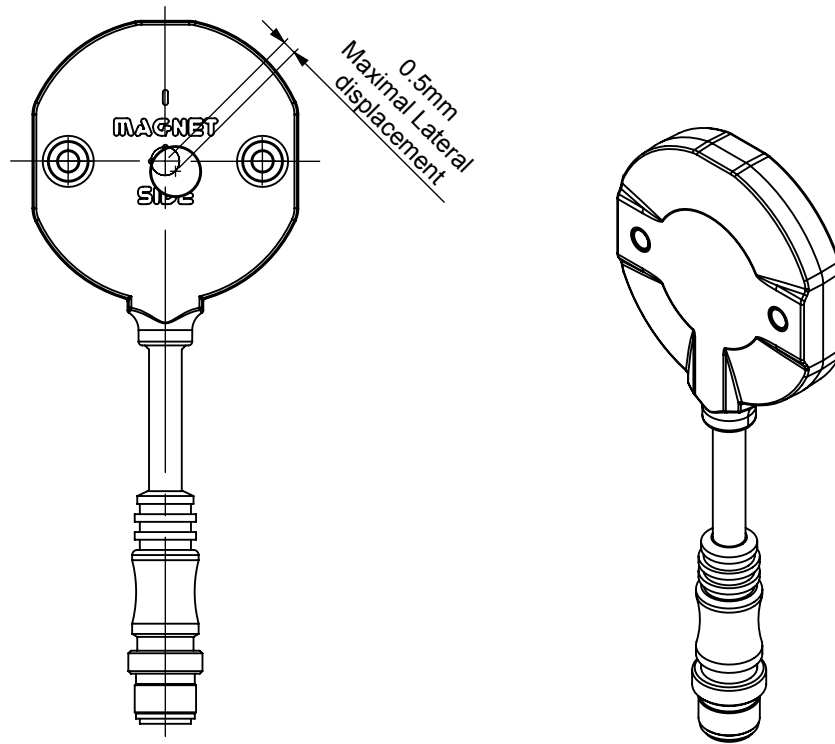


## DIMENSIONS

All Dimensions are in millimeters.

Shaft system with magnet to be ordered separately (see Accessories).





## CONNECTOR PIN OUT

Ref.	Type	+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	Direction	Ground
S5	SSI cable PUR 8230/050	BN/GN Brown/ Green	WH/GN White/Green	GN Green	GY Gray	BU Blue	PK Pink	BN Brown	WH White	General shielding



## 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
<b>Family</b>											
<b>ACW4:</b> Absolute Single-Turn Sensor											
<b>Shaft Ø</b>											
<b>00:</b> Modular											
<b>Supply/Output Stage</b>											
<b>P:</b> 5 to 30 Vdc											
<b>Output Stage</b>											
<b>CS:</b> SSI Without Parity											
<b>Code</b>											
<b>B:</b> Binary											
<b>G:</b> Gray											
<b>Resolution</b>											
<b>12:</b> 12 bits											
<b>Connection</b>											
<b>S5:</b> SSI PUR Cable											
<b>Orientation</b>											
<b>R005:</b> Radial cable 50cm long											

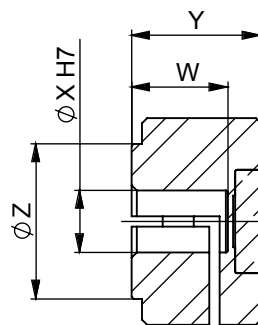
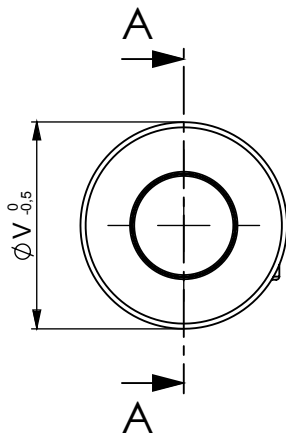
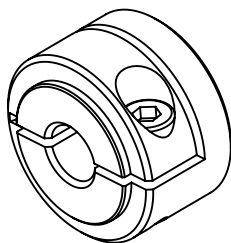


## ACCESSORIES

### 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.

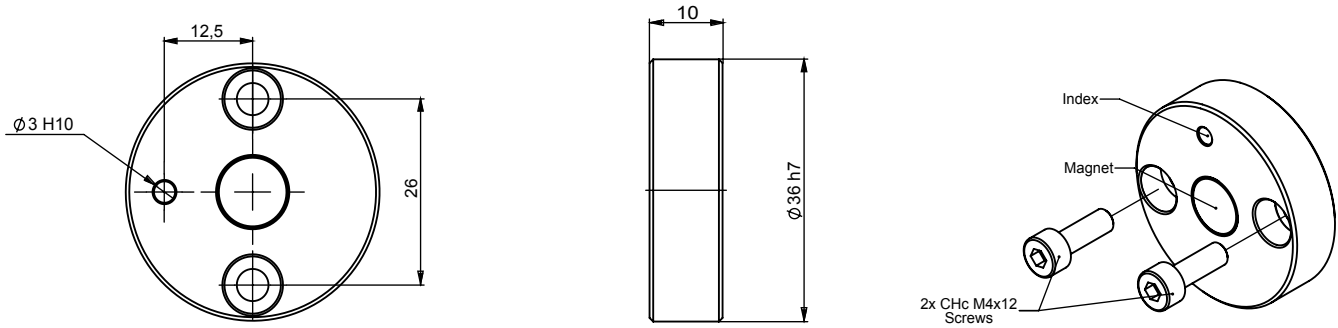


SECTION A-A

	M9105/K06	M9105/K08	M9105/K10	M9105/K11	M9105/K14
<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

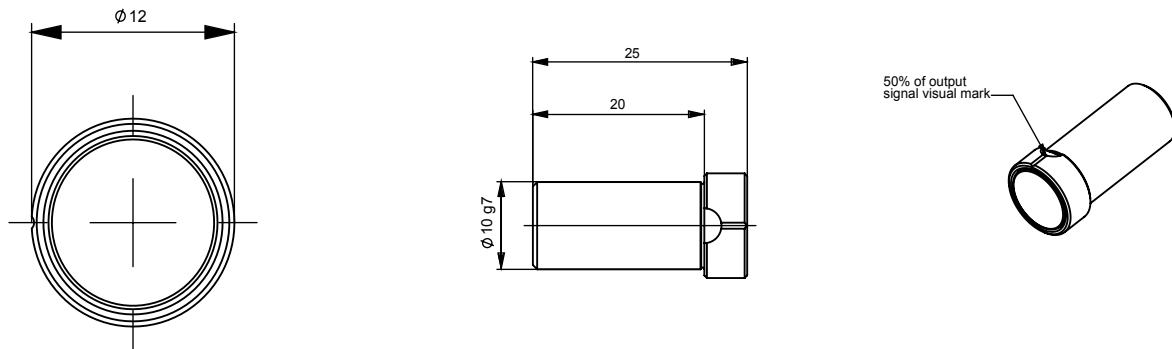
## Frontal magnet support + Magnet 8810/013

Ordering p/n : **M9105/F26**



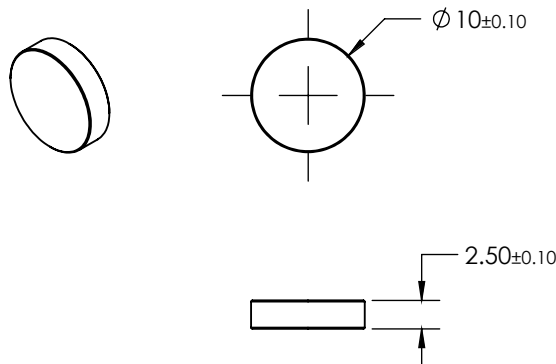
## Male magnet support + Magnet 8810/013

Ordering p/n : **M9105/M10-01**



## Magnet

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



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