



GENERAL SPECIFICATIONS

- Absolute measurement by magnetic principle
- 50 mm body diameter
- 6 mm, 8 mm, 10 mm or 12 mm semi hollow shaft options
- 12 bit angular resolution
- 3000 RPM operating speed
- SSI interface
- High sensitivity
- IP54 protection class



ARS B 50 series rotary encoders measure by magnetic principle and work absolutely. They have SSI interface. They offer high sensitivity due their high 12 bit resolution at 4096 different positions for 360°. Optionally, different shaft types, cable length or socket model can be requested.

APPLICATION FIELDS

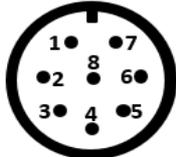
- Wind Applications / Power Plants
- Marine or Utility Vehicle Applications
- Press or Wood and Stone Processing Machinery
- Construction Machinery
- Cranes
- Offshore Applications
- Commercial Solar Plants
- Filling Plants
- Food & Beverage Applications
- Oil & Gas - Pipe Handling and Cranes



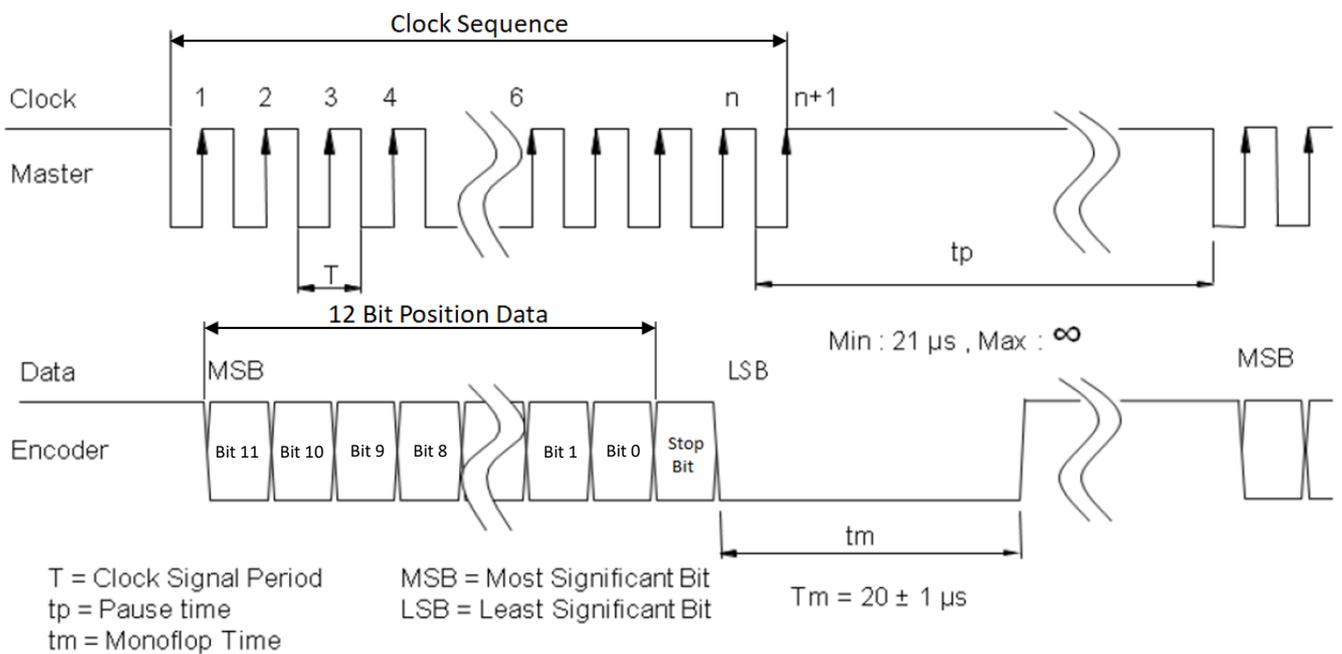
TECHNICAL SPECIFICATIONS

Measuring Range	0° ... 360°	Overvoltage Protection	26 V
Max. Operating Speed	3000 RPM	No-load current	<60mA (24V DC)
Measuring Type	Magnetic	Initializing time	<250 ms (after power on)
Output Signal (protocol)	SSI 13 bit (12 bit data + 1 stop bit)	Ohmic load at outputs	120 ohm
Encoding	Gray	Physical interface	RS-422
Data update rate	500 Hz (2 ms)	Max clock rate	2 MHz
Frame Format	MSB First - [12 Bit Position] + [1 Stop Bit] - LSB	Monoflop time (tm)	20 µs
Max. Cable Length	13m @2 MHz, 44m @1 MHz, 85m @600 kHz, 300m @200 kHz, 750m @80 kHz It is recommended to use twisted pair cables which comply with the RS422 Standard.	Operating Temperature	-40...+85 °C
Resolution	12 bit	Storage Temperature	-40...+85 °C
Accuracy	± 0.25%	IP Protection Class	IP54
Supply Voltage	5 - 24 VDC	Weight	~180 gr
		Material	Body: Aluminum Shaft: Stainless Steel

ELECTRICAL CONNECTION

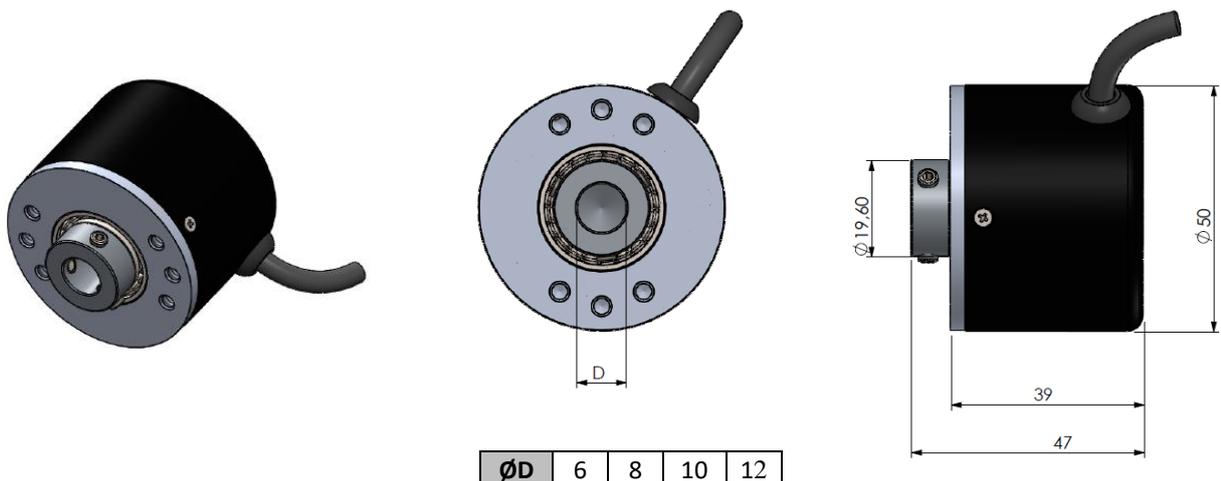
		 M16-8 PIN MALE CONNECTOR PIN NO	 M16-8 PIN FEMALE CONNECTOR PIN NO
			
SIGNAL	CABLE COLOR		
+V	Red	1	1
GND	Black	2	2
Data +	Yellow	3	3
Data -	Green	4	4
Clock +	White	5	5
Clock -	Brown	6	6

SSI TIMING DIAGRAM

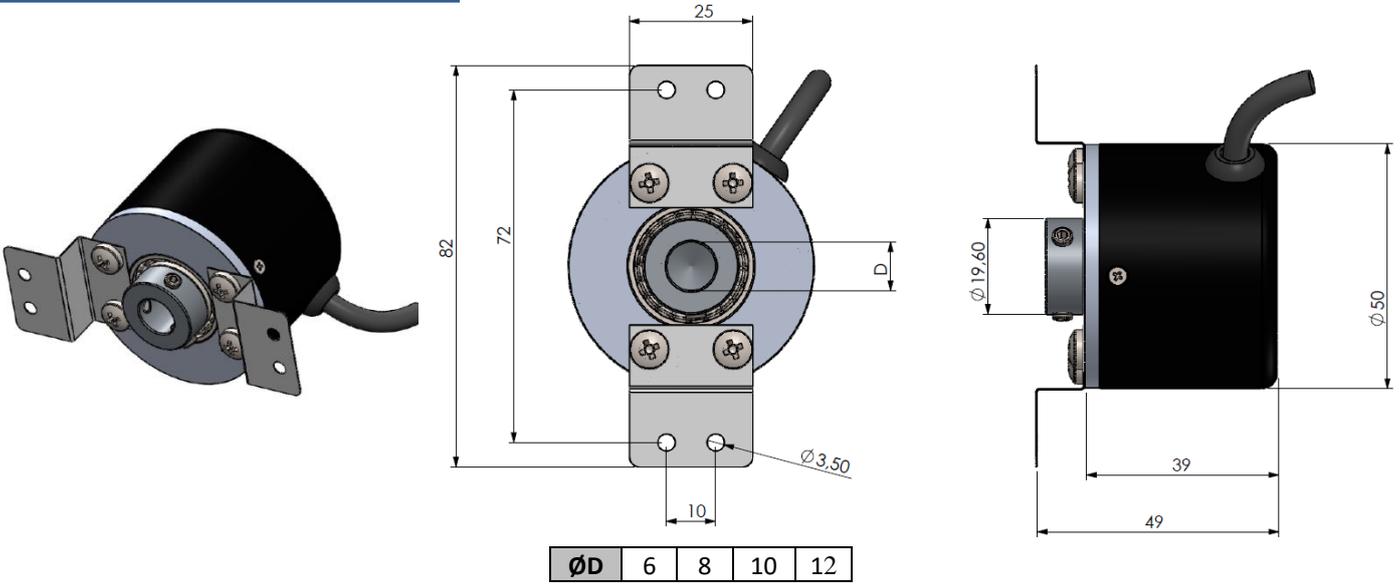


MECHANICAL DIMENSIONS (mm)

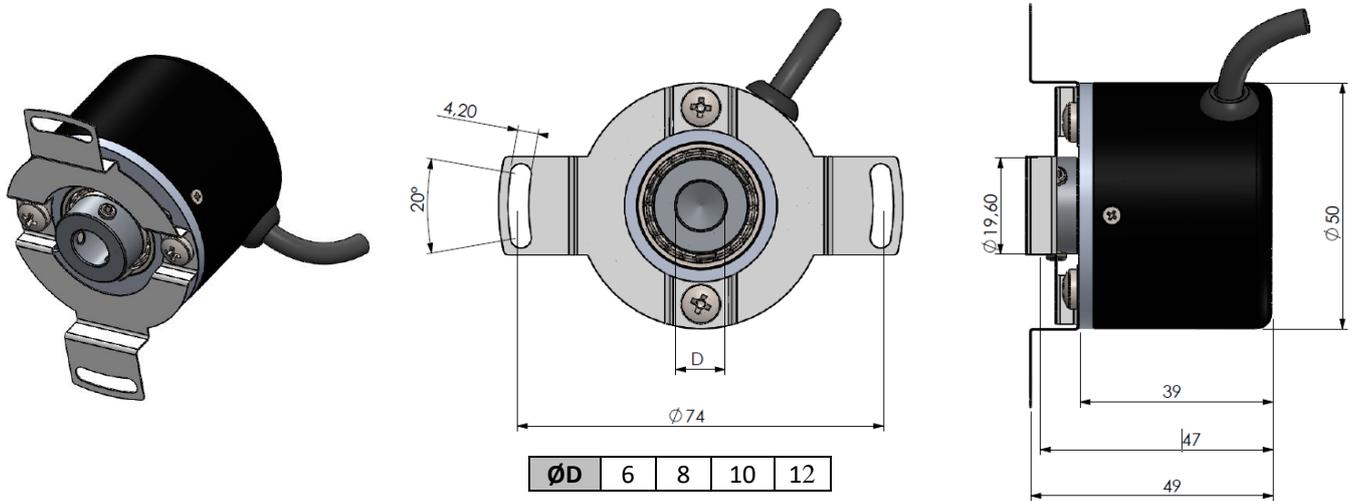
Encoder Dimensions



FZ Flange



FC Flange



PRODUCT CODE

Model	Body Diameter	Output Signal	Electrical Connection ⁽¹⁾	Hollow Diameter
ARS - X - XXX - XXXX - XXX - X - XX - XX - XX - X	050 : 50 mm	SSI : SSI Output	3M : 3 m 5M : 5 m 10M : 10 m S117M : M16/8 pin male conn.	6 : 6 mm 8 : 8 mm 10 : 10 mm 12 : 12 mm
Shaft Type	Resolution	Encoding	Cable Direction⁽²⁾	Flange Type
B : Semi Hollow Shaft	0012 : 12 Bit	G : Gray	A : From backside Y : From side AS : From backside + spiral	FZ : Z Type FC : Circular

- (1) The cable length can be selected to desired length, provided that minimum 1.5 meters. The M16 connector can only be backside. Optionally, different connector models can be requested.
- (2) Cable direction can be selected from backside or side. PG7 gland is used when the cable direction is from the rear, PG7 gland is not used when the cable direction is from the back.

Optional Products

K6C2 10M S21(F)	Pur Flex cable 3x2x0.34mm ² + M16/8 pin female connector (extension cable with connector)
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