

INCREMENTAL ROTARY ENCODER

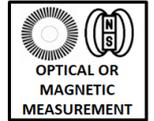
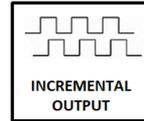
“Optical or Magnetic Measurement, 50 mm Body Diameter, With Shaft”

ARX S 50



GENERAL SPECIFICATIONS

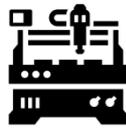
- Incremental measurement with Optical (ARC) or Magnetic (ARS) principle
- Resolution up to 20.000 pulses for Optical (ARC) and 1024 pulses for Magnetic (ARS)
- 50 mm body diameter
- 6 mm, 8 mm or 10 mm shaft options
- Optical (ARC): 6000 RPM, Magnetic (ARS): 3000 RPM operating speed
- 300 KHz response frequency
- High accuracy
- Robust structure, long operating life
- Connection with cable or socket
- IP54 protection class



The ARX S 50 series rotary encoders measure on an optical (ARC) or magnetic (ARS) principle and operate incrementally. The ARC series operating on the optical principle offers a resolution of up to 20.000 pulses per revolution and the ARS series operating on the magnetic principle up to 1024 pulses.

APPLICATIONS

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



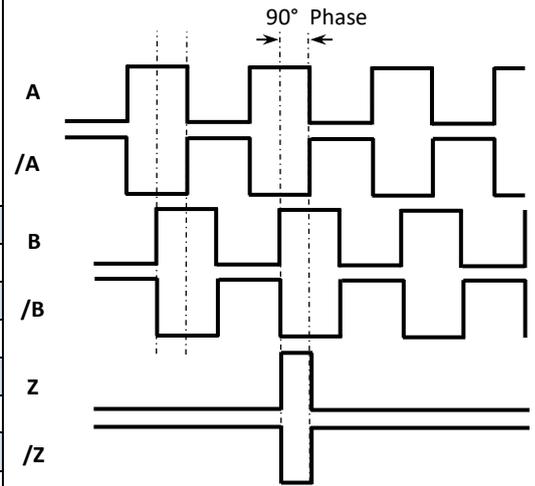
TECHNICAL SPECIFICATIONS

*Resolution	ARC: Resolution options up to 20.000 pulses ARS: Resolution options between 1 and 1024 pulses
Operating Speed	ARC: 6000 RPM, ARS: 3000 RPM max.
Measuring Type	ARC: Optical, ARS: Magnetic
Response Frequency	300 KHz
*Supply Voltage	TTL: 5 VDC / PP: 10...30VDC
Current Consumption	50 mA nominal
*Output Type	Push Pull, TTL Line Driver, Open Collector
*Output Signals	A, /A, B, /B, Z, /Z
Output Current	100 mA max. (per channel)
*Electrical Connection	5 or 8x0,14 mm ² shielded cable or M16 / 8 pin male connector
Body Diameter	50 mm
*Shaft Diameter	6 mm, 8 mm or 10 mm
Operating Temperature	-25...+85 °C
Storage Temperature	-40...+100 °C
IP Protection Class	IP54
Weight	~180 gr
Material	Body: Aluminum Shaft: Stainless Steel

Note: The specifications indicated by (*) vary according to the model selected. The detailed code table for product selection is shown on page 3.

ELECTRICAL CONNECTIONS

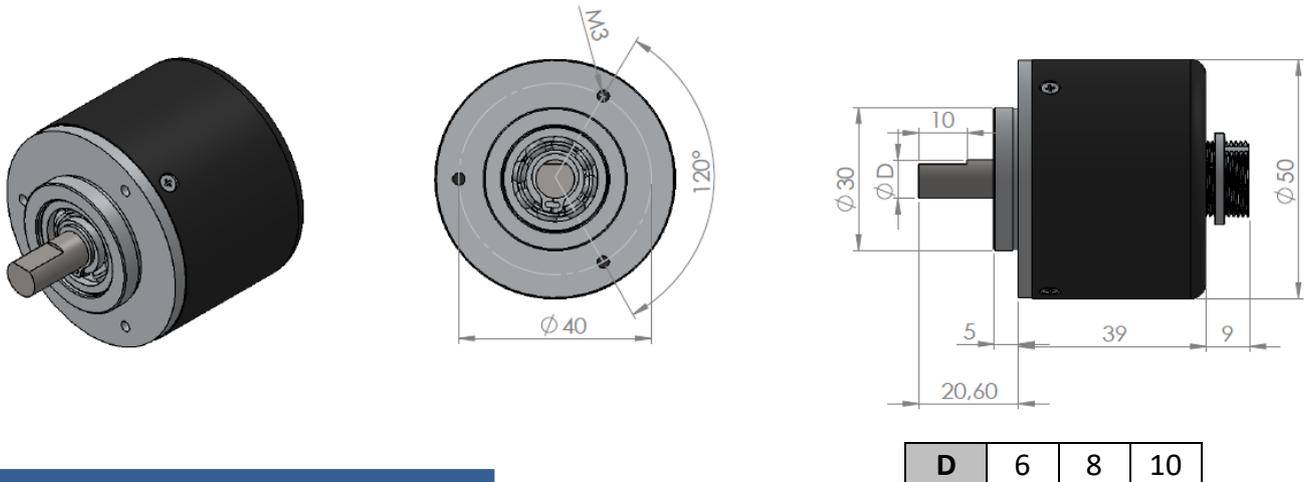
SIGNAL	M16 MALE (S16) SOCKET PIN NO	M16 CABLE TYPE MALE SOCKET (S21M) PIN NO	M16 CABLE TYPE FEMALE SOCKET (S21F) PIN NO	CABLE COLOR
A	1	1	1	YELLOW
/B	2	2	2	WHITE
+V	3	3	3	RED
0 V	4	4	4	BLACK
/A	5	5	5	BLUE
B	6	6	6	GREEN
/Z	7	7	7	GREY
Z	8	8	8	PINK



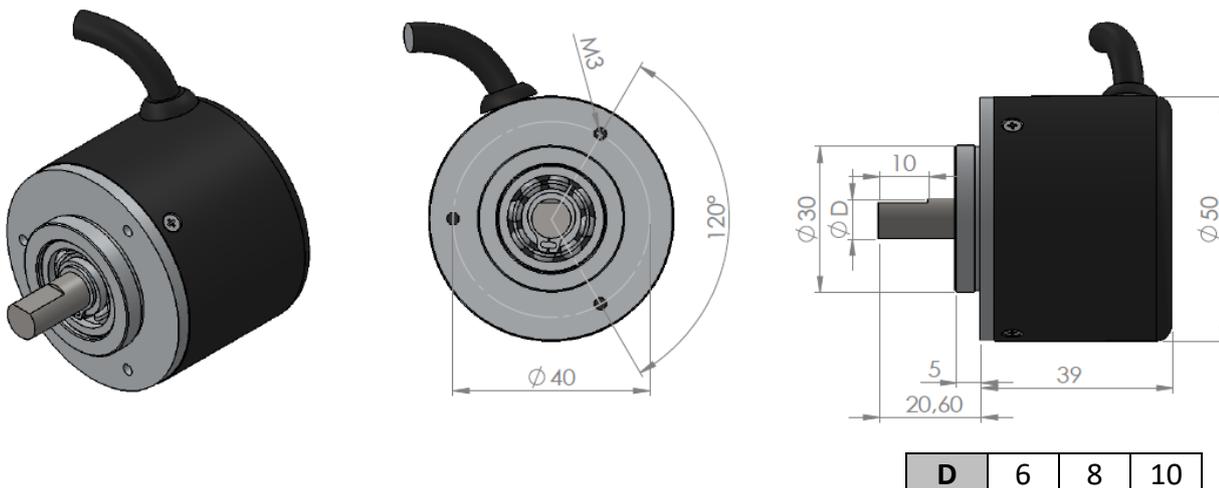
The table above shows the cable colors of the sensor output signals. If the control circuit is suitable in the Line Driver sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget that these edges have electricity too.

MECHANICAL DIMENSIONS (mm)

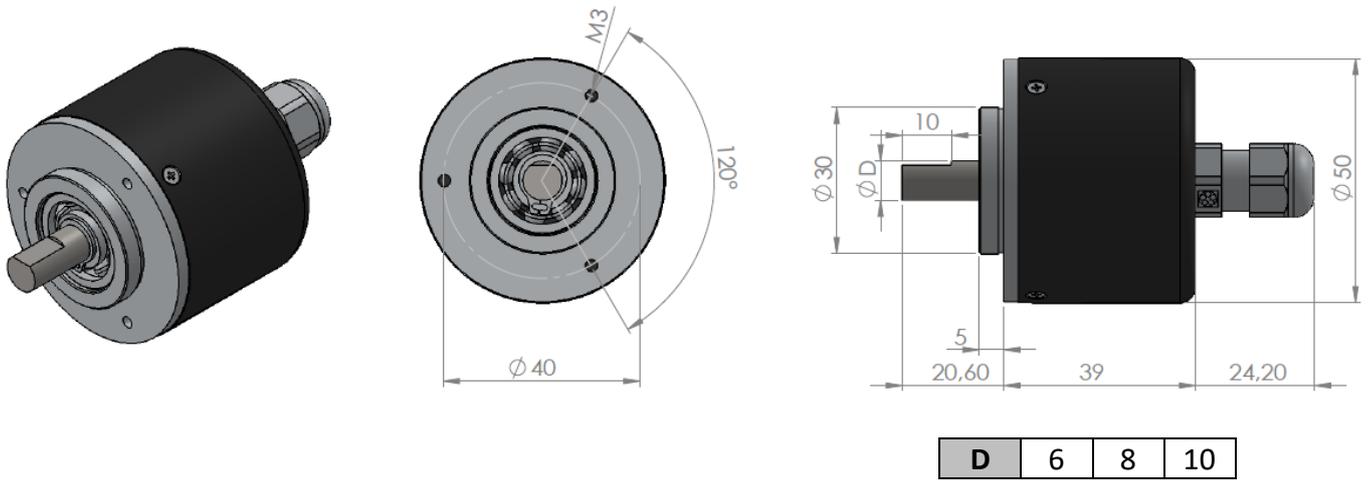
Clamping Flange, M16 Socket



Clamping Flange, Cable From Side



Clamping Flange, Cable From Backside



PRODUCT CODE

Model ARC : Optical ARS : Magnetic	Body Diameter 50 : 50 mm	Supply and Output PP : 10...30 VDC Supply : 10...30VDC Output TTL : 5 VDC Supply : 5 VDC TTL RS422 Line Driver Out. HTL : 10...30 VDC Supply : 5 VDC TTL RS422 Line Driver Out. HPL : 5...30 VDC Supply : 5...30 VDC Push-Pull Output OCL : NPN Open Collector OCP : PNP Open Collector	Electrical Connection (1) 3M : 3 m cable (standard) 5M : 5 m cable 10M : 10 m cable S16 : M16 Socket *Ask for other options.	Shaft Diameter 6 : 6 mm 8 : 8 mm 10 : 10 mm	
ARX - X - XX - XXXX - XXX - X - XX - XX - XX - XX - X	Shaft Type S : Shaft	Resolution See Resolutions*	Output Signals 2 (A,B) 3 (A,B,Z) 4 (A,/A,B,/B) 6 (A,/A,B,/B,Z,/Z)	Cable Direction (2) A : From backside Y : From side AS : From backside + spiral	Flange Type C : Clamping

(1) The M16 (S16) socket can only be from the backside. Optionally, different cable lengths or socket 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.

* Please contact for other (customized) options.

*Resolutions:

Optical: 60 - 100 - 360 - 500 - 1024 - 2000 - 2048 - 2500 - 3600 - 4096 - 5000 - 8192 - 10000 - 16384 - 20000 pulse

Magnetic: All resolution options from 1 to 1024 pulses.

Sample Coding:

ARC-S-50-1024-PP-6-10M-A-8-C

Optical, with shaft, 50 mm body diameter, 1024 pulses, Push-Pull, 6 output signals, 10 meters cable from backside, 8 mm shaft, clamping flange

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