INCREMENTAL ROTARY ENCODER

ARS T 40 Series

"Magnetic Non-Contact Measurement, 40 mm Body Diameter"

- Incremental measurement with magnetic principle
- Resolution up to 1024 pulses
- 40 mm body, 20 mm rotor diameter
- 3000 RPM operating speed
- 300 KHz response frequency
- High accuracy
- Robust structure, long operating life
- Compact design
- IP67protection class

ARS T 40 series are non-contact magnetic incremental rotary encoders with high operating speed suitable for using in harsh environments.

They consist of 2 parts, the encoder body and rotor. They have long operating life as they make non-contact measurement. They work incrementally and offer resolution up to 1024 pulses. They are suitable for industries where high speed, IP protection sealing and excellent wear and temperature resistance are required.

NORDIC TRANSDUCER

MECHANICAL DATA

Dimensions	Encoder: Ø40
	Rotor: Ø20
Material	Encoder: Aluminum
	Rotor: Aluminum
Weight	Encoder: ~55g (except cable)
	Rotor: ~10g

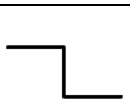
ENVIRONMENTAL DATA

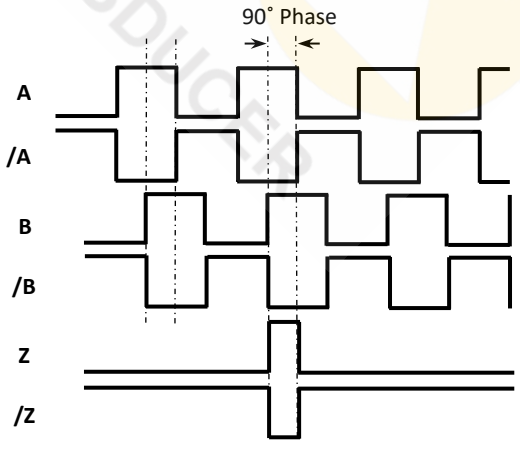
Protection Class	IP67
Operating Temp.	-25°C…+85°C
Storage Temp.	-40°C…+100°C

ELECTRICAL DATA

Measuring type	Magnetic, non-contact						
Resolution	Resolution options between 1 and 1024 pulses						
Operating Speed	3000 RPM max.						
Response Frequency	300 KHz						
Current Consumption	50 mA nominal						
Supply & Output Type		**PP**	**TTL**	**HTL**	**HPL**	**OCL**	**OCP**
	Supply	10…30 VDC	5 VDC	10…30 VDC	5…30 VDC	The supply signal should not be lower than the output signal	
	Output	10…30 VDC PP	5 VDC TTL	5 VDC TTL	5…30 VDC PP	NPN Open Collector	PNP 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						

ELECTRICAL CONNECTION

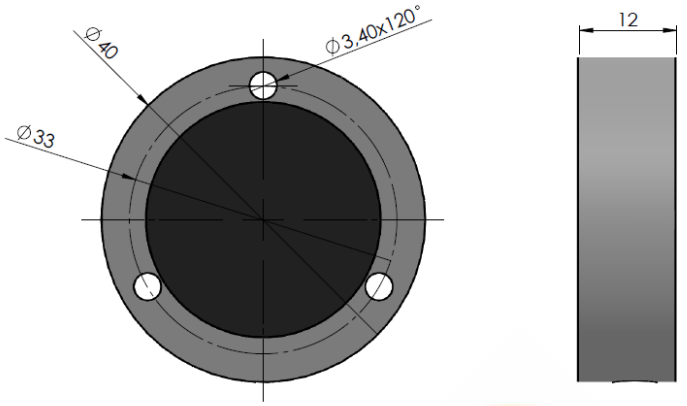
 SIGNAL	CABLE COLOR
A	YELLOW
/B	WHITE
+V	RED
0 V	BLACK
/A	BLUE
B	GREEN
/Z	GREY
Z	PINK



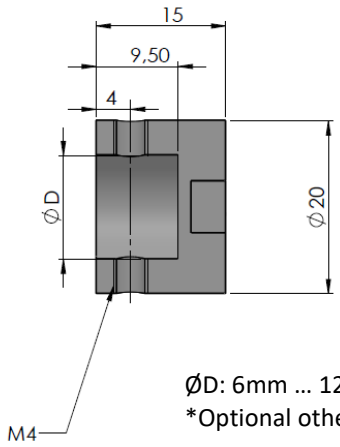
The table above shows the cable colors of the sensor output signals. If the control circuit is suitable in the Line Driver sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget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

MECHANICAL DIMENSIONS (mm)

Body



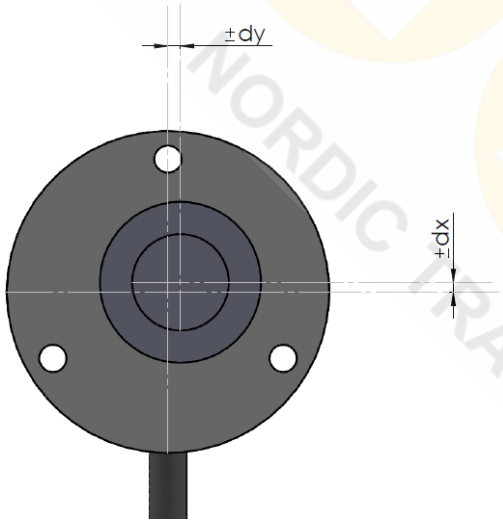
Rotor



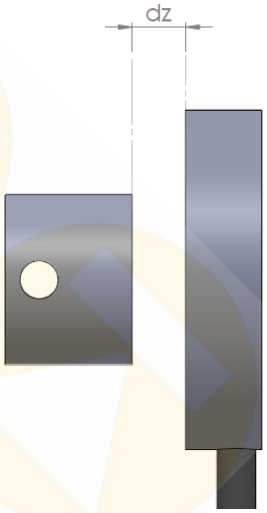
ØD: 6mm … 12mm (standard)
*Optional others

MAGNET POSITION TOLERANCES

Max misalignment dx = dz = 1mm



Air gap dz = 0,5 - 4 mm



ORDER CODE

Output Signals
2 (A,B)
3 (A,B,Z)
4 (A,/A,B,/B)
6 (A,/A,B,/B,Z,/Z)

Rotor Hole Diameter
Selectable from 6mm to 12mm
*Optional others

Type
T : Non-contact

Resolution
All resolution options from 1 to 1024 pulses.

ARS	–	T	–	XXX	–	XXXX	–	XXX	–	X	–	XX	–	XX

Model

Body Diameter
040 : 40 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
3M : 3 m cable (standard)
5M : 5 m cable
10M: 10 m cable
*Optional others