INCREMENTAL ROTARY ENCODER

ARS T 20 Series

"Magnetic Non-Contact Measurement, 20 mm Body Diameter"

- Non-contact measurement with magnetic principle
- Resolution up to 1024 pulses
- 20 mm body, 15 mm rotor diameter
- Rotor hole diameter from 3 mm to 8 mm
- High operation speed up to 30.000 RPM
- TTL Line Driver output
- High accuracy
- Robust structure, long operating life
- Compact design
- IP68 protection class

ARS T 20 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.

MECHANICAL DATA

Dimensions	Encoder: Ø20	
	Rotor: Ø15	
Material	Encoder: Aluminum	
	Rotor: Aluminum	
Weight	Encoder: ~20g (except cable)	
	Rotor: ~5g	

ENVIRONMENTAL DATA

Protection Class	IP68
Operating Temp.	-40°C…+85°C
Storage Temp.	-40°C…+85°C

Measuring type	Magnetic, non-contact	
Resolution	Resolution options between 1 and 1024 pulses	
Operating Speed	30.000 RPM max.	
Response Frequency	2 MHz	
Current Consumption	35 mA	
Supply & Output Type		**TTL Line Driver**
	Supply	5 VDC
	Output	5 VDC TTL
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 (500 mm max)	

ELECTRICAL CONNECTION

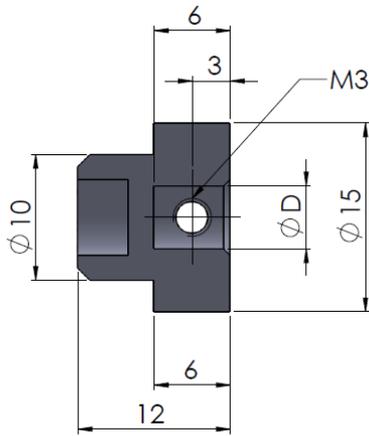| SIGNAL	CABLE COLOR
A	YELLOW
/B	WHITE
+V	RED
0 V	BLACK
/A	BLUE
B	GREEN
/Z	GREY
Z	PINK
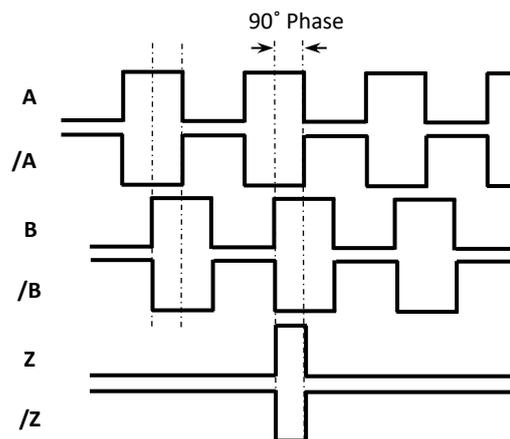
The table above shows the cable colors of the sensor output signals. If the control circuit is suitable in the Line Driver sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget that these edges have electricity too.
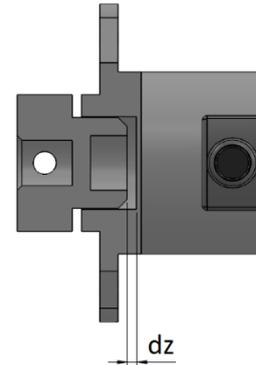
MECHANICAL DIMENSIONS AND MAGNET POSITION TOLERANCES

Body
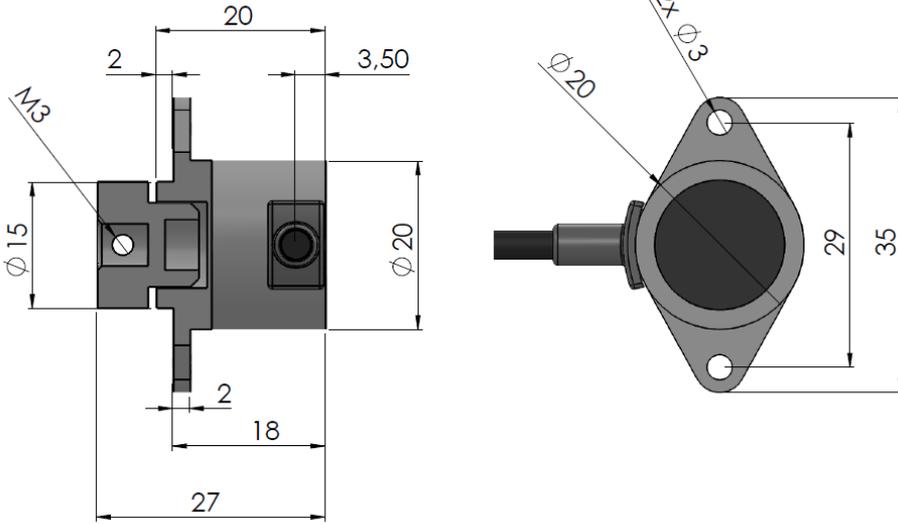
Rotor

ØD: 3mm … 8mm
*Optional others

Air gap dz = 0,7 – 1,4 mm

ORDER CODE

Type

T : Non-contact

Resolution

All resolution options from 1 to 1024 pulses.

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 3mm to 8mm
*Optional others

| ARS | — | T | — | XXX | — | XXXX | — | XXX | — | X | — | XX | — | XX |

Model

Body Diameter

020 : 20 mm

Supply and Output

TTL : 5 VDC Supply
: 5 VDC TTL RS422 Line Driver Out.

Cable Length

500mm : 500mm (standard)