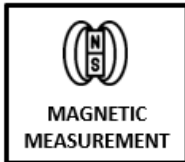
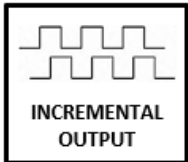
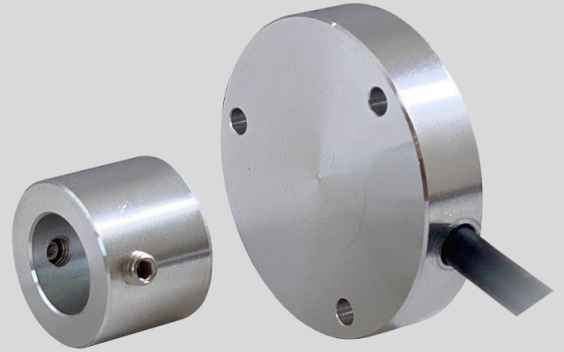


## ARS T 40 Series

“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
- IP67 protection 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.

## MECHANICAL DATA

<b>Dimensions</b>	Encoder: $\varnothing 40$
	Rotor: $\varnothing 20$
<b>Material</b>	Encoder: Aluminum
	Rotor: Aluminum
<b>Weight</b>	Encoder: ~55g (except cable)
	Rotor: ~10g

## ENVIRONMENTAL DATA

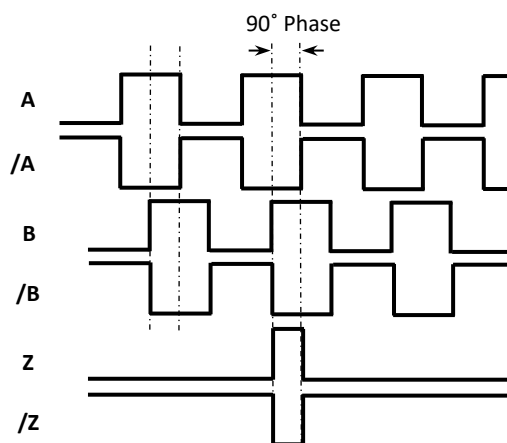
<b>Protection Class</b>	IP67
<b>Operating Temp.</b>	-25°C...+85°C
<b>Storage Temp.</b>	-40°C...+100°C

## ELECTRICAL DATA

<b>Measuring type</b>	Magnetic, non-contact						
<b>Resolution</b>	Resolution options between 1 and 1024 pulses						
<b>Operating Speed</b>	3000 RPM max.						
<b>Response Frequency</b>	300 KHz						
<b>Current Consumption</b>	50 mA nominal						
<b>Supply &amp; Output Type</b>		<b>PP</b>	<b>TTL</b>	<b>HTL</b>	<b>HPL</b>	<b>OCL</b>	<b>OCP</b>
	<b>Supply</b>	10...30 VDC	5 VDC	10...30 VDC	5...30 VDC	The supply signal should not be lower than the output signal	
	<b>Output</b>	10...30 VDC PP	5 VDC TTL	5 VDC TTL	5...30 VDC PP	NPN Open Collector	PNP Open Collector
<b>Output Signals</b>	A, /A, B, /B, Z, /Z						
<b>Output Current</b>	100 mA max. (per channel)						
<b>Electrical Connection</b>	5 or 8x0,14 mm <sup>2</sup> shielded cable						

## ELECTRICAL CONNECTION

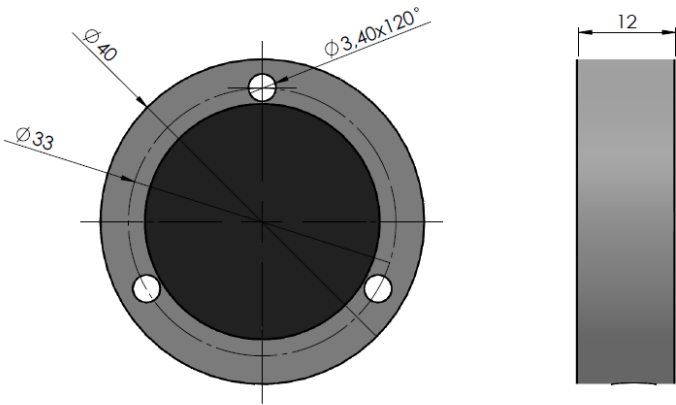
SIGNAL	CABLE COLOR
A	YELLOW
/B	WHITE
+V	RED
0V	BLACK
/A	BLUE
B	GREEN
/Z	GREY
Z	PINK



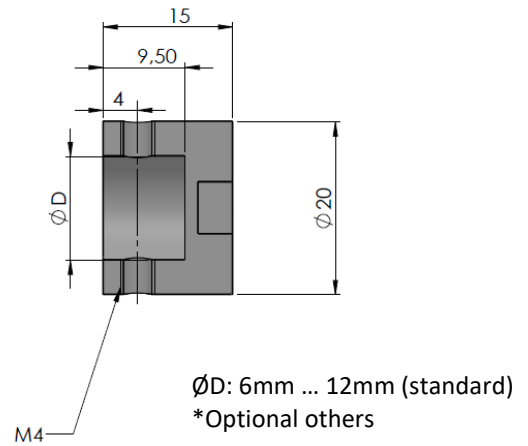
The table above shows the cable colors of the sensor output signals. If the control circuit is suitable in the Line Driver sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget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

## MECHANICAL DIMENSIONS (mm)

### Body

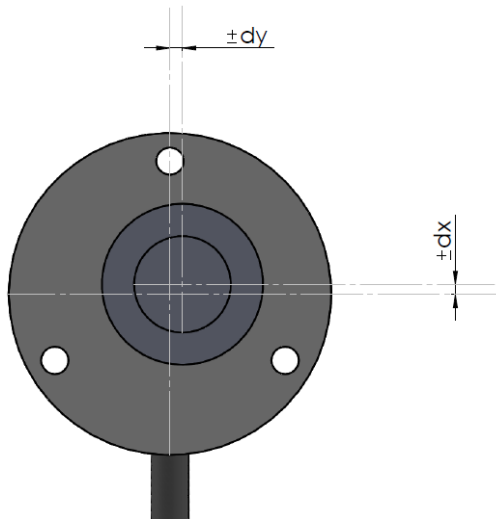


### Rotor

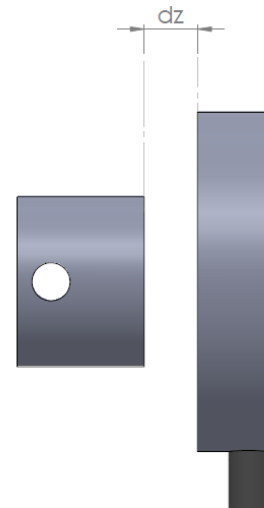


## MAGNET POSITION TOLERANCES

### Max misalignment $dx = dz = 1\text{mm}$



### Air gap $dz = 0,5 - 4\text{ mm}$



## ORDER CODE

ARS	Type	Body Diameter	Resolution	Supply and Output	Output Signals	Electrical Connection	Rotor Hole Diameter
ARS	T : Non-contact	040 : 40 mm	All resolution options from 1 to 1024 pulses.	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	2 (A,B) 3 (A,B,Z) 4 (A,/A,B,/B) 6 (A,/A,B,/B,Z,/Z)	3M : 3 m cable (standard) 5M : 5 m cable 10M: 10 m cable *Optional others	Selectable from 6mm to 12mm *Optional others
Model	T	XXX	XXXX	XXX	X	XX	XX