

## ARM-T Series

“Ultra Small Size, Non-contact Magnetic Measurement”



- Magnetic non-contact measurement
- Ultra small size of 8mm diameter
- Resolution options up to 1024 pulse
- High operation speed up to 30.000 rpm
- Incremental output
- Push-pull or TTL line driver output
- Robust structure, long service life
- IP68 protection

ARM-T series are compact, ultra small and durable magnetic rotary encoders designed for use in small spaces.

They consist of 2 parts, the encoder and the magnet. They have a long life thanks to non-contact magnetic measurement principle. They work incrementally and offer resolution up to 1024 pulses.

## MECHANICAL DATA

<b>Dimensions</b>	Encoder: $\varnothing 8$
	Magnet: $\varnothing 4 \times 4$
<b>Material</b>	Encoder: Aluminum
	Magnet: SmCo (Sm <sub>2</sub> Co <sub>17</sub> ), NiCuNi coated
<b>Weight</b>	Encoder: ~0,5g
	Magnet: ~0,5g
<b>Wire tickness</b>	AWG26

## ENVIRONMENTAL DATA

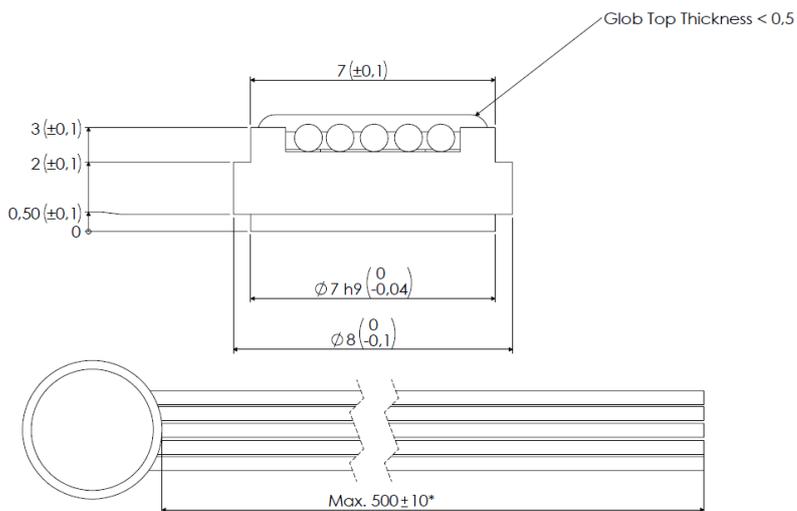
<b>Protection</b>	IP68
<b>Operating Temperature</b>	-40°C...+85°C
<b>Storage Temperature</b>	-40°C...+85°C

## ELECTRICAL DATA

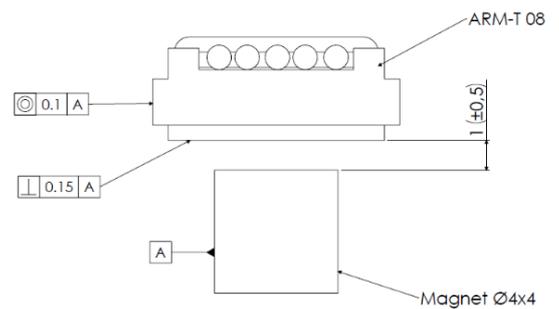
<b>Measuring Type</b>	Magnetic, non-contact				
<b>Resolution</b>	Resolution options between 1 and 1024 pulses				
<b>Operating Speed</b>	30.000 RPM max.				
<b>Response Frequency</b>	2 MHz				
<b>Supply and Output Type</b>		<b>PP</b>	<b>TTL</b>	<b>HTL</b>	<b>HPL</b>
	<b>Supply</b>	10...30 VDC	5 VDC	10...30 VDC	5...30 VDC
	<b>Output</b>	10...30 VDC PP	5 VDC TTL	5 VDC TTL	5...30 VDC PP
<b>Output Signals</b>	A, /A, B, /B, Z, /Z				
<b>Output Current</b>	100 mA max. (per channel)				
<b>Electrical Connection</b>	Only cable (max 500mm) or line driver board with JST-SH 8 pin male connector				
<b>Wire tickness</b>	AWG26				

## MECHANICAL DIMENSIONS AND MOUNTING

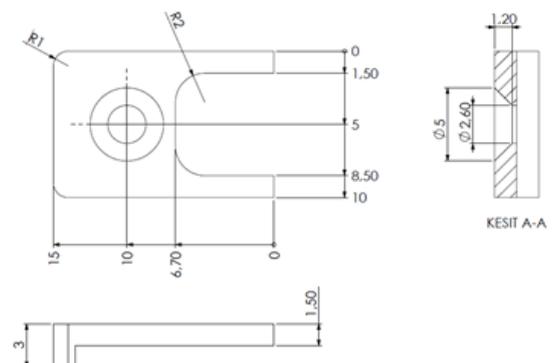
### MECHANICAL DIMENSIONS (mm)



### MOUNTING



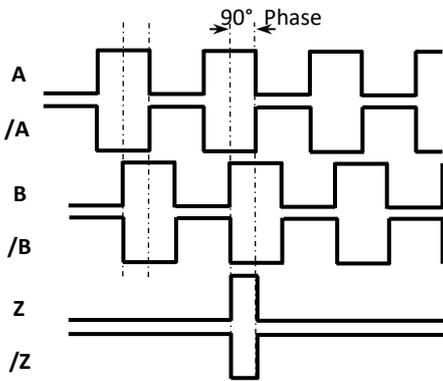
### Mounting Bracket



## ELECTRICAL CONNECTIONS

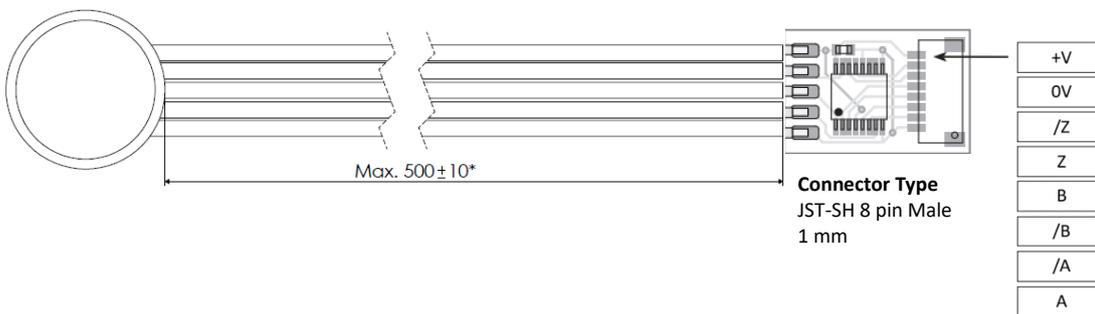
SIGNAL	ENCODER CABLE COLOR	LINE DRIVER BOARD JST-SH 8 PIN MALE CONNECTOR PIN NO
+V	RED	1
0V	BLACK	2
/Z	N/C	3
Z	PINK	4
B	GREEN	5
/B	N/C	6
/A	N/C	7
A	YELLOW	8

**Note:** If encoder is used only with cable; only A, B and Z output signals can be received.  
 If encoder is used with line driver board with JST connector; A, /A, B, /B, Z and /Z output signals can be received.



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.

### Line Driver Board JST-SH 8 Pin Male Connector Connection Diagram

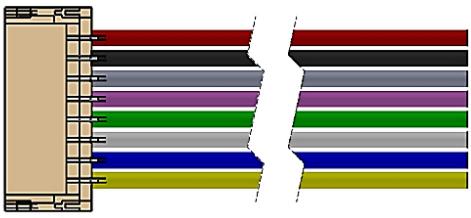


## ORDER CODE

<b>Model</b>		<b>Resolution</b>		<b>Output Signals</b>		<b>Connector Option <sup>(1)</sup></b>
ARM-T	XX	XXXX	XXX	X	XXX	XX
	<b>Body Diameter</b>	All resolution options between 1 pulse and 1024 pulses	<b>Supply and Output</b>	2 (A,B) 3 (A,B,Z) 4 (A,/A,B,/B) 6 (A,/A,B,/B,Z,/Z)	<b>Cable Length</b>	<b>No code</b> : Only cable <b>LD</b> : Line driver board with JST connector
	08 : 8 mm		<b>PP</b> : 10...30 VDC Supply : 10...30VDC Output <b>TTL</b> : 5 VDC Supply : 5 VDC TTL RS422 Line Driver Out. <b>HTL</b> : 10...30 VDC Supply : 5 VDC TTL RS422 Line Driver Out. <b>HPL</b> : 5...30 VDC Supply : 5...30 VDC Push-Pull Output		500mm : 500mm (standard)	

- (1) If encoder is used only with cable; only A, B and Z output signals can be received.  
If encoder is used with line driver board with JST connector; A, /A, B, /B, Z and /Z output signals can be received.

## ACCESSORIES

Product	Product Code	Description
	CB 0,5M / S28F	Connection cable with JST-SH 8 pin female connector, with 0.5 meters cable
	CB 1M / S28F	Connection cable with JST-SH 8 pin female connector, with 1 meters cable

SIGNAL	CABLE COLOR	PIN
+V	RED	1
0V	BLACK	2
/Z	GREY	3
Z	PINK	4
B	GREEN	5
/B	WHITE	6
/A	BLUE	7
A	YELLOW	8