

ROTARY ENCODER WITH JOYSTICK



AR16-0020-001

- Incremental Encoder
- Pushbutton



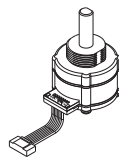
AR16-0820-001

- 8 direction joystick
- Incremental Encoder
- Pushbutton

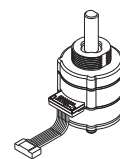


FLEXIBLE - SMART - RUGGED

The **Blink Marine Rotary Encoder** is a multifunctional device that combines the features of a joystick, a magnetic encoder, and a pushbutton. With a IP67 level shaft and up to 1 million cycles of operational life, it has been designed for applications that require high resistance and durability. The Rotary Encoder is compliant with RoHS and REACH directives.



Rotary Encoder
AR16-0020-001



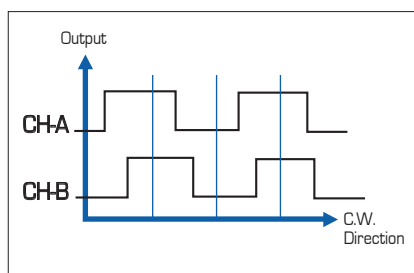
Rotary Encoder and Joystick
AR16-0820-001

PINOUT

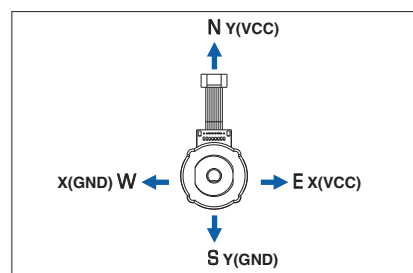
PIN

PIN	Rotary Encoder AR16-0020-001	Rotary Encoder and Joystick AR16-0820-001
1	GND	GND
2	Pushbutton switch (Normal Open)	Pushbutton switch (Normal Open)
3	Pushbutton switch (Normal Open)	Pushbutton switch (Normal Open)
4	Incremental Encoder Digital Output B	Incremental Encoder Digital Output B
5	Incremental Encoder Digital Output A	Incremental Encoder Digital Output A
6	VCC	VCC
7	N/A	Joystick Output Y (High, Low or VCC/2)
8	N/A	Joystick Output X (High, Low or VCC/2)

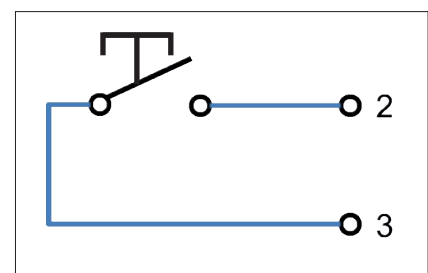
ENCODER OUTPUT

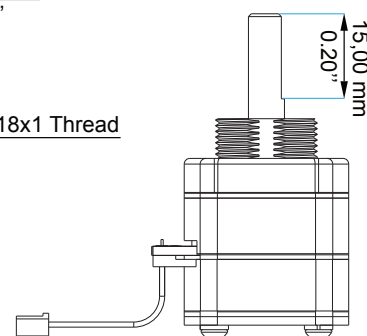
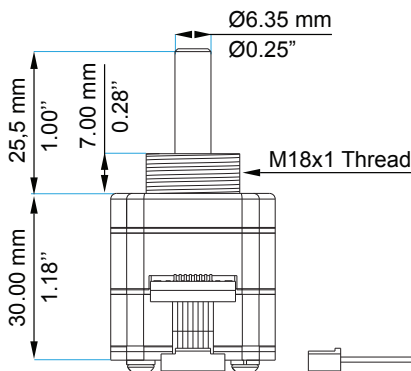
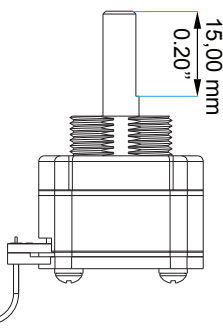
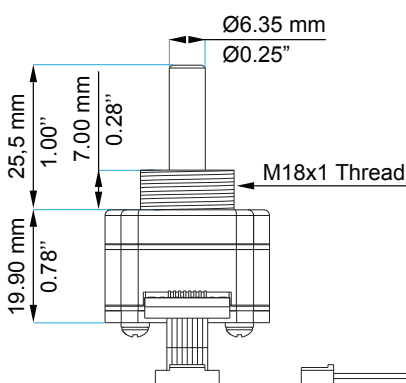
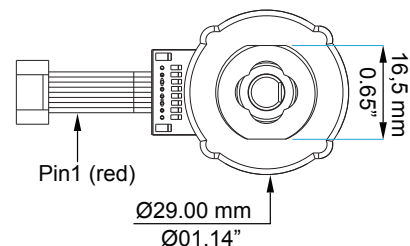
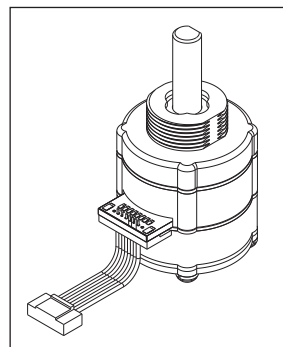
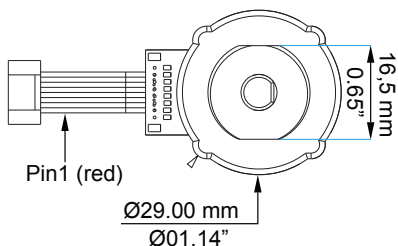
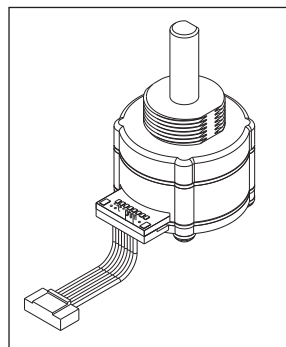


JOYSTICK OUTPUT



PUSHBUTTON SWITCH





SPECIFICATIONS FOR STANDARD ROTARY ENCODER

ELECTRICAL CHARACTERISTICS

Input voltage	DC 5V \pm 5 %
Input current	10mA max. at 5V (Encoder)
Input current	12mA max. at 5V (Encoder and Joystick)
Connector	JST BM08B-GHS-TBT

ENCODER

Pulses per rotation	10
Output circuit	Open drain, require pull-up resistor 2.2k Ω
Output code	2 Channels A&B
Output signal	High: 3.8V min. Low: 0.4V max.
Max. sink current	5mA

JOYSTICK

Output code	2 Channels X&Y
Output circuit	Voltage divider
Output voltage (analogue signal)	Neutral: 2.5 \pm 0.5V High: 4.5V min. Low: 0.5V max.

PUSHBUTTON

Current rating	10mA max.
Contact resistance	2 Ω max.

MECHANICAL CHARACTERISTICS

Max. shaft pull-out strength	75N max. [7.65kgf max.]
Max. shaft push-out strength	75N max. [7.65kgf max.]
Side load	50N max [5.1kgf]

ENCODER

Rotary torque	4 \pm 2mN \cdot m [400 \pm 200gf \cdot cm]
Ticks per rotation	20
Rotation life	1 million cycles

JOYSTICK

Activation force	5.5 \pm 3.5N [560 \pm 350gf]
Max. angle	6°
Operational life	500.000 cycles

PUSHBUTTON

Operating force	9 \pm 4.5N [920 \pm 450gf]
Switching life	1 million cycles

ENVIRONMENTAL CHARACTERISTICS

Operating temp. range	-40°C ~ +85°C
Storage temp. range	-40°C ~ +85°C
IP Rate	IP67

blink

M A R I N E

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