

SERIES 60AR Rugged and Sealed Joystick

FEATURES

- Three-in-One Joystick, Optical Encoder and Pushbutton
- Shaft and panel sealed to IP67 against liquids and particulates
- Choices of knobs, cable length and termination
- Customized solutions available

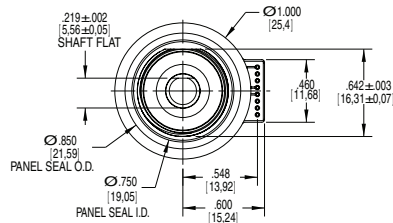
APPLICATIONS

- Aerospace
- Military vehicles and devices
- Mobile electronics for outdoor use

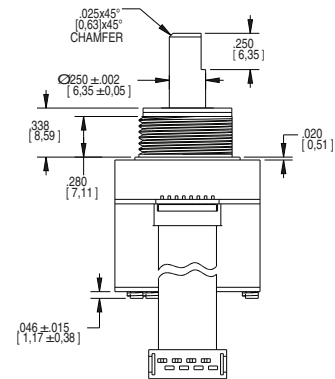
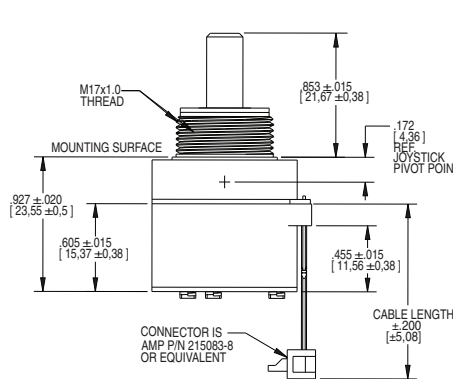


DIMENSIONS in inches (and millimeters)

Unless otherwise specified, standard tolerance are:
 Linear $\pm .025$
 Diameter $\pm .010$
 Angle $\pm 2.0^\circ$

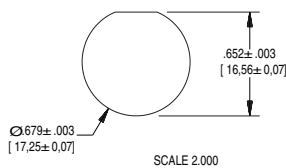


Cable Connector Version

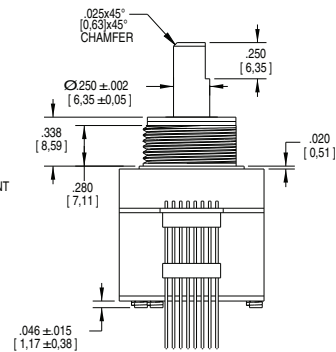
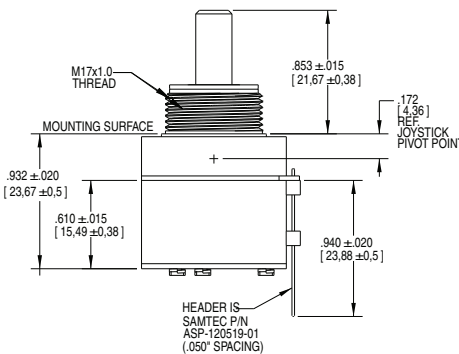


PANEL SEAL GASKET NOT SHOWN TO ILLUSTRATE MOUNTING SURFACE

Recommended Panel Cut Out

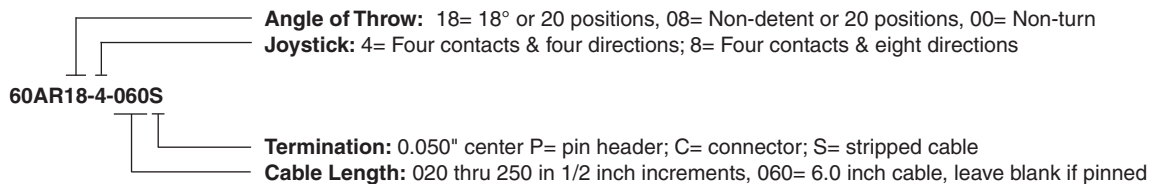


Pin Version



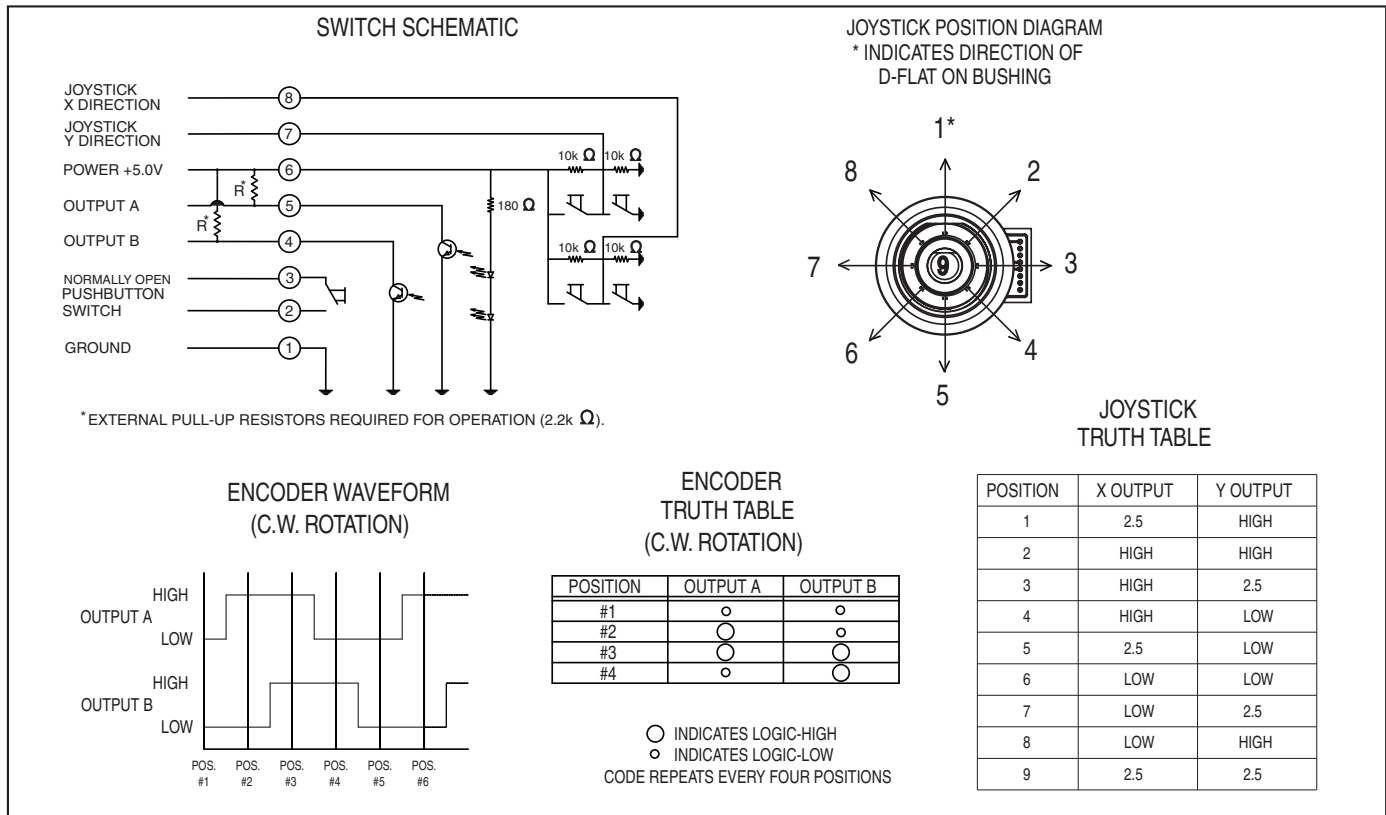
PANEL SEAL GASKET NOT SHOWN IN LOWER VIEWS TO ILLUSTRATE MOUNTING SURFACE

ORDERING INFORMATION



For prices and custom configurations, contact a local sales office, an authorized distributor, or Grayhill's sales department.

Optical and Mechanical Encoders

JOYSTICK OPERATION + ENCODER WAVEFORM AND TRUTH TABLE Standard Quadrature 2-Bit Code


SPECIFICATIONS

Environmental Specifications

Operating Temperature Range: -40°C to 85°C

Storage Temperature Range: -40°C to 100°C

Humidity: 96 hours at 90-95% humidity at 40°C

Mechanical Vibration: Harmonic motion with amplitude of 15g, within a varied 10 to 2000 Hz frequency for 12 hours

Mechanical shock:

Test 1: 100g for 6Ms half sine wave with velocity change of 12.3 ft/s.

Test 2: 100g for 6 Ms sawtooth wave with velocity change of 9.7 ft/s.

Shaft and panel Seal: IP67, 1 meter submersion for 30 minutes

Joystick Electrical & Mechanical Specifications

Supply Current: 5 Ma, maximum

Output Code: 2-bit

Logic Output Characteristics: Neutral Position: 2.5±0.5 Vdc, High-state Position: >4.5 Vdc, Low-state Position: <0.5 Vdc

Mechanical Life (Joystick): 500k actuations, minimum in each direction

Actuation Force (Joystick): 1500±300g (X&Y directions only)

Angle of Throw: 3.5°±2/1° (X&Y directions only, at electrical contact)

Pushbutton Electrical & Mechanical Specifications

Rating: 10 Ma at 5 Vdc, resistive

Contact Resistance: Less than 10 Ω

Contact Bounce: <4 Ms make, <10 Ms break

Mechanical Life (Pushbutton): 1 million actuations, minimum

Actuation Force (Pushbutton): 1600±400g

Pushbutton Travel: .015±.005 in

Rotary Electrical & Mechanical Specifications

Operating Voltage: 5.00±25 Vdc

Supply Current: 20 Ma, maximum at 5 Vdc

Minimum Sink Current: 2.0 Ma for 5 Vdc

Output: Open collector phototransistor, external pull-up resistors are required

Output Code: 2-bit quadrature, channel "A" leads channel "B" by 90° electrically during clockwise rotation of the shaft

Logic Output Characteristics: Logic-high shall be no less than 3.5 Vdc, Logic-low shall be no greater than 1.0 Vdc

Optical Rise Time: 30 μs, maximum

Optical Fall Time: 30 μs, maximum

Mechanical Life (Rotational): 1 million cycles, minimum (1 cycle is a rotation through all positions and a full return)

Average Rotational Torque: 8.0±30% in-oz, initial

Shaft Push-out Force: 60 lbs, minimum before failure

Shaft Side-load Force: 25 lbs, minimum before failure

Terminal Strength: 15 lbs pull-out force, minimum for cable or header termination

Solderability: 95% free of pin holes or voids

Maximum Rotational Speed: 100 Rpm

Mounting Torque: 15 in-lbs maximum

Specifications are subject to change

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

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