

NSO-0

MILL DUTY 16 AMP ROTARY MASTER SWITCHES

Construction:

The **TYPE NSO-0** Rotary Master Switch features the same rugged design components and versatility as the NSO series of Joysticks. The NSO-0 provides directional, precise proportional speed and step control of AC/DC drives and Electro-Hydraulic Valves.

Application:

Applications include In-plant Process Control, Mining Vehicles, Conveyor and Lift Systems.

Features:

- **Rugged Construction:** Brass Bearings and Square Steel Operating Shaft.
- **Mechanical Life:** 20 million cycles with Friction Brake.
- **Design Flexibility:** Combination of custom programmable Contacts, Detents, Spring Return, Potentiometers, and Electronics.
- **Handles:** Pistol Grip, Teardrop and Chrome Steel Ball Lever.
- **Precise Step Control:** Up to 7-0-7 steps or 0-16 individually detented positions.
- **Contacts:** (10) SNAP in 16A 240VAC double pole field replaceable contacts. Gold dry circuit contacts available upon request.
- **Potentiometers:** 0.5 watt 5 million revolution conductive plastic potentiometers furnished standard.
- **Electronics:**
ESS-420: 4-20 mA 2 wire transmitter.
ESS0.10.10: 0-10 and ± 10 V amplifiers.
OGR8G-M1: 8 Bit gray code Encoder.
PFC, PFC/CR and MPFC: Proportional Feathering Control electronic amplifiers for operation of Electro-Hydraulic Proportional Valves.
- **Enclosures:** Variety of standard and custom steel, cast aluminum and fiberglass enclosures available; NEMA 1, 3R, 4x, 12 and 13.

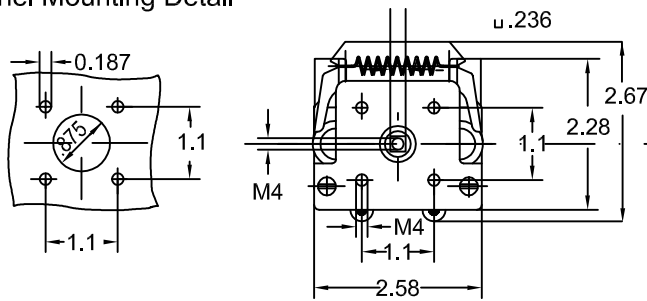


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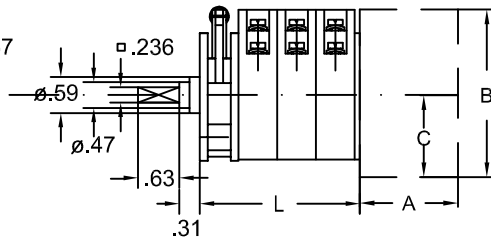
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NSO-0 DIMENSIONS

Panel Mounting Detail



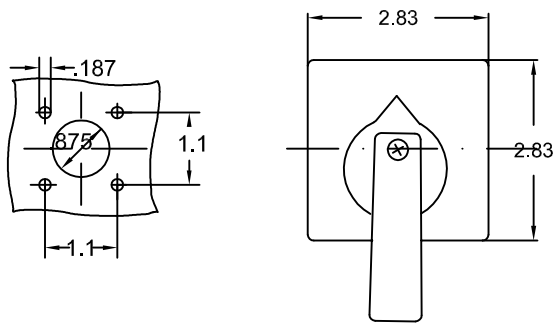
Panel Mounting Detail without face plates



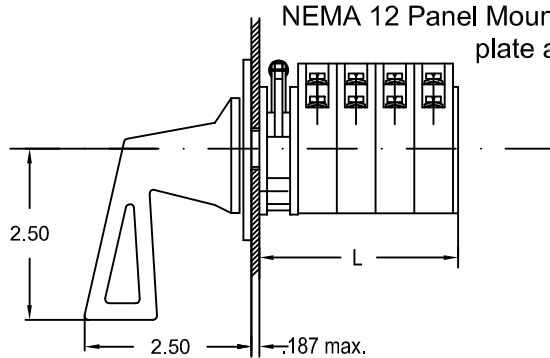
Output Device Dimensions

| Device | A | B | C |
|---------------|------|------|------|
| Potentiometer | 1.29 | 2.92 | 1.75 |
| ESS-420 | 1.29 | 2.92 | 1.75 |
| OGR8G-M1 | 1.83 | 2.79 | 1.40 |
| PFC | 1.29 | 1.31 | 1.93 |

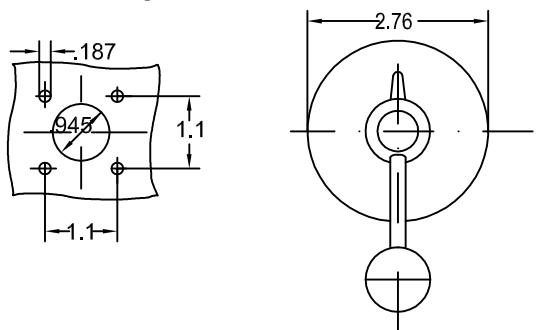
Panel Mounting Detail



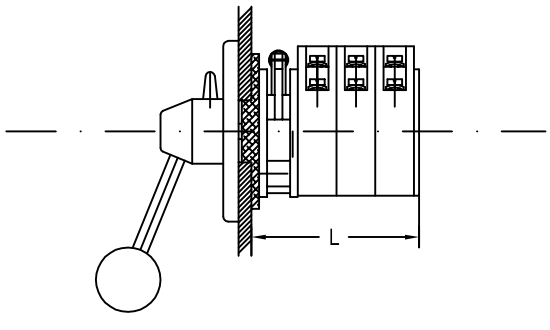
NEMA 1 Panel Mounting with escutcheon plate
NEMA 12 Panel Mounting with gasket front plate and escutcheon plate.



Panel Mounting Detail



Nema 4 Mounting with round chrome escutcheon plate



Number of double pole contact blocks

| | | | | | | | | | | |
|--------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| "L" dim. w/detent | NSOO1_ | NSOO2_ | NSOO3_ | NSOO4_ | NSOO5_ | NSOO6_ | NSOO7_ | NSOO8_ | NSOO9_ | NSOO10_ |
| "L" dim. w/sp.ret. | | NSOO1_R | NSOO2_R | NSOO3_R | NSOO4_R | NSOO5_R | NSOO6_R | NSOO7_R | NSOO8_R | NSOO9_R |
| Length "L" | 1.26 | 1.97 | 2.52 | 3.15 | 3.74 | 4.33 | 4.92 | 5.51 | 6.10 | 6.69 |

TECHNICAL DATA

Mechanical:

Operating Temperature: -25° to +70°C

Detented Positions: Up to 7-0-7 Steps

Mechanical life: Maintained action: 20 million plus cycles.

Gasketing: Non-ferrous materials and NEMA 4 gasketing available for marine applications .

Electrical:

Contacts: 10 double pole snap in blocks and up to 20 circuits furnished standard. (consult factory if additional circuits are required)

Terminals: M3.5 x 0.5 machine screw with saddle clamp.

Wire size: No. 12 AWG maximum

Rating AC: a) AC continuous 16 amps @ 240 volts
b) AC resistive 8 amps @ 240 volts
c) AC inductive 6 amps @ 240 volts
d) 1 H.P. 120 VAC 1phase
e) 2 H.P. 240 VAC 1phase

Approvals: CSA file number: 15040
UL Recognized file number: E106738(m)

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