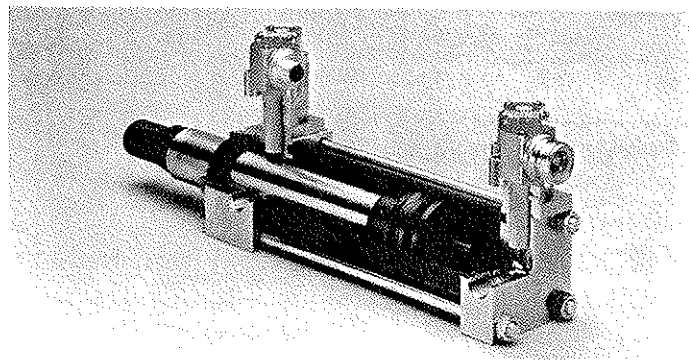
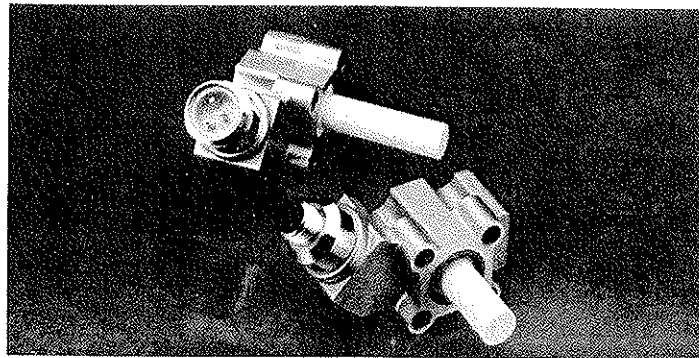


CYLINDER PROXIMITY SWITCH



for high pressure
Hydraulic Cylinders



EUCHNER — Cylinder Switch

Description

The EUCHNER Cylinder Switch is a solid state Inductive Proximity Switch designed for sensing piston position in pneumatic or hydraulic cylinders.

With a sensing probe capable of sustaining repeated shock pressures up to 5000 psi (350 bar, risetime 500 msec), it is suitable for use in power clamp-cylinders.

The cylinder switch is designed into a strong, precision-cast, stainless-steel housing that is sealed with a non-removable cover to protect against dirt, chips, abrasives, cutting oils, water, and mild acids. Similarly, the sensing probe is encapsulated in a plastic sleeve to provide additional protection from high pressure and contaminants.

The cylinder switch is available as normally open 2-wire AC/DC switch in an operating range of 20-250 volts and up to 0.5 ampere. It is compatible with programmable controllers.

Outstanding features of this solid state switch are the weld-field immunity and an extraordinary RFI-noise immunity.

Features

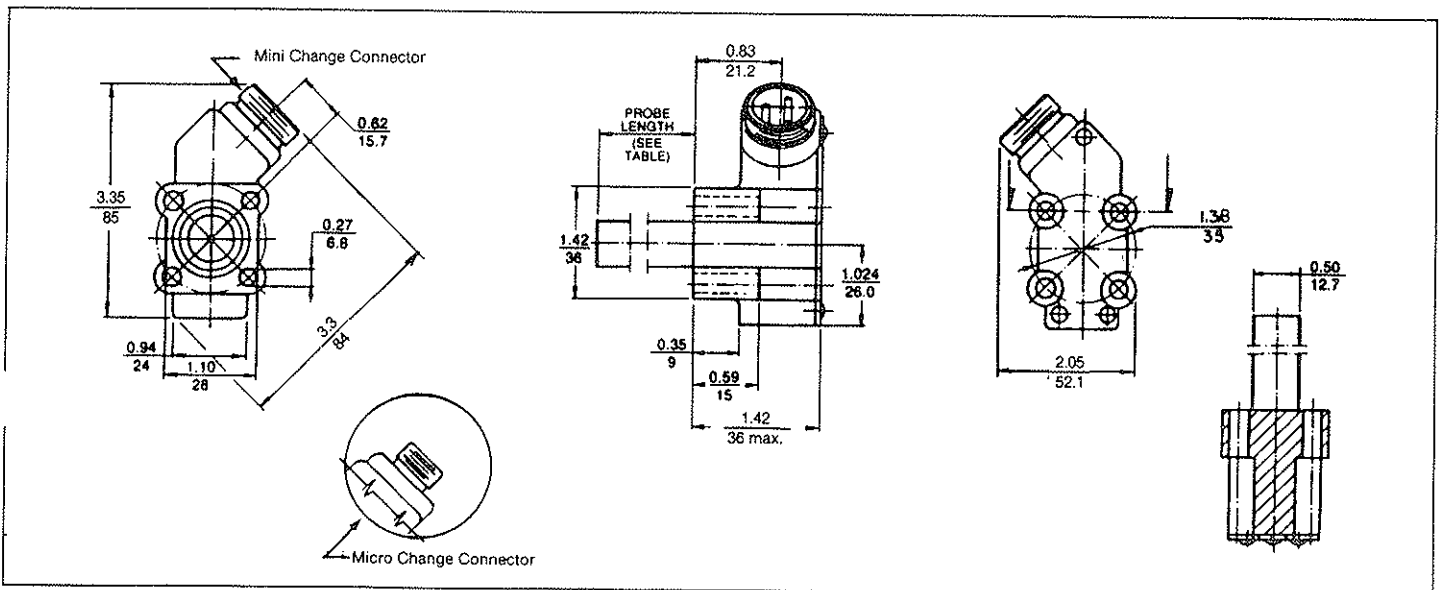
- Shock pressures up to 5000 psi (350 bar)
- Satisfies NEMA ICS-230 for noise immunity. Switch is immune against radio frequency interference (27MHz, 150MHz and 450MHz) from walkie talkies with 5W rating and at least 1" away from switch and cable.
- Housing is rotatable in 90-degree increments using 2 of 4 available mounting holes. The switch is designed for mounting directly on the cylinder on 35-mm centers.
- Meets requirements of type 4, 6, and 13 enclosures.
- Available with Brad Harrison Mini Change or Micro Change Connectors.
- An O-ring seal design is provided to allow positive sealing of the switch against the end-cap surface.
- Weld-field immunity to 30,000 amperes secondary current.
- Meets requirements of UL Listing and CSA Certification.
- AC/DC short circuit protection is standard.
- Two LED Indicators: one red READY-LED for power-on and switch open; one green TARGET-LED for switch closed. In short circuit protection condition, the red LED flashes.

EUCHNER — Cylinder Switch

Technical Data

| PARAMETER | Conditions | min | typ | max |
|--------------------------------|--------------------------------------|---------|-------|---------------|
| Voltage Range | DC and AC 60/50 Hz | 20 V | | 250 V |
| Load Current | Temperature: 20° C | 5 mA | | 500 mA |
| Load Current | Temperature: 70° C (max) | 5 mA | | 250 mA |
| Inrush Current | | | | 2.5 A |
| Leakage Current | 120 V AC, 22 K load | | | 1.5 mA |
| On-state Voltage Drop | | | | 10 V |
| Power-up Delay | | | | 50 ms |
| Response Time | | | | 40 ms |
| Switching Rate | | | | 5 Hz |
| Nominal Sensing Distance S_n | Target 12x12x1 mm, St37 (mild steel) | 0.072" | 0.08" | 0.088" |
| Allowable Sensing Distance | Inside the cylinder | 0.01" | | 0.045" |
| On-Off Differential | Static hysteresis | | | 0.1x S_n |
| Repetitive Accuracy | Temperature: 20° C | | | $\pm 5\% S_n$ |
| Sensing Distance | $s = S_n \pm 10\%$ (at operating °C) | - 20 °C | | 70 °C |

Dimensions Inches Millimeters



EUCHNER — Cylinder Switch

Probe Length, Connectors, and Ordering Code

| PROBE LENGTH | COLOR DOT | ORDERING CODE | |
|----------------|-----------|---------------------------------------------------------------|----------------------------------------------------------------|
| | | Mini Change Connector Brad Harrison 40909 or equivalent | Micro Change Connector Brad Harrison 70212 or equivalent |
| Inch (mm) | | | |
| 1.025 (26.03) | blue | EZT-1F-1.025 | EZT-2F-1.025 |
| 1.225 (31.12) | | EZT-1F-1.225 | EZT-2F-1.225 |
| 1.250 (31.75) | white | EZT-1F-1.250 | EZT-2F-1.250 |
| 1.500 (38.1) | | EZT-1F-1.500 | EZT-2F-1.500 |
| 1.750 (44.45) | | EZT-1F-1.750 | EZT-2F-1.750 |
| 2.062 (52.37) | red | EZT-1F-2.062 | EZT-2F-2.062 |
| 2.275 (57.78) | | EZT-1F-2.275 | EZT-2F-2.275 |
| 2.875 (73) | orange | EZT-1F-2.875 | EZT-2F-2.875 |
| 3.750 (95.25) | | EZT-1F-3.750 | EZT-2F-3.750 |
| 3.775 (95.90) | silver | EZT-1F-3.775 | EZT-2F-3.775 |
| 4.562 (115.87) | gold | EZT-1F-4.562 | EZT-2F-4.562 |
| 4.850 (123.20) | | EZT-1F-4.850 | EZT-2F-4.850 |

Spacer

Spacers are available to achieve a probe length different from those listed above.

0.250-inch spacer: ordering code: Ident-Nr. 036875

0.500-inch spacer: ordering code: Ident-Nr. 036869

We reserve the right to make changes without notice E/11/90



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