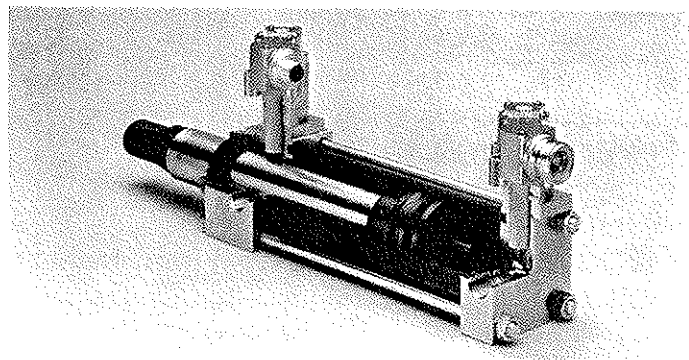
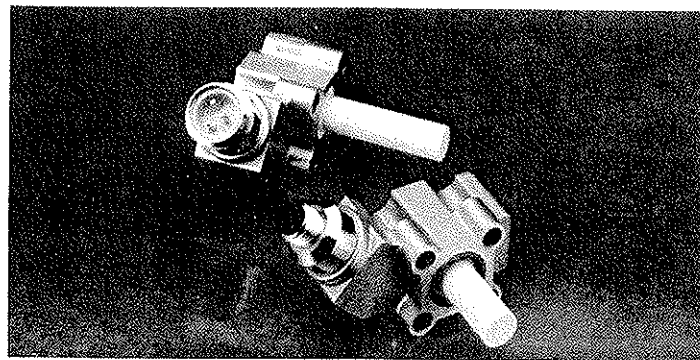


CYLINDER PROXIMITY SWITCH



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.

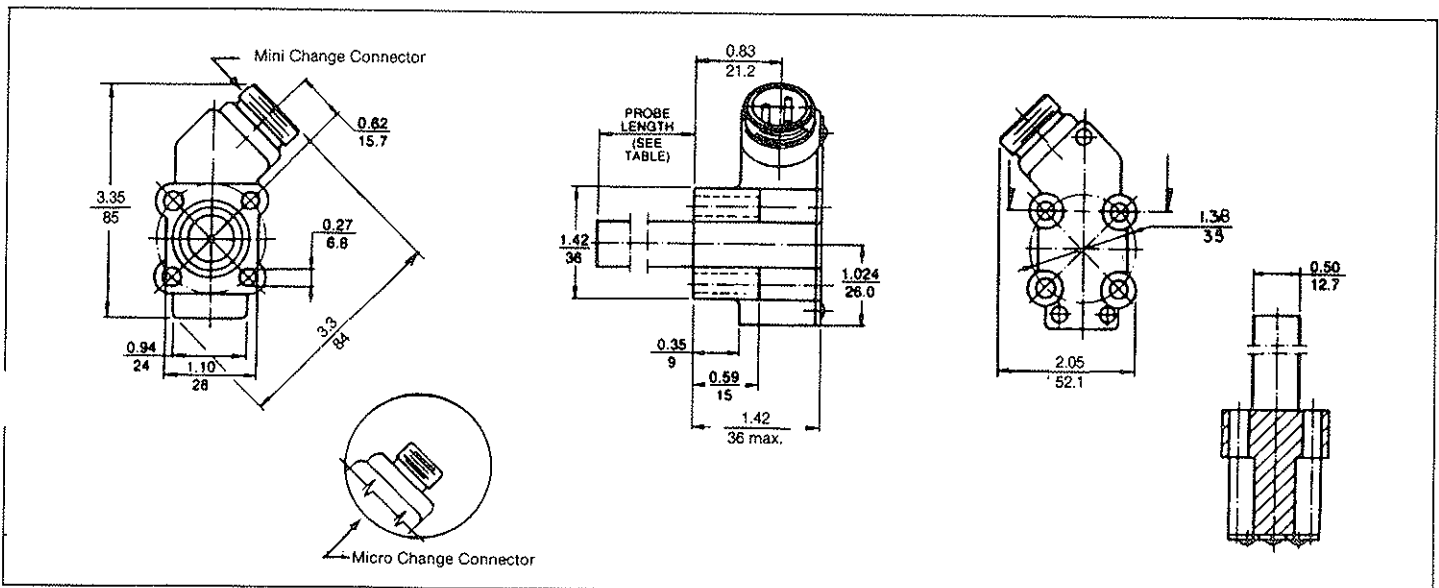
EUCHNER — Cylinder Switch

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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