

E1S, E1H Series Pressure Switch

Pressure or Vacuum - Econ-O-Trol

E1S, E1H Series



E1H

E1S

SE UL
Housed models only

SE UL
Stripped models only

- ✦ Superior Resolution
- ✦ Long Life
- ✦ Stripped and Housed Versions Available
- ✦ Easy Setpoint Adjustment
- ✦ Ideal for Pressure or Vacuum
- ✦ Nema 1, 3 & 4
- ✦ IP65

The E1S and E1H Econ-O-Trol Pressure Switches deliver powerful performance in a compact, economical package. Available in corrosion resistant thermoplastic or die cast aluminum, this switch measures, controls and switches pressures from vacuum to 500 psi. A snap action micro-switch eliminates the inconsistent operation of floating contacts found in similar designs. This UL recognized and CSA listed switch can be used for high and low limit control, safety shutdown and alarm functions for most industrial equipment applications. NSF approvals make these pressure switches an ideal choice for pressure control in demanding food and beverage applications. When the application is critical and space is limited, the Barksdale E1S and E1H Econ-O-Trol Pressure Switches are the ideal choice to meet your requirements.

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With Barksdale - Pressure's No Problem

As a recognized leader in the manufacture of pressure product solutions, we meet the demanding requirements of our customers. From 29" Hg to 18,000 psi, Barksdale has pressure switches for a variety of applications – from transformers to compressors to beverage dispensers – and more!

Barksdale's E1S and E1H Econ-O-Trol Series Pressure Switches provide an economical solution for your pressure sensing needs. Available in both stripped (**E1S**) and housed (**E1H**) versions, this versatile switch controls pressures from vacuum to 500 psi. Setpoint adjustment is easily accomplished via an integrated adjustment knob – no special tools are required. Adjustable deadband is available as a standard option, allowing for even more flexibility to meet your special application requirements.

Econ-O-Trol Applications

With its economical design and repeatability of 2% of full scale, the **E1S** and **E1H Econ-O-Trol Series Pressure Switches** provide an accurate and reliable solution for pressures up to 500 psi, making them ideal for use in:

- Pump & Compressor Monitoring
- Air Proving in HVAC Systems
- Irrigation Systems
- Engine Monitoring
- Machine Tools
- General Industrial Applications



Need Something Special?

If you have special product requirements, we can help. Barksdale specializes in custom design solutions to meet your needs. Our reputation is built on creating custom products for customers committed to getting exactly what they need. We have design engineers and technical specialists who are experts in solving your unique pressure problems. Our technology and resources are at your disposal.

Need more information

Call us. We are only a phone call away.
Toll-Free 1-800-835-1060.

E1S, E1H Series Pressure Switch

Electrical Characteristics All models incorporate Underwriters Laboratories, Inc. listed single pole double throw snap-action switching elements

Performance Characteristics

Accuracy +/- 2.0% of the adjustable range

Switch Type SPDT Snap Action; single circuit

Rating With Class H limit switch (standard): 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; 0.5 Amps @ 24 VDC. See Configurator for ratings of optional limit switches.

Physical

Shipping Weight

Stripped Versions 0.75 lbs. approximate

Housed Versions 1.5 lbs. approximate

Wetted Parts

Process Fitting Anodized Aluminum (Standard)

Seals & Diaphragms Buna-N (Standard)

Consult Sales drawing for other materials

Enclosure Ratings

Anodized Aluminum (housed models)

Stripped Models: NEMA 1

Housed Models: NEMA 4 & IP65

Pressure Connection

Stripped Models: 1/2" NPT External with 1/8" NPT Internal

Housed Models: 1/4" NPT Female

Electrical Connection

Stripped Models: Screw Terminals

Housed Models: Screw Terminals via 1/2" NPT Female Conduit Connection

Approvals

UL Stripped Models: UL Recognized component (UR)

Housed Models: UL Listed. File No. E42816

CSA All models and modifications shown are CSA listed under Guide 380-W-1.16, Class 3231, File LR22355

PED (European) Compliant to PED 97/23/EC

Environmental

Temperature Range Operating -20° to +165°F (-29 to +74°C)

Adjustment Instructions

Pressure Setpoint

Positive Pressure Turn self locking adjustment nut clockwise to increase setpoint; counterclockwise to decrease setpoint.

Vacuum Turn self locking adjustment nut clockwise to increase setpoint, counterclockwise to decrease setpoint

Adjustable Deadband (Optional) Turn small self locking adjustment nut on limit switch counterclockwise to increase differential. As the differential is increased, the setpoint is also increased. Balance one adjustment against the other to obtain the desired setpoint

Consult Factory for These Options

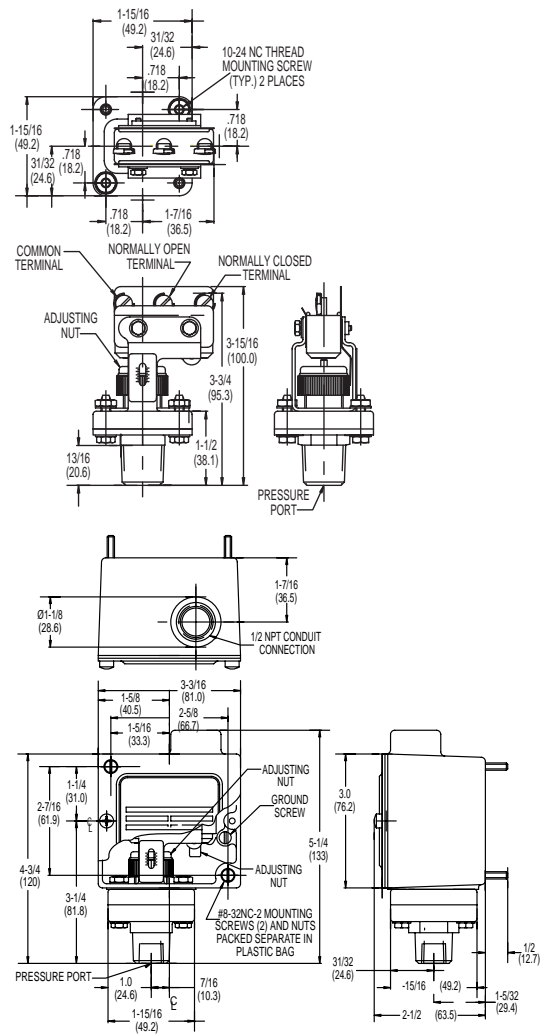
Plastic cover (Stripped models only)

NEMA 4X enclosure (Housed models only)

Indicator light - indicates when limit switch is actuated (Housed models only)

Cleaned for Oxygen service

Manual Reset



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Series: **E1H**
E1S

Limit Switch:
 -S 10 Amps @ 125/250/480 VAC; 3 Amps @ 600 VAC
 -H 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; 5 Amp @ 24 VDC
 -M 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; 1 Amp @ 24 VDC
 -R 15 Amps @ 125/250/480 VAC; .05 Amps @ 125 VDC **ADJUSTABLE DEADBAND**
 -G 10 Amps @ 125/250/480 VAC; 10 Amps @ 24 VDC **MANUAL RESET**
 -GH 1 Amp @ 125 VAC; 1 Amp @ 24 VDC Gold Contact

Pressure Range	Adjustable Range				Approx. Deadband (Actuation Value) psi (bar)	Proof Pressure psi (bar)	Fixed Deadband
	Decreasing - psi (bar)		Increasing - psi (bar)				
	Min	Max	Min	Max			
VAC	.5" Hg	29" Hg	2.2" Hg	30" Hg	.3 - 1.7" Hg	30 psi	See Note 1
15	.5 (.63)	14.2 (.9)	.6 (.84)	15 (1)	.5 - 8 (.01 - .05)	1000 (.67)	
30	3 (.2)	82 (5.5)	3.5 (.2)	80 (6)	.5 - 8 (.03 - .5)	1000 (.67)	
250	10 (.7)	250 (15)	11 (.7)	250 (17)	1 - 20 (.07 - 1.3)	1000 (.67)	
500	25 (1.7)	472 (31)	20 (.2)	500 (33)	4 - 28 (.3 - 1.9)	1000 (.67)	
VAC	1" Hg	36" Hg	Must select Class R Limit Switch. Consult Factory for Deadband Charts			1000 (.67)	See Note 1
15	1 (.07)	15 (1)			1000 (.67)		
30	6 (.4)	30 (6)			1000 (.67)		
250	15 (1)	250 (17)			1000 (.67)		
500	35 (2.3)	500 (33)			1000 (.67)		

Process Connection:
 (blank) E1S Version: 1/8" - 1/2" NPT; E1H Version: 1/4" NPT Female
 -F1 Ingressed
 -F2 Nickel Plated
 -P4 1/4" NPT Female (Available on E1S only - no UL Approval)
 -P6 1/8" - 1/2" NPT (E1H Only)
 -BR 1/8" - 1/2" NPT (with -P6 fitting only) - Not available on Vacuum models
 -BR 1/4" NPT Female (with -P4 fitting only) - Not available on Vacuum models
 -PLS Polysulfone 40% glass filled, 1/8" - 1/2" NPT (E1S Only)
 -P6-PLS Polysulfone 40% glass filled, 1/8" - 1/2" NPT (E1H Only)

O-Ring Material:
 (blank) Buna-N
 -E Ethylene Propylene (EPR)
 -N Neoprene
 -T Teflon
 -V Viton

Options:
 -RU Manual Reset (Must select Class G limit switch)
 -E1 Plastic cover (E1S models only)
 -FX NEMA 4X Enclosure
 -SL Indicator Light (E1H models only)
 -Z1 Cleaned for Oxygen service
 -SXXX Factory Pre-set (consult factory)

Example: **E1H H 500 -P6-PLS**

Miscellaneous:
 Paper Tag: \$5.00
 Metal Tag: \$10.00

NOTE:
 1. Vacuum models are provided with 1/2" NPT External, 1/8" NPT Internal "Combo" fitting only.

Barksdale
 CONTROL PRODUCTS

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