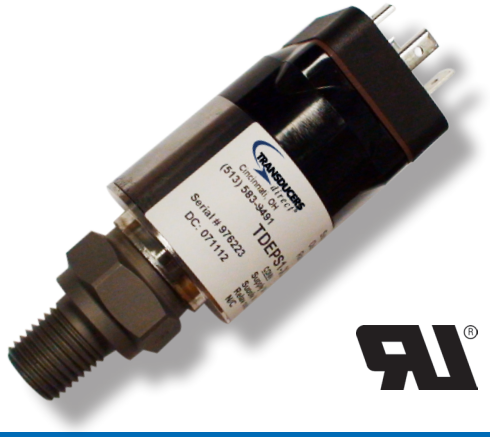
The TDEPS
Electronic Pressure Switch with Relay Output



SERIES: TDEPS

DESCRIPTION

The TDEPS Digital Technology brings a new level of performance to the pressure switch world. The Transducers Direct® EPS (Electronic Pressure Switch) features a solid stainless steel long life header/diaphragm for demanding applications where o-rings and creeper compatibility are a thing of the past. The TDEPS houses the proprietary redundant bridge circuit for high shock and high vibration environments making it ideal for off road/mobile hydraulic or pneumatic applications where downtime is not an option! These Industry Firsts combined with the factory programmable set-point and hysteresis allows for low cost custom solutions with next day shipments.

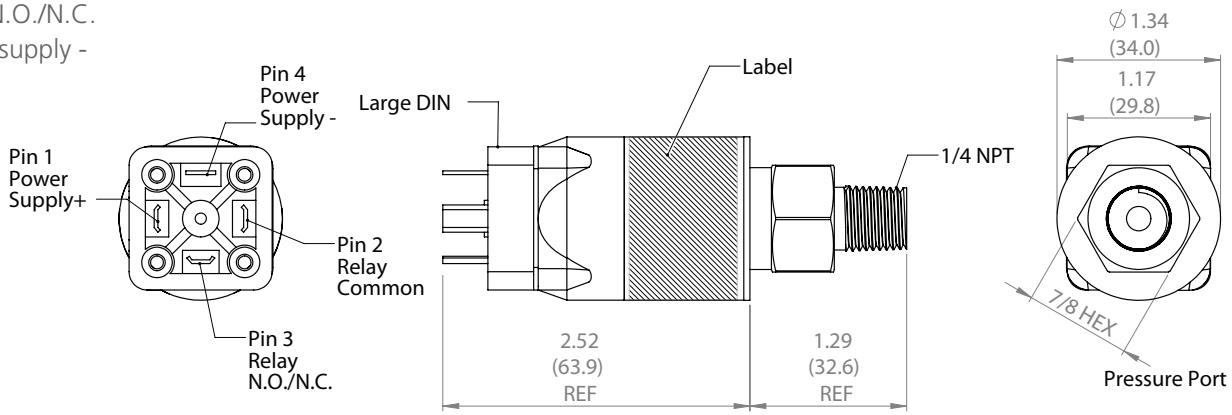
FEATURES

- Operating temperature: -40 C to 90 C
- Power supply: 9 VDC to 28 VDC
- Power supply current: 35 mA maximum
- Relay output: 250 VAC/VDC, 10 A maximum
- UL recognized component
- Relay type: Normally open or normally closed
- Pressure port: ¼-inch NPT standard (consult factory for other options)
- Pressure ranges up to 10,000 psi
- Factory-programmable set point and hysteresis
- Spike Monitoring Technology™ (SMT)

ELECTRICAL CONNECTIONS & DIMENSIONS

Large DIN per DIN-43650

- Pin 1: Power supply +: 9 VDC to 28 VDC
- Pin 2: Relay common
- Pin 3: Relay N.O./N.C.
- Pin 4: Power supply -



Dimensions are in inches (mm) and for reference only

SPECIFICATIONS

Performance	Performance @ 25°C (77 °F)
Accuracy	0.5% of maximum operating pressure (see order code)
Overange Protection	2x Rated Pressure or optional 4x and 10x
Pressure Range	see ordering chart - up to 10,000 psi (689 bar)
Burst Pressure	5x or 20,000 psi, whichever is less
Pressure Cycles	> 2 million @ 100mA @ 240 VAC, Typ*
Update Time	<=1msec
Relay Output	250VAC / 220 VDC, Up to 5A standard,10A Max
Relay Max Current	Low Current ≤ 250 mA, High Current > 250 mA, 10A Max (Increased current results in reduced cycle life*)

Environmental Data	
Temperature	
Compensated Temperatures	-40° to 90° C (-40 to 194° F)
Operating Temperatures	-40° to 90° C (-40 to 194° F)
Storage	-40° to 125° C (-40° to 250° F)
TEB	1% of maximum operating pressure (see order code)
Long Term Drift	0.2% FS/year (non-cumulative)
Shock	2g, 11 ms, 1/2 sine
Vibration	4g, peak, 30 to 400 Hz
EMI/FRI Protection	Yes
Rating	IP-65
Approvals	UL (approved connector, Maximum Ambient Temperature @ 55°C for L relay version, Maximum Ambient Temperature @ 20°C for H relay version)

Mechanical Configuration	
Pressure Connections	1/4" NPT Male (standard)
Wetted Material	17-4PH stainless steel
Electrical Connection	Large DIN
Case	(housing) 304 stainless steel / polycarbonate plastic

Electrical Data	
Excitation	9-28VDC, Typ
Output	Relay output
Current Consumption	35mA max
Reverse Polarity Protection	Yes
Set Points	No set points in vacuum range, 5 psi min set point with <100 psi range, 10% of configured pressure min set point with > 100 psi range
Hysteresis	Point at which switch resets to previous state. This is a percentage of the Set Point Value.

Mating connectors and cable assemblies sold separately.

** Refer to Relay Datasheet for life cycle information: TE Connectivity, High current relay: Product code PB114024, Part Number 9-1415029-1*

ORDERING

Series	Version	Max Operating Pressure	Relay Max Current	Pressure Port	Circuit Form	Set Point Value	Set Point Direction	Hysteresis	Electrical Connection	Overpressure Protection
TDEP	S	1000	L	03	A	0500	R	015	L	
	S = Switch	0100 = 100 psi 0250 = 250 psi 0500 = 500 psi 1000 = 1000 psi 3000 = 3000 psi 5000 = 5000 psi 010K = 10K psi **	L = Low Current (≤ 250 mA) H = High Current (> 250 mA)	**03= 1/4" NPT Male** (standard) 09= 7/16-20 UNF 13= G1/4 **	A = Normally Open B = Normally Closed **	XXXX (in psi) 0005 0250 0010 0500 0015 0750 0020 1000 0025 2000 0030 3000 0040 4000 0050 5000 0060 6000 0080 8000 0090 9000 0100 **	R = Rise F = Fall	**015 = 15%** (standard) 025 = 25% 035 = 35% **	L = Large DIN	[blank] = 2x (standard) 4x = 4x (5000 psi max)

**= Consult factory for further OEM options

Pressure ranges and outputs listed above are quick ship versions

All straight-thread o-rings are Viton. It is customer's responsibility to determine compatibility.