Staset®

Precision Sensors Division

Staset®

Three-In-One Pressure Device
Switch, Gauge and Transducer

Backlit Rotating Display

Tamper Proof Switch Points

5 Year Warranty

UL Recognized, CE Marked

RoHS Compliant

Mykron

Staset®

Staset®

OVERVIEW

Designed for semiconductor fabrication and OEM process equipment, Staset® combines the safety of a "tamper proof" switch, the output of a transducer and the convenience of a gauge in a reliable, cost effective 1⅛" package.

Available with a backlit rotating display, choice of analog output, LED indication of switch contact state, Staset® is an ideal choice for accurate long-term protection of equipment and processes.

Staset® eliminates potential leak paths by reducing the number of fluid connections. Threshold protection is achieved with a tamper proof switch and deadband that can be factory set from 1% to 98% of full scale.

FEATURES

- Backlit display with 180° CW & 90° CCW rotation
- Tamper proof switch points (Deadband set to customer specification)
- 5 Million cycle life
- Optional 0-5VDC, 0.2-5.2VDC or 4-20mA analog output
- 316L SS wetted surfaces, 5Ra
- Status LED
- UL Recognized
- CE Marked

Three-In-One ...
Switch, Gauge and Transducer

Safe, reliable threshold detection and control

Local display of system pressure

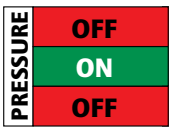
Remote communication of system pressure

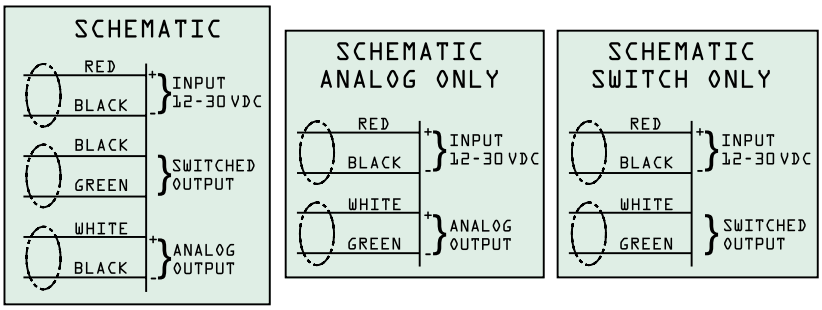
Threshold detection and switching, remote communication, local display of system pressure and local indication of contact state with fewer leak paths.

MODEL CHART

Model	Type	Range/Unit	Proof Pressure	Burst Pressure	Design* Pressure
EAN15	Absolute	0 – 770 Torr (1 – 102 KPa)	45 psia	2500 psia	1 MPa
EAN30	Absolute	0 – 1500 Torr (0 – 206 KPa)	60 psia	2500 psia	1 MPa
EAN100	Absolute	0 – 99 psia (7 – 689 KPa)	200 psia	2500 psia	1 MPa
EAN300	Absolute	0 – 300 psia (0 – 2.06 MPa)	600 psia	2500 psia	1 MPa
EGN100	Gauge	0 – 99 psig (7 – 689 KPa)	0 – 200 psig	500 psig	1 MPa
EGN300	Gauge	0 – 300 psig (0 – 2.06 MPa)	0 – 600 psig	1500 psig	1 MPa

*Unit will contain this, but may operate out of limits after exposure.





"Window" Mode

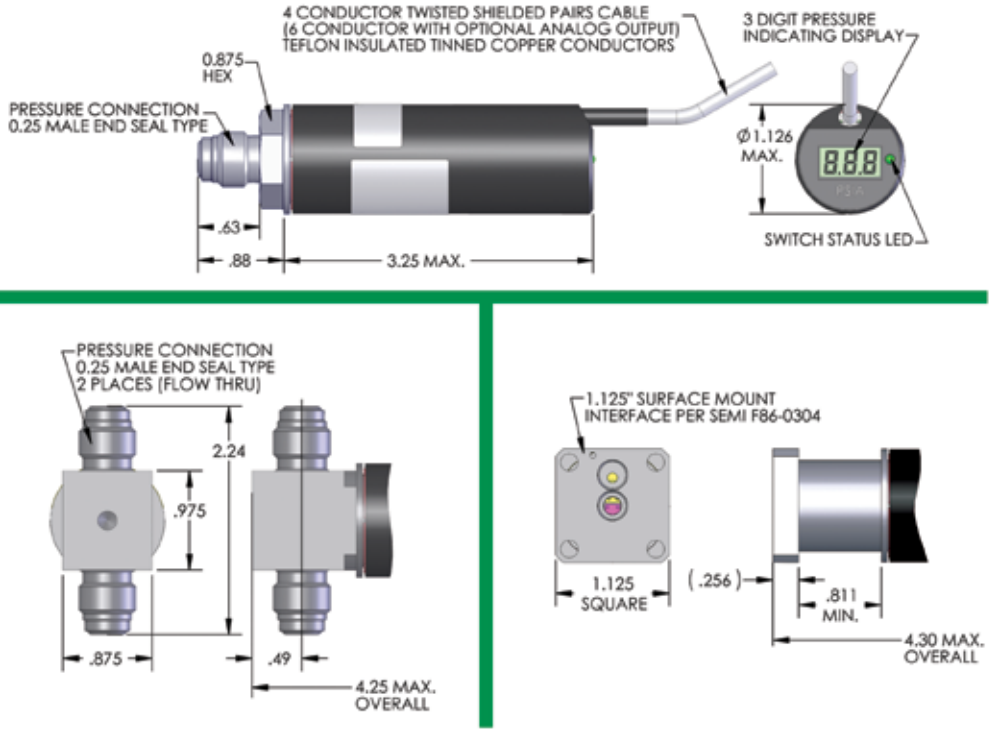
The window mode allows for the output to be in one state (open or closed) while inside a band, and change state outside the band. The higher and lower pressure set points must be defined, along with whether the switch is to be open or closed inside the band (deadband does not apply). For instance, a typical callout will be "switch closed between 50 psia and 20 psia."

Compound Gauge Feature

For EAN100D Model, unit is programmed to display 15 psi vacuum to 85 psi pressure.

For EAN300 Model, unit is programmed to display 15 psi vacuum to 285 psi pressure.

The sealed gauge unit output varies with site atmospheric pressure. The analog output option is over the full scale range.



HOW TO SPECIFY

Create a part description by using the system below. The part description will follow this format:

Type	Setting Range	Display	Closing Pressure	Opening Pressure	Units	Pressure Connection	Electrical Connection	Lead Length	0-5 VDC Output
EGN	**100**	**D**	**C26**	**025**	**P**	**FM**	**L**	**24**	**V1**

EGN 100 D C26 025 P FM L 24 A

	CODE	DESCRIPTION
Type		
	EAN	Absolute Pressure
	EGN	Gauge Pressure
Setting Range		
	15 30 100 300	See Model Chart
Display		
	–	No LCD Display
	D	LCD Display
Closing Pressure (Increasing or Decreasing)		
Opening Pressure (Increasing or Decreasing)		
Units		
	P	PSI
	T	Torr
	K	Kpa or Mpa (depending on range)
Pressure Connection		
	VM	1/4 Male End Seal type (standard)
	FM	Flow-through type, / Male End Seal type, both ends
	FF	Flow-through type, / Female End Seal type, both ends
	SC	1 1/8" Surface Mount C Seal per SEMI F86 - 0304
Electrical Connection		
	L	Free leads (standard)
	C	Crimp-type connector (Amp MR Series Standard)
Lead length (specify in inches - 24" is standard)		
Analog Output		
	–	No analog output
	A	4-20 mA
	V1	0-5 VDC
	V2	0.2-5.2VDC
Option WM		"Window" operating mode (Opening and Closing pressures become upper and lower limit of window; specify whether contact is closed inside or outside the window). See detailed description for example.
Option CG		Compound gauge feature

The specified example denotes a 100 psig Staset® switch with LCD display. The switch closes on increasing pressure at 26 psig and opens on decreasing pressure at 25 psig. The switch utilizes a flow through design with 1/4 male end seal type end connections with a 5 Ra finish. The electrical interface consists of 24" free leads. A 0-5VDC analog output is provided.

SPECIFICATIONS

Pressure Sensor	Micromachined silicon piezoresistive strain gauge isolated from process media by a rugged 2 mil. 316L stainless steel diaphragm.
Construction	Wetted material – 316L stainless steel, pressure compartment welded leak tight to $1x10^{-9}$ atm cc/sec
Switch Output	Isolated SPST (Form A) solid-state relay, normally open or normally closed, factory set to pressure value referenced in model chart
Deadband	Factory set to any value from 1% to 98% full scale
Switching Response Time	30 ms max.
Switching Output Rating	0.25 amps AC or DC continuous, 0.4 amps peak, 50 V maximum
Switch Point Accuracy	0.4% full scale rms at 22 +/- 5°C. This includes: linearity, hysteresis, zero offset, span, and long term drift. Temperature coefficient (zero and span): 0.017% full scale/°C.
Switch Point Repeatability	0.25% full scale
Status LED	Indicates circuit condition – open or closed, and power on. Green indicates power on, circuit closed; red indicates power on, circuit open.
Temperature Range	Operating 0 to 50°C (32 to 122°F); Non-Operating -40 to 70°C (-40 to 158°F)
Internal Volume	0.5 cc for standard 1/4 End Seal type connection
Input Power	12 to 30 VDC, 25 mA minimum. Product is reverse polarity protected
Fail Safe	Upon power loss, contacts will default to the open state
Life	5 million cycles minimum
System Pressure Display	3 digit backlit LCD display of system pressure with 1% full scale accuracy from 0 to 50°C
Analog Outputs	4 to 20 mA analog output, isolated, current sinking; loop resistance 0 to 900 ohms linear with input range of 12 to 30 VDC. 0 to 5 VDC or 0.2 to 5.2 VDC analog output proportional to listed pressure range within +/- 1% full scale from 0 to 50°C, 10K ohms minimum load impedance.

APPROVALS

CE

UL recognized component under File #E179859.

CE marked, conforms to the LVD and EMC directives

Proof of performance data available upon request.

Precision Sensors will provide its customers with the highest quality, most cost effective and reliable solutions for the safeguarding of people, equipment and processes.

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- By phone 203.877.2795

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Certification of Approval to ISO 9001:2015
and AS9100 Revision D

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Contact Us:

Sales Department: sales@precisionsensors.com
Technical Department: askanengineer@precisionsensors.com
Service Dept.: servicedepartment@precisionsensors.com
Quality Assurance: quality@precisionsensors.com

UNITED ELECTRIC CONTROLS
Precision Sensors Division

340 Woodmont Road
Milford, CT 06460 USA
Telephone: 203.877.2795 Fax: 203.877.8752
Email: sales@precisionsensors.com
www.precisionsensors.com

Mykron

Mykron Microelectronics Co., Ltd.
上海资方微电子有限公司
No.12 Yi, Chao Yang Men Street (North), Beijing, 100020, China
Tel. (86)10-6551 0500 Fax (86)10-6551 0501 cs@mykrons.com
http://www.mykrons.com

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