Electronic pressure switches — Type 615

Technical data

The type 615 electronic Absolute and relative pressure switches measure pressure by means of highly resistant ceramic elements. An open collector (transistor) output accommodates loads up to 100 mA. Either an N/C or N/O contact may be used, and the upper and lower switching point can be freely selected in the range 5 to 100 % fs.

Various electrical and pressure connections are available to suit given applications.

The distinct advantages

- **Ideal for frequent switching cycles**
- **Long service life and long-term stability due to lack of moving parts (unlike mechanical pressure switches)**
- **Very low susceptibility to temperature**
- **Modular system for easy implementation of individual applications**

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Relative pressure
-1 up to 600 bar
Absolute pressure
0 up to 16 bar

Pressure range gradation and executions see order code selection table

Description

Technical data

Overload	2x measuring range (fs)	
Rupture pressure	3x measuring range (fs)	
Accuracy	Repeatability	< +/- 0.5 % FS

	Accuracy of switching point adjustments	< 1 % FS
Materials of housing in	Ceramic / Inox 1.4305 (Ceramic PVDF on request)	
contact with the medium		
Temperature influences	Medium and ambient temperature	
	-15 °C to +80 °C	
	Medium and ambient temperature	
	-40 °C only with CR seal	
	and on request	
	TC zero point	< +/- 0.05 % fs/°C
	TC sensitivity	< +/- 0.02 % fs/°C typ.
	(at 2x nominal pressure)	
Load cycle	< 50 Hz	
Dynamic response	Suitable for static and dynamic measurements.	
	Response time < 5 ms	
Power supply	10 ... 33 VDC / 24 VAC +/- 15 %	
Output	Open collector switch output for max. 100 mA at maximum supply voltage	
	Short circuit proof and protected against polarity reversal	
	Each connection against other with max. +/- supply voltage	
Adjustment of	The upper and lower switching point can be freely selected between 5 and 100% fs	
switching points	Recommended spacing between upper and lower switching points: > 2% fs	
	(factory-set at 5 and 100 % unless switching point ist specified)	
Operation /	**N/C contact:**	
Switch status indication	When pressure is applied (p_0 --> p_{max}) the collector will disconnect	
	the applied load as soon as the upper switching point ist reached.	
	As the pressure falls (p_{max} --> p_0) the collector will connect the load	
	as soon as the lower switching point is reached.	
	N/O contact:	
	When pressure is applied (p_0 --> p_{max}) the collector will connect	

	the applied load as soon as the upper switching point is reached.
	With a fall in pressure (p_{max} --> p_0) the collector will disconnect the
	load as soon as the lower switching point is reached.
	Switch status indication
	LED in DIN connector (see accessories)