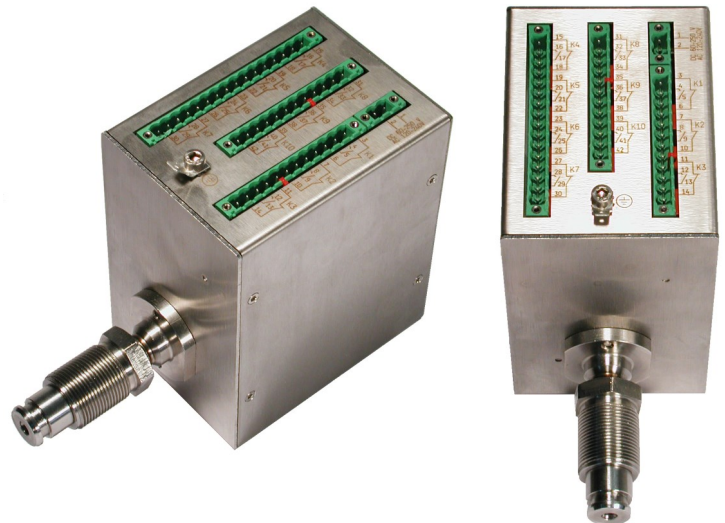


## Electronic Pressure Switch for Hydraulic Applications

Type: PSP 400-07, PSP 400-10, PSP 400-7R

The electronic Pressure Switch Type PSP 400 is a device to monitor hydraulic drive systems of high voltage circuit breakers. The pressure switch can also be used for other hydraulic applications.

- Pressure range 0 ... 400 bar / 5800 psi
- Pressure can be read out via RS-232 interface
- 7 or 10 adjustable pressure thresholds
- Pressure thresholds adjustable via PC
- Very robust - long life time



The PSP 400 series of electronic pressure switches was designed to monitor the hydraulic drive systems used in high-voltage circuit breakers. The devices are used to control the hydraulic pump and to activate and deactivate the various switching interlocks and alarm signals.

The pressure switches can also be used for other hydraulic applications.

The type PSP 400 hydraulic pressure switch incorporates a very precise and rugged pressure sensor operating on a polysilicon-on-steel principle. It incorporates self-diagnosis for safety-critical applications. The evaluation unit is microprocessor-based.

All switching thresholds can be user-programmed by means of a PC or notebook computer, through an RS232 interface.

The pressure switch has 7 or 10 floating NC/NO (normally closed/open) contacts to signal that a threshold has been crossed. An additional NC/NO floating contact is used for malfunction reporting purposes.

The current pressure value can be read out via the RS232 interface. Programmed values will not be lost in case of a power failure. The pressure switch incorporates an optical function indicator.

The following signals will be read out once control voltage has been applied:

- Green LED on = normal operation
- Red LED on = threshold limit overrun registered

The lifetime of the electronic pressure switch is about 30 years.

It is impossible for an undefined condition to arise at the relay outputs pursuant to a malfunction in the sensor, the evaluation unit (microprocessor, memory, A/D converter, DC/DC converter) or at the output device itself (the relays).

The pressure switch can also be delivered with built-in, redundant power supplies, then designated as Type PSP 400-7R.

# Gas Density and Pressure Monitoring



## Technical Data Pressure Switch PSP 400

Range: 0 ... 400 bar / 5800 psi  
 Max. pressure: 600 bar / 8700 psi  
 Supply voltages: 60 VDC ... 250 VDC; 120 VAC ... 240 VAC  
 Linearity: < 0,2 % FS (typ.)  
 Hysteresis: < 0,05 % FS (typ.)  
 TK zero: < 0,02 % FS/K (typ.)  
 TK sensitivity: < 0,01 % FS/K (typ.)  
 Durability: < 0,1 % FS (typ.)  
 Electrostatic discharge: IEC 61000-4-2 Class 2  
 High frequency irradiation: IEC 61000-4-3 Class 3

Burst: IEC 61000-4-4 Class 4  
 Surge voltage: IEC 60255-5: 5kV 1,2/50 µs  
 Interference: IEC 61000-4-6 Class 3  
 Isolation test: IEC 61180-1: 2 kV 50 Hz  
 Oscillation: IEC 60100-4-12: 100 kHz und 1 MHz  
 Sinus oscillation: IEC 60068-2-6: 10 - 150 Hz, 2 g  
 Vibration: IEC 60068-2-27: ± 10 g, ± 1 mm  
 Seismic endurance: IEC 60068-2-3: 1,6 - 35 Hz 4 mm/1 g

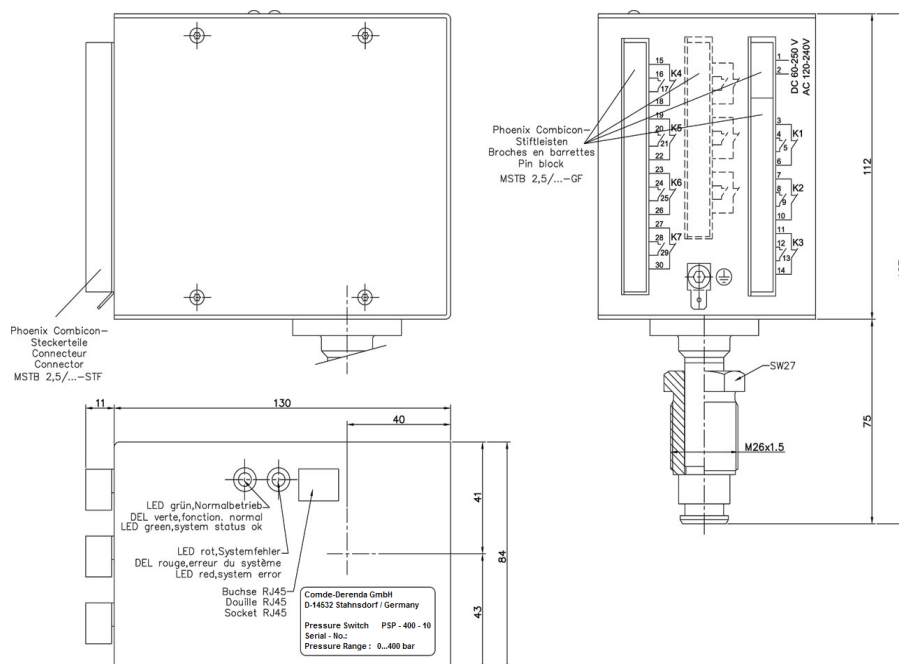
Operating temperature: -40 ... +70 °C / -40 ... +158°F  
 Storage temperature: -50 ... +70 °C / -58 ... +158°F  
 Protection: IEC 60529: IP 20  
 Plug: Phoenix Combicon  
 with screw base: IEC 60947, max. 2,5 mm<sup>2</sup>

Electrical ratings: 250 VDC, 0,28 A (0,4 A)  
 Relay contacts, load inductive (resistive):  
 220 VDC, 0,3 A (0,45 A)  
 125 VDC, 0,5 A (0,7 A)  
 110 VDC, 0,56 A (0,8 A)  
 60 VDC, 4,2 A (6 A)  
 48 VDC, 5,6 A (8 A)

Weight: PSP-400-07: 1518 g  
 PSP-400-10: 1580 g

Interface: RJ45

Accessories:  
 Data converter A: RJ45 / RS-232  
 Data converter B: RJ45 / USB-B



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