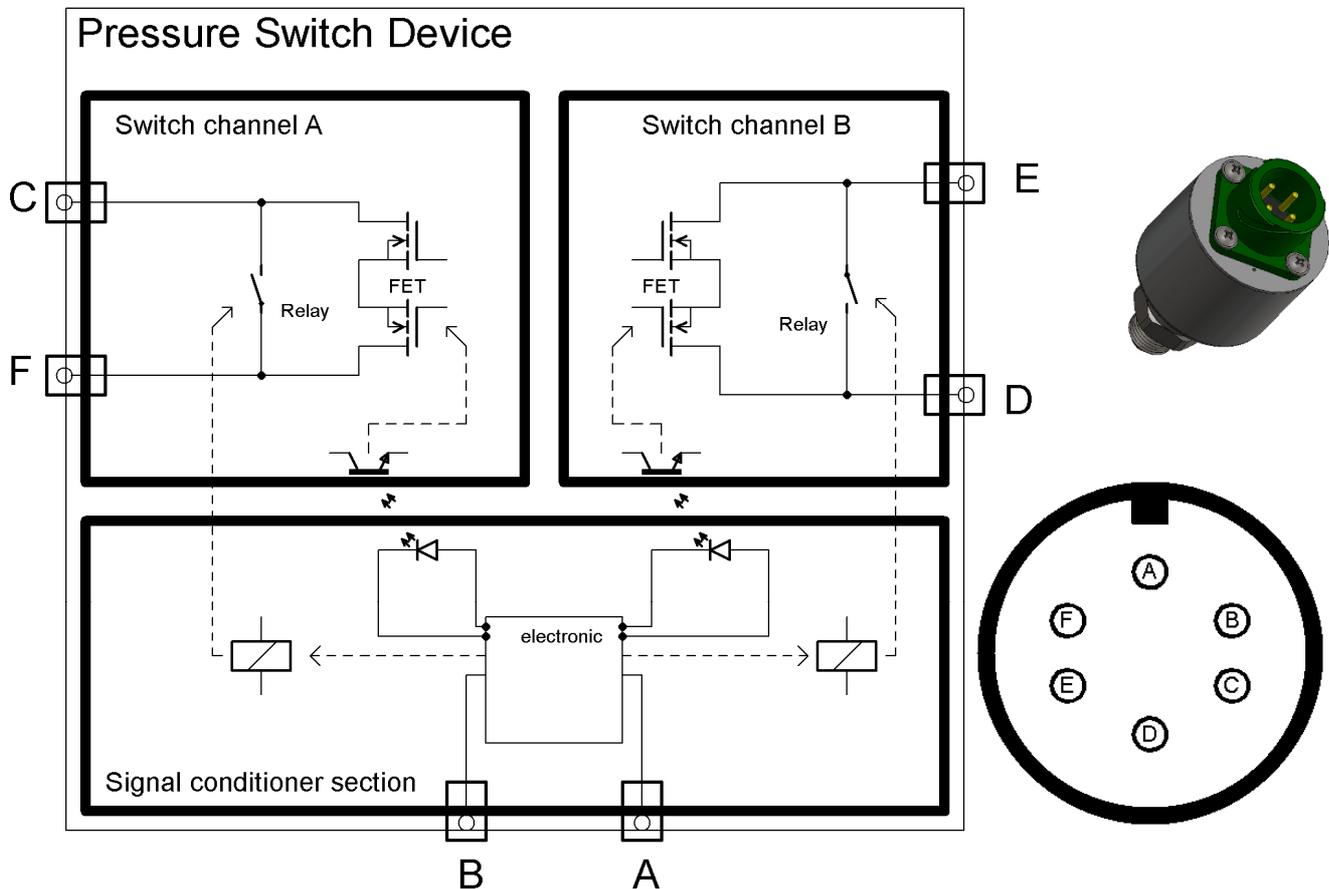


Customer information

Pressure switch with integrated galvanic isolation

Electronic switch with “unpowered closed” feature



The pressure switch consists of two switch channels. Each channel is equipped with two parallel paths

1. an electronic FET-switch (main path)
2. a relay with dry contacts (path for unpowered situation)

When unpowered, the relay (2) is closed, the FET-switch is bypassed. A current flows through the pressure switch device (PIN C/F and E/D). In the unpowered state, the switch is in NC-status.

On power-up, the signal conditioner section takes control over both switching paths. The electronic switch becomes “CLOSE” – afterwards the Relay becomes “OPEN”. From now on no longer the current flows through the relay but through the FET-switch. The signal conditioner section now controls the FET-switch based on the applied pressure.

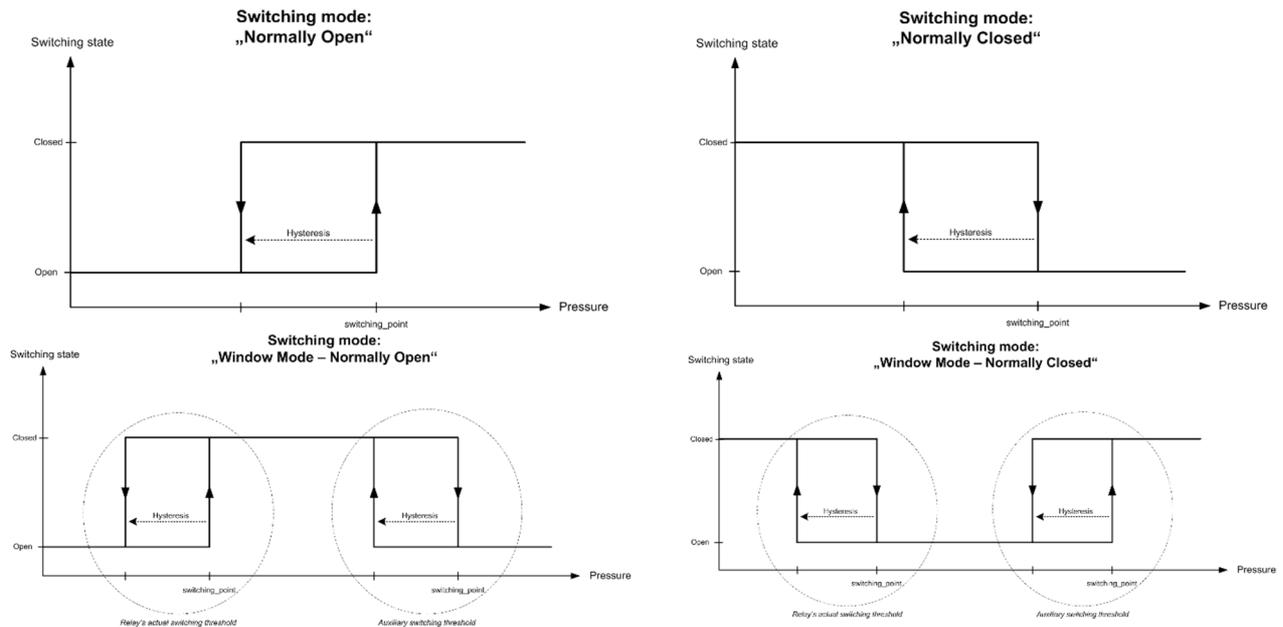
On power-down, the relay contacts become “CLOSE” and the unpowered FET-switch is bypassed again.

Feature sheet

Each of the two integrated switching channels features *four switching modes* (see below):

- Normally¹ Open,
- Normally¹ Closed,
- Window Mode – Normally¹ Open,
- Window Mode – Normally¹ Closed.

1: *Normally* means: surrounding pressure applied.

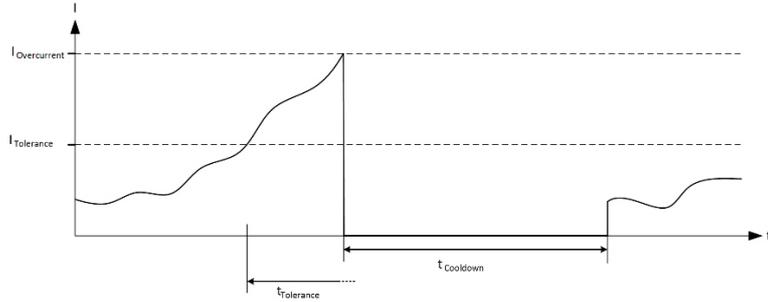


Each channel transmits its switching state according to the measured pressure. Optionally, *switching delay times* can be applied. They are based on milliseconds and can be set for each channel separately.

The current “drawn” by the application circuitry is permanently monitored. In case, the current exceeds the *overcurrent limit* (typically 2A), the channel opens immediately for cooling-down purposes. The *cool-down mode* stays active for 2 seconds; afterwards, the switching continues as usual.

In addition to the *overcurrent limit*, there is a *peak current tolerance limit*. The current may rise above this limit (typ. 1A) without influencing the switching state, as long as the current lowers down within the *tolerance time*. If the *tolerance time* is expired, the *cool-down mode* will be entered. This feature can be used in combination with contactors.

Overcurrent limit



Tolerance current limit

