

# Switching Amplifiers

## Evaluation Amplifiers for Optoelectronic Transducers

### Model OPTO.250X

Data Sheet OPTO.250X

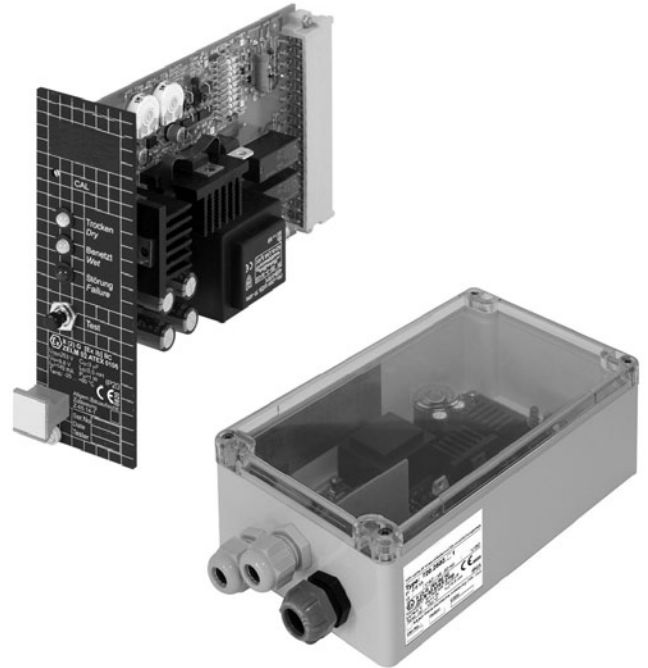


#### Applications

- For amplifying signal processing of the optoelectronic instrument transducer model OPTO.250X

#### Special Features

- Separate relays and displays for dry/wet
- Permanent self-test of instrument transducer, wiring and electronic system
- Test of electronic system and following instruments by pressing the Test button
- Selectable versions
  - 19" plug-in card
  - in mounted case



Switching amplifier Model OPTO.250X

Fig. top: 19" plug-in card

Fig. bottom: in mounted case

#### Description

The switching amplifier is mounted in safe areas and operated together with a transducer model OPTO.06XX. The signal circuit is intrinsically safe. The switching amplifier model OPTO.250X may be used together with the instrument transformer model OPTO.06XX as overflow control.

For the 19" plug-in card version, all operating elements, except for the switch for changing the alarm direction and the potentiometers for the time delay, can be accessed from the front.

If incorporated in a mounted case, a transparent lid allows seeing the switching statuses.



## General Data

**Functions**

- Selectable alarm direction
- On-delay and drop-out delay for signal relay, each adjustable up to approx. 8 s

**Monitoring**

- Wire break signal circuit
- Short-circuit signal circuit
- Internal supply voltage, fail-safe

**Weight**

- 19" plug-in card 0.31 (0.36) kg
- mounted case 0.6 (0.73) kg

## Design Data

**Ambient temperature**

- 19" plug-in card -25 ... +60 °C
- mounted case -40 ... +40 °C

**Signal circuit** II (2) G [Ex ib] IIC

**Maximum external inductance  $L_{max}$**  0.5 mH

**Maximum external capacitance  $C_{max}$**  3  $\mu$ F

**$U_0$**   $\leq$  9.6 V

**$I_0$**   $\leq$  149 mA

**$P_0$**   $\leq$  1.0 W

## Electrical Data

**Supply voltage** 230/115/120/ AC 24 V / DC 24 V

**Power consumption** 2.8 VA/3 W

**Outputs**

- Signal relay, SPDT, 250 V/ 3 A/100 VA
- Failure relay, SPDT, 250 V/ 3 A/100 VA

**Cable glands** M16 x 1.5 / M20 x 1.5 Ex: blue

**Max. connection cross section** 2.5 mm<sup>2</sup>

**Cable length** 175 ... 600 m (0.5 ... 1.5 mm<sup>2</sup>)

**Ingress protection**

- 19" plug-in card IP 20 per EN 60 529
- mounted case IP 65 per EN 60 529

## Options

### Approvals

**EC-type examination certificate** ZELM 06 ATEX 0300 (includes ASEV)

**Allgemeine Bauaufsichtliche Zulassung (only for Germany)** Z-65.14-485

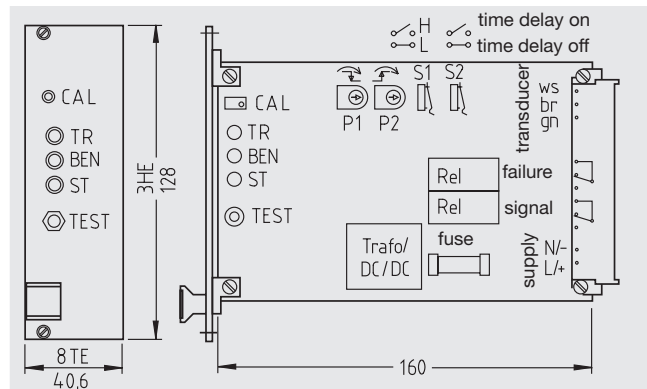
**SIL level per IEC 61 508** SIL1, in connection with transducer Model OPTO.06XX

## Ordering information

Model / Version / Supply voltage / Options

Modifications may take place and materials specified may be replaced by others without prior notice. Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.

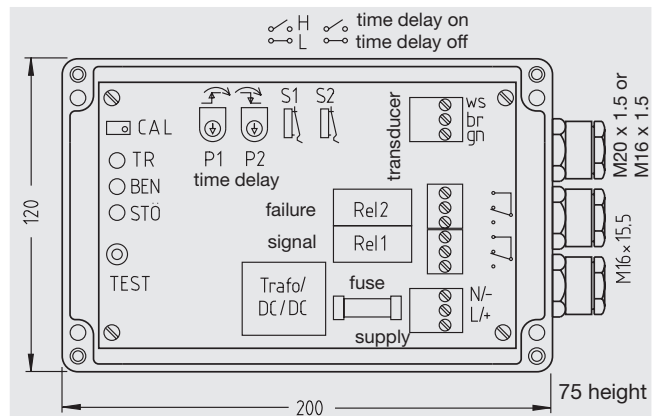
## 19" plug-in card version



### Application details

- 32-pin connector per DIN 41 612 Form F
  - Operating elements can be accessed from the front
- Exceptions:
- Switches for changing the alarm direction
  - Potentiometers for time delay

## Mounted case version



### Application details

- Transparent lid, LED display for dry/wet/failure is easy to read
- Ingress protection IP 65, field use possible

## Electrical connection diagram

