

# Switching Amplifiers

## Evaluation Amplifiers for Optoelectronic Transducers

### Model KSR-OPTO.250X

KSR Kuebler AG Data Sheet KSR-OPTO.250X



#### Applications

- For amplifying signal processing of the optoelectronic instrument transducer model KSR-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 KSR-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 KSR-OPTO.06XX. The signal circuit is intrinsically safe. The switching amplifier model KSR-OPTO.250X may be used together with the instrument transformer model KSR-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	<ul style="list-style-type: none"> <li>■ Selectable alarm direction</li> <li>■ On-delay and drop-out delay for signal relay, each adjustable up to approx. 8 s</li> </ul>
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Monitoring	<ul style="list-style-type: none"> <li>■ Wire break signal circuit</li> <li>■ Short-circuit signal circuit</li> <li>■ Internal supply voltage, fail-safe</li> </ul>
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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 µF
$U_0$	≤ 9.6 V
$I_0$	≤ 149 mA
$P_0$	≤ 1.0 W

## Electrical Data

Supply voltage	230/115/120/ AC 24 V / DC 24 V
Power consumption	2.8 VA/3 W
Outputs	<ul style="list-style-type: none"> <li>■ Signal relay, SPDT, 250 V / 3 A/100 VA</li> <li>■ Failure relay, SPDT, 250 V / 3 A/100 VA</li> </ul>
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

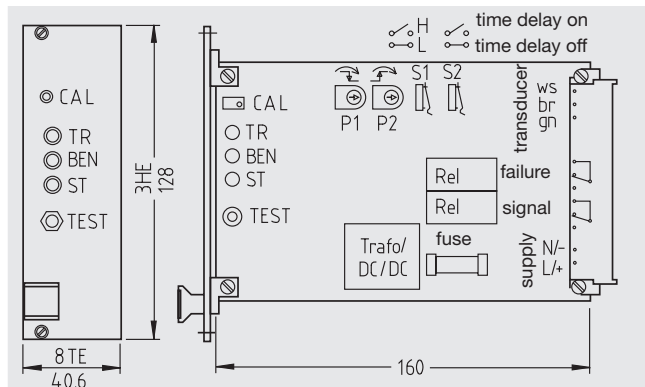
EC-type examination certificate	ZELM 06 ATEX 0300 (includes ASEV)
Allgemeine Bauaufsichtliche Zulassung (only for Germany)	Z-65.14-485
SIL level per IEC 61 508	SIL1, in connection with transducer Model KSR-OPTO.06XX

## 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.

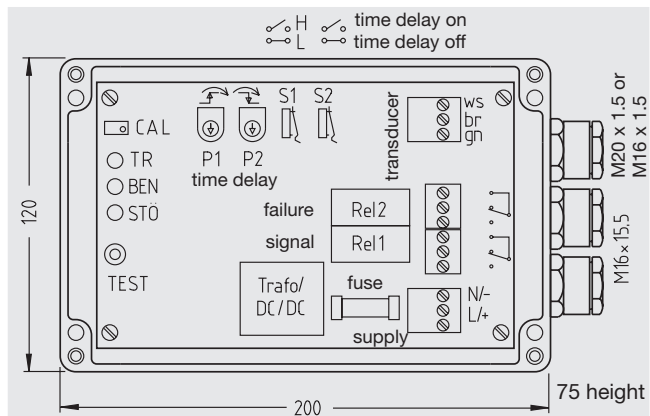
## 19" plug-in card version



### 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

