More Precision

optoCONTROL CLS-K // Fiber optic sensors
Features:
- Scanning distance up to 180mm*
- Range up to 2m*
* depending on the fiber bundle diameter
- Supply 12-30VDC
- NPN switching output
- Stable long-term behavior by monitoring and regulating the emission of the transmitter diode

Applications:
- Powerful infrared emitter
- Test & measurement tasks
- Checking length and diameter
- Production monitoring via analog output and display
- Assembly control
- Indirect displacement measurement via optical fiber with cross-section converter

Advantages:
- Low drift by transmission monitoring
- Fast response time
- Sensor monitoring via analog signal
- High light power in the non-visible infrared range

Scaling of analog output

The CLS-K-61/63 amplifier offers the possibility to scale the important signal range over the entire analog range. This enables to increase the sensitivity in a certain range, e.g. for the detection of small objects.
**Type CLS-K**

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<tbody>
<tr>
<td>Order No.</td>
<td>10030032</td>
<td>10030033</td>
<td>10040035</td>
<td>10040036</td>
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- **Supply**: 12-30VDC
- **Residual ripple**: ≤10%
- **Current consumption**: 70mA
- **Switching delay**: ≤500ms
- **Switching frequency**: ≤4kHz
- **Response time**: ≤120μs
- **Temperature drift**: ≤(-0.5%)K
- **Reproducibility**: ≤1% with Δ∂ = 2K
- **Hysteresis**: 4% of the measuring range value
- **Analog Output**: 0-20mA, 0-10VDC, 0-20mA, 4-20mA
- **Voltage output load**: ≤600Ω
- **Switching output transistor**: 2x NPN O.C.
- **Switching voltage**: 30VDC
- **Switching current**: 5-100mA
- **Sensitivity**: adjustable via 10-level pontentiometer P1
- **Range switching**: 1:100 (Short range : Long range)
- **Switching state**: LED-display red/green
- **Operating mode**: light/dark switching output
- **Protection class**: IP65 (with optical fiber)
- **Power supply and output**: transient-protection polarity and short-circuit protection
- **Operating temperature**: 0 to 50°C
- **Storage temperature**: -25°C to 70°C
- **Type of connection**: screw connectors, 2m cable, screw connectors, screw connectors
- **Display**: no, yes, no, no
- **Housing material**: Makrolon® 8035 / UL94V1
- **Weight**: approx. 215g/135g

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**Dimensions**: Dimensions in mm, not to scale

**Connections**: CLS-K-60/63/65

- **GND**: 12-30 VDC
- **Voltage output**: NPN output O.C.
- **NPN output O.C.**: NPN output O.C.

**Connection cable CLS-K-61**

- **Brown**: GND
- **Pink**: 12-30 VDC
- **Green**: Voltage output
- **Yellow**: NPN output O.C.
- **Grey**: Analog GND output
- **White**: NPN-Switching output

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**Control and display interface**:

- **Example CLS-K-61**
- **P1 Sensitivity**
- **S1 Range switching**
- **LED**
- **Display (only with CLS-K-61)**
- **S2 SELECTOR switch (analog output)**
  - *1 Basic function 0.1-5VDC/0-10mA (63)
  - *2 Outputs 0-10VDC/0-20mA (63)
- **P3 OFFSET * zero point displacement**
- **P2 Additional amplification**

*Not available with version CLS-K-60/65
High performance sensors made by Micro-Epsilon

Sensors and systems for displacement and position

Sensors and measurement devices for non-contact temperature measurement

2D/3D profile sensors (laser scanner)

Optical micrometers, fiber optic sensors and fiber optics

Color recognition sensors, LED analyzers and color online spectrometer

Measurement and inspection systems