The MK35-LU-Ex0 is a voltage repeater designed to isolate and transmit an analogue voltage signal from a safe area to a hazardous area.

The device is typically used to drive display devices located in hazardous areas.

- Transmission of voltage signals 0...10 V
- Intrinsically safe output circuit [EEx ia] IIC
- Linearity ≤ 0.2 %
- Temperature drift ≤ 0.01 %/K of final value
- Galvanic isolation between input circuit, output circuit and supply voltage
**Voltage Repeaters**

<table>
<thead>
<tr>
<th>Type</th>
<th>Ident-No.</th>
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<td>MK35-LU-Ex0</td>
<td>75 067</td>
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**Supply Voltage** $U_B$
- $U_B$ 19...29 VDC
- Ripple $W_{pp}$ $\leq 10 \%$
- Current consumption approx. 60 mA
- Galvanic isolation between input circuit, output circuit and supply voltage for 250 V$_{rms}$, test voltage 2.5 kV$_{rms}$

**Input Circuits**
- Voltage input
  - Input resistance 50 k$\Omega$
  - Operating characteristics 0...10 V

**Output Circuits**
- Voltage output (3 and 4)
- Intrinsically safe according to EN 50020
- Output current 0...10 V
- Load resistance $\geq 1 \, k\Omega$

**Ex-Approvals acc. to Certificate of Conformity** BVS 90.C.2008
- No load voltage $U_0$ 13.6 V
- Short-circuit current $I_k$ 60 mA
- Maximum external inductances/capacitances
  - $[\text{Ex ia}]$ IIB 5 mH/169 nF (alternatively: 1 mH/295 nF)
  - $[\text{Ex ib}]$ IIC 10 mH/900 nF

**Transfer Characteristics**
- Linearity tolerance $\leq 0.2 \%$ of final value
- Effect of load impedance $\leq 0.01 \%$
- Effect of supply voltage impedance $\leq 0.01 \%$
- Ambient temperature sensitivity $\leq 0.01 \%/K$ of final value
- Pulse rise time (10%...90%) $< 50$ ms
- Release time (90%...10%) $< 50$ ms

**LED Indications**
- Power "ON" green

**Housing**
- 8-pole, 18 mm wide, Polycarbonate/ABS
- Flammability class V-0 per UL 94
- Snap-on clamps for top-hat rail (DIN 50022)
- or screw terminals for panel mounting
- Via flat terminals with self-lifting pressure plates
- Connection profile $\leq 2 \times 2.5 \, mm^2$ or $2 \times 1.5 \, mm^2$
- With wire sleeves
- Degree of protection (IEC 60529/EN 60529) IP20
- Operating temperature $-25...+60 \, ^\circ C$