The analogue data transmitter MK35-11Ex-HLi/24VDC is designed to isolate and transmit standard current signals from the safe to the hazardous area. Signals are transferred without attenuation (1:1 transfer).

A power supply of 24 VDC is required for operation.

In addition to analogue signals, digital Hart communication signals can be transferred bidirectionally.

The device is typically used to drive I/P transducers (e.g. for valve control) or display devices in the hazardous area.

The actuator is connected to terminals 1/4. Handheld terminals [HHT] can be connected to output terminals 1/4, input terminals 8/9 or to the FSK bus terminals 7/10.

1) FSK = frequency shift keying
### Analogue Data Transmitters

<table>
<thead>
<tr>
<th>Type</th>
<th>MK35-11Ex-HLi/24VDC</th>
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<tbody>
<tr>
<td>Ident-No.</td>
<td>75 065 11</td>
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#### Supply Voltage \( U_b \)
- Ripple \( W_{pp} \): \( \leq 10 \% \)
- Current consumption: \( \leq 0.7 \, W \)
- Galvanic isolation: between input circuit, output circuit and supply voltage for 250 \( V_{rms} \), test voltage: 2.3 \( kV_{rms} \)

#### Input Circuits
- Voltage drop: \( < 1.5 \, V, \, 6.5 \, V \) (inputs not HART-compatible)
- Input current: \( 0/4...20 \, mA \)

#### Output Circuits
- Intrinsically safe according to DIN EN 50020
- Current output terminals: 1/4 \( 0/4...20 \, mA, \, 20...30 \, mA \) (input override)
- Ripple \( W_{pp} \): \( < 0.25 \, % \) without input interference voltage
- Load impedance: \( 0...600 \, \Omega \)
- FSK-interface terminals: 7/10 \( 0...30 \, VDC \)

#### Ex-Approvals acc. to Certificate of Conformity
- PTB Ex-97.D:2152

#### Maximum values
- No load voltage \( U_b \): \( < 20 \, V \)
- Short-circuit current \( I_c \): \( < 28.5 \, mA \)
- Power \( P_0 \): \( < 570 \, mW \)
- Internal inductances/capacitances: \( < 220 \, \mu H/1.5 \, nF \)
- Maximum external inductances/capacitances
  - \([EEx \, ib]\) IIB: \( 4.8 \, mH/397 \, nF \)
  - \([EEx \, ib]\) IIC: \( 1.3 \, mH/95 \, nF \)

#### Transfer Characteristics
- Linearity tolerance of setpoint adjustment: \( \leq 0.1 \, % \) of final value
- Measuring tolerance: \( \leq 0.25 \, % \) at \( R_s = 0 \)
- Load impedance: \( \leq 0.1 \, % \) in load range \( 0...600 \, \Omega \)
- Ambient temperature sensitivity: \( \leq 0.1 \, %/10 \, K \) (at \(-10 \, ^\circ C \, 0.25 \, %/10 \, K \))
- Pulse rise time (10 \%...90 \%): \( < 50 \, ms \)
- Release time (90 \%...10 \%): \( < 50 \, ms \)

#### LED Indications
- Power "ON": green

#### Housing
- 12-pole, 27 mm wide, Polycarbonate/ABS
- Flammability class V-0 per UL 94
- Snap-on clamps for top-hat rail (DIN 50022)
- Screw terminals for panel mounting
- Via flat terminals with self-lifting pressure plates with wire sleeves
- Degree of protection (IEC 60529/EN 60529): IP20
- Operating temperature: \(-25...+60 \, ^\circ C \)