



HART®– Analogue Data Transmitter MK35-11Ex-HLi


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- **Passive isolator without auxiliary power**
- **Intrinsically safe output circuit**
- **Transmission of current signals 0/4...20 mA**
- **Supply of intelligent actuators using the Hart® communication protocol**
- **FSK bus connection¹⁾**
- **Linearity error $\leq 0.1\%$**
- **Temperature drift $\leq 0.1\%/10\text{ K}$**
- **Galvanic isolation between input circuit and output circuit**
- **Additional power supply not necessary**

¹⁾ FSK = frequency shift keying

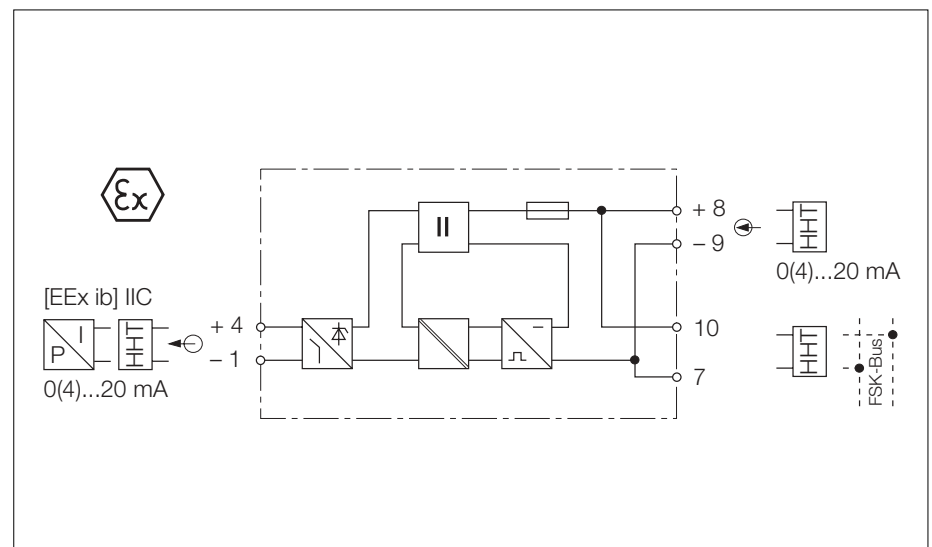
The analogue data transmitter MK35-11Ex-HLi is designed to isolate and transmit standard current signals from the safe to the hazardous area. The signals are transferred without attenuation (1:1 transfer).

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.

The analogue data transmitter does not require auxiliary power (loop powered) and can be connected directly to the supply inputs of control systems.



HART®– Analogue Data Transmitter MK35-11Ex-HLi

Type	MK35-11Ex-HLi
Ident-No.	7506510
Galvanic isolation	between input circuit and output circuit for 250 V _{rms} , test voltage 2.3 kV _{rms}
Input circuits	
Voltage drop	< 3.5 V (100...600 Ω load impedance)
Input current	0/4...20 mA
Overload	> 23.6 mA
Output circuits	
Current output terminals 1/4	intrinsically safe according to EN 50020 0/4...20 mA, 20...30 mA (input override)
Ripple W _{PP}	< 0.25 % without input interference voltage
Load impedance	0...600 Ω
FSK-interface terminals 7/10	0...30 VDC
Ex-approvals acc. to certificate of conformity	pending
Output circuits	
Maximum values	
– No load voltage U ₀	–
– Short-circuit current I ₀	–
– Power P ₀	–
Internal inductances/capacitances	–
Max. external inductances/capacitances L ₀ /C ₀	–
– [EEx ib] IIB	–
– [EEx ib] IIC	–
Transfer characteristics	
Linearity tolerance of setpoint adjustment	≤ 0.1 % of final value
Measuring tolerance	≤ 0.1 % at R _a = 0
Load impedance	≤ 0.18 % in load range 0...R _{a max}
Ambient temperature sensitivity	≤ 0.1 %/10 K (at < -10 °C 0.25 %/10 K)
Pulse rise time (10 %...90 %)	< 50 ms
Release time (90 %...10 %)	< 50 ms
Housing	12-pole, 27 mm wide, Polycarbonate/ABS flammability class V-0 per UL 94
Mounting	snap-on clamps for top-hat rail (DIN 50022) or screw terminals for panel mounting
Connection	via flat terminals with self-lifting pressure plates
Connection profile	≤ 2 x 2.5 mm ² or 2 x 1.5 mm ² with wire sleeves
Degree of protection (IEC 60529/EN 60529)	IP20
Operating temperature	-25...+60 °C

