The MC33-22Ex0-i is designed to energise intrinsically safe 2-wire loop-type transmitters located in the hazardous area and to transmit standard analogue signals from a hazardous area to a safe area.

Due to this 1:1 transfer, wire-break and short-circuit faults are displayed as current signals of 0 mA or 22 mA and can be evaluated by the remote PLC.

On request, a loop isolator with a voltage output 2...10 V can be realised.

The dual channel control unit provides input and output circuits that process current signals from 4...20 mA. A green LED provides power “ON” indication.

The inputs and outputs of both channels are isolated from each other and from the supply voltage. Input signals are transferred without attenuation (1:1) to the output.

- Intrinsically safe input circuits [EEx ia] IIC
- Power supply for 2-wire transmitters
- Galvanic isolation between input circuit, output circuit and power supply
- Current limiting within the transmitter loop
- Input circuits 4...20 mA
- Output circuits 4...20 mA
- Linearity ≤ 0.1 %
- Temperature sensitivity ≤ 0.005 %/K of final value
Analogue Data Transmitters

Type
Ident-No.

Supply Voltage $U_B$
Ripple $W_{pp}$
Overvoltage release
Power/Current consumption
Galvanic isolation

Transducer Circuit
Input resistance
Operating characteristics
- Supply voltage
- Current
Current limitation

Output Circuits
Current output
- Load

Ex-Approval acc. to Certification of Conformity
Input circuit
- Maximum nominal values
  - No-load voltage $U_0$
  - Short-circuit current $I_s$
  - Internal resistance $R_i$
  - Output power $P_0$
- Maximum external inductances/capacitances

Transfer Characteristics
Linearity tolerance
Effect of load impedance
Effect of supply voltage impedance
Ambient temperature sensitivity
Pulse rise time (10 %...90 %)
Pulse release time (90 %...10 %)

LED Indications
- Power "ON"

Eurocard
Material
Front panel
Connection
Operating temperature
Coding No. 119