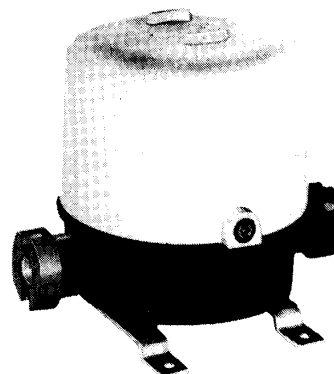


CATHODE POTENTIAL TRANSMITTER

The cathode potential transmitter can be used for testing and measuring of cathode protection equipments which are designed to protect gas and oil pipelines against corrosion. The transmitter converts the D.C. voltage signal received from the sensing elements into standardized current signal.

The transmitter sends the current signal proportional to the measured value to the signal processing unit through two-wire system.



Specification

Type number

3 3 3 0 - 0 - 6 1 - 0

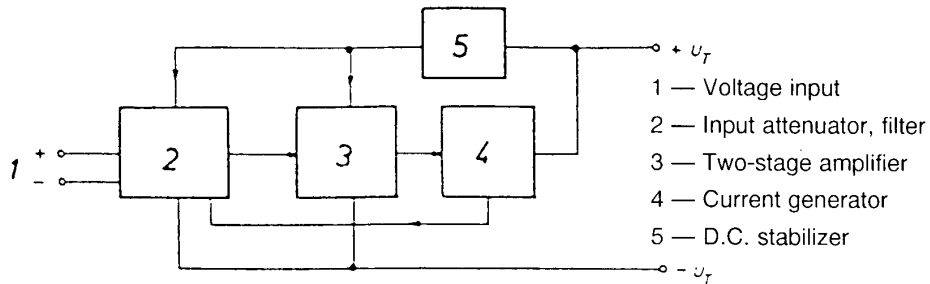
Input signal	
4	0...2.5 V
5	0...5 V

Input signal range	acc. to the table
Input impedance	1 Mohm
Output signal range	≐ 4...20 mA
Accuracy related to the measuring range in case of electric input signal	±0.25%
Supply voltage	14 to 48 V D.C.
Supply voltage ripple	100 mV peak-to-peak
Protection of the measuring circuit with service unit	Ex i _b II C 3768-0-00A-0 3772-0-A0B-0
Protection	IP 54
Ambient temperature range	-50 to +70 °C
Relative humidity	30 to 98% rel.
Vibration admissible during operation	0 to 500 Hz, 0.5 g
Mass	max. 2 kg

Because the sensing elements along with the transmitter input are earthed, it is recommended to isolate galvanically the signal processing unit from the transmitter due to the earth potential differences which may disturb the measurements (3772-0-A0B-0 service unit).

The transmitter with standard casing, designed for two-wire system can be used with additional element in intrinsically safe measuring circuit and can be installed in explosion hazardous areas.

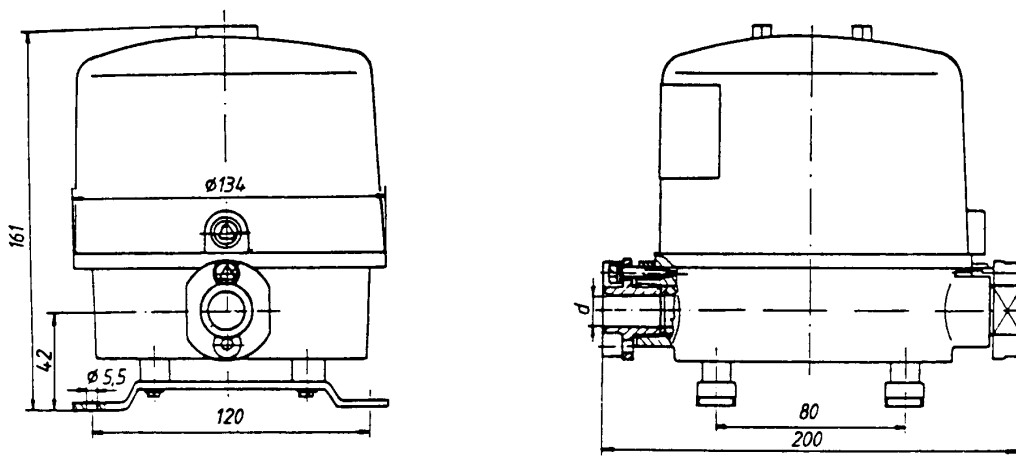
The casing meets the field mounting requirements.



The transmitter consists of two PCB-s. On the input PCB the connectors, input attenuator, filter and measuring range adjustment potentiometers are arranged. The amplifier board holds the two-stage amplifier, the supply unit and the current generator.

The transmitter receives the 0...2.5 V signal through an 1:100 divider. The D.C. voltage attenuated and filtered drives the current generator through the two-stage amplifier. The 50 Hz ripple voltage will be attenuated by approx. 50 dB, so the disturbance decreases.

The constant supply voltage for the integrated circuits independent of the external supply unit will be supplied from a stabilizer.



Outline drawing