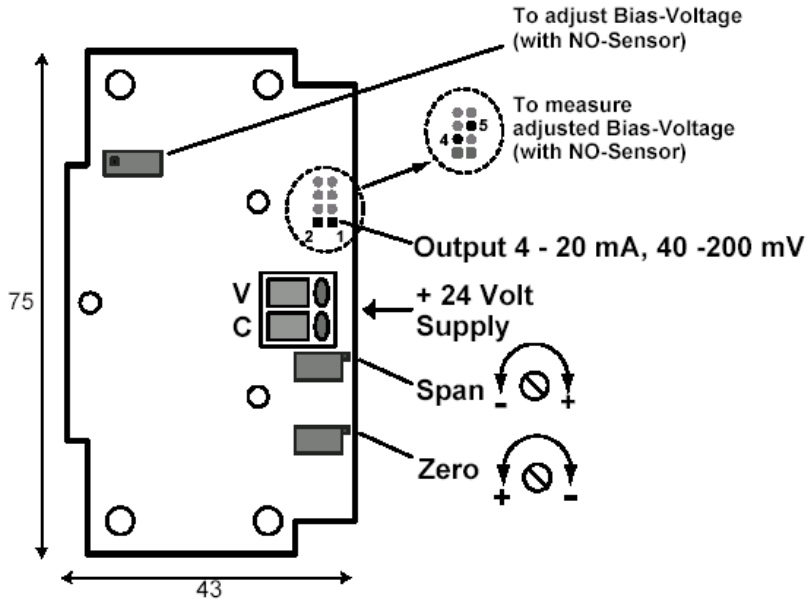
Gas Transmitter 4 – 20 mA
ECS Series-CH

Operation

The transmitter needs a power supply of 12 – 36 V DC to operate. Connect the power source to the connector (V/C). If the transmitter is not powered the inserted sensor is short-circuited (exception: NO-Sensors).

The output signal can be collected between pin 1 und 2. It has a linear range from 4 – 20 mA and 40 – 200 mV respectively.

Transmitters for NO-Sensors are equipped with an potentiometer to adjust the bias-voltage. This voltage can be measured between position 4 and 5. Transmitter for NO-Sensors are delivered with an adjusted bias-voltage of 300 mV.



Calibration

The spring on the sensor must be removed before insertion in the electronic circuit.

There are two potentiometer on the circuit board to calibrate the transmitter together with a sensor. To adjust the zero point, purge the sensor with synthetic air at a flow of around 30 l/h for at least 3 minutes. Adjust the potentiometer “zero” to get an output signal of 40 mV.

Use the maximum gas concentration allowed by the specification of the particular sensor to adjust the rang of the output signal. Purge the sensor with this gas mixture. When the signal is stable, adjust with the potentiometer “span” the gain to reach an output signal of 200 mV.

If you use a gas mixture with an analyzed gas concentration lower than the maximum concentration, calculate the appropriate output signal using a linear relationship.

Types of Transmitters

Transmitters are available with sockets for Compact-size and Standard/Slim-size sensors. The electronic circuit is optimized for the gas-type or even for a single sensor.

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