

## 4 -20mA LOOP POWERED TWO WIRE INDUSTRY STANDARD TRANSMITTERS

### THE INSTRUMENT

Often it is more cost effective to replace a sensing head with one which is pre-calibrated at a testing station, thus reducing disruption of the measuring system. Technovation offers such an industry standard 4-20mA transmitter consisting of an electrochemical sensor, its associated circuitry and in a weather-proof housing.

### FEATURES

The two-wire transmitter allows the signal and power to be supplied on a single wire-pair by modulating the power supply current with the input signal source. The transmitter is immune to voltage drops from long runs and noise from motors, relays, actuators, switches, transformers and industrial equipment.

### APPLICATIONS

Every transmitter is supplied pre-calibrated for a customer specific range. The table below gives an indication of the gases/ranges offered. These transmitters can be connected to a DC system which supplies the DC Power for the loop. They could also be connected to stand alone controllers and PLCs and other data acquisition systems

### STANDARD SPECIFICATIONS

|                      |   |
|----------------------|---|
| Power Supply         | : 12 to 28 VDC Single ended                     |
| Sensor Expected life | : 2 years in air                                |
| Sensor type          | : Electrochemical                               |
| Duty                 | : Continuous                                    |
| Operating temp       | : 20 °C to 45 °C                                |
| Operating Humidity   | : 10 - 90 % RH                                  |
| Operating Pressure   | : Ambient                                       |
| Output impedance     | : 2 M Ohms                                      |
| Calibration          | : Via built in Span and Zero potentiometers.    |
| Housing              | : Poly Carbonate weather proof housing          |
| Enclosure Dim        | : W 12 X H 8 X D 8.5 Cms                        |
| Sampling             | : Diffusion mode <b>OR</b> in Flow through mode |

### MODULAR CONVENIENT AND INDUSTRY STANDARD COMPATIBLE



### TECHNOVATION® 4 - 20 mA TWO WIRE TRANSMITTER

#### POWER SUPPLY RESTRICTIONS

As the minimum operating voltage for the transmitter is 12 VDC it will impose constraints on the total loop resistance in the external circuit, and this must be taken into account when choosing the supply voltage. This includes the cable resistance, and the measuring resistor at the remote receiver and any meters used for calibration

| TABLE OF GASES & RANGES                  |                     |
|--|---------------------|
| OXYGEN                                   | 0 - 25 % OR 0-100%  |
| CARBON-MONOXIDE                          | 0 - 1000 PPM        |
| HYDROGEN SULPHIDE                        | 0 - 100 PPM         |
| SULPHUR DIOXIDE                          | 0 - 20 PPM          |
| CHLORINE                                 | 0 - 50 PPM          |
| NITROGEN DIOXIDE                         | 0 - 100 PPM         |
| HYDROGEN                                 | 0 - 1000 PPM or 2 % |
| ARSINE                                   | 0 - 1PPM            |
| HYDROGEN CYANIDE                         | 0 - 30 PPM          |
| OZONE                                    | 0- 1PPM             |
| PHOSPHINE                                | 0 - 1 PPM           |
| AMMONIA                                  | 0 - 100 PPM         |
| PHOSGENE                                 | 0 - 1PPM            |
| HYDRAZINE                                | 0 - 1PPM            |
| <b>OTHER GASES AND RANGES ON REQUEST</b> |                     |