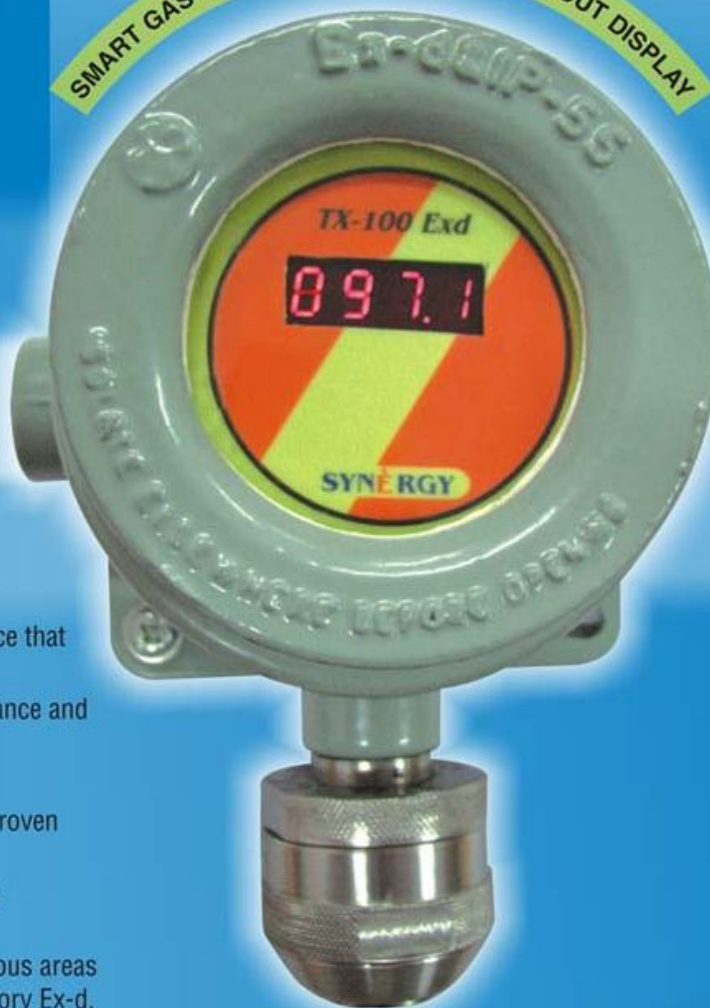


**SYNERGY**  
TECHNOLOGIES

# TX-100Exd

OXYGEN / TOXIC / COMBUSTIBLE GASES  
SMART GAS TRANSMITTER WITH OR WITHOUT DISPLAY



2 wire or 3 wire  
18 to 30 VDC

## Features

- Long life sensors
- Accurate, reliable performance that eliminates false alarms
- Reduced operating, maintenance and installation cost
- Linear 4-20mA output
- International standard field proven industrial sensors
- Easy to replace sensor at the field - plug in module
- Enclosure Suitable in hazardous areas certified by approved laboratory Ex-d, IIA & IIB as per IS:2148, and Div-1 & 2 as per IS:5572
- Ready to use for any DCS, PLC & Synergy Controller

### TECHNICAL SPECIFICATIONS

|                        |                                                                            |
|------------------------|----------------------------------------------------------------------------|
| Input Gases            | Oxygen/Toxic/Combustible                                                   |
| Range                  | As specified in table                                                      |
| Sensor type            | Electrochemical/Catalytic Combustion/Infra Red*                            |
| Accuracy               | +/-2% of the Full Scale Value                                              |
| Repeatability          | +/-2% of the Full Scale Value                                              |
| Linearity              | +/-2% of the Full Scale Value                                              |
| Drift                  | 0.2% FSD per month                                                         |
| Response Time          | <10 seconds                                                                |
| Retransmission Output  | 4 to 20 mA Maximum Load 600 ohms                                           |
| Display                | Loop Power LCD or LED display (Optional)                                   |
| Supply Voltage         | 18 to 36 VDC                                                               |
| Power Consumption      | 2 wire 0.5 watt max<br>3 wire 3.5 watt max                                 |
| Operating Ambient temp | -10 deg C to 50 deg C                                                      |
| Relative humidity      | Below 95%, non condensing.                                                 |
| Sensor housing         | SS304/SS316, Please select while ordering.                                 |
| Enclosure              | FLAMEPROOF Pressure Die-Cast Aluminum alloy                                |
| Protection Class       | IP 65 as per IS : 13947 (Part-1)                                           |
| Area Classification    | Div 1 & 2 Gas Gr IIA & IIB as per IS:2148                                  |
| Dimension              | 119mm (W) x 85mm (H)<br>with Display 115 mm (H) x 146 mm (D) Tol : +/-5 MM |
| Mounting               | Wall or Pipe Mounting                                                      |
| Cable Entry            | 3/4" or 1/2" ET Type                                                       |
| Weight                 | 1.5 kg (approximate)                                                       |

### Applications

- Acid Alkalizes & Dyes Mfg. Plants
- Automotive Industries
- Bullet Yard / Storage Yards
- Burner / Furnace Areas
- Chemical & Petrochemical Plants
- Chemical Processing Plant
- Chemical Storage Area
- Coal Mine and
- Confined Areas
- Fertilizers Plants
- Gas Cylinder Bank
- Gas Metering Stations
- Gas Pipeline Projects
- Heat Treatment Plants
- Hotel Industries
- Offshore Drilling & Processing Platforms
- Oil and Gas industries
- Paint Shop
- Power & Industrial Plants
- Pulp & Paper Plants
- Refineries
- Sewage Plants
- Stack Monitoring

### LIST OF GASES / RANGES

| SR.NO                    | GASES                                          | RANGE  | UNIT  | RESU. |
|--------------------------|------------------------------------------------|--------|-------|-------|
| 1                        | Oxygen                                         | 0-25   | %Vol. | 0.1   |
| <b>TOXIC GASES</b>       |                                                |        |       |       |
| 2                        | Nitrogen Dioxide(NO <sub>2</sub> )             | 0-100  | PPM   | 1     |
| 3                        | Nitric Oxide (NO)                              | 0-50   | PPM   | 0.1   |
| 4                        | Sulphur Dioxide (SO <sub>2</sub> )             | 0-20   | PPM   | 0.1   |
| 5                        | Chlorine (Cl <sub>2</sub> )                    | 0-10   | PPM   | 0.1   |
| 6                        | Carbon Monoxide (CO)                           | 0-1000 | PPM   | 1     |
| 7                        | Carbon Monoxide (CO)                           | 0-500  | PPM   | 1     |
| 8                        | Hydrogen Sulphide (H <sub>2</sub> S)           | 0-100  | PPM   | 0.1   |
| 9                        | Hydrogen Cynide (HCN)                          | 0-10   | PPM   | 0.1   |
| 10                       | Hydrogen Chloride (HCL)                        | 0-20   | PPM   | 0.1   |
| 11                       | Ammonia (NH <sub>3</sub> )                     | 0-100  | PPM   | 0.1   |
| 12                       | Ozone (O <sub>3</sub> )                        | 0-2    | PPM   | 0.1   |
| 13                       | Ethylene Oxide C <sub>2</sub> H <sub>4</sub> O | 0-20   | PPM   | 0.1   |
| 14                       | Phosphine (Ph <sub>3</sub> )                   | 0-5    | PPM   | 0.1   |
| 15                       | Phosgene (COCl <sub>2</sub> )                  | 0-1    | PPM   | 0.1   |
| <b>COMBUSTIBLE GASES</b> |                                                |        |       |       |
| 16                       | Acetaldehyde                                   | 0-100  | % LEL | 0.1   |
| 17                       | Acetone                                        | 0-100  | % LEL | 0.1   |
| 18                       | ISO-Butane                                     | 0-100  | % LEL | 0.1   |
| 19                       | Hydrogen                                       | 0-100  | % LEL | 0.1   |
| 20                       | Propane                                        | 0-100  | % LEL | 0.1   |
| 21                       | N-Heptane                                      | 0-100  | % LEL | 0.1   |
| 22                       | N-heptane                                      | 0-100  | % LEL | 0.1   |
| 23                       | N-hexane                                       | 0-100  | % LEL | 0.1   |
| 24                       | Methane                                        | 0-100  | % LEL | 0.1   |
| 25                       | LPG                                            | 0-100  | % LEL | 0.1   |
| 26                       | LNG                                            | 0-100  | % LEL | 0.1   |

\* Please specify, other gases ranges available on request  
\* For IR sensor refer our TX 100 Exd IR Bulletin