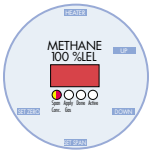
MODELS 4-20 IQ & SM95/SM84

SENSOR TRANSMITTERS

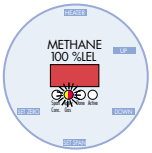
FOR THE DETECTION OF OVER 150 TOXIC & COMBUSTIBLE GASES

FOR AREA AIR QUALITY AND SAFETY APPLICATIONS

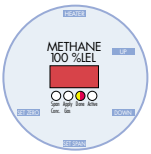
CALIBRATION IS AS EASY AS 1, 2, 3...



1
Select calibration gas concentration..



2
Apply calibration gas.



3
Wait for "Done" LED to illuminate.

IT DOESN'T GET ANY EASIER!

4-20 IQ

SM95/SM84

INTELLIGENT TRANSMITTER
Model 4-20 IQ

- 14-24 VDC operation
- 4-20 mA linear output
- Explosion-proof housing
- Digital display of gas concentration
- Non-intrusive, automated calibration
- Magnetic wand operation

STANDARD TRANSMITTER
Model SM95/SM84

- 14-24 VDC operation
- 4-20 mA output
- Explosion-proof housing
- SM95—linear output for all sensor types
- SM84–provides non-linear output for solid state sensors

Transmitters can be used with Solid-State, Electrochemical, or Catalytic Bead sensors.

All transmitters can operate as stand-alone instruments or can be used in conjunction with any of **IST's** complete line of control units.

INTERNATIONAL SENSOR TECHNOLOGY

The Leader In Gas Detection Since 1972

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MODEL SM95/SM84

DESCRIPTION

The **Model SM95** sensor transmitter is housed in an explosion-proof casing and operates on 14-24 VDC power. It provides a 4-20 mA output proportional to the gas concentration and is calibrated by adjusting potentiometers located inside the housing. The SM95 can operate as a stand-alone instrument or can be used in conjunction with any of **IST's** complete line of control units which provide control room readings and alarm relays. When used with any of **IST**'s ***MP Series*** of control units, automated calibration is provided, enabling calibration without the need to adjust potentiometers.

The **SM95** can be equipped with *Solid-State, Electrochemical, or Catalytic Bead sensors*. In all, over 150 toxic and combustible gases are available for detection. The **SM95** provides a linear 4-20 mA output for all available sensor types.

The **SM84** is similar in all respects to the **SM95**, except that it provides a non-linear output for *Solid-State* sensors. It is primarily used in conjuction with **IST**'s ***Remote Link System.***

MODEL 4-20 IQ

The **Model 4-20 IQ** is a microprocessor based intelligent sensor transmitter. It comes equipped with a digital display which provides a local reading of the gas concentration. Operating on 14-24 VDC power, it provides a linear 4-20 mA output proportional to the gas concentration and, like the **SM95** and **SM84** transmitters, it is housed in an explosion-proof casing. It can operate as a stand-alone instrument or can be used with an **IST** control unit to provide control room readings and alarm relays.

The **4-20 IQ** comes equipped with an automated calibration feature which allows the unit to be calibrated without adjusting any potentiometers. Just apply gas and the **4-20 IQ** will do the rest. ***It couldn't be easier!*** Interfacing with the **4-20 IQ** is accomplished by applying a magnetic wand to magnetic switches located on the front panel. Thus, all functions can be performed without removing any covers, meaning there's no need to declassify areas being monitored.

Like the **SM95/SM84**, the **4-20 IQ** can be equipped with *Solid-State, Electrochemical, or Catalytic Bead sensors* for the detection of over 150 toxic and combustible gases.

IST GAS LIST

The following gases are available for detection using **IST** sensors. Please contact **IST** for additional information.

Acetic Acid
Acetone
Acetonitrile
Acetylene
Acrolein (Acrylaldehyde)
Acrylic Acid
Allyl Alcohol
Allyl Chloride
Ammonia
Anisole
Arsenic Pentafluoride
Arsine
Benzene
Biphenyl
Boron Trichloride
Boron Trifluoride
Bromine
Butadiene
Butane
Butanol
Butene
Butyl Acetate
Carbon Disulfide
Carbon Monoxide
Carbon Tetrachloride
Cellosolve Acetate
Chlorine
Chlorine Dioxide
Chlorobutadiene
Chloroethanol
Chloroform
Chlorotrifluoroethylene
Cumene
Cyanogen Chloride
Cyclohexane
Cyclopentane
Deuterium
Diborane
Dibromoethane
Dibutylamine
Dichlorobutene
Dichloroethane (EDC)
Dichlorofluoroethane
Dichloropentadiene
Dichlorosilane
Diesel Fuel
Diethyl Benzene
Diethyl Sulfide
Difluorochloroethane
Difluoroethane (152A)
Dimethyl Ether
Dimethylamine (DMA)
Epichlorohydrin
Ethane
Ethanol
Ethyl Acetate
Ethyl Benzene
Ethyl Chloride
Ethyl Chlorocarbonate
Ethyl Ether
Ethylene
Ethylene Oxide
Fluorine
Formaldehyde
Freon-11
Freon-12
Freon-22
Freon-113
Freon-114
Freon-123
Fuel Oil or Kerosene
Gasoline
Germane
Heptane
Hexane
Hexene
Hydrazine
Hydrogen
Hydrogen Bromide
Hydrogen Chloride
Hydrogen Cyanide
Hydrogen Fluoride
Hydrogen Sulfide
Isobutane
Isobutylene
Isopentane
Isoprene
Isopropanol
JP4
JP5
Methane
Methanol
Methyl Acetate
Methyl Acrylate
Methyl Bromid
Methyl Butanol
Methyl Cellosolve
Methyl Chloride
Methyl Ethyl Ketone
Methyl Hydrazine
Methyl Isobutyl Ketone
Methyl Mercaptan
Methyl Methacrylate
Methyl-Tert Butyl Ether
Methylene Chloride
Mineral Spirits
Monochlorobenzene
Monoethylamine
Morpholine
Naptha
Natural Gas
Nitric Oxide
Nitrogen Dioxide
Nitrogen Trifluoride
Nonane
Oxygen
Ozone
Pentane
Perchloroethylene
Phenol
Phosgene
Phosphine
Phosphorus Oxychloride
Picoline
Propane
Propylene
Propylene Oxide
Silane
Silicon Tetrachloride
Silicon Tetrafluoride
Styrene
Sulfur Dioxide
Tetrahydrofuran
Tetraline
Toluene
Toluene Diisocyanate
Trichloroethane
Trichloroethylene
Triethylamine (TEA)
Trifluoroethanol
Trimethylamine (TMA)
Tungsten Hexafluoride
Turpentine
Vinyl Acetate
Vinyl Chloride
Vinylidene Chloride
Xylene

4-20 IQ SPECIFICATIONS

Power:	14-24 VDC.
Current Drain:	170 mA max. (without sensor) 300 to 500 mA (with sensor)
Output Current:	4 to 20 mA non-isolated (isolated optional), or 100 to 500 uA
Temp:	-20˚C to +60˚C operating. -40˚C to +85˚C storage.
Humidity:	99% RH, non-condensing.
Controls:	Magnetic wand activated switches
Fault:	Flashing display and output current goes to '0' (zero) mA.
Case:	Explosion-proof, Class 1, Div. 1, Groups B,C,D.
Size:	4.54"H x 7.82"L x 5.05"W (115.32 H x 198.74 L x 128.27 W mm)
Weight:	3.89 lbs. (1.765 kg).

SM95/SM84 SPECIFICATIONS

Power:	14-24 VDC.
Current Drain:	100 mA max. (without sensor) 230 to 430 mA (with sensor)
Output Current:	4 to 20 mA non-isolated (isolated optional), or 100 to 500 uA
Temp:	-20˚C to +60˚C operating. -40˚C to +85˚C storage.
Humidity:	99% RH, non-condensing.
Controls:	Span, zero, and heater pots
Fault:	Output current goes to '0' (zero) mA
Case:	Explosion-proof, Class 1, Div. 1, Groups B,C,D.
Size:	2.85"H x 8.87"L x 3.8"W (72.39 H x 225.37 L x 96.52 W mm)
Weight:	2.9 lbs. (1.32 kg).

*UL Intrinsic Safety Pending.