

COMBUSTIBLE GAS SENSORS-TRANSMITTERS

40-ST Series
September 2011

For detection of Methane (CH_4), Propane (C_3H_8), Butane (C_4H_{10}), Hydrogen (H_2) and other Combustible Gases

Features

- High-accuracy Catalytic Bead (Pellistor) explosion proof sensor.
- Robust NEMA 3 PVC enclosure
- 4-20mA analog output or optional 0-1V DC, 0-5V DC or 0-10V DC analog outputs.
- Remote sensor-transmitter on a RS-485 communication network compatible with Acme's popular CEL-Series centralized multipoint/multigas detection and control systems.

Applications

- Energy savings through the intermittent operation of ventilation equipment in enclosed areas.
- Commercial or industrial locations where sudden build-up of combustible gases may occur.
- Underground parking, boiler rooms, landfills, storage rooms, etc.
- Stand-alone with standard analog outputs for direct connection to the existing Building Management System (BMS) or DDCS.



The Acme Combustible gas sensor-transmitter measures the concentration of the target gas in an enclosed area and produces a proportional analog output signal.

The Acme 40-ST Combustible Gas sensor is explosion proof. The enclosure of the sensor-transmitter is a robust Nema 3 PVC enclosure.

The 40-ST series employs a diffusion-type catalytic bead (pellistor) sensor capable of detecting a broad range of combustible gases. It provides instantaneous detection of these compounds and has long term reliability and trouble free operation.

Designed to act as fixed in-situ safety monitors, the 40-ST sensor-transmitter automatically operates the mechanical ventilation system of a facility upon detection of combustible gases, thereby protecting occupants, personnel and gas-sensitive goods and products.

With the increased use of gas detection in maintenance and industrial facilities, the 40-ST allows installers and users to meet code requirements in an economical fashion using commercial-grade gas detection equipment.

The 40-ST contains all the well-known standard features of ACME's gas detection line; a robust enclosure, the latest sensor technology and state-of-the-art electronics. For more versatile gas detection options, consult the **ACME** binder or website.

Standard unit specifications

GASES DETECTED:	Methane, Propane, Hydrogen, etc.
SENSOR TECHNOLOGY:	Catalytic Bead (Pellistor) type.
SENSING METHOD:	Diffusion.
POWER REQUIREMENTS:	24V AC 50/60Hz.
OUTPUTS AVAILABLE:	4-20mA 0-1V DC 0-5V DC 0-10V DC RS-485
OPERATING TEMP.:	-4°F to 120°F (-20°C to +50°C)*
HUMIDITY RANGE:	10-95% RH
ACCURACY:	+/- 5% of calibrated value
REPEATABILITY:	2% of signal
RESPONSE TIME (T90%):	< 30 seconds
EXPECTED LIFETIME:	3 years
ENCLOSURE:	NEMA 3
DIMENSIONS:	Nema 3: 5.2" x 5.2" x 3" (130mm x 130mm x 75mm)

* Extended temperature range available.

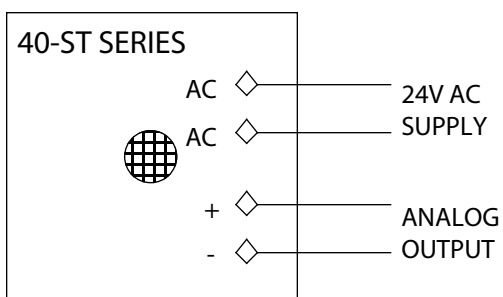
Ordering Information

MODEL NUMBER	GAS DETECTED	RANGE
CH4-ST-X*	Methane	0-40% LEL
C3H8-ST-X*	Propane	0-40% LEL
H2-ST-X*	Hydrogen	0-40% LEL
C4H10-ST-X*	Butane	0-40% LEL
CH4O-ST-X*	Methanol	0-40% LEL

Output Signal and other Options

*X	OUTPUT SIGNAL
420	4-20mA, 2-wire loop-powered, 500Ω max
001	0-1V DC, 10KΩ min
005	0-5V DC, 10KΩ min
010	0-10V DC, 10KΩ min
485	RS-485 for CEL systems only

Typical Wiring Diagram



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