NIC II SERIES 4888

COMBUSTIBLE GAS TRANSMITTER

OPERATIONAL FLEXIBILITY AND RELIABILITY

NIC II provides a wide array of outputs and installation configurations to make installation and integration into your plant simple. The remote sensor option and mounting accessories, such as duct mount and sample draw kits, enhance NIC II's operational flexibilty.

When ordered with the optional integral alarm relays, the NIC II can function as a "stand-alone" unit — providing local activation of alarms without the need for connection to a receiver. The optional 5A SPDT integral relays can be configured for latching-nonlatching/failsafe-nonfailsafe operation. NIC II offers operational flexibility with remote reset, and a Fail relay that can be configured to act as an additional Alarm 2 relay. In addition, this relay can then be configured to operate a horn that can be acknowledged/silenced.

Reliability is key to a gas detection system and NIC II provides it through coated, moisture resistant electronics and horizontal conduit entries that minimize damage due to water ingress. With its field proven catalytic bead technology, excellent zero stability, and a low maintenance design, the NIC II transmitter offers a rugged, economical solution for combustible gas detection. NIC II features non-intrusive calibration (via magnet), a LCD display, optional local relays, and is available in diffusion, duct mount, and sample draw configurations.

EASY OPERATION AND MAINTENANCE

Transmitter calibration is non-intrusive and is made easy via a large LCD readout and intuitive front panel indicators. The unique "Unity" feature of the NIC II provides the ability to monitor sensor life during routine calibrations permitting the sensor to be replaced before failure.

NIC II's auto-inhibit feature helps make for true one-man calibration as well as preventing false alarms during power-up. Non-intrusive adjustment means there is no need to declassify an area during calibration. The NIC II's plug-in sensor and a flame arrestor can be easily removed for cleaning or replacement. Its EEPROM memory prevents loss of calibration data during power interrupts.

PRODUCT FEATURES

- Non-intrusive calibration means no need to declassify an area during calibration.
- Auto-inhibit prevents false alarms during calibration and power-up.
- Intuitive front panel indicators provide simple user interface.
- Available with either 4 to 20 mA or RS-485 MODBUS outputs and optional integral relays.
- Remote reset, configurable alarm and a relay that can be configured as a horn permit independent transmitter operation.
- Plug-in sensor, replaceable flame arrestor and sensor life indicator provide easy maintenance.
- Dual horizontal conduit entries, duct mount, sample draw and remote sensor configurations offer ease of installation.
- Catalytic Bead Sensor capable of detecting a broad range of combustible gases.

SCOTT® HEALTH & SAFETY

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COMBUSTIBLE GAS TRANSMITTER

System Specifications

Housing: NEMA 4(IP66) NEMA-7. Explosion Proof, Approved for Class I, Division 1, Groups B, C, and D. Water tight with 0-ring seal, 3/4 in. FNPT conduit connection. Aluminum Housing is Hybrid Epoxy/Polyester Painted for Chemical Resistance.

Environmental: 6V Sensor: -40° to 200°F (-40° to 93°C), 0 to 99% RH, Non-condensing.
5.5V Sensor: -40° to 392°F (-40° to 200°C)
Transmitter: -40° to 158°F (-40° to 70°C)

Sensor: 6V Poison Resistant Plug-In Catalytic Bead, Gold-Flashed Pins 6 Contacts
5.5V with Stainless Steel Head, Gold-Flashed Pins 4 Contacts

Power: 18 to 30VDC (or 8 to 18VDC) 4.2 Watts maximum draw at 24VDC

Memory: EEPROM retains calibration data during power interruptions

Output Signal: 4 to 20 mA into 800 ohms maximum at 24VDC. [Optional] isolated 4 to 20 mA with 1500V isolation between signal and transmitter power supply. [Optional] 2/4 wire MODBUS RTU RS-485.

Relays: [Optional] 3 relays [Low/High/Fail] 5A SPDT Form C 250VAC/30VDC resistive.

Display: 3.5 digit LCD, Flashing Colon in Cal Mode (1.5 mA output), Fault LED (0 mA output), and over range

Interconnecting Wire: 3-Conductor Shielded, Plus Conforming Ground, supplied by others

Weight: 4 lbs. (1.8kg)

RFI Rejection: <10% FS at 5 Watts and 1 meter at 30, 150, and 450 MHz

Response Time: <10 Sec. to 50% Full Scale, <30 Sec. to 90% Full Scale

Linearity: ± 3% LEL

Repeatability: ± 2% LEL

Warranty: One Year Limited Warranty. Request Warranty Statement for More Information.

Available Options

Sensor Type
- 6V Poison Resistant
- 5.5V Scott Bead (Diffusion Type)
- 5.5V Scott Poison Resistant Bead (Diffusion Type)
- 5.5V Scott Bead (Positive Flow Type)
- 5.5V Scott Poison Resistant Bead (Positive Flow Type)

Sensor Connection
- Sensor integral with transmitter
- Flat duct adapters available
- Flow cell available with or without aspirator
- Scott 5.5 volt sensor housing is standard with remote calibration port.
- Round duct adapter available for 4 inch or larger diameter ducts.
- Rain guards available
- J-Box available for remote connection with 3/4 F-NPT connections and internal sensor wiring terminals.

Power
- 24VDC
- 12VDC

Transmitter Output
- 4 to 20 mA Non-Isolated (3-wire)
- 4 to 20 mA Non-Isolated & Relays
- RS-485 MODBUS
- 4 to 20 mA Isolated (4-wire)

ORDERING NOTES

1. Max separation between the 6 volt sensor and the transmitter is 106 ft. (32 meters). Recommend 3 conductor / 14 AWG customer supplied cable. The Scott 5.5 volt detector can be separated by as much as 5000 feet from the transmitter. Consult the factory for assistance with wire guage recommendations or reference the wire guage chart in the user manual. For 6 volt sensors connected remotely from the transmitter, a test socket adapter is required to set the sensor operating voltage. For the 5.5 volt detector, the test sockets are integral to the detector assembly.
2. The Poison Resistant Bead is only used in applications where airborne "bead poisoning" vapors such as silicon, sulfur, etc., are known to exist.
3. Aspirated detector produces Produces 2.0 SCFH flow at 10-15 PSIG. Instrument Air. Maximum negative pressure, 8 inches water column.

Approvals:
Complete Transmitter: CSA Class I, Div 1, Groups B, C, and D when using 6V sensor

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