3-WIRE EXPLOSION PROOF TRANSMITTER

Gas Detection For Life — **T3A**

Features

- Electrochemical, Infrared, catalytic bead sensor element
- Wire powered (3-Wire), 12 to 35 VDC operating voltage
- Digital Modbus output
- Operating temperature range -40°C to +54°C Graphical LCD with LED backlight
- 3 Push-button interface (ADD, MENU, SUB) with 3 corresponding magnetic, non-intrusive switches
- 2 Individually configurable alarms
- 2 Front panel LED indicators (amber and red)
- 2 Optional fully programmable alarm relays (dry contacts)
- Output options: 4-20mA (3-wire) analog, RS-485 modbus

Industry Applications

- Petrochemical plants, Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Manufacturing facilities
- Chemical plants

The T3A Series Gas Detector ambient air hazardous gas detector is a versatile assembly that uses an electrochemical, infrared, catalytic bead sensor element to detect a variety of gases. Wired power (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs standard. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

Gas Type	Range	T_{90}	Hazard Classification
LEL Catalytic	0 - 100% (0-5% Vol.)	< 90 sec.	Class 1, Div 1
CL2	0 - 10 ppm	< 60 sec.	Class 1, Div 2
CLO2	0 - 1 ppm	< 120 sec.	Class 1, Div 2
CO	0 - 300 ppm	< 30 sec.	Class 1, Div 1
CO2	0 - 5% vol.	< 30 sec.	Class 1, Div 1
H2S	0 - 100 ppm	< 30 sec.	Class 1, Div 1
H2S 2K	0 - 2000 ppm	< 25 sec.	Class 1, Div 1
HCL	0 - 30 ppm	< 300 sec.	Class 1, Div 2
HCN	0 - 30 ppm	< 70 sec.	Class 1, Div 2
HF	0 - 10 ppm	< 90 sec.	Class 1, Div 2
LEL-IR	0 - 100% (0-5% Vol.)	< 30 sec.	Class 1, Div 1
LEL-IR-HC	0 - 100% LEL	< 30 sec.	Class 1, Div 1
NH3	0 - 100 ppm	< 90 sec.	Class 1, Div 2
NH3 300	0 - 300 ppm	< 120 sec.	Class 1, Div 2
NH3 A	0 - 1000 ppm	< 120 sec.	Class 1, Div 2
NO2	0 - 20 ppm	< 25 sec.	Class 1, Div 2
O2	0 - 25 Vol.	< 15 sec.	Class 1, Div 1
PH3	0 - 5 ppm	< 30 sec.	Class 1, Div 2
SO2	0 - 20 ppm	< 35 sec.	Class 1, Div 2

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T3A

Product Specifications		
Sensor Type		Electrochemical, infrared, catalytic bead
Power Draw		2 Watts maximum
Operating Voltage		Wired power (3-Wire) 12 to 35 VDC
Protection		Power electromagnetic interference (EMI) filter 4-20 mA surge suppression RS-485 surge suppression
Display Screen		102x64 Resolution graphical LCD screen transflective (sunlight readable) with white LED backlight
Interface		3 Push-buttons (MENU, ADD and SUB) 3 Magnetic non-intrusive switches for calibration
Customizable Settings		2 Individual-configurable alarm LED/relay set-points
Temperature Range		-40°C to +54°C (-40°F to +130°F)
Output (digital)		RS-485 modbus
Wired (Analog) Output		4-20 mA (3-Wire) Fault terminal Optional 2 dry-contact relays with replaceable 4 amp fuses
Product Dimensions		5.5 in, L x 6 in. W x 7 in. H (8 in. W x 17 in. H Max. dimensions with attachments)
Total Weight		6 lbs.
Remote Sensor Kit (Optional Additional Feature)		Remote sensor kit with enclosure (5 pin) • Electrochemical sensor max. length: 250 feet • Infrared sensor max. length: 40 feet • Catalytic bead sensor max. length: 15 feet
Hazardous Location Approvals	Main Enclosure	Certified explosion / flame proof $_{C}QPS_{US}$ Class I, Division 1 & 2, Groups B, C & D Nema 3, 4, 4X, 7 (B, C, D) 9 (E, F, G) Temp.= -20°C to +60°C
	Sensor Housing	Certified explosion / flame proof $_{C}QPS_{US}$ Class I, Division 1 & 2, Groups B, C & D Temp.= -40°C to +60°C Note: Certification only applies to some gases. Toxic gases not certified for Div. 1 locations are suitable for Div. 2 applications but have no third party approval.
Controllers		Controllers compatible with all RKI Beacon controllers, as well as most DCS / PLC systems: Beacon 110, Beacon 200, Beacon 410A, Beacon 800, and MC-6400
Warranty		1-Year warranty for electronics and sensor

Specifications subject to change without notice.

Made in the USA

RKI INSTRUMENTS

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