



GENERAL MONITORS
Protection for life.

MODEL TA502A

Single-Channel Generic Trip Amplifier



Features

- Microprocessor-based Electronics
- User Setup, Setup Check Modes
- Digital Display
- LED Status Indication
- Relay, Open Collector Alarm and Fault Outputs
- Power-on, Card and LED Test Modes
- Compatible with Gassonic ultrasonic gas leak detectors

Benefits

- Low component count, higher reliability
- Configuration easy to setup or change
- LED digits clear in all light conditions
- Provides visual indication of fault and status at the detection location
- Multiple digital outputs for multi-function use
- Functionality indicator, test(s) allows user to see all indicators
- System flexibility

Description

The General Monitors Model TA502A is a single-channel, generic trip amplifier designed for use in Zero Two Series Gas and Flame Detection Systems. This module connects to any field mounted 4-20mA transmitter.

The TA502A is capable of displaying a sensor range of 0-1, 0-2, 0-5, 0-10...up to 0-100 (in increments of 5 units), 0-200 and 0-500. The 4-20mA signal received from the field device and re-transmitted from the TA502A is proportional to the 0-100% of full-scale indication for the range in use.

A remote test feature tests the front and rear panel indicators and outputs by simulating and increasing inputs from 0-100% of full scale. The alarm outputs are software selectable.

The TA502A is electrically and physically compatible with the other gas detection, flame detection and system modules in the Zero Two Series. It is designed for use in non-hazardous environments.

Applications

- Chemical Plants
- Drilling Platforms and Rigs
- Electronics/Semiconductors
- Gas and Oil Production Platforms
- Gas Collection Facilities
- Oil Well Logging Operations
- Refineries
- Solvent Vapors
- Wastewater Treatment Facilities



MODEL TA502A

System Specifications

Application:	Generic 4-20mA input module
Device Type:	Any 4-20mA field transmitter
Sensor Ranges:	0-1, 0-2, 0-5, 0-10...up to 0-100 (in increments of 5 units), 0-200, 0-500
Display Multipliers:	Three multiplier LED's on front panel x1, x10, or x100
Front Panel Indicators:	A1 - Warning A2 - Alarm CAL - Calibration/Check READY - Normal Operation FAULT - Malfunction SETUP - User Options/Check DISPLAY - 3 x 7 Segment
Test Features:	Power on - Electronic Integrity Card - Functionality and Alarm Ramp LED - Integrity of LED's and Display
Modes:	Setup, Setup Check and Inhibit Outputs
Password:	Prevents unauthorized alteration of setup parameters (can be disabled)
Performance Accuracy:	±1% of input signal
Approvals:	CSA, GOST, CE Marking
Warranty:	Two years
Classification:	General purpose, non-hazardous areas

Environmental Specifications

Operating Temperature Range:	0°F to +150°F (-18°C to +66°C)
Storage Temperature Range:	-40°F to +150°F (-40°C to +66°C)
Humidity:	10% to 95% RH, non-condensing

EMC Susceptibility: 10V/m max.

Electrical Specifications

Input Power:	20 to 36 VDC @ 300 mA max. (24 VDC, 7W nominal)
Input Impedance:	30 ohms
Relay Ratings:	4A @ 250 VAC, 3A @ 30 VDC res. max., A1, A2 - DPDT, Fault - SPDT 4A @ 30V rms, 42.4V pk
Analog Signal:	0-20mA (300 ohms max. load) <i>Normal Mode:</i> Malfunction 0.0 mA Calib/Setup/Check 1.5 mA 0 to 100% 4-20 mA Over-range 20-22 mA
Observer-H Mode:	Malfunction <0.0 mA Inhibit 3.0 mA 58-104 dB 4-20 mA Over-range 20-22 mA
Surveyor Mode:	Malfunction <0.0 mA Inhibit 3.0 mA 44-104 dB 4-20 mA Over-range 20-22 mA
Open Collector Ratings:	100 mA @ 35 VDC max. A1, A2, Fault, LA1, LA2, CAL, FUA, UA
Cable Requirements:	3 wire shielded recommended (4 wire shielded when cable length > 400 ft.).

Mechanical Specifications

Length:	9.9 inches (251mm)
Height:	6.8 inches (173mm)
Width:	1.0 inch (25mm)
Weight:	11.2 ounces (318 grams)
Standard Configuration:	TA502A-2-1-07-1-1-1-1 Relays, 0-100 std., x1 multiplier, inhibited relays, 3 s ramp time

Specifications subject to change without notice.

Represented by:

General Monitors Worldwide



www.generalmonitors.com

Lake Forest, CA

26776 Simpatica Circle
Lake Forest, California, 92630
Tel: +1-949-581-4464
Fax: +1-949-581-1151
Email: info@generalmonitors.com

Houston, TX

9776 Whithorn Drive
Houston, Texas, 77095
Tel: +1-281-855-6000
Fax: +1-281-855-3290
Email: gmhou@generalmonitors.com

Ireland

Ballybrit Business Park
Galway
Republic of Ireland
Tel: +353-91-751175
Fax: +353-91-751317
Email: info@gmil.ie

Singapore

No. 2 Kallang Pudding Road
#09-16 Mactech Building
Singapore 349307
Tel: +65-6748-3488
Fax: +65-6748-1911
Email: genmon@generalmonitors.com.sg

United Arab Emirates

P.O. Box 61209
Jebel Ali
Dubai
United Arab Emirates
Tel: +971-4-8143814
Fax: +971-4-8857587
Email: gmme@generalmonitors.ae

United Kingdom

Heather Close
Lyme Green Business Park
Macclesfield, Cheshire
United Kingdom, SK11 0LR
Tel: +44-1625-619583
Fax: +44-1625-619098
Email: info@generalmonitors.co.uk