

Single Trippoint Isolator v6 STI136

DESCRIPTION

The STI136 is a universal isolating transmitter featuring an independently adjustable trip-point with relay contact output. The standard STI136 will accept DC voltage or current input signals directly (0.1V up to 2kV, 0.1mA up to 2A). Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments. The output signal level is indicated by a green LED on the front of the module. Special requirements for input/output response are accommodated with the customised response option. The trip circuit is operated directly from the pre-conditioned input circuit. The trip-point is adjusted by a 15-turn potentiometer from the front of the module. Trip status is indicated by the red LED. Standard relay contact output is a change over contact rated at 8A/250Vac resistive. Various power supply choices are available ranging from 240Vac down to 8Vdc all featuring power isolation.



General Specifications

Size:	52W x 70H x 110D (mm)
Housing material:	ABS.
Mounting:	DIN-Rail, gear plate.
Termination:	Screw terminals on front Terminal covers standard.
Weight:	0.320 kg.
Protection class:	IP40 (IP65 Enclosure opt)
Power requirements	3W.
Power supply isolation:	2kV rms.
Electromagnetic compatibility:	Complies with AS/NZS 4251.1 (EN 50081.1)

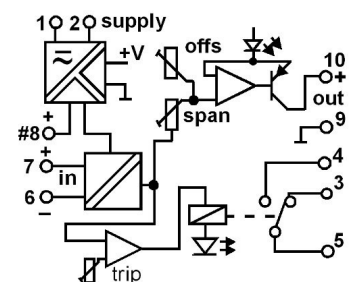
Transmitter Section

Accuracy:	0.15% of span.
Front 'SPAN' adjust:	±20 typical.
Front 'OFFS' adjust:	±20 typical.
Linearity:	0.15% of span above 0.2mA
Repeatability:	0.1% of span.
Response time:	0.5 sec for T90 standard (Faster or slower response on request.)
Temperature effect:	0.02% per °C.
Operating temp. range:	0 - 60°C.
Storage temp. range:	-20...+70°C.
Input / output isolation:	2kV rms.
Output loop drive:	10mA into 0 – 1.8kΩ 20mA into 0 – 900Ω 50mA into 0 - 360Ω.
Output load change effect:	less than 0.2% up to maximum load stated.

Trip Section:

Repeatability:	0.1% of range.
Temperature drift of trip point:	0.01% / °C.
Relay contact:	8A/250Vac resistive. 3.5A/250Vac inductive.
Contact isolation:	2kV.
Dead band:	0.5 to 30% adjustable

Block Diagram



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

TYPE NO. DESIGNATION

STI136 - X XX X X X XX

Power Supply:

- 1 = 90-280Vac 50/60Hz (65-280Vdc). *) 4 = 8 - 60Vdc.
 *) 3 = 16-48Vac 50/60Hz (10-60Vdc) *) 9 = Other specify.

Input:

- 01 = 4 - 20mA (100Ω) #. 06 = 1 - 5V (200kΩ).
 02 = 0 - 20mA (100Ω) #. 07 = 0 - 10V (470kΩ).
 03 = 10 - 50mA (50Ω). 08 = 0 - 10mA (100Ω).
 04 = 0 - 1V (200kΩ). *) 09 = Other (Specify)
 05 = 0 - 5V (200kΩ). *) 10 = CARD. (See options).

Includes 24Vdc/22mA auxiliary supply on terminal 8.

Output:

- 1 = 4 - 20mA (900Ω max). 6 = 0 - 10V (100kΩ min).
 2 = 0 - 20mA (900Ω max). 7 = 0 - 1mA (18kΩ max).
 3 = 10 - 50mA (360Ω max). 8 = 0 - 10mA (1.8kΩ max).
 4 = 0 - 5V (100kΩ min). *) 9 = Other specify.
 5 = 1 - 5V (100kΩ min).

Input/Output Signal Action:

- 1 = Direct 2 = Reverse.

Trip Action and Contact Configuration:

- 1 = Dir (High) C/O (8A/250V resistive).
 2 = Rev (Low) C/O (8A/250V resistive).
 3 = Dir (High) N/O solid state relay
 (2A/70 - 260Vac).
 4 = Rev (Low) N/O solid state relay
 (2A/70 - 260Vac).
 *) 9 = Other specify.
 (Trip Action change by internal coding plug).

Definitions

Dir = Direct acting relay
 energised with input above setpoint
 Rev = reverse acting relay
 energised with input below setpoint
 Contact N/O: Normally open - open when
 relay de-energized.
 Contact C/O: Change-over contact

Options:

NOTE:- Specify type of sensor and calibration details.

- 00 = None.
 *) 01 = Thermocouple input.
 *) 02 = RTD input.
 *) 03 = Frequency input: Calibration range 0 - 10Hz...0 - 5kHz (Sine, Triangle).
 Sensitivity: 200mVpp. (70mV rms) min. 22Vpp. max (Square, Pulse).
 *) 04 = Pulse input from NAMUR proximity sensor or passive device (contact, open
 collector). Auxiliary supply at terminal 8, other data as option 03 above.
 *) 05 = AC input (current via shunt).
 *) 06 = Bipolar input (mV input <50mV) >100k impedance.
 *) 07 = Resistance input (constant current excitation).
 *) 08 = Customised response time.
 *) 09 = pH/Electrochemical sensor input.
 *) 10 = Adder or Subtractor 2 inputs 4 - 20mA floating.
 *) 12 = True rms (any wave form).
 *) 42 = Potentiometer 3W voltage excited.
 *) 99 = Other specify.

*) = Price Extra.

Connection Diagrams

