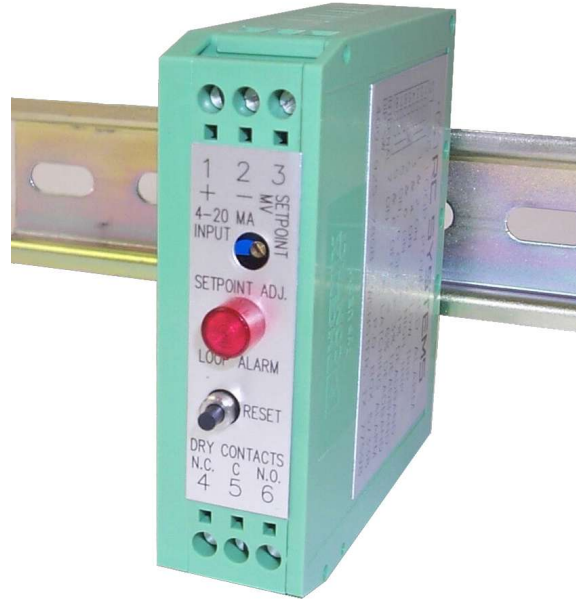


FEATURES:

- Operating power derived from the input current loop.
- "Fail Safe" S.P.D.T. Form C, 2 amp max dry contacts.
- Multi-turn alarm set-point adjustment calibrated by setting millivolt value to correspond to desired alarm trip point.
- Alarm may be configured to trip on increasing or decreasing signals via DIP switch.
- Latching or auto-reset action set by DIP switch.
- 3 values of deadband available via DIP switch.
- Contributes less than 7.5 volts of additional loop voltage drop.
- L.E.D. visual alarm condition indicator.
- High density DIN rail mount enclosure is less than 1 inch wide. Also available in NEMA 4X and NEMA 7.



The R. C. Systems Co., Inc. Model ST-55 Loop Powered Alarm is designed to initiate actions, such as turn on a horn or shut down a motor, when the loop 4-20mA signal goes below or above a certain value. It may be installed in any 4-20mA process loop where a fail safe, completely isolated, S.P.D.T. dry contact relay output is needed for switching AC or DC loads. The ST-55 derives all operating power from the current loop and has a voltage drop of 7.5 volts.

Three values of deadband for the automatic reset mode may be selected by the positioning of internal DIP switches. Manual reset (latching mode) may also be selected via the internal DIP switch. In this mode of operation it is necessary to press the local pushbutton in order to clear an alarm condition.

The alarm set-point is fully adjustable from 0-100% of full scale. There is no need to simulate the trip point at the 4-20mA input to calibrate the set-point. Simply measure the set-point millivolt signal at the terminals provided and adjust the 25 turn trimpot until the proportional desired value is reached.

Since all operating power is derived from the current loop, no power supply wiring exists. This makes the Model ST-55 a very easy device to install. However, it must be remembered that 7.5 volts of the loops' original drive potential is sacrificed by addition of an ST-55. The ST-55 input impedance adds approximately 375 ohms to the loop when the input current is 20mA.

Standard ST-55 packaging is a general purpose plastic housing designed for high density DIN rail mounting. NEMA 4X and Explosion-Proof packaging is optional.

SPECIFICATIONS

SIGNAL INPUT:

4-20mA

VOLTAGE DROP:

7.5 VDC max at 20mA.

ALARM SET-POINT:

0-100% Full Scale, measured as 20-100 millivolts
(Example: 60mV = 50% F.S. trip point).

LATCHING ALARM MODE:

Must acknowledge alarm by depressing local push-button. May be disabled via DIP switch.

DEADBAND:

1%, 3% or 6% set via DIP switch

ALARM RELAY CONTACTS:

S.P.D.T. Form C dry contacts rated 2 amp 30VDC or 125VAC resistive loads.

TEMPERATURE RANGE:

-30 - 60 degrees C.

TEMPERATURE DRIFT:

less than .01% per degree C.

HOUSINGS:

ST-55DN; DIN rail mount (standard)

ST-55N4; NEMA 4X wall mount

ST-55XP; NEMA 7 explosion proof

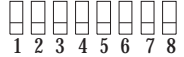
Class 1, Groups B,C,D Class 2, Groups E,F,G

Also meets NEMA4 with included 'O' ring

ORDERING INFORMATION:

Specify housing by addition of 2 letter suffix shown above

ST-55 Internal DIP Switch Settings Chart

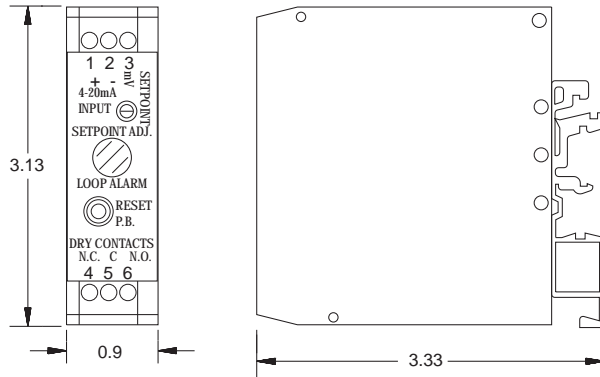


X = Don't Care

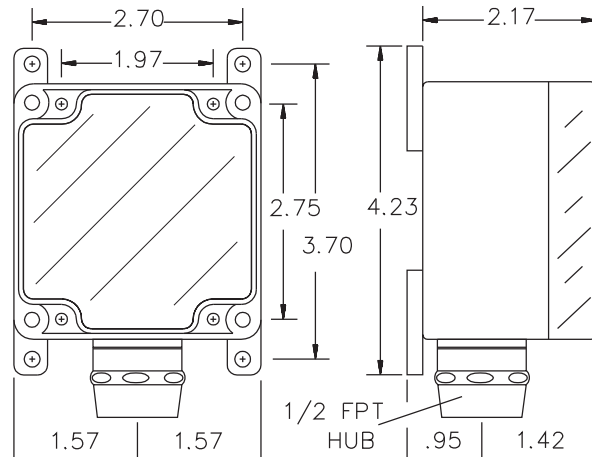
DIP SWITCH	1	2	3	4	5	6	7	8
LOW TRIP	ON	ON	OFF	OFF	X	X	X	X
HIGH TRIP	OFF	OFF	ON	ON	X	X	X	X
MANUAL RESET	X	X	X	X	X	X	ON	X
AUTO RESET	X	X	X	X	X	X	OFF	X
1% DEADBAND	X	X	X	X	ON	ON	X	X
3% DEADBAND	X	X	X	X	ON	OFF	X	X
6% DEADBAND	X	X	X	X	OFF	OFF	X	X

DIN RAIL MOUNT ST-55DN

ALL DIMENSIONS IN INCHES



NEMA 4X WALL MOUNT ST-55N4



NEMA 7 (EXPLOSION-PROOF) ST-55XP

