



V560

VISIPAK™ V560

Loop Powered LCD Indicator

Provides a 3-1/2 Digit Liquid Crystal Display (LCD)
in Proportion to a 4-20mA Current Input



- Eliminates Extra Power Supply
- LCD Readable from 30ft.
- Switch Selectable mA Inputs and Decimal Points
- Field Configurable Wide Ranging Display
- NEMA 4 Front Panel
- Readings to ± 19990
- FM & CSA Safety Approval for Hazardous Installations

Description

The V560 is a loop powered digital process indicator which derives its power entirely from the 4-20mA or 10-50mA signal being measured. No local power is required at the point of measurement. A large, 3° digit, 0.8" high LCD provides clear visibility and can be quickly and easily calibrated to the required range. Zero can be adjusted to ± 1999 counts with a span of 100 counts or greater. The trailing "dummy" zero allows display readings to ± 19990 . The decimal point position is switch selectable and can be independently set to any of 4 positions (1. 9. 9. 9. 0).

Application

The V560 is useful in any application requiring a wide ranging 3° digit display from a 4-20mA or 10-50mA current source. The standard NEMA 4X housing enables indoor or outdoor installation with protection from sleet, corrosion, moisture, chemicals, and even hose directed water or severe condensation. The V560 is ideal for displaying process variables such as temperature, pressure or flow, in local and remote areas where line power is either impractical or not available. Refer to the V565 High-Performance LCD indicator for 1.00 Volt loop-drop and square root selection.

The V560 is FM/CSA approved for intrinsically safe operation in Class I, Division 1, Groups A, B, C, & D hazardous locations when connected in accordance with manufacturer's drawing 790-0024(FM) or 790-0025(CSA).

Options/Accessories

- C** Conduit housing for internal mounting of T600/T700 series transmitters; includes external mounting bracket, conformal coating, T906 mounting plate, screws (pictured above).
- EP** Explosion-proof housing (Class I, Gr. C&D, Class II, Gr. E,F,G;NEMA 4), LCD board conformal coated, includes T901 and screws.
- U** Urethane coating of internal circuitry for additional protection from corrosive atmospheres.
- C620** Factory Calibration, specify desired range.
- T901** TransPak mounting plate for option EP.
- T906** TransPak mounting plate for option C enclosure.
- V860** Conduit mounting kit (option C without LCD main board), includes T906 mounting plate & screws.
- V960** Explosion-proof mounting kit, (option EP without LCD main board), includes T901 & screws.

Calibration

The V560 indicator is easily configured using the switches and potentiometers mounted on the circuit board located directly behind the hinged front cover (or screw cover for the EP option). To configure and calibrate, refer to the function switches diagram. Position the switches accordingly to obtain the desired zero and span count values. Next, fine tune the display using the zero and span trimpots. Displays calibrated for either 4-20mA or 10-50mA will maintain calibration within 1% if switched to the other range.

Note: Span refers to counts from "minimum" and not a full-scale input.

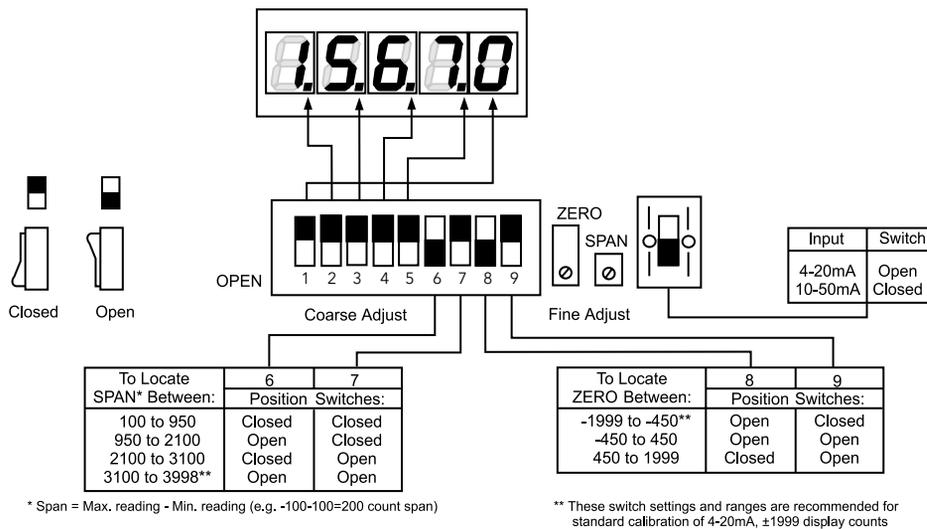
Installation (V560 EP)

1. Conduit for field wiring is attached to the 3/4" NPT threaded hole provided, which can be configured as either the top or the bottom of the instrument.

2. Unscrew cover. Remove the phillips screws from the black mounting plate and then remove the indicator assembly (four outermost screws).
3. A TransPak T600/T700 series two-wire can be installed using T901 mounting plate.
4. Connect the field wiring to the back of the indicator assembly terminals (and TransPak if installed). Connect the ground wire to the EP case. Route the wiring through the bracket grommet and conduit port.
5. Replace the indicator assembly.
6. Reinstall the cover until snug (do NOT use sealant on the cover).

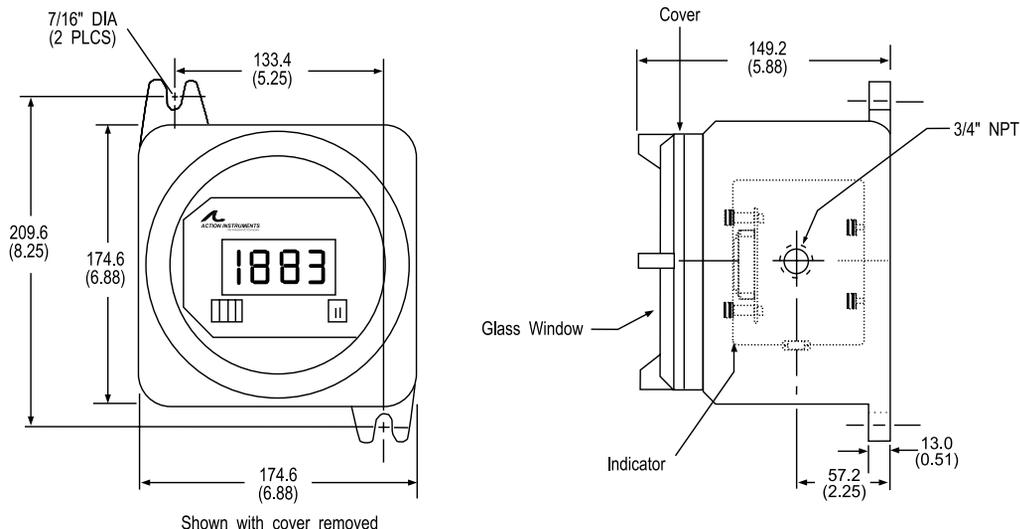
Function Switches

Example shows the V560 configured for a 4/20mA input range (Switch S2), a span between 950 and 2100 counts (Switches 6 and 7), and zero between -1999 and -450 counts (Switches 8 and 9).



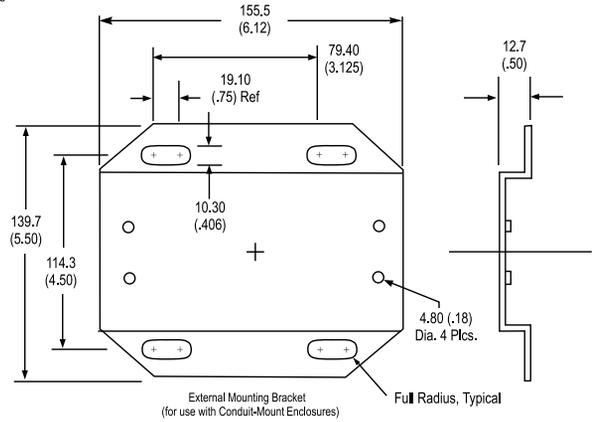
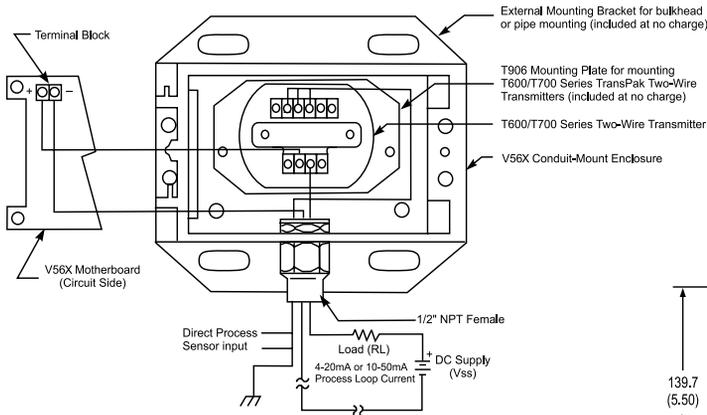
V560 EP Mounting

(Class I, Gr. C&D, Class II, Gr. E,F,G, NEMA 4)

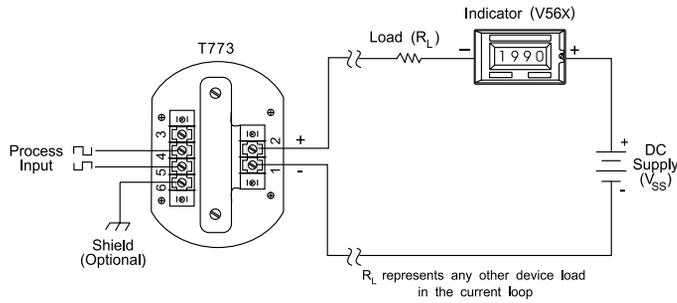


Connection Diagram, Option C

V560 Conduit-Mount Enclosure (front door removed) showing internally mounted TransPak two-wire transmitter.



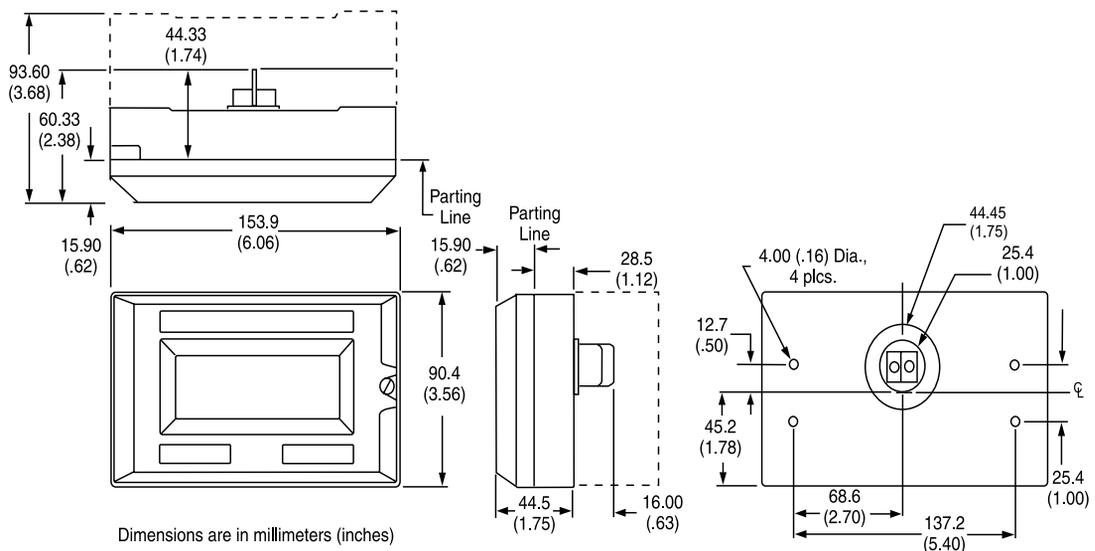
The V560 Conduit-Mount enclosure conveniently mounts any TransPak two-wire transmitter within a NEMA 4X-rated housing for on-site process loop indication.



Mounting Enclosures

The following dimension drawing shows both the panel mount (thin case) and the conduit-mount enclosures. The conduit mount is represented by a dotted line in the top and side views only. The front and back view dimensions are the same for both enclosures.

Note: panel mount includes an attached gasket surrounding the terminals, providing a NEMA 4 seal to the panel and the 1" diameter cutout. Four screws should be used to ensure a tight, flush fit between the panel and the V560.



Dimensions are in millimeters (inches)

Specifications

General

Input Current Ranges:
4-20mA and 10-50mA, switch selectable

Input Current Limits:
Minimum: 3mA
Maximum: 100mA

Input Voltage Drop:
3.9V maximum at fullscale input
(20mA or 50mA)

Power Consumption:
12mW maximum @ 3mA input

Display Reading Update:
2.5 conversions per second

Readout Display:
Type: 0.8" High Liquid Crystal, 3rd digit (1999)
Decimal Point Indication: Switch-selectable, four positions: 1.9.9.9.
Dummy Zero: Switch-selectable trailing zero, e.g., 19990
Underrange (belowm - 1999): displays -1
Overrange (above +1999): displays 1

Wide Range Display Calibration :

Zero (4mA/10mA):
Adjustable from -1999 to 1999

Span (20mA/50mA):
Adjustable from 100 to 3998 counts

Accuracy:
 $\pm 0.1\%$ of span counts, ± 1 count

Screws (V560/V560C) :
Front Panel: 10-32 brass with corrosion resistant stainless steel plating:
MIL-W-52263C (MR)
Rear Electrical: 6-32 nickel plated brass

Temperature Coefficient:
(Standard Calibration: -10 to 70°C)
Zero: ± 50 ppm/°C, typical, ± 100 ppm/°C, max.
Span: ± 50 ppm/°C, typical, ± 150 ppm/°C, max.

Temperature Range:

Standard: -10 to 70°C (14 to 158°F)
Storage: -55 to 85°C (-67 to 185°F)

Weight:
V560: 14 oz
V560C: 2.2 lbs
V560 EP: 11 lbs

Agency Approval:
FM and CSA approved intrinsically safe for hazardous locations, certificate No. 2M2A5.AX. Contact factory for installation drawings.

Ordering Information

Specify:

1. Model **V560, V860, V960**
2. Options C, EP, U (see text)