



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
- 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, 3½ 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 3½ digit display from a 4-20mA or 10-50mA current source. The enclosure constructed for either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts; electronics inside the enclosure against ingress of solid foreign objects; harmful effects on the electronics due to the ingress of water (rain, sleet, snow); and the external mechanism(s) remain operable when ice laden. 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).
- U** Urethane coating of internal circuitry for additional protection from corrosive atmospheres.
- C620** Factory Calibration, specify desired range.
- T906** TransPak mounting plate for option C enclosure.
- V860** Conduit mounting kit (option C without LCD main board), includes T906 mounting plate & screws.

Calibration

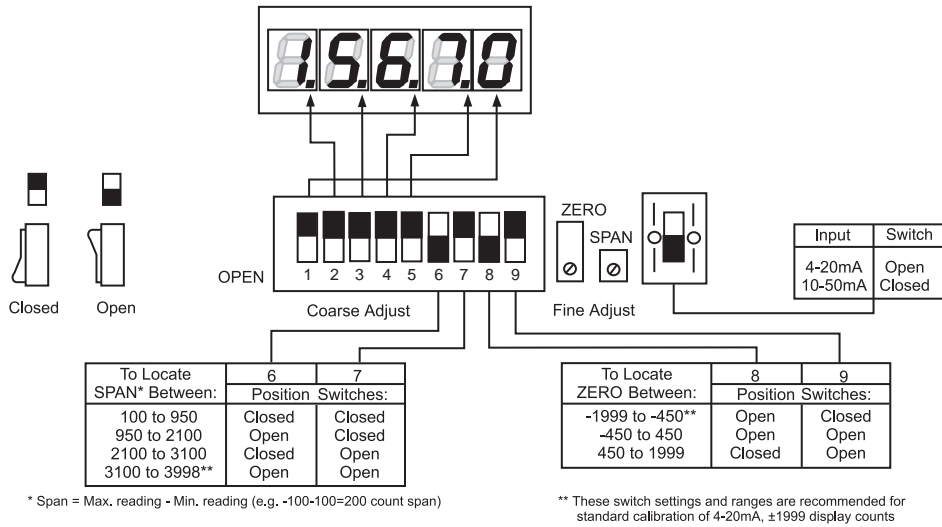
The V560 indicator is easily configured using the switches and potentiometers mounted on the circuit board located directly behind the hinged front cover. To configure and calibrate, refer to the function switches diagram. Position the switches accordingly to obtain the desired zero and span count values. 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.

Eurotherm®

Function Switches

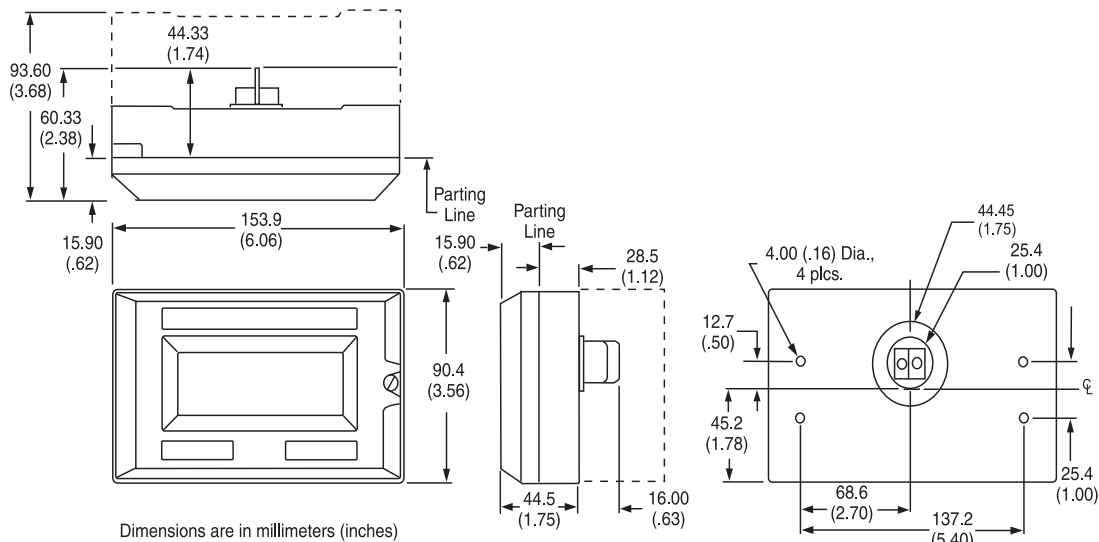
Example shows the V560 configured for a 4/20mA input range (Switch S2), a span between 950 and 2100 counts (Switches 6 and 7), and zero between -1999 and -450 counts (Switches 8 and 9).



Mounting Enclosures

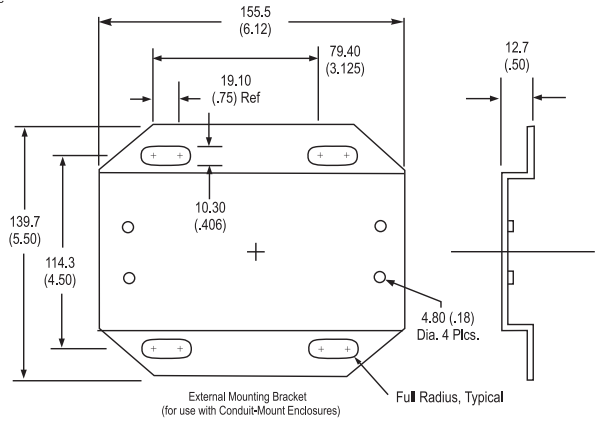
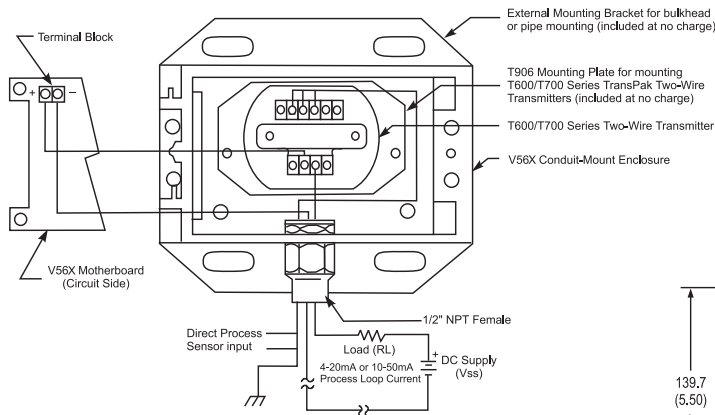
The following dimension drawing shows both the panel mount (thin case) and the conduit-mount enclosures. The conduit mount is represented by a dotted line in the top and side views only. The front and back view dimensions are the same for both enclosures.

Note: panel mount includes an attached gasket surrounding the terminals, providing a 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.

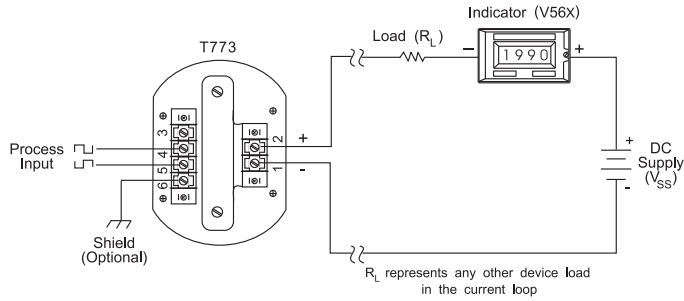


Connection Diagram, Option C

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 type 3S-rated housing for on-site process loop indication.



Specifications

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, 3½ digit (1999)

Decimal Point Indication: Switch-selectable, four positions: 1.9.9.9.

Dummy Zero: Switch-selectable trailing zero, e.g., 19990

Underrange (below - 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:

±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: ±50ppm/°C, typical, ±100ppm/°C, max.

Span: ±50ppm/°C, typical, ±150ppm/°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

Agency Approval:

FM approved intrinsically safe for hazardous locations, certificate No. FM17US0096.

CSA approved intrinsically safe for hazardous locations, (File No.LR422272-45).

Contact factory for installation drawings.

FM Entity Parameters:

Type 3S, T4, -10°C -< Ta -< +70°C

Vmax=33V

I_{max}=178.5mA

C_i=0mF

Li=0mH

Ordering Information

Specify:

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

Eurotherm[®]
by **Schneider Electric**



Printed on recycled paper

