

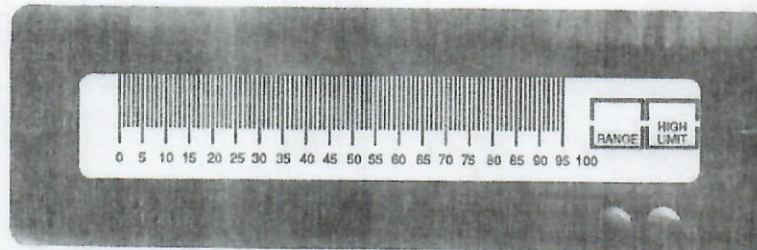
STRAIN-GAGE INPUT EDGEWISE BARGRAPH METER With Alarms and Excitation

MODEL
576

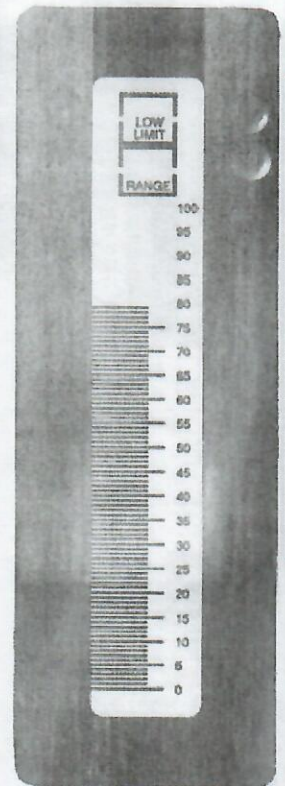
U.S. Patent No.
4,908,569

Features

- Built-in Excitation
- Powers 300-5K Ω Bridges
- High Stability
- 101 Segments
- Vertical or Horizontal Mount
- Hi & Lo Annunciators
- Over & Under-range Annunciators
- NEMA 3 or NEMA 4 (on request)
- Optional Backlight
- Less Than 1" Deep



HORIZONTAL



VERTICAL

STRAIN-GAGE/ μ VDC

DESCRIPTION: Model 576 requires 5VDC power and accepts 300 Ω to 5000 Ω bridges with 2mV/V or greater output. Internal excitation (5VDC) with excellent line and load regulation is standard. **Customer to specify:** a. bridge resistance, b. mV/V output, c. mV at zero & full scale.

EXCITATION: A powerful and 90%+ efficient DC-DC converter and ref. OPamp is used to provide the highly stable ($\pm 0.05\%$) excitation to the external bridge capable of powering bridges as low as 300 Ω (optional) or as high 5000 Ω impedance (others on request), the output amplifier is chopper stabilized for greater noise rejection.

ANNUNCIATORS: Hi & lo adjustable included, in addition to over & under-range. The "Hi Limit" annunciator will turn on when its setting is exceeded. The same holds true for "Low Limit" annunciator except that it will illuminate when the signal is less than its setting. The "Out of Range" annunciator will turn on whenever the signal is greater than F.S. (100%) or less than zero (negative).

CONNECTORS: A flat ribbon 26 pin connector is standard and it's included with the meter. An optional screw terminal connector is available, (see ordering information).

BACKLIGHT: Standard display is reflective black segments over silver background. An optional backlight is available at time of ordering. When ordered, the segments are black over an illuminated background. **Screw terminal connector must be ordered.** The intensity is not adjustable, (see Typical Connections). **Backlight not available with the 7-15VDC power option.**

LIGHT SOURCE used is electroluminescent (E.L.) requiring 120VAC at 400Hz to operate. The E.L. has a uniform light output, and its life expectancy is in excess of 15,000 continuous hours.

POWER SUPPLIES: When required and ordered will be externally mounted. Two types are available, the "Open Frame" style accepts 120/240VAC and delivers 5VDC at up to 400mADC. The "Power Pack" is a wall plug in module available only for 120VAC input and delivers 5VDC at up to 100mADC.

SCALES: Standard marking is 0-100%. A custom overlay can be made to your specifications for the bargraph, (contact Otek).

SPECIFICATIONS AT 25°C

Accuracy and Linearity	$\pm 1\%$ of F.S. ± 1 digit
Excitation (Regulation)	5VDC $\pm 1\%$ ($\pm 0.05\%$ L&L)
Excitation Stability	$\pm 0.03\%/^{\circ}\text{C}$ (10-30 $^{\circ}\text{C}$)
Typical F.S. Input	$\pm 10\text{mVDC}$ minimum
Zero Adjustment	$\pm 40\%$
Full Scale Adjustment	$\pm 50\%$ of F.S.
Power Requirement	5VDC $\pm 5\%$ @ 5mA
Bridge Resistance Range	300 Ω -5K Ω
Temperature Coefficient	100PPM/ $^{\circ}\text{C}$
Operating/Storage Temperature	-10 $^{\circ}$ to +70 $^{\circ}\text{C}$ / -20 $^{\circ}$ to +70 $^{\circ}\text{C}$
Backlight Operating Range (for DC-AC)	4-6VDC @ 70mA
MTBF	80,000 Hours
Display	101 Segment Reflective LCD

EXCITATION

Output	5VDC (± 2.5) $\pm 5\%$
Temp. Stability	$+0.05\%/^{\circ}\text{C}$
Load Stability	$\pm 0.05\%$ of setting (300-5K Ω)
Max. Output	40mADC
Power Input Requirements	5VDC @ 40mA

CASE MATERIAL: U.L. approved ABS Polycarbonate 94VO rated. Black matte with acrylic anti-glare treated window.

ENVIRONMENTAL: NEMA 3 standard. NEMA 4 on request; gasket included and adjustment plugs sealed (not field scaleable).

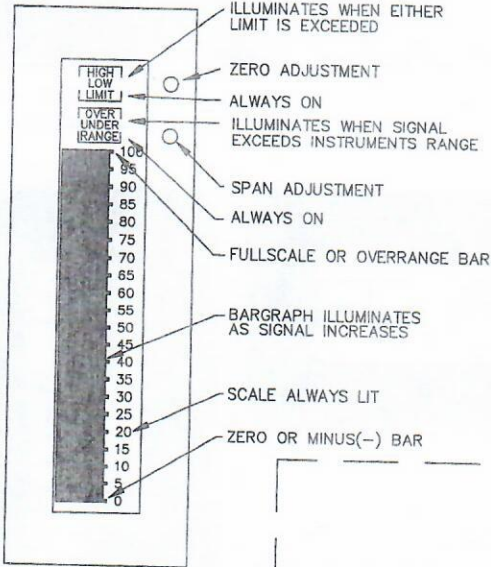
ORDERING INFORMATION (1/1/97)

MODEL 5 7 6 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
INPUT RANGE (1)	EXCITATION
0 10mVFS	0 No
1 300 Ω /2mV/V, 0-10mV	1 Excitation
2 350 Ω /2mV/V, 0-10mV	CONNECTOR
3 3500 Ω /2mV/V, 0-10mV	0 Flat Ribbon
POWER INPUT (2)	1 Screw Terminal
0 5VDC	BACKLIGHT(3), CASE MTG.
1 120/240VAC	0 No Bklt, Vertical
2 120VAC	1 Backlight, Vertical
3 7-15VDC	4 No Bklt, Horizontal
	5 Backlight, Horizontal

- (1) All others specify.
- (2) 120/240 VAC is open frame P.S. Style; 120VAC is wall mount p.s.
- (3) Screw terminal connector must be ordered

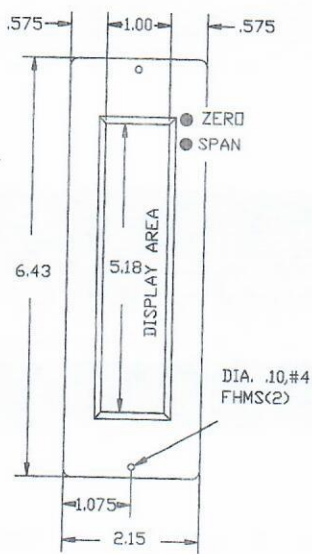
576 MECHANICALS & TYPICAL CONNECTIONS

DESCRIPTION VERTICAL

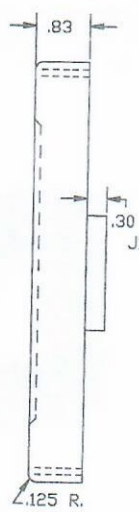


MECHANICALS

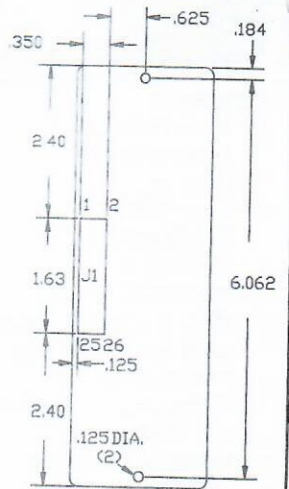
FRONT VIEW



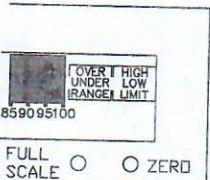
SIDE VIEW



REAR VIEW



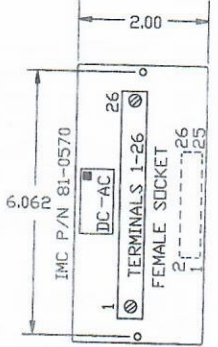
HORIZONTAL



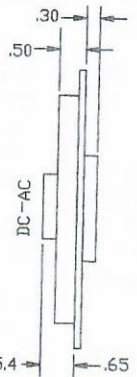
NOTE: HORIZONTAL 570 HAS THE SAME MECH. DIM. AS VERTICAL, EXCEPT THEY ARE ROTATED 90 DEGREES CLOCKWISE.

OPTIONAL SCREW TERMINAL CONNECTOR

FRONT VIEW

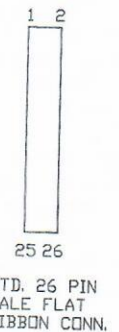


SIDE VIEW

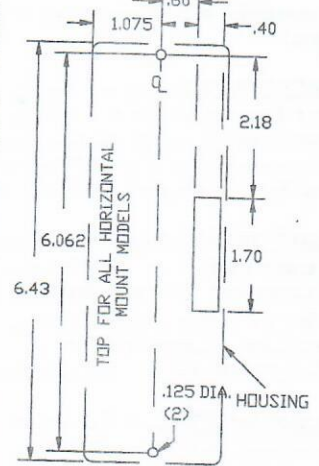


NOTE: mm = INCH X 25.4

CONNECTOR REAR VIEW

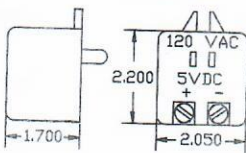


PANEL CUT-OUT FRONT VIEW



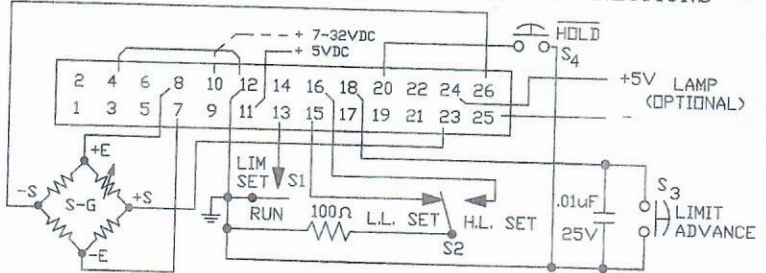
POWER SUPPLY

POWER PACK STYLE



ORDER P/N 75-3110 FOR BACKLIGHT (5VDC)

MOD. 576 STRAIN GAGE INPUT TYPICAL CONNECTIONS



NOTES: (1) DO NOT CONNECT PINS NOT SHOWN CONNECTED. (2) S1 & S2 CAN BE COMBINED INTO ONE SWITCH HAVING CENTER OFF DPDT (ON-NONE-ON). DO NOT APPLY POWER WITHOUT BRIDGE CONNECTED OR CONNECT A DUMMY LOAD (1K) BETWEEN 8 & 7 WHEN USING THE 576 FOR mV INPUT AND APPLY +mV TO PIN 23 AND -mV TO PIN 4.

F#87MC576.DWG

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