



# H5S / H5W / H5B Series

## 3.5 Digit LCD Panel Meter



### Low Cost 3½ Digit LCD Display

#### Features

- Low-cost, high-performance replacement for many OEM DPMs
- Optional RED or GREEN backlighting
- Window or surface, bezel or snap-in bezel mount
- Low power: choice of 180µA (9V, ±5V) or 2.5mA (+5V)
- Space-saving design: only 1" (25 mm) deep
- Occupies less than 2.5 X 1.1 inches of front panel space
- 3½ digits with high-contrast LCD
- Optional loop powered 4-20mA process inputs available (LPI-J1)

#### Specifications

##### Display

Digits: 3 ½ digits (±1999 counts)  
 Type: 0.5" (12mm) high-contrast reflective LCD  
 Backlighting: Optional Red Negative (red numbers/black background)  
 Optional Green Negative (green numbers/black background)  
 Optional Green Positive (black numbers/green background)  
 Polarity: automatic, "-" displayed  
 Decimal Points: 3 position, user-selectable  
 Overrange: three lower order digits blank for inputs >1999 & < -1999

##### Inputs

Ranges: ±200.0 mV, ±2.000 V, ±20.00 VDC  
 Configuration: bipolar & differential  
 Protection: ±350 VDC, (±100 VDC on 200 mV range)  
 Impedance: >10 MΩ, (>1 MΩ on 20 V range)

##### Performance

Accuracy: ±(0.1% + 1 count) typical  
 ±(0.1% + 2 counts) maximum  
 Conversion Rate: 2.5 per second  
 Normal Mode Rejection: >30 dB @ 60 Hz  
 Common Mode Range: ±1 VDC  
 Common Mode Rej.: >86 dB  
 Zero Adjustment: automatic  
 Warmup: 10 minutes typical  
 Temperature Coeff.: ± 100 ppm per °C typical

##### Environment

Operating Range: 0 to 50 °C  
 Storage Range: -10 to 70 °C

##### Power Supply

5V powered: +5 VDC (±5%) at 2.5 mA  
 9V(±5V) powered: +7.2 to +12 V at 180 µA  
 Optional Backlight: +5 VDC at 100 mA typical

##### Mounting

H5W: surface or window mount  
 H5B: bezel mount with retaining clips  
 H5S: snap-in bezel mount eliminates need for mounting hardware

##### Connection

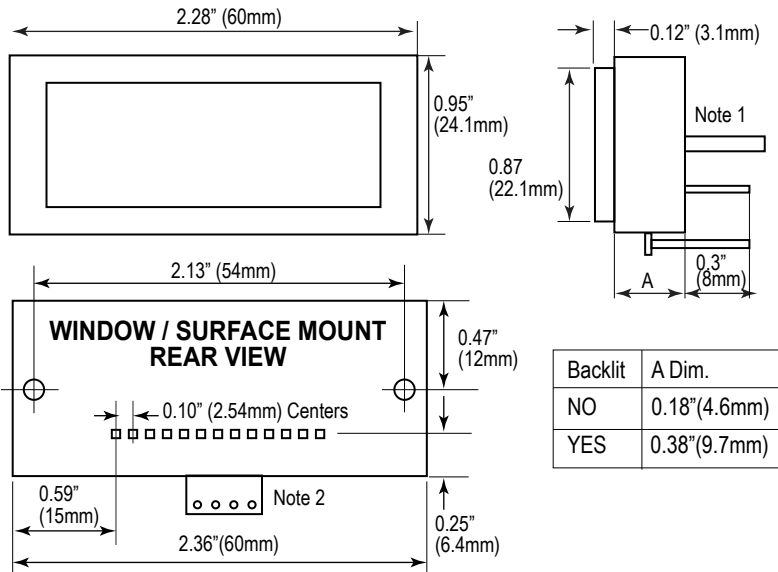
13 pins, 0.025" square on 0.1" centers - pin 3 missing



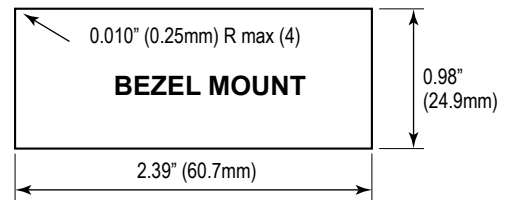
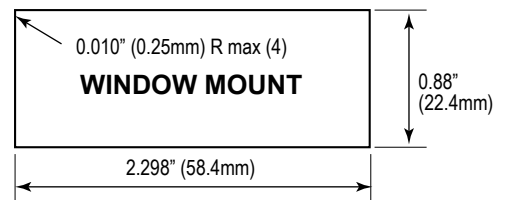
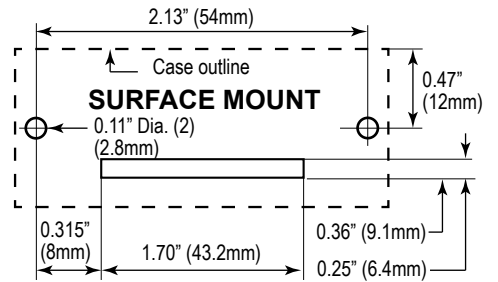
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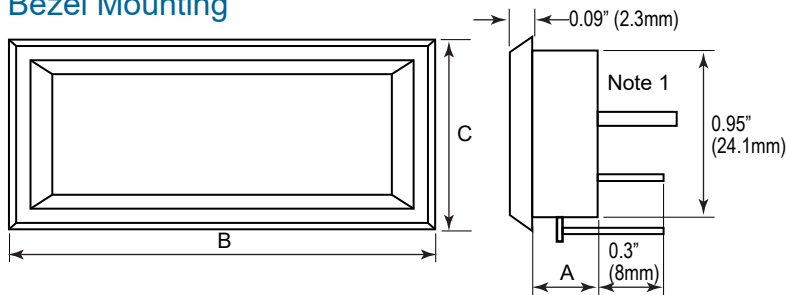
### Window / Surface Mount Dimensions



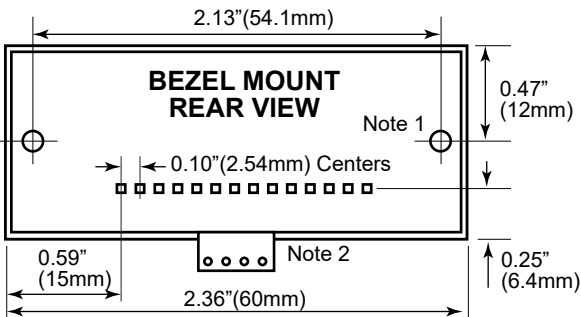
### Panel Cutouts



### Bezel Mounting



Mntg.	Backlit	A Dim.	B Dim.	C Dim.
H5B	NO	0.33" (8.4mm)	2.45" (62.2mm)	1.03" (26.2mm)
H5B	YES	0.52" (13.2mm)	2.45" (62.2mm)	1.03" (26.2mm)
H5C	NO	0.45" (11.4mm)	2.51" (63.8mm)	1.10" (28mm)



#### NOTES:

- Mounting studs (2) are #2-56, length 0.5 (13) min.  
Snap in bezel Mount does not have mounting studs.
- Backlight Option is on 0.50" (12.4mm) wide x 0.22" (5.4mm) high tab.

### Wiring Connections

Pin #	Pin	Name Description
1	V+	Positive Supply Connection
2	V-	Negative Supply Connection
3	NC	No Pin
4	GND	NEG PWR for +5V DPMS
5	COM	Analog Common
6	INLO	Display Inputs: Display Is Negative
7	INH1	If Inhi Is Lower Than Inlo
8	RFL (CLK)	Negative Reference Input
9	RFH	Positive Reference Input
10	RDH	Internal Reference Output
11	D3	Decimal Point = 1XX.X*
12	D2	Decimal Point = 1X.XX*
13	D1	Decimal Point = 1.XXX*

\*connect To Pin 1



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### Ordering Information

Part Number	Backlight Color	Meter Input	Meter Power	Backlight Power
<b>H5S Series</b>				
H5S0040	No Backlight	200mV	+5VDC	NONE
H5S0050	No Backlight	200mV	±5VDC	NONE
H5S0090	No Backlight	200mV	9V	NONE
H5S0140	No Backlight	2V	+5VDC	NONE
H5S0150	No Backlight	2V	±5VDC	NONE
H5S0190	No Backlight	2V	9V	NONE
H5S0240	No Backlight	20V	+5VDC	NONE
H5S0250	No Backlight	20V	+5VDC	NONE
<b>H5W Series</b>				
H5W0040	No Backlight	200mV	+5VDC	NONE
H5W0050	No Backlight	200mV	±5VDC	NONE
H5W0090	No Backlight	200mV	9V	NONE
H5W0140	No Backlight	2V	+5VDC	NONE
H5W0150	No Backlight	2V	±5VDC	NONE
H5W0190	No Backlight	2V	9V	NONE
H5W0240	No Backlight	20V	+5VDC	NONE
H5W0250	No Backlight	20V	±5VDC	NONE
H5W0290	No Backlight	20V	9V	NONE
H5W2041	POS GREEN	200mV	+5VDC	5VDC
H5W2141	POS GREEN	2V	+5VDC	5VDC
H5W4041	NEG GREEN	200mV	+5VDC	5VDC
H5W4141	NEG GREEN	2V	+5VDC	5VDC
H5W6041	NEG RED	200mV	+5VDC	5VDC
H5W6141	NEG RED	2V	+5VDC	5VDC
<b>H5B Series</b>				
H5B0040	No Backlight	200mV	+5VDC	NONE
H5B0050	No Backlight	200mV	±5VDC	NONE
H5B0090	No Backlight	200mV	9V	NONE
H5B0140	No Backlight	2V	+5VDC	NONE
H5B0150	No Backlight	2V	±5VDC	NONE
H5B0190	No Backlight	2V	9V	NONE
H5B0240	No Backlight	20V	+5VDC	NONE
H5B0250	No Backlight	20V	±5VDC	NONE
H5B0290	No Backlight	20V	9V	NONE
H5B2041	POS GREEN	200mV	+5VDC	5VDC
H5B2141	POS GREEN	2V	+5VDC	5VDC
H5B4041	NEG GREEN	200mV	+5VDC	5VDC
H5B4141	NEG GREEN	2V	+5VDC	5VDC
H5B6041	NEG RED	200mV	+5VDC	5VDC
H5B6141	NEG RED	2V	+5VDC	5VDC