DITEL: PRODUCTS: DIGITAL STARS: **856S0YCX**

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DESCRIPTION

Model 856S panel thermometers are specific instruments that measure and control temperature in °C.
Their input option allows platinum sensors be connected by 2- or 3-wire and is complete with linearization and sensor-break detection.
Available options include analog or digital outputs, and setpoint control which is programmable by either hidden or visible presets.
One selector provides adjustable time delay or hysteresis to limit relay action.
Fully configured at the factory, the following items remain accessible of reconfiguration:

- Zero, span and decimal point location.
- Preset values and alarm operating modes. Time delay (0 to 15 seconds) or hysteresis levels (0 to 10 counts of L.S.D.).
- The output option for the type of signal and its range.

SELECTION GUIDE

856	S	0	Y	C	X
PRESET / RELAY					
NO PRESET	0				
1 VISIBLE PRESET	1				
2 VISIBLE PRESETS	2				
1 HIDDEN PRESET	5				
2 HIDDEN PRESETS	6				
SUPPLY POWER					
115V 50/60Hz			1		
230V 50/60Hz			2		
12V DC ISOLATED			4		
24V 50/60Hz			7		
24V DC ISOLATED			8		
OUTPUTS					
NONE				0	
RS 232C				1	

BCD (OE)				2	
0-10V/0-1V				3	
0-20mA/4-20mA				4	
RS232/20mA				5	
BCD (OC)				6	
1mV/count				8	
RANGES					
-99.9 / +199.9°C					3
-100 / +800°C					4
SILKSCREENED UNIT					

ORDERING EXAMPLE

8562 0253 E57 : Pt100 thermometer series 8000
Supply power: 230V AC (50/60Hz) 2 presets.
Range: -99.9/+199.9° C
Output: RS 232/20mA. Unit: ° C

SPECIFICATIONS

INPUT SIGNAL

• Sensor type	RTD platinum 100 ohm
• Configuration	Wheaststone bridge
• Sensor connection	2- or 3-wire
• Maximum sensor current	1mA
• Maximum sensor voltage	1.5V
• Linearization	alfa=0.00385 s/DIN 43760
• Zener barrier comp	selec. 0, 20, 40 ohm
• Max. lead res	1 ohm (2-wire), 10ohm (3-wire)
• Common mode max. voltage (signal/power)	
AC voltage	1000V DC or 1500V ACpp
DC voltage	±400V DC

POWER

• Supply voltages	
AC (50/60Hz):	24, 115, 230V AC
DC (isolated):	12, 24V DC
• Maximum isolation	1000V DC or 1500V ACpp
• Consumption	4.5W nominal

ACCURACY

• Resolution	0.1° (8530 0Y03/5) 1° (8530 0Y04/6)

• Maximum error	0.2% ±0.1° (8530 0Y03/5) 0.2% ±1° (8530 0Y04/6)

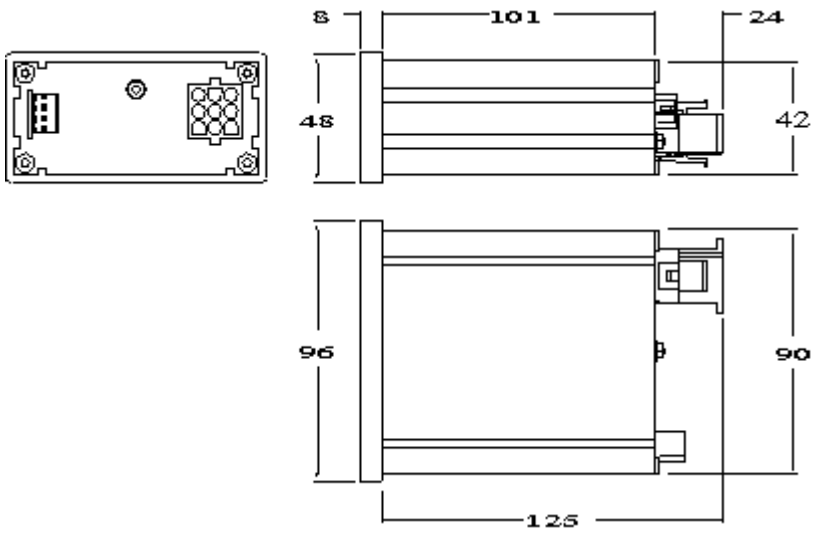
DISPLAY

• Type	red LED (0.56") 14 mm. high
• Polarity	automatic (±) sign
• Sensor-break ind	aprox. 0°C (856S 0YC3) 1999. (3 L.S.D. blanked) (856S 0YC4)
• Reading rate	4 por segundo

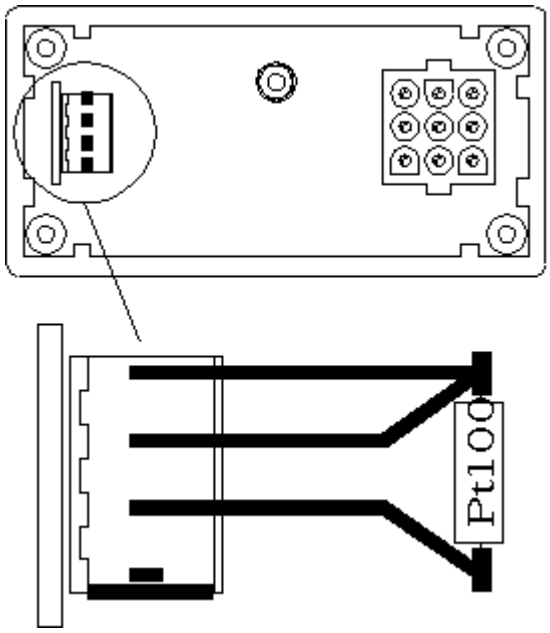
ENVIROMENTALS

• Operating temperature	0° to 50°C
• Storage temperature	-25° to +85°C
• Relative humidity	max. 95% (non condensing)
• Weight	310g
• Dimensions	96x48x110mm. (s/DIN 43700)
• Case material	94 V-0 UL-rated polycarbonate

DIMENSIONS (mm)

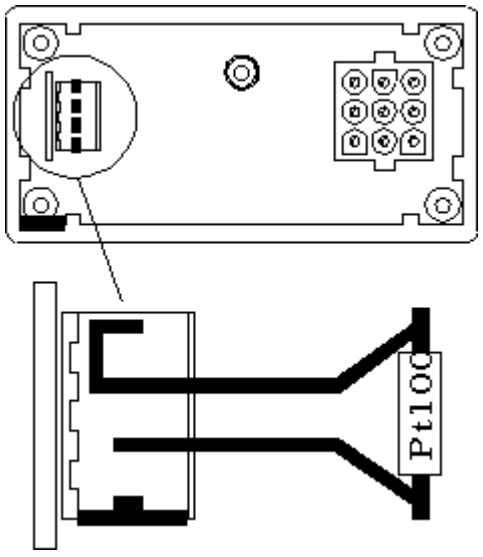


INPUT SIGNAL CONNECTION



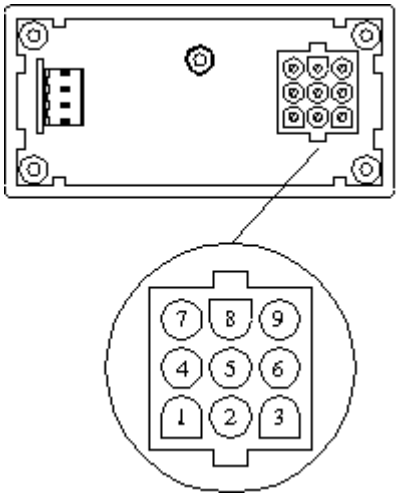
3-wire connectivity
PIN A Pt100
PIN B Pt100
PIN C common Pt100
PIN D Spare

Connect pins A and B to the same sensor end.



2-wire connection
Tie pins A and B toghether at the connector.
Connect the Pt100 between pins C and B.

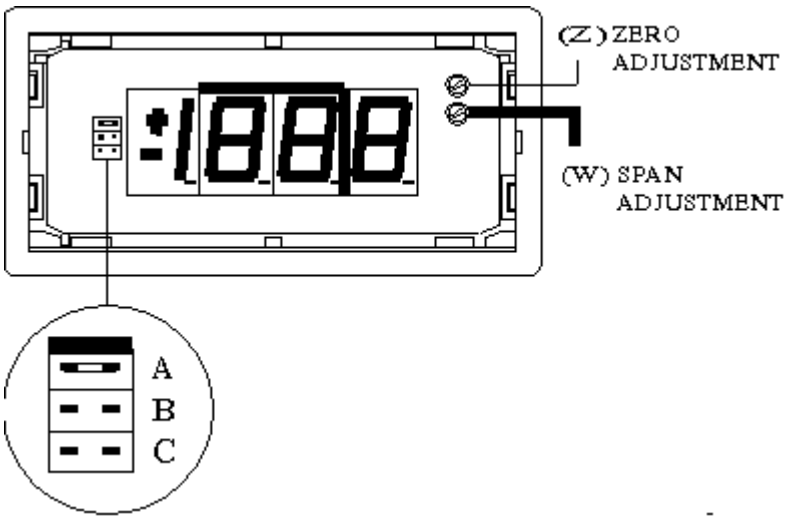
SUPPLY POWER CONNECTION



AC power supply
PIN 7 AC HI
PIN 9 AC LO (neutral)

DC power supply
PIN 7 DC positive (+)
PIN 9 DC negative (-)

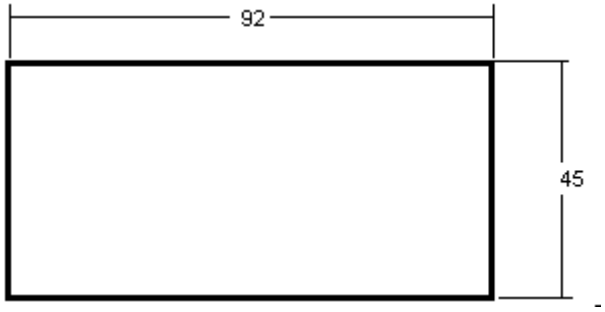
SETUP AND CALIBRATION



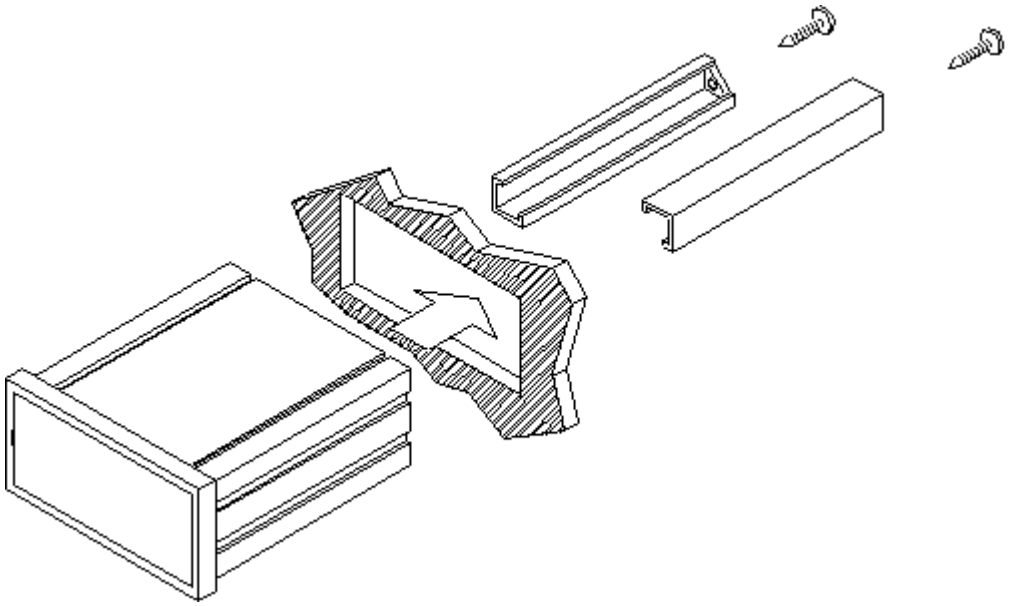
The zero and span adjust is made by the potentiometers (Z) and (W) respectively, located to the upper right side of the display.
The zero adjustment margin is ± 10 C.
The span adjustment margin is ± 100 counts.

MOUNTING

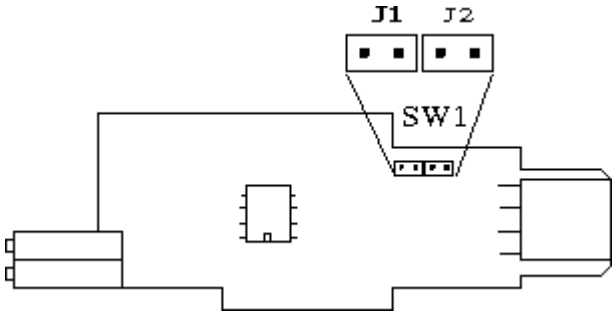
Panel cutout



Min. thickness: 0.8mm Max. thickness: 10mm



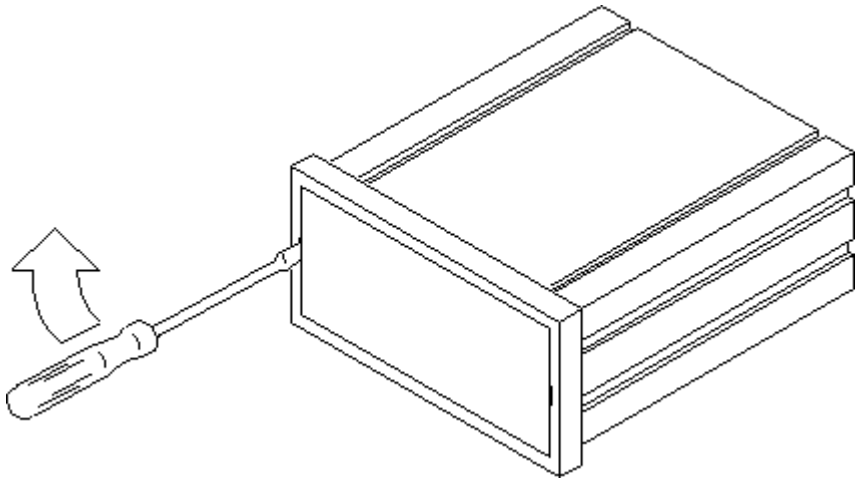
ZENER BARRIER COMPENSATION



In order to compensate the resitance contributed by the zener barrier, plug in the jumper of group SW1 according to the following table:

No jumpers = No barriers
Jumper J1 = Zener barriers of 20 ohm
Jumpers J1+J2 = Zener barriers of 40 ohm

ACCESS CALIBRATION



Remove lens by placing an appropriate sized screwdriver in the slot and pushing laterally as it is shown in the figure until the lips disengange.

To reinstall lens, insert it completely from one side and press from the other until it is perfectly fitted.

Warranty:
Press the icon to see it.

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