

The **Advisor A85** is a panel meter which provides an accurate temperature display from most common thermocouples. The meter is housed in a robust enclosure and incorporates a high quality display, push-buttons and terminals to ensure many years of reliable service. For resistance thermometer inputs, the complementary Advisor A80 has similar features.

Main application of the A85 is to display process temperature, although the instrument is equally suitable for use in laboratory and non-industrial applications. The A85 may be programmed on-site to operate with seven different thermocouples, and includes facilities for differential temperature measurement. Units of display may be °C or °F, and the minimum and maximum displayed temperatures may be recalled from the front panel push-buttons. Accessories include a 4/20mA isolated output proportional to the display, and two alarms with relay contact outputs. To prevent operators being dazzled, the display brilliance is continuously adjustable from the front panel.

Calibration and programming is performed via the front panel push-buttons. To prevent accidental or unauthorised adjustment all programming functions are contained in easy to understand menus protected by a four digit user definable security code. The display can easily be recalibrated on-site using the internal references or an external voltage source. Loss of power does not affect

calibration as all settings are retained for at least five years after power loss or disconnection.

The front panel is a robust, easy to clean Noryl moulding sealed with a non-reflective, scratch resistant polyester membrane. All A85 panel meters have a captive neoprene gasket which provides an IP65 seal between the enclosure and the panel, thus making the instrument suitable for installation in panels which are frequently hosed down.

A 4/20mA current proportional to the A85 display is obtainable from the optional re-transmitted output. This current is fully isolated and may be programmed to represent any part of the display.

Optional alarms provide two channels each with a single pole change-over contact output which may be independently programmed as a high or low trip. The alarm set-points are adjusted via the front panel push-buttons and may be accessed from the display mode via a separate security code. Front panel LED annunciators show the status of each alarm.

Reliability is ensured by an ISO9001 approved quality control system. The A85 is protected from reverse connection and overrange inputs, and incorporates extensive radio frequency filtering to comply with the European EMC Directive.

Advisor A85 Temperature panel meter

for thermocouple inputs

- ◆ **4 digit LED display with adjustable brilliance**
- ◆ **24Vdc, 115Vac & 230Vac models**
- ◆ **7 selectable thermocouple inputs**
- ◆ **Maximum & minimum display**
- ◆ **Optional:
Alarms
Isolated 4/20mA output**
- ◆ **96 x 48mm DIN enclosure with easy to clean IP65 front.**
- ◆ **3 year guarantee**

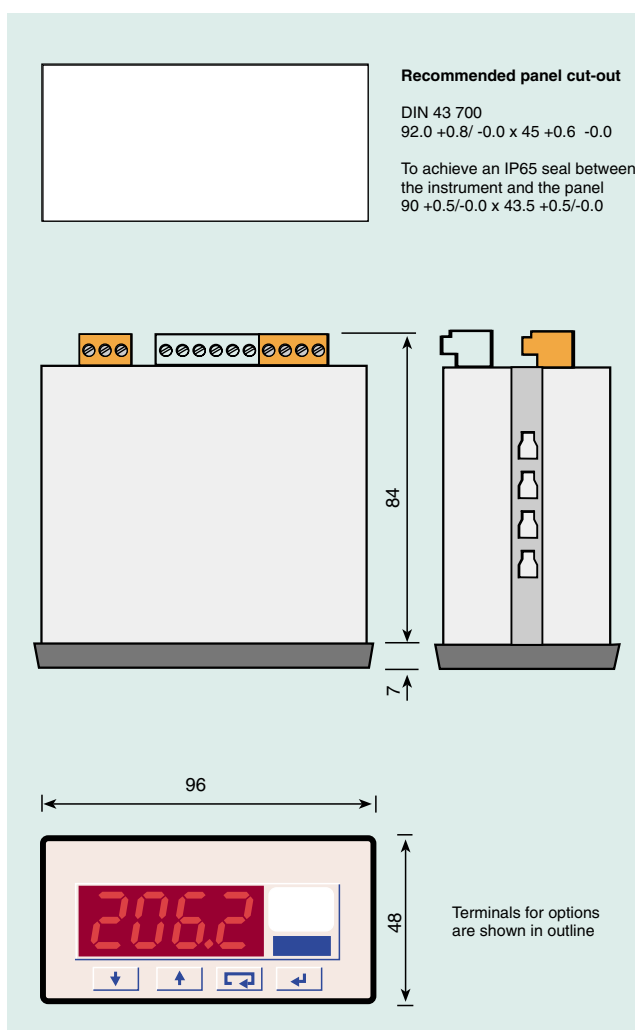
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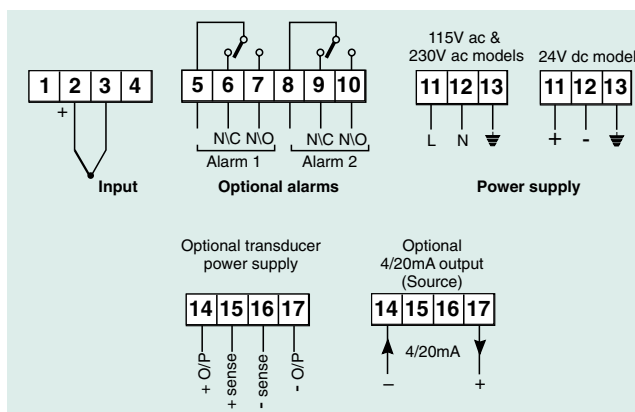
SPECIFICATION

Supply		
Voltage	10 to 35Vdc 99 to 132Vac 50/60Hz 198 to 264Vac 50/60Hz	4W max
Display		
Type	4 digit LED 14.2mm high with adjustable brilliance.	
Zero blanking	Only 1 leading zero is displayed	
Polarity	Automatic minus sign	
Overrange	Displays -1 or 1	
Resolution	Selectable 1°C or maximum	
Reading rate	Greater than 2 per second	
Push-buttons	<i>In operating mode without accessories</i>	
Down ▼	Shows minimum temperature	
Up ▲	Shows maximum temperature	
Scroll ◀▶	Only functions when alarms are fitted.	
Input		
Thermocouple type	<i>Selectable on-site</i> Display range	Resolution °C between 25 & 75% of span
E	-199.9 (-270) to 999.9 (1000)	0.2
J	-199.9 (-210) to 999.9 (1200)	0.2
K	-199.9 (-270) to 999.9 (1372)	0.3
N	-199.9 (-270) to 999.9 (1300)	0.3
R	-48.3 (-48) to 999.9 (1767)	1.0
T	-199.9 (-270) to 400.0 (400)	0.2
Pallaplat	-100.0 (-100) to 490.0 (490)	0.3
	Figures in brackets () are with 1°C display resolution	
Cold junction compensation.	Selectable on or off	
Broken THC detection	Selectable drive: Up, down or off	
Resolution		
°C display	Selectable 0.1°C or 1°C	
°F display	Fixed 1°F	
Isolation	500V rms between input, power supply and optional accessory outputs.	
Performance		
Accuracy	Including non-linearity at 20°C ±0.1% of span ±1/2 digit	
Series mode ac rejection	Less than 1% error for 200mV rms 45 - 55Hz. 2% at 60Hz	
Common mode ac rejection	Less than 0.1% error for 250V rms 50Hz.	
Temp. effect		
Zero drift	50ppm max/°C of display span	
Span drift	100ppm max/°C of display span	
Environmental		
Operating temp	-20 to +50°C	
Storage temp	-40 to +85°C	
Humidity	To 95% at 40°C non-condensing	
Enclosure	Front IP65 rear IP20	
EMC	In accordance with EU Directive 89/336/EEC, full report available.	
LVD	In accordance with EU Directive 73/23/EEC.	
Mechanical		
Terminals	Screw clamp for 0.5 to 1.5mm ² cables	
Weight		
24Vdc	0.25kg	
110 & 230Vac	0.45kg	
Accessories		
Alarms	Two independent alarm channels	
Output	Single pole change over contact	
Rating	250V 5A ac; 30V 5A dc	
Programmable function	High or low trip. Latching or non-latching	
4/20mA output	Isolated analogue output programmable to represent any part of the display.	
Load	500 Ω maximum	
Typeset scale card	Selection of common units supplied with each instrument. Custom typeset card can be supplied.	
Tag number	Thermally printed number on rear of the instrument.	

DIMENSIONS (mm)



TERMINAL CONNECTIONS



HOW TO ORDER

Model number	Please specify
Power supply	A85
Input	24Vdc, 115Vac or 230Vac
CJ compensation	E, J, K, N, R, T or pallaplat*
Display units	On or Off
Display resolution	°C or °F*
Broken THC drive	High or low *
	Up, Down or Off *

*Will be set for K input; °C; high resolution with no broken THC drive if calibration information is not supplied.

Accessories	Please specify if required
4/20mA retransmitted output	4/20mA output
	Meter display for 4mA output
	Meter display for 20mA output
Alarms	Alarms
Custom scale card	Legend
Tag number	Legend