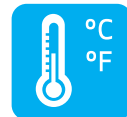


B44-T Temperature meter



Large format meter with 4 digits and 100 mm digit height, for reading up to 50 meters for industrial applications. Temperature meter for Pt100 (2 and 3 wires) and thermocouple probes J, K, T, E, S, R, N, C, L and X. Versatile and configurable instrument, with reading in °C or °F, configurable manual offset, thermocouple cold junction compensation and broken probe detection. Front keypad for easy access to the configuration menu and connection for remote keypad. Two universal high and low power supply options for AC and DC. Optional output and control modules for relay output, transistor output, SSR control, analog output retransmission and communications for Modbus RTU and RS-485 ASCII protocols. Sturdy metallic housing with full IP65 protection, for panel mount, wall mount or hanging mount.

Technical specifications

Reading

Digits	4
Reading	9999 / -1999
Decimal point	configurable
Led color	red or green
Digit height	100 mm
Type of digit	7 segment
Angle of vision	120°

Input signal

Pt100	2 and 3 wires
Pt100 resolution	1° or 0.1°
Measuring range	800 to -200 °C (1562 to -328 °F)
Accuracy	±0.2°
Cable compensation	automatic up to 14 Ohm
Thermocouples	J, K, T, E, S, R, N, C, L, X
Thermocouple resolution	1°
Measuring ranges	see user's manual
Accuracy	±2° to ±4° depends on thermocouple type
Thermocouple cold junction	automatic (configurable)
Offset drift	0.05°/° for Pt100, 0.05°/° to 0.2°/° for thermocouples
Span drift*	0.10°/° for Pt100, 0.02°/° to 0.2°/° for thermocouples
	*span drift value includes offset drift
Signal wire diameter	max. 0.5 mm ²

Outputs and configuration

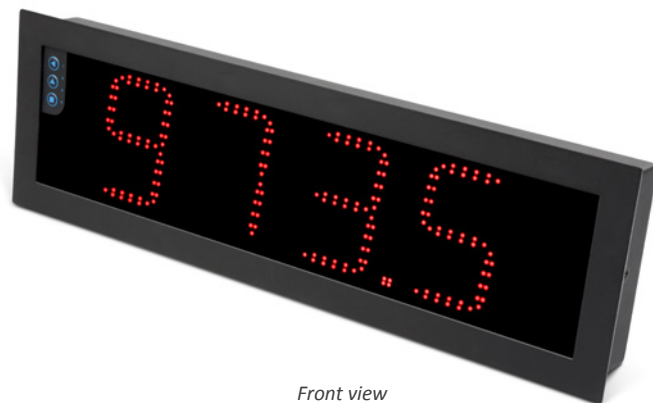
Output and control options	relays, analog output, serial communications, ...
Configuration	3 button front keypad (connection for remote keypad)

Power

Power 'H'	85 to 265 Vac and 120 to 370 Vdc (isolated 2500 Vac)
Power 'L'	11 to 36 Vdc (isolated 1500 Vdc)
Consumption	<5.25 W (meter only)
	<6.75 W (meter with options)
Power wire diameter	max. 2.5 mm ²

Mechanical

Housing	metallic (textured black painted iron)
Front filter	methacrylate
IP protection	full IP65 housing
Connections	cable gland output internal plug-in screw terminals
Weight	<2500 grams
Mounting	panel, wall, hanging
Front size	542 x 166 mm
Panel cut-out	524 x 148 mm
Deep	80 mm (including terminals)
Operating temperature	0 to 50 °C
Storage temperature	-20 to 70 °C



Front view

Order reference

Format	Model	Power	Color	Option 1	Option 2	Option 3	Custom
B44	T	H	R				
		-H (85-265 Vac and 120-370Vdc) -L (11-36 Vdc)	-R (red led) -G (green led)	-R1 (1 relay output) -AO (analog output) -RTU (Modbus RTU) -S4 (RS-485) -S2 (RS-232) -T1 (1 transistor output) -SSR (1 SSR control output) -0 (empty)			

* Option 3 available with formats B26 and B46



Rear view

Additional documentation

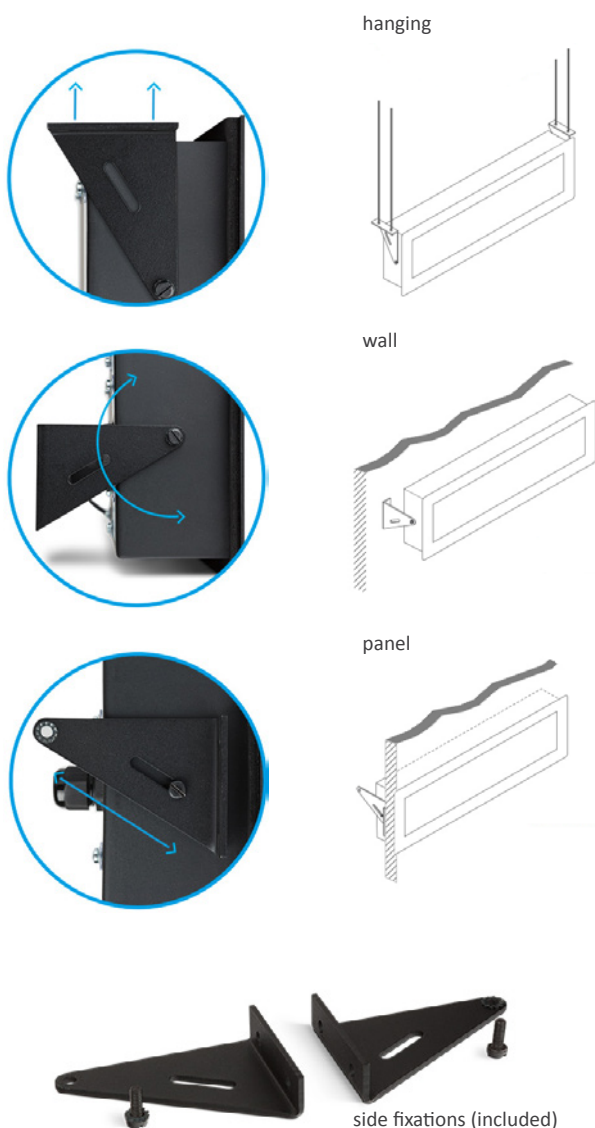
Bxx-T user's manual	www.fema.es/docs/4385_Bxx-T.pdf
Series B options	www.fema.es/docs/4326_SERIES-B_OPTIONS_manual_en.pdf
Series B web page	www.fema.es/Series_B

Output and control options

Format	Model	Power	Color	Option 1	Option 2	Option 3	Custom
B44	T	H	R				

	Function	Installable options	Isolation
R1	1 relay output	2	yes
T1	1 transistor output	2	yes
SSR	1 control for SSR relay	2	yes
AO	1 analog output	2	yes
RTU	1 Modbus RTU port	2	yes
S4	1 RS-485 port	2	yes
S2	1 RS-232 port	2	yes
Option 3 available with formats B26 and B46			

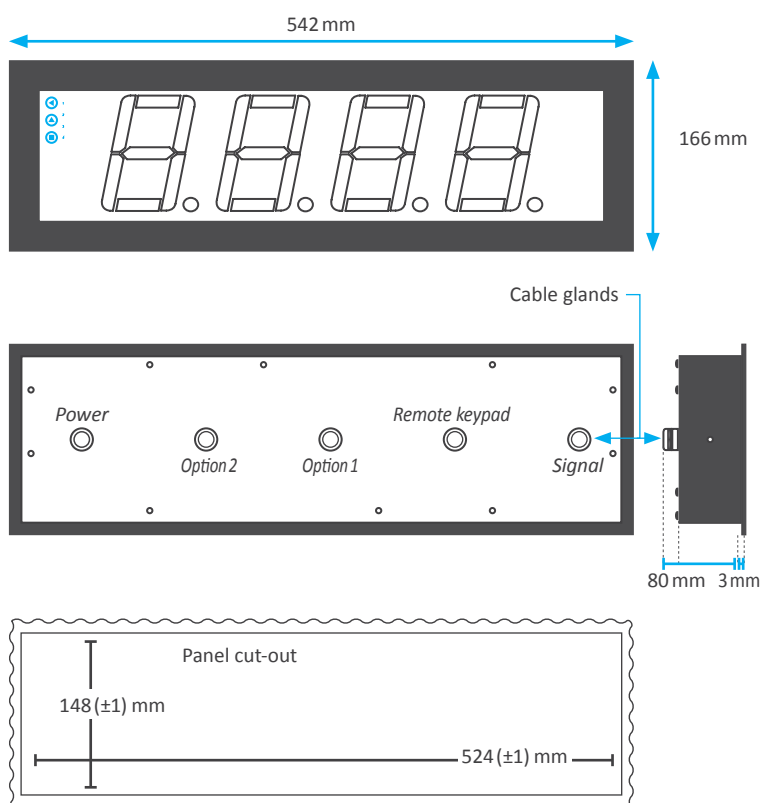
Mounting options



Functions included

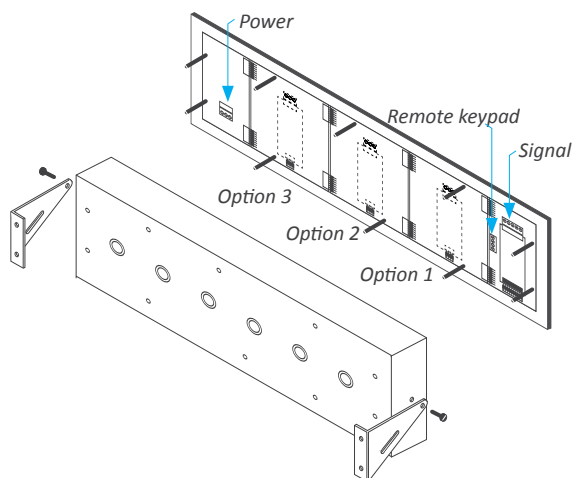
- 'Fast access' menu a single press on the front keypad gives access to alarm setpoint modification, special functions, memories, ...
- 'On power-up' function protects systems at cold start-up.
- Function 'Manual offset' allows to add a number of counts to the display reading.
- Function 'Cold junction' allows to enable or disable the automatic compensation of the thermocouple cold junction.
- Function 'Sensor break' allows to define the behavior of the display in case of sensor break.
- Alarms with one or two setpoints, independent activation and deactivation delays, hysteresis, optional manual deactivation of the relay.
- Inverted relay for security applications
- Display filters. recursive filters for unstable signals
- Memory maximum, minimum
- Brightness 5 levels of brightness intensity.
- Password blocks access to configuration menu.

Dimensions

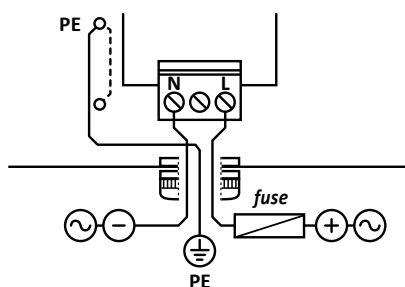


Connections

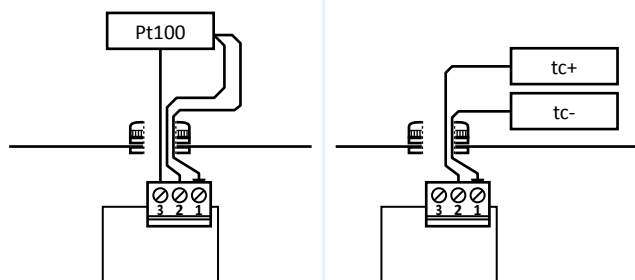
Internal structure for a B26 instrument



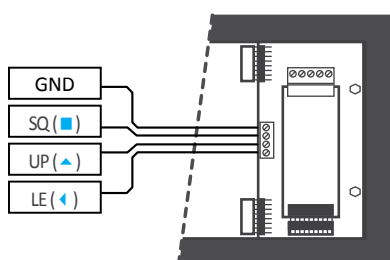
Power connections



Signal connections

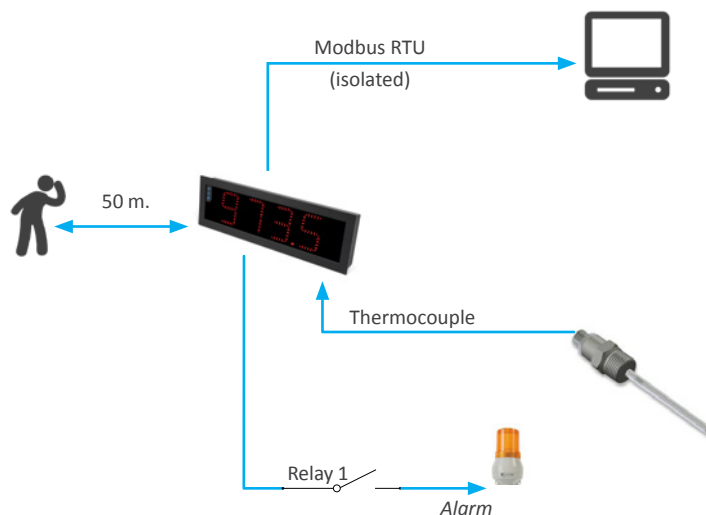


Connections for remote keypad



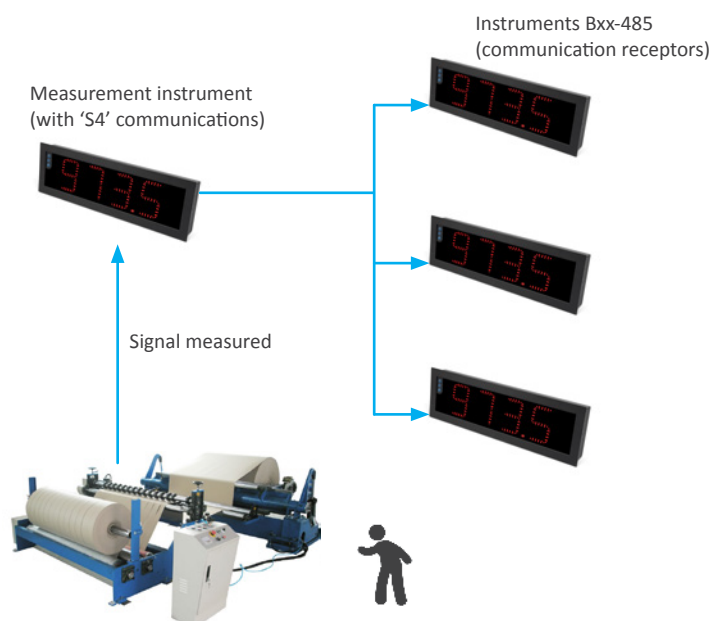
Example of application with control

Temperature reading from a thermocouple with control of a relay alarm in case of temperature exceeding a predefined limit. The relay can directly control a visual alarm. Reading values are then sent to a central SCADA system for storage through the Modbus RTU communication.



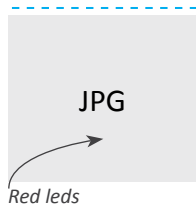
One measure, multiple information points

The large format meters from Series B can measure a wide variety of signals, and can integrate multiple output and control options. Option 'S4' for communications can be configured to transmit the measure directly to remote information points.

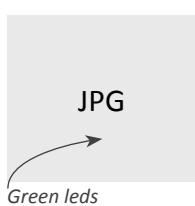


Other options

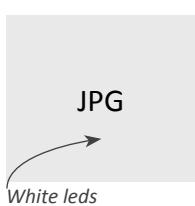
Red color



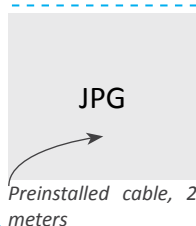
Green color



White color

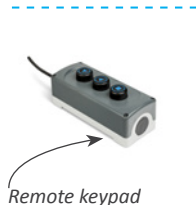


Cable output

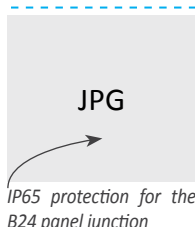


Accessories

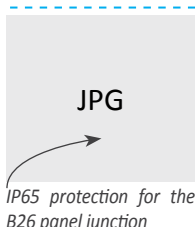
RKB



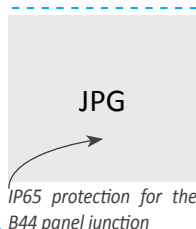
IPB24



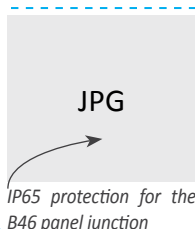
IPB26



IPB44



IPB46



Others formats within the Series B



	Digit height	Digits	Reading distance
Format B24	60 mm	4	up to 25 meters
Format B26	60 mm	6	up to 25 meters
Format B44	100 mm	4	up to 50 meters
Format B46	100 mm	6	up to 50 meters

Other temperature meters

Series M 4, 5 and 6 digits

digit height 14 mm
color red, green
vision 5 meters
size 96 x 48 mm

DIGITAL PANEL METERS
SERIES M
Full Signal Ranges Available



Series K Further view

digit height 20 mm
color red
vision 8 meters
size 96 x 48 mm

DIGITAL PANEL METERS
SERIES K
20 mm Digit Size



Series S Compact size

digit height 14 mm
color red, green
vision 5 meters
size 72 x 36 mm

DIGITAL PANEL METERS
SERIES S
Compact Size 72x36 mm

