# B44-232 RS-232 ASCII repeater

RS-232

Large format meter with 4 digits and 100 mm digit height, for reading up to 50 meters for industrial applications. Repeater for ASCII protocol over RS-232 bus. Versatile and configurable instrument, with local or remote alarm control, 'watchdog' and 'bus activity' functions. 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.
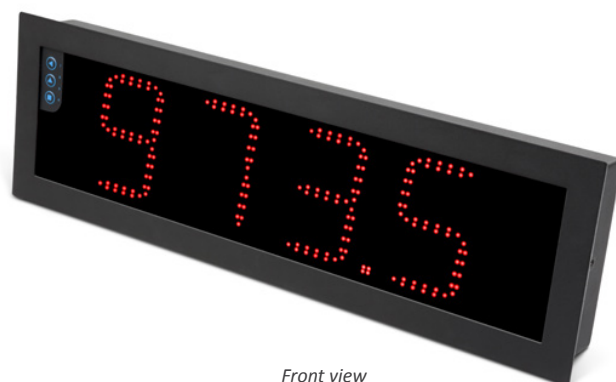
Front view

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	120º

Signal

Protocol	ASCII
Bus	RS-232
Function	repeater for ASCII code
Speed	38.400 bps to 600 bps
Data format	8n1, 8e1, 8o1, 8n2
Addresses	1 to 31 ('daisy-chain' connections)
Bus terminator	not included
Watchdog	configurable from 1 to 120 seconds
Signal wire diameter	max. 0.5 mm²

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 mm²

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 ºC
Storage temperature	-20 to 70 ºC

Order reference

Format	Model	Power	Color	Option 1	Option 2	Option 3	Custom
B44	232	H	R				

-H	(85-265 Vac and 120-370 Vdc)	-R	(red led)
-L	(11-36 Vdc)	-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

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CE EN-61326-1 Electromagnetic C.

5 YEARS Extended Warranty

Output and control options

Format	Model	Power	Color	Option 1	Option 2	Option 3	Custom
B44	232	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

hanging

wall

panel

side fixations (included)
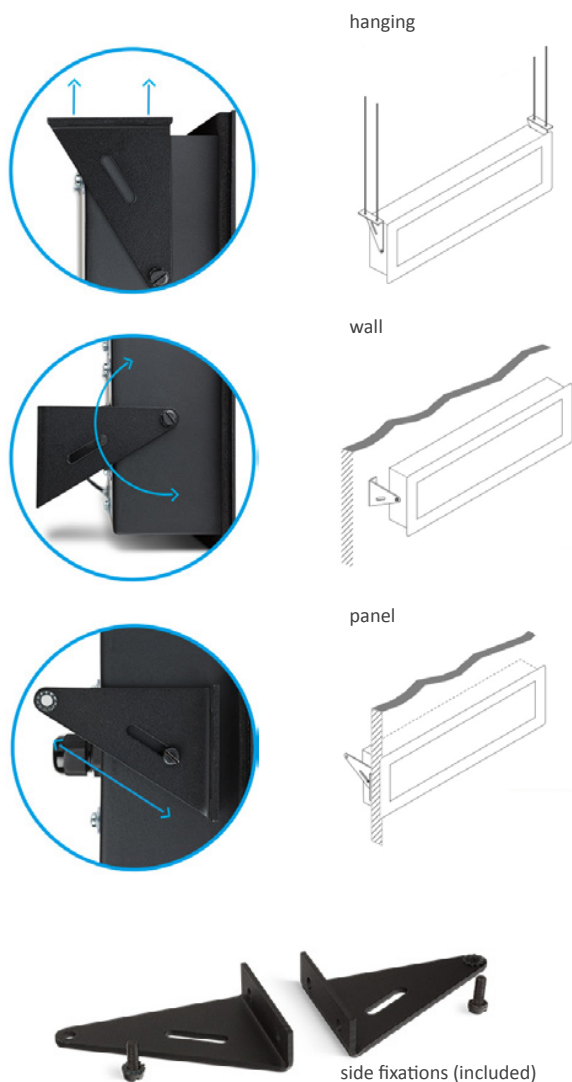
Functions included

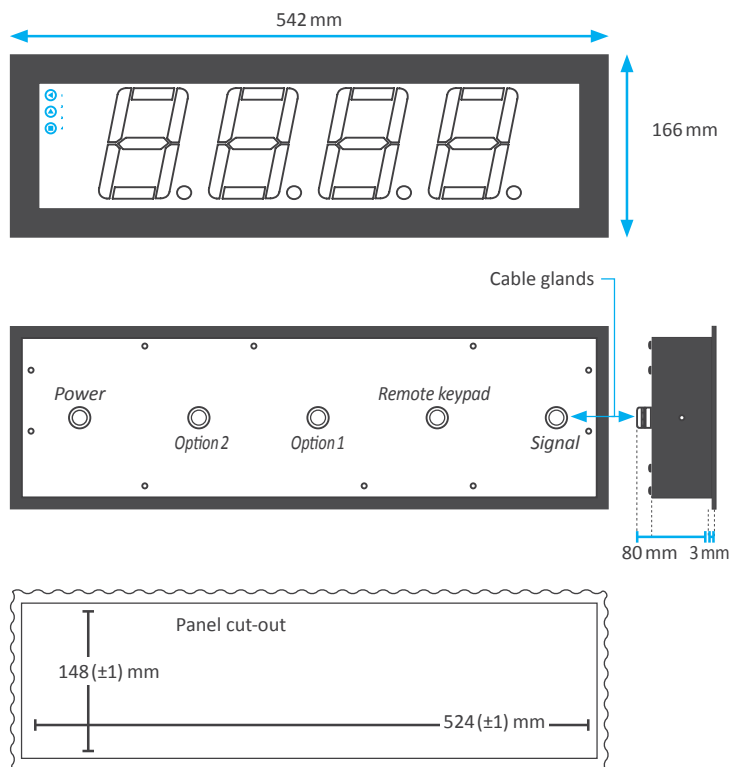|	
Remote or local alarms	'Full slave' mode allows for remote control of the alarms by writing to registers or coils. 'Process slave' mode allows for local control of alarms, based on local alarm configuration and actual display value.
'Text' mode	in 'Text' mode, ASCII characters received are not translated to number, but are directly displayed as 7 segment characters. Alphanumerical characters are allowed and will be translated to 7 segment. Alarms are controlled remotely.
'Watchdog' function	generates error after predefined time without communication with the master. Alarm can be linked to the watchdog function.
'Bus activity'	function detects electrical activity on the bus. Useful for troubleshooting.
'Fast access' menu	a single press on the front keypad gives access to the instrument address or alarm setpoint.
'On power-up' function	protects systems at cold start-up.
Brightness	5 levels of brightness intensity.
Password	blocks access to configuration menu.

Dimensions

542 mm

166 mm

Cable glands

Power   Remote keypad

Option 2   Option 1   Signal

80 mm   3 mm

Panel cut-out

148 (±1) mm

524 (±1) mm

Connections

Internal structure for a B26 instrument

Power

Remote keypad

Signal

Option 3

Option 2

Option 1
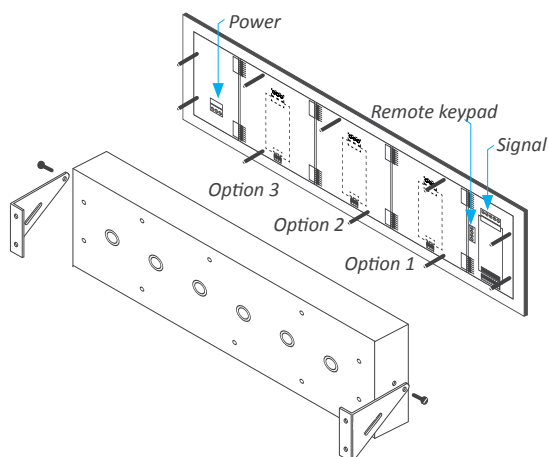
Power connections

PE

N   L

fuse

PE
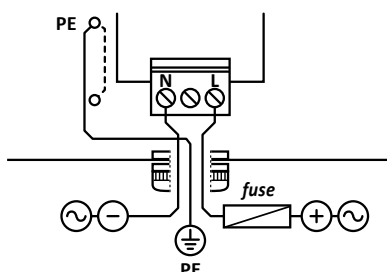
Signal connections
(Tx1, RX1 for normal RS-232 connection. Tx2 Rx2 for 'daisy chain')

Tx1

Rx2   Rx1

Tx2   GND

5 4 3 2 1
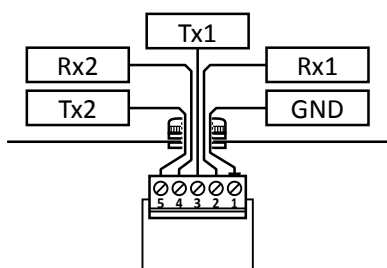
Connections for remote keypad

GND

SQ (■)

UP (▲)

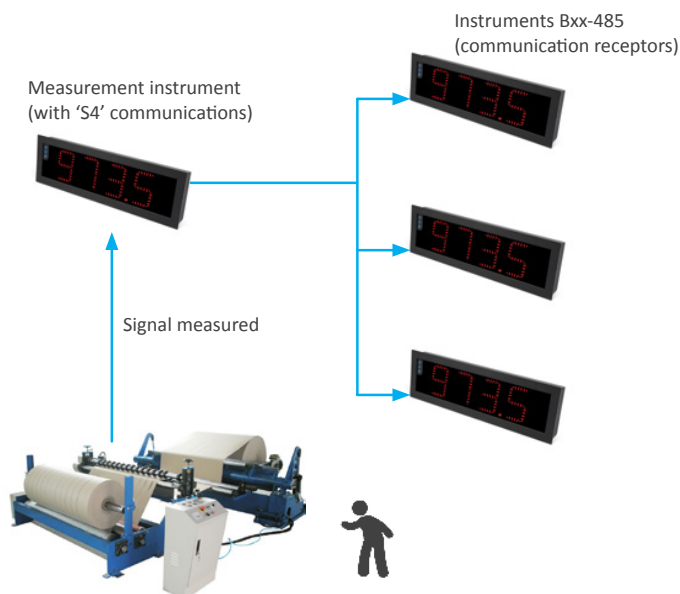LE (◄)
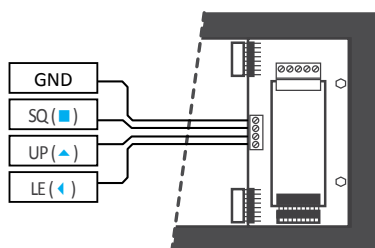
Example of application with control

A manufacturing line is controlled from a centralized PLC or SCADA. The PLC receives and manages all the information related to process control. Some information is critical to the local operators, and it is communicated through the ASCII protocol repeaters. Critical information depends on each application, for example, production rates, total stop times, trouble codes, etc.

RS-232 ASCII

Relay 1

Relay 2
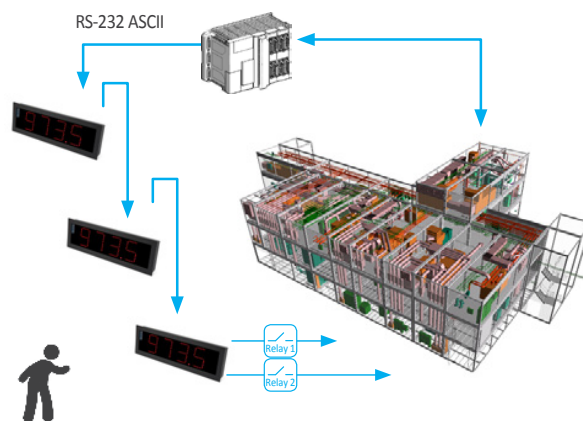
One measure, multiple information points

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.

Instruments Bxx-485
(communication receptors)

Measurement instrument
(with 'S4' communications)

Signal measured

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Other options

Red color
JPG

Red leds

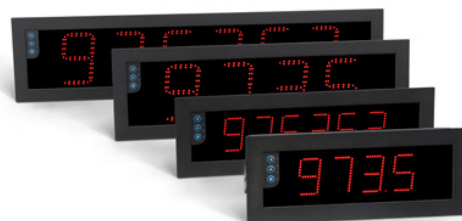### Green color
JPG

Green leds

White color
JPG

White leds

Cable output
JPG

Preinstalled cable, 2 meters

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

Accessories

RKB
Remote keypad

IPB24
JPG

IP65 protection for the B24 panel junction

IPB26
JPG

IP65 protection for the B26 panel junction

IPB44
JPG

IP65 protection for the B44 panel junction

IPB46
JPG

IP65 protection for the B46 panel junction

Other RS-232 ASCII repeaters

Series M
4, 5 and 6 digits
digit height . . . . . . 14 mm
color . . . . red, green
vision . . . . 5 meters
size . . . . 96 x 48 mm

DIGITAL PANEL METER
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

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