B26-C1 Impulse counter, Ratemeter

Large format meter with 6 digits and 60 mm digit height, for reading up to 25 meters for industrial applications. Impulse counter, ratemeter and periodmeter functions. Versatile and configurable instrument, accepts all type of impulse signals and encoders. Provides excitation voltage to power-up the sensor. 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	6
Reading	999999 / -199999
Decimal point	configurable
Led color	red or green
Digit height	60 mm
Type of digit	7 segment
Angle of vision	120º

Input signal

Signals accepted	NPN, PNP, Namur, pick-up, TTL, inductive, mechanical ,quadrature, ...
Excitation voltage	+5 Vdc, +9 Vdc, +15 Vdc, +18 Vdc (max. 70 mA)
Maximum Vdc at input terminals	±30 Vdc
Quartz accuracy	±0.01 %
Thermal stability	20 ppm/ºC
Display refresh	15 refresh / second
Maximum frequencies	counter up to 250 KHz
	ratemeter and periodmeter up to 500 KHz
Minimum frequencies	ratemeter and periodmeter down to 1 mHz (0.001 Hz)
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	<3.5 W (meter only)
	<5.5 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	<3500 grams
Mounting	panel, wall, hanging
Front size	436 x 135 mm
Panel cut-out	418 x 117 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
B26	C1	H	R				

-H *(85-265 Vac and 120-370 Vdc)*
-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)*

Rear view

Output and control options

Format	Model	Power	Color	Option 1	Option 2	Option 3	Custom
B26	C1	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

Mounting options

hanging

wall

panel

side fixations (included)
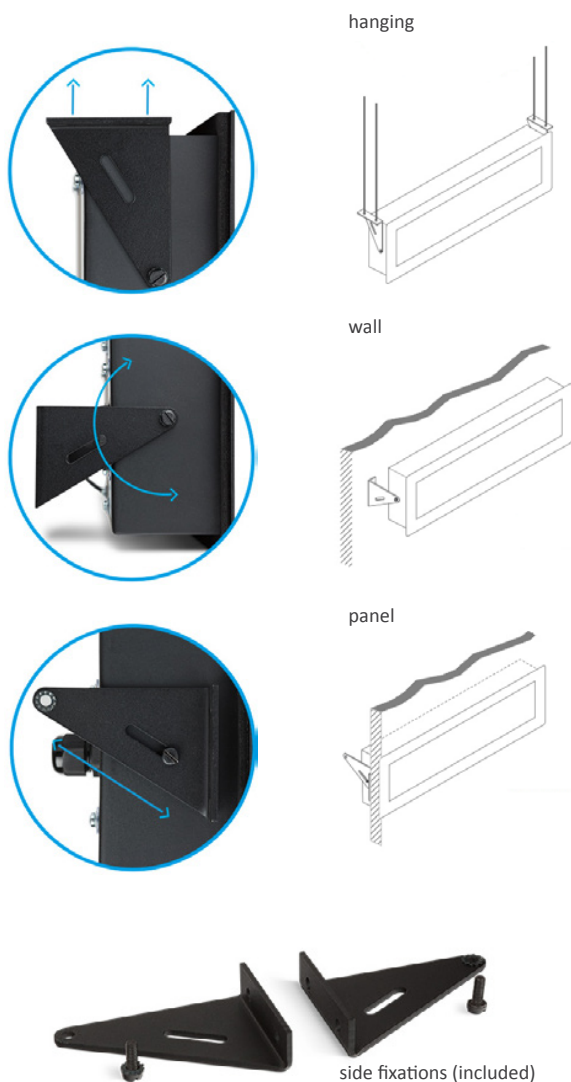
Functions included

'**Fast access**' menu	a single press on the front keypad gives access to alarm setpoint modification, preset, memories, ...
Function '**SLOW**'	special mode for low frequency ratemeter applications
Function '**FAST**'	special mode for high frequency counter applications
Scaling factor	multiplier and divider from 1 to 999999
Configurable reset.	remote, front and linked to alarm activation
Preset.	configurable
Trigger level.	configurable
Function '**Trigger Sense**'	help on setting the correct trigger level
Sensor selection	by menu
Cycle counter	count of cycles defined by the 'on alarm reset' function
Retention memory.	recovers the counting value in case of power loss
'**On power-up**' function	protects systems at cold start-up.
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
Brightness	5 levels of brightness intensity.
Memory.	maximum, minimum, cycles, ...
Password	blocks access to configuration menu.

Dimensions

436 mm

135 mm

Cable glands

Power   Remote keypad

Option 3   Option 2   Option 1   Signal

80 mm   3 mm

Panel cut-out

117 (±1) mm

418 (±1) mm
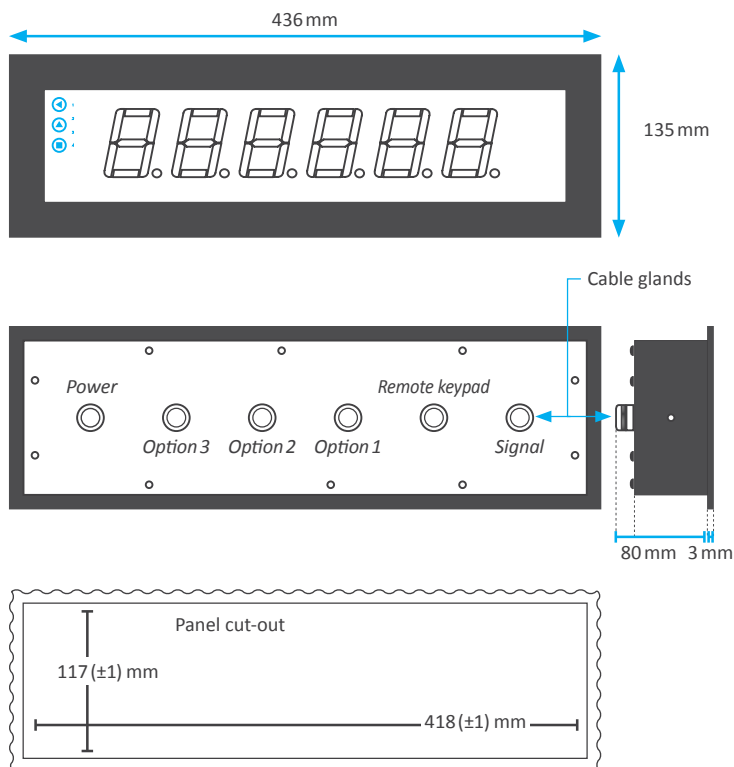
45 YEARS 1969-2014

Q ISO 9001 Certified Quality

CE EN-61010-1 Security

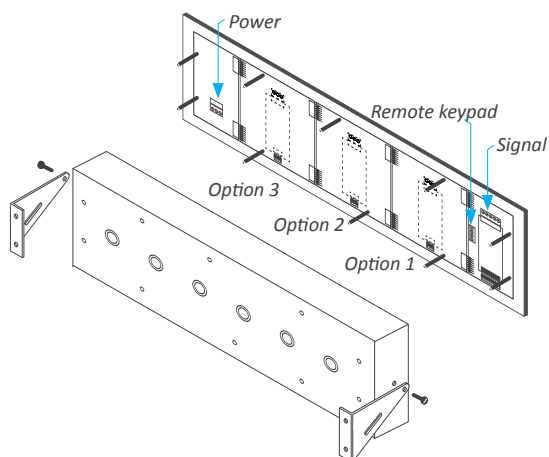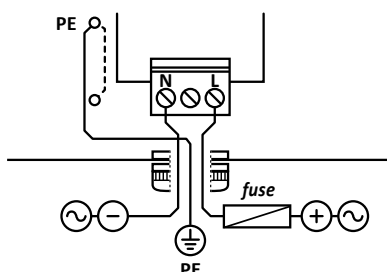**CE EN-61326-1** Electromagnetic C.

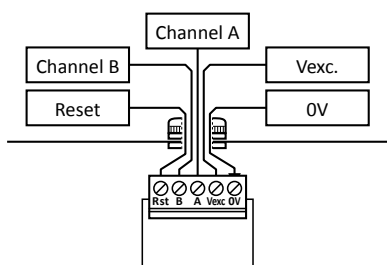**5 YEARS** Extended Warranty

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

Channel A

Channel B

Vexc.

Reset

0V

Rst B A Vexc 0V

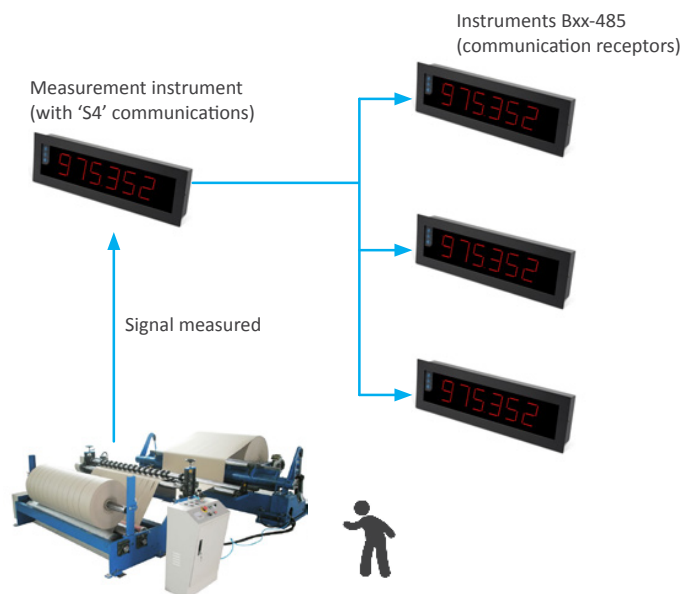### Connections for remote keypad

GND

SQ (■)

UP (▲)

LE (◄)
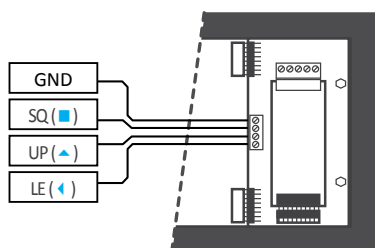
Example of application with control

Reading of the total meters of paper processed at a paper mill, from a bidirectional encoder signal. Operator has a manual reset control to set the counter to '0' at start. A relay output stops the mill when the total desired meters has been reached. A second meter, configured as ratemeter, reads the actual RPM speed of the roller. A relay output controls an alarm signal in case of excessive speed

Alarm relay

Ratemeter (RPM)

975352

Counter of meters

975352

Encoder signal

Reset to '0'

Stop relay
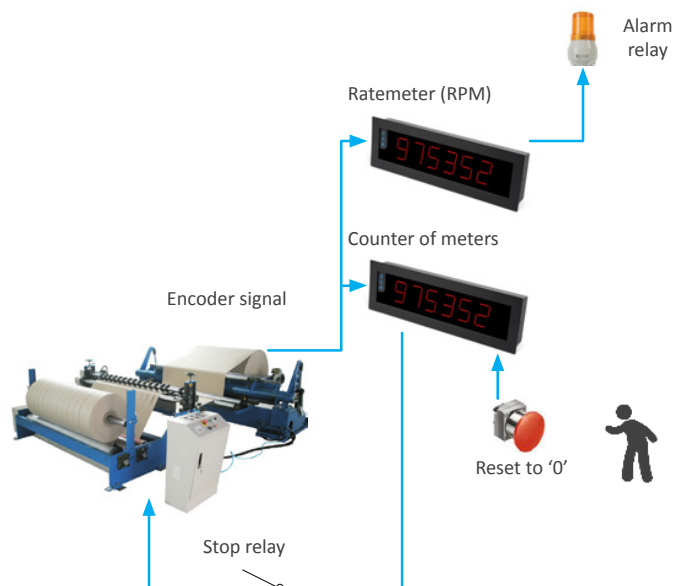
One measure, multiple information points

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)

975352

Measurement instrument
(with 'S4' communications)

975352

Signal measured

975352

975352

Datasheet

Other options

Red color
JPG

Red leds

Green color
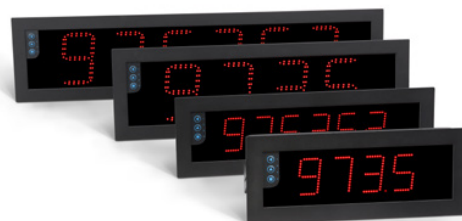JPG

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 Counters and Ratemeters

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

Series K
Further view
digit height . . . . . . 20 mm
color . . . . red
vision . . . . 8 meters
size . . . . 96 x 48 mm

Series S
Compact size
digit height . . . . . . 14 mm
color . . . . red, green
vision . . . . 5 meters
size . . . . 72 x 36 mm