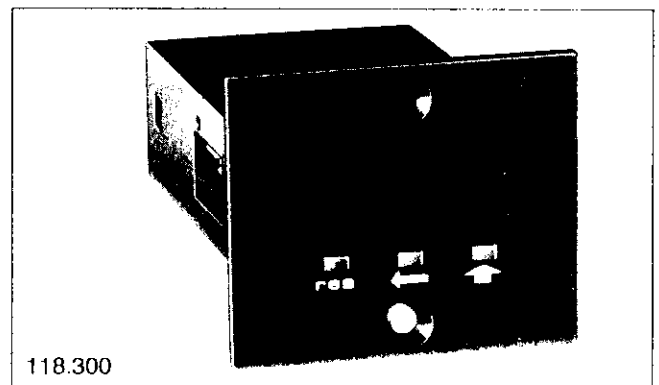
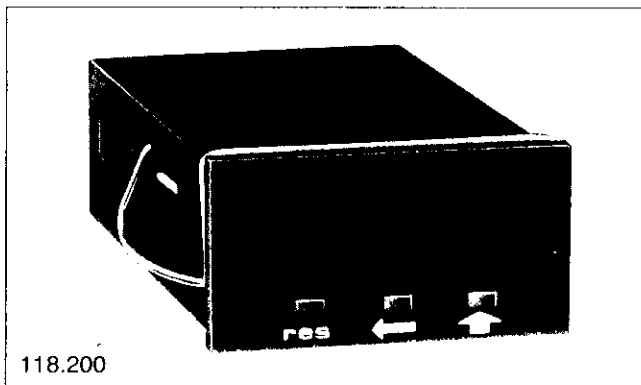
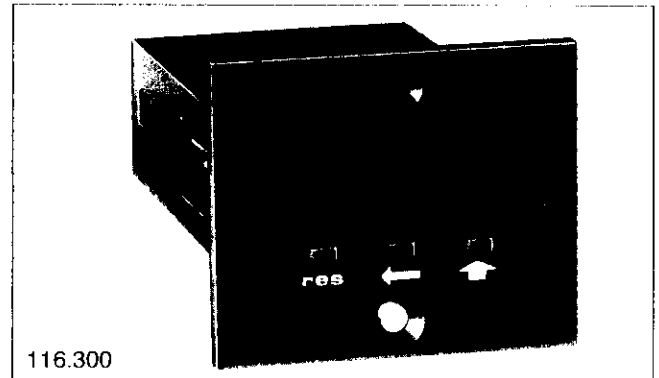
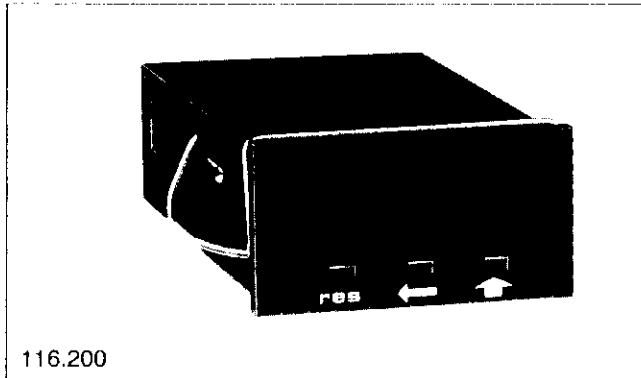


TECHNICAL INFORMATION

6 or 8 digit accumulating / subtracting display counters with sign, standard series 116 and 118

Kübler
You may count on

2.91.1 (ED. 6.91)



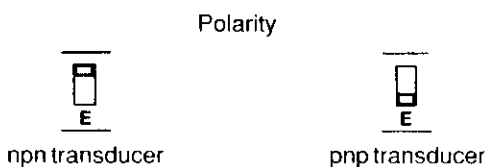
Display counters 116 and 118 are incrementing / decrementing counters with sign. Type 116 has an LED 7 mm high. Its counting range extends from -99 999 to 999 999.

The LED for type 118 is 3.2 mm high and has a counting range of -9 999 999 to 99 999 999. With both counters the number of count pulses can be evaluated with a factor between 0.0000 and 99.9999. Consequently the counters can be accommodated to any measurement task. In addition, both counters can be used for time measurement with increments of seconds, 0.01 seconds, 0.01 hours and hours/minutes/seconds. They are therefore ideally suited for position indicators, length measurement devices, recording of quantities and time. The counter reading is saved for at least 10 years in the event of power failure.

Inputs:

The inputs can be operated with either npn transducers (switching to 0 volts) or pnp transducers (switching to +24 volts) but not with mixtures of transducers with different polarity. Any edge sharpness of the input impulses is possible, since the inputs have Schmitt trigger characteristic.

Switch setting of the counter



Zeroing input:

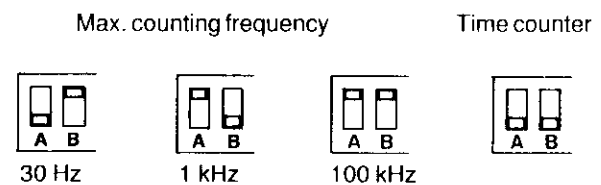
This dynamic input sets the actual value of the counter to zero. A continuous signal does not interrupt the counting process.

Gate input: While this static input is activated the counting process is stopped.

Memory input: While this static input is activated the display of the counter reading stops. The counter itself continues to count in the background.

Counting inputs: It is possible to change over the maximum counting frequency of the counting inputs. These switches are used simultaneously to change over between the counter and time counter modes.

Switch setting on the side of the counter



Input types of counting inputs:

(can be set by the user):

E1: An impulse or counting input and an input for direction control. If this input is not connected, the counter adds (increments). If it is connected, the counter subtracts (decrements).

E2: Differential input with both an incrementing input and a decrementing input.

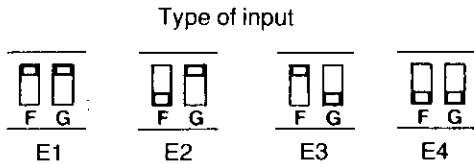
E3: Phase discriminator input for transducers with two pulses for automatic count direction recognition which are offset by 90 degrees.

E4: Phase discriminator input with double evaluation of pulses. Each pulse edge of a pulse input generates one counting pulse (Quadrature x 2)

Subject to changes without prior notice

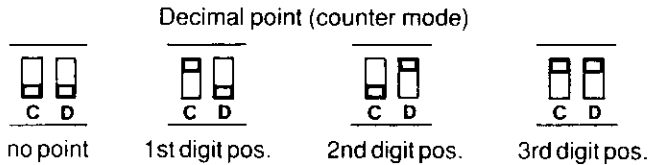
Setting the input types

Switch settings on the side of counter

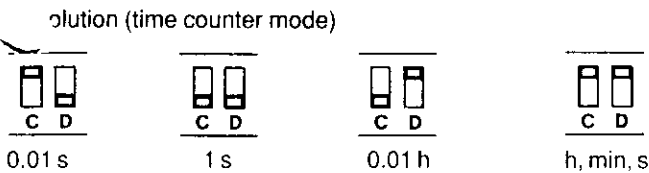


Decimal point: In the counter mode the user can set a decimal point at various positions. In the time counter mode these same switches are used to select the display increments.

Switch setting on the side of counter



Switch position on the side of counter



Factor input: When the middle or right-hand button on the front panel is pressed during the pulse counter mode, the factor is displayed instead of the counter reading. Press the middle button again to select the decade to be changed. It is highlighted by its brightness. Press the right-hand button to change the value of the highlighted decade. If the button has not been pressed after approx. 8 seconds, the counter reading reappears.

Manual zeroing: Press the left-hand button on the front panel to set the counter to zero.

Button interlocking: The user can disable the zeroing and factor input buttons.

Switch setting on the side of the counter



Overflow: Depending on the count direction (with or without sign) and factor, the maximum display value can overflow 2 to 4 decades without any loss of pulses. If the count is above or below the display range, the decimal point lights up after the first decade and the pre-zero suppression is cancelled.

Technical data:

Power supply E_{op} :	11 – 30 VDC max. 100 mA
Display:	6-position LED, digit height 7.0 mm (type 116) 8-position LED, digit height 3.2 mm (type 118)
Housing:	Protective system IP 30 Front panel, protective system IP 40 With flexible cover, protective system IP 54
Inputs:	Polarity can be changed over jointly Input resistance approx. 10 k Log. "1" min. 0.6 x E_{op} max. 30 V Log. "0" min. 0 V max. 0.2 x E_{op}
Frequency of the counting inputs:	Adjustable to 30 Hz, 1 kHz or 100 kHz
Minimum pulse time or zeroing input:	5 ms
Date saving:	min. 10 years or 1 million save cycles
Ambient temperature:	0° to + 50° C
Weight:	approx. 100 g

Order number code:

6.116.200.300

Colour:

- 0 = grey
- 1 = black

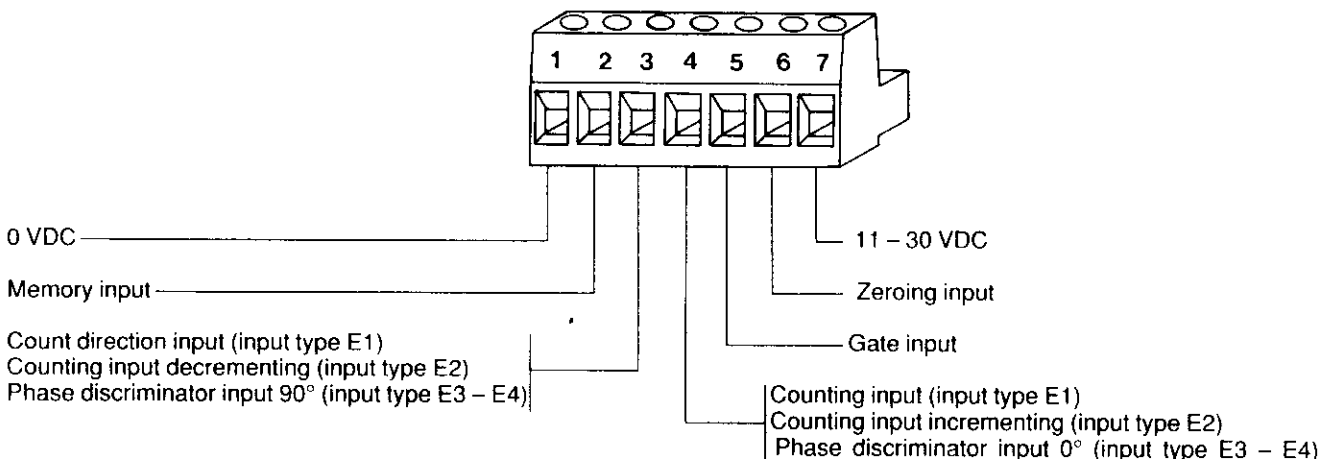
Front frame:

- 2 = latch fastener
- 3 = screw-type fastener
- 4 = screw-type fastener
with flexible sealing cap K1
- 5 = transparent cover, latchable
- 6 = transparent cover, lockable
- 7 = transparent cover, latchable,
attached at top
- 8 = transparent cover, lockable,
attached at top

Counter type:

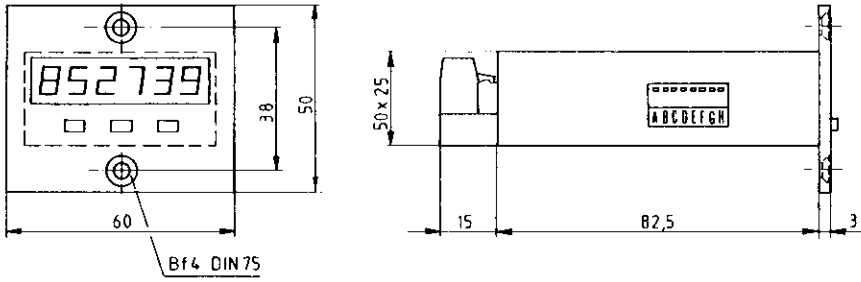
- 116 = 6-digit
- 118 = 8-digit

Assignment of the plug-in terminal

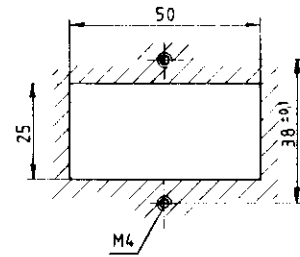


Dimensions:

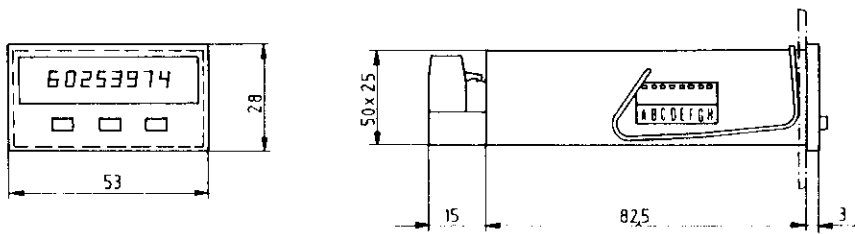
**116.3 (6-digit)
118.3 (8-digit)**



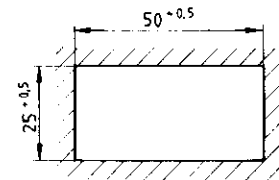
Panel cut-out



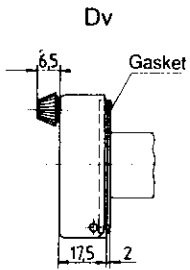
**116.2 (6-digit)
118.2 (8-digit)**



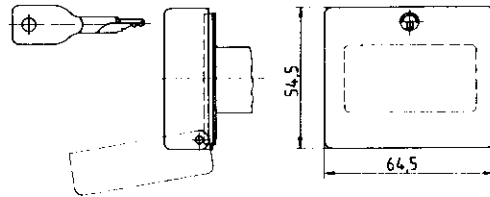
Panel cut-out



Transparent cover



Dvs



Flexible sealing cap

