

# SIGNAL CONVERTER 520.11

**DIEHL**  
Metering

ELECTRONIC ACCESSORY | DISPLAY AND  
CONTROL DEVICES



## APPLICATION

The spectrum of applications primarily covers the transmission of instantaneous values and provides the basis for the display and/or recording of flow rates in pipes. The current output is also used for various control and monitoring tasks.

## FEATURES

- ▶ Designed as snap-on housing for mounting rail
- ▶ 2-channel control options for compound meter: infrared reflex pulse transmitter (571), two-wire proximity switch to DIN 19234 (NAMUR) (572, 573) self-optimizing level, electronic counter module, mechanical compact energy meter RAY
- ▶ Front-panel programming buttons for setting menu controlled functions
- ▶ Freely programmable input pulse values
- ▶ Filtered output signal 0/4 mA ... 20 mA and 0/2 V ... 10 V
- ▶ 1 floating output (make contact, open collector)
- ▶ Electrically isolated measuring and supply circuits
- ▶ Selftest, self-monitoring
- ▶ LC display for flow rate (m<sup>3</sup>/h or l/s); min./max. flow rate; meter reading; menu guidance
- ▶ M-Bus interface (option)

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## FUNCTION

The microprocessor-controlled LCD universal signal converter converts the pulses from the volume measuring components in the water meters (main meters and submeters) to a dc current proportional to the flow rate (digital-analogue converter). The current amplitude is proportional to the instantaneous flow rate.

The converter is also used for converting high-resolution pulses to decadic pulses (e.g. m<sup>3</sup>). The signal converter 520.11 is programmed via touch controls on the front panel.

## TECHNICAL DATA

SIGNAL CONVERTER 520.11	
Supply voltage	20 ... 250 V AC / DC, approx. 100 mA ... 10 mA
Linearity	% < 0.4
Temperature drift	% < 0.5 (0 ... 55 °C)
Storage temperature	°C -20 ... +70
Operating temperature	°C -10 ... +55
Inputs	Infrared reflex light barrier (571), Infrared light barrier with amplifier (PV-14), Proximity switch (NAMUR) to DIN 19625/EN 50227 (572, 573), electronic counter module, RAY
Input frequency range	Hz 0 ... 0.1 to 0 ... 99.9
Output current	mA 0 (4) ... 20 (max. load 650 Ω)
Output voltage	V 0 (2) ... 10 (min. load 3 kΩ)
Pulse output	Optocoupler bipolar FET (make), max. 230 V AC / 100 mA
Pulse value	Freely adjustable
Interface	M-Bus (optional)
Display indication	LCD, 2-line
Values displayed	Current flow rate, current meter reading, min./max. flow rates
Setting / programming	Via touch controls / menu-controlled entry of programming data
Housing - type	Snap-on housing
Housing - fixing	Mounting rail to DIN 46277
Protection class	IP 30
Weight	g Approx. 400
EMC - interference immunity	EN 50081-1
EMC - noise emission	EN 50082-2

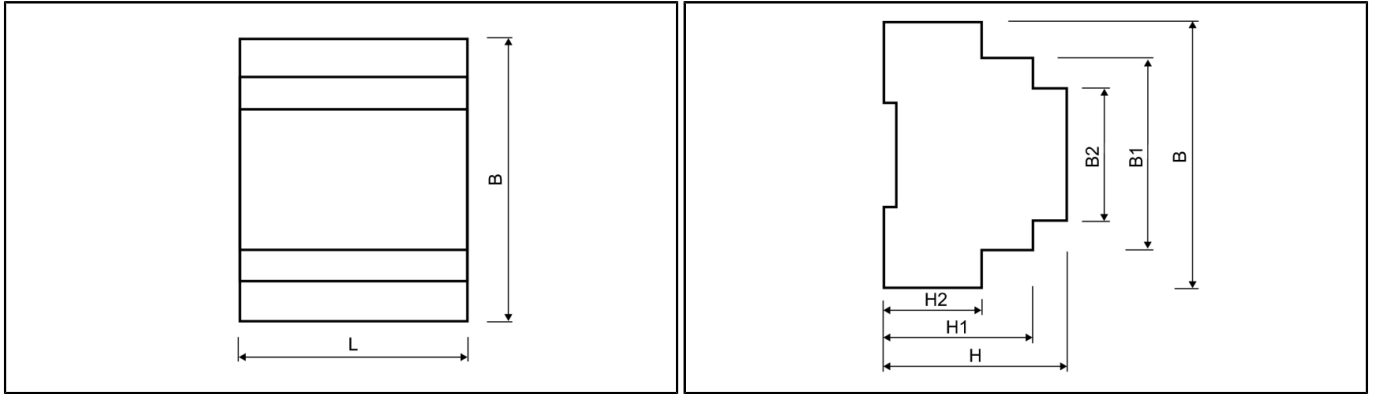
## NOTE

The use of overvoltage protectors is recommended if long cables are necessary for connecting the measuring sensor to the signal converter or the converter to the display unit.

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## DIMENSIONS

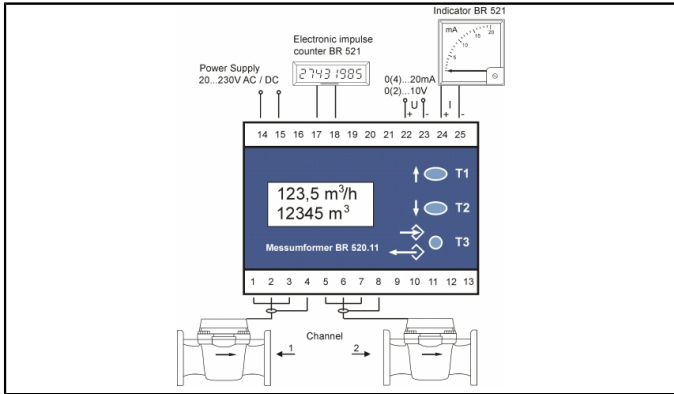


SIGNAL CONVERTER 520.11			
Length	L	mm	72
Width	B	mm	91
Width	B1	mm	65
Width	B2	mm	46
Height	H	mm	62
Height	H1	mm	51
Height	H2	mm	33

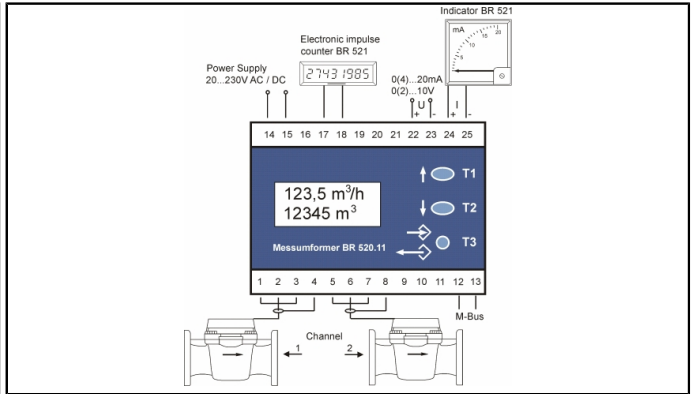
## ORDER REFERENCES

Type	Standard	Option M-Bus
Article number	520 000 18	520 000 19

## CONNECTIONS

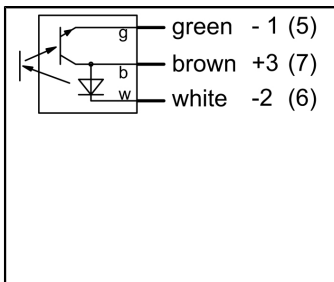


Standard

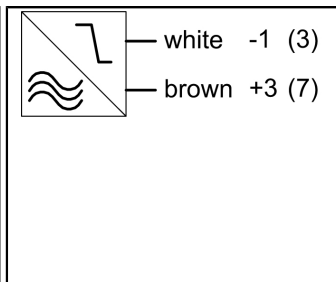


M-Bus

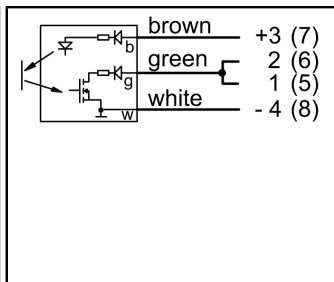
## CONNECTION OF SENSORS



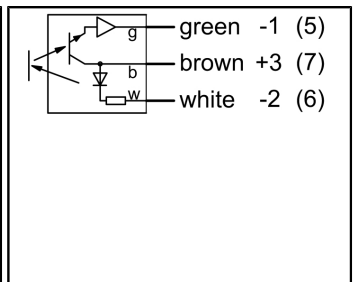
Reflex light barrier (571)



Namur (572, 573)



Open drain (573)



Reflex light barrier PV 14

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## CONNECTION OF SENSORS / METERS

