

Pulse width analyzer 5170

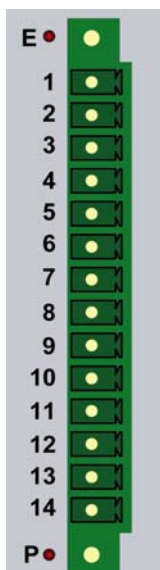


- Pulse width analyzer
- Current data input
- 16Bit pulse width counter and 22Bit period counter
- Resolution time: 1µs

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Pinout

0	4	8	12
1	5	9	13
2	6	10	14
3	7	11	15



LED:	0; (8)	A
E:		failure
P:		power supply

Pin	Signal
1	A
2	not used
3	not used
4	not used
5	not used
6	not used
7	not used
8	not used
9	not used
10	not used
11	VCC *)
12	0V
13	VCC *)
14	0V

*)
All Power VCC and Power 0V are internal connected

Attributes

Dataformat:

- 16 Bit pulse with counter
- 22 Bit period counter

Operation:

Of the selected input the pulse width and period will be counted in steps by 1µs.

max pulse width:65 535 µs

max period: 4 194 303 µs = ~ 4 sec

Signal inversion of input is possible

Electrical Data

Power supply external..... GND required, VCC 12VDC, depends from input signal *)
 Operating current..... 14mA at 12V
 Operating current @ctiveBus..... 25mA at 3,3V / 25mA at 5V
 Input protection 30V overvoltage; channel A => 5V overvoltage
 Limiting frequency..... 1 MHz
 Data input A current input 7mA low, 14 mA high

*) see notes

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System Information

System ID 0x286
 System address space 48 bit in, 48 bit out

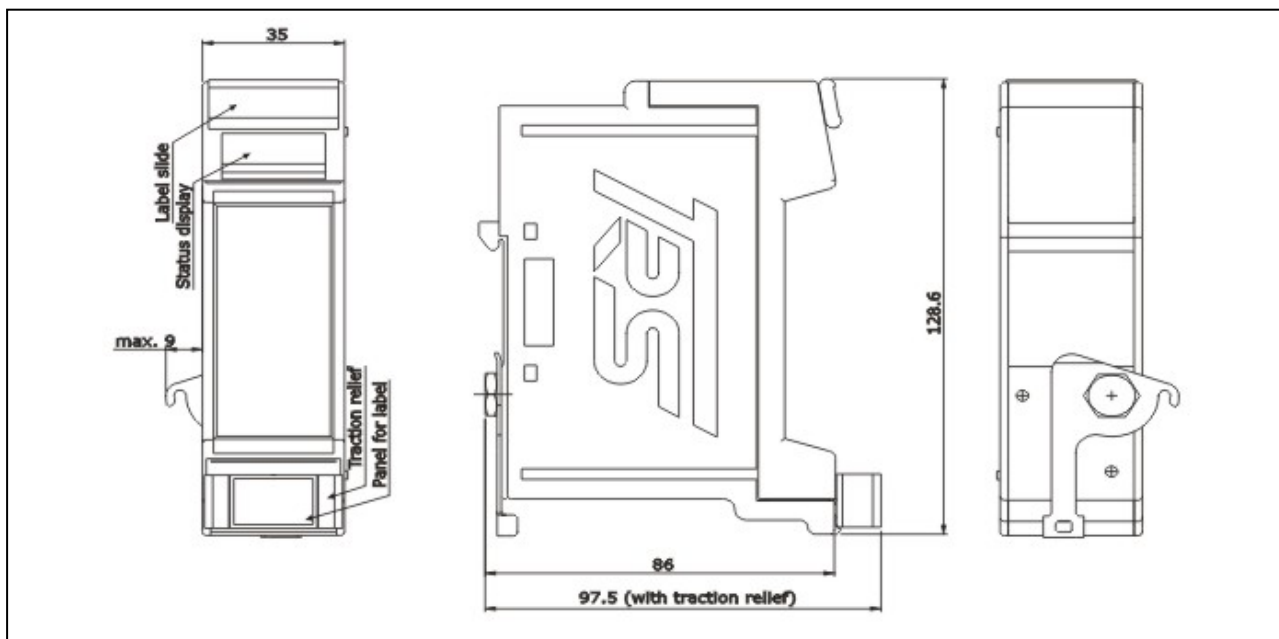
Environmental Conditions

Electromagnetic compatibility (EMC) EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)
 Operating temperature [°C] 0 .. +50
 Storage temperature [°C] -20 .. +70
 Humidity (rel) 98 % (non condensing)
 Protection class* IP 20 (DIN 40 050)
 *The protection class is valid only with housing and connector installed

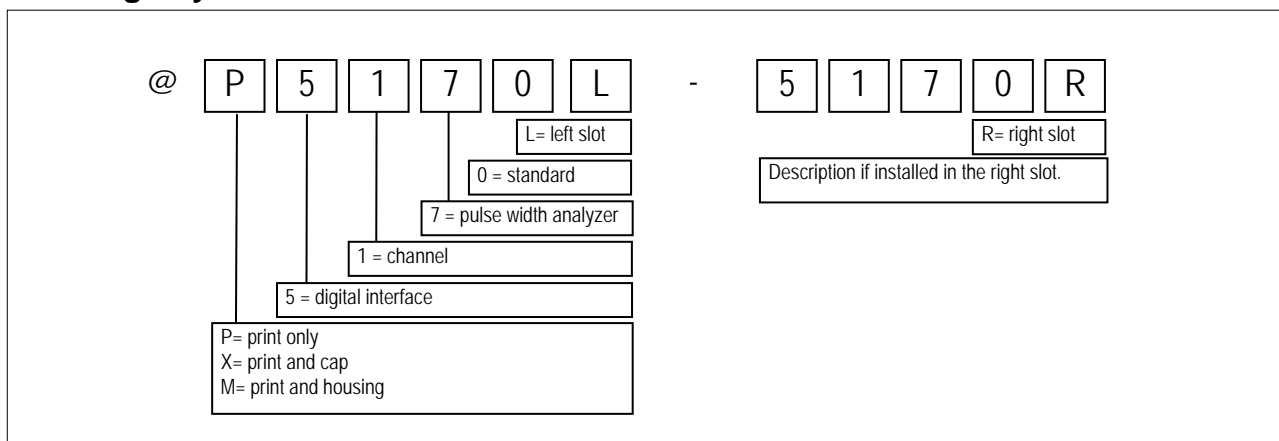
Mechanical Data PCB

Weight approx. 0.05 kg including connector
 Dimension 105mm x 80mm x 12mm

Drawing (effective if mounted in @M housing)



Ordering Key

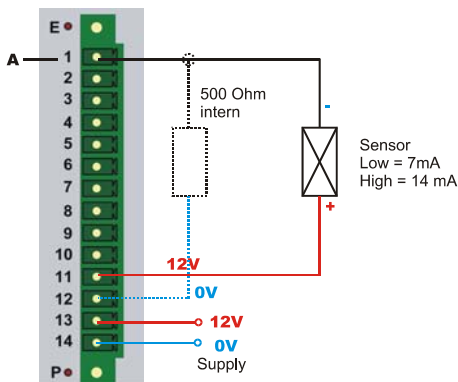


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notes:

Example of Application



notes:

System bus data:

Bit	Name	Description
0-15	pulse width counter	duration of high pulse will be counted. Resolution 1µs. Max value 65535. On overflow max value will remain.
16-37	pulse period counter	duration of signal period will be counted. Resolution 1µs. Max value 4194303. On overflow max value will remain.
38 - 47	not used	

Failure behavior:

Inputsignal not connected or permanent zero

counter pulse width:..... last valid value or zero
 counter period:..... after counter overflow (>4 seconds) value 4194303

Inputsignal permanent high

counter pulse width:..... after counter overflow (>65 ms) value 65535
 counter period:..... after counter overflow (>4 s) value 4194303

Inputsignal pulse width bigger than max pulse width value

counter pulse width:..... after counter overflow (>65 ms) value 65535
 counter period:..... valid value if no period overflow

Inputsignal period bigger than max period value

counter pulse width:..... valid value if no pulse width overflow
 counter period:..... after counter overflow (>4 seconds) value 4194303

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