



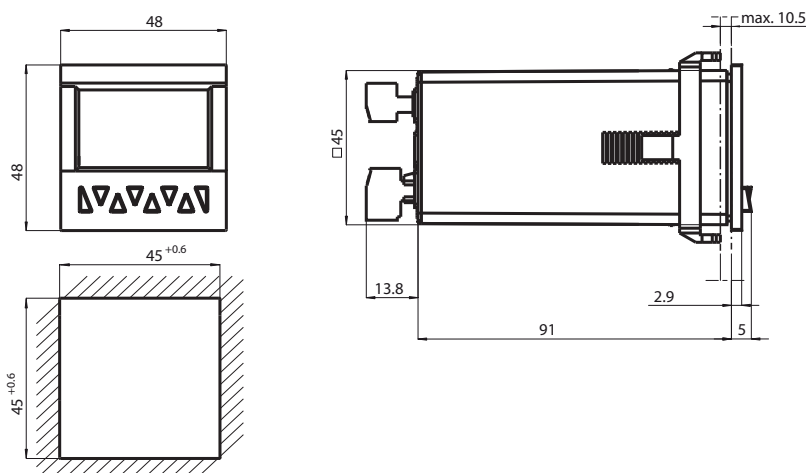
Timer, Counter, Tachometer KC-LCDC-48-2T-24VDC

- Counter/Timer/Tachometer
- Adding/subtracting via 2 separate inputs
- Batch controller with 2 pre-selections
- 2 potential-free optocoupler outputs
- Easy-to-read 2-line LCD display, color, with icons for the displayed preselection and the status of both outputs
- Multicolor display
- Display range and preselection range from -999999 up to 999999
Overflow will be evaluated correctly up to 1 decade
- PNP and NPN sensors can be connected
- Degree of protection IP65 (front only)

LCD batch controller with 2 optocoupler outputs and 24 VDC supply voltage



Dimensions



Technical Data

General specifications

Pre-selection	2-fold
Data storage	> 10 years, EEPROM
Programming	keypad-driven menu

Functional safety related parameters

MTTF _d	410 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Type	2-line, 2 x 6-digit LC display with leading sign Multicolor, backlit
Display value	digit height 9 mm
Pre-selection	digit height 7 mm
Key interlock	via "high" potential at "LOCK" input
Decimal point	0 to max 5 fractional digits
Scale factor	0.0001 ... 99.9999

Release date: 2020-03-23 Date of issue: 2020-03-26 Filename: 214739_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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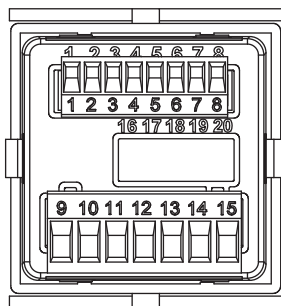
 **PEPPERL+FUCHS**

Technical Data

Reset	manually or external	
Electrical specifications		
Fusing		10 ... 30 V DC: T 0.2 A
Operating voltage	U _B	10 ... 30 V DC
Power consumption	P ₀	max. 1.5 W
Input		
Connection	Counter inputs: A and B Control/reset inputs: LOCK, RESET, GATE, MPI	
Signal voltage		
High		0.6 x U _e ... 30 V DC
Low		0 ... 0.2 x U _e
Counting frequency		30 Hz / 55 kHz
Minimum pulse duration		Control/reset inputs: 10 ms / 1 ms
Impedance		5 kOhm
Count modes		
Pulse counter		Counting with counting direction (cnt.dir), difference counting (up.dn), up/down counting (quad), Cumulative counting (up.up), up/down counting x 2 (quad 2), up/down counting x 4 (quad 4), additional functions for counter input A and counter input B: A/B, (A-B)/A x 100%
Frequency counter		functions for input A and input B: A, A-B, A+B quad, A/B, (A-B)/A x 100 %
Timer		Time measurement via GATE input (FrErun), counter input A: Start, counter input B: Stop (InpA.InpB.), counter input B: Start/Stop (InpB.InpB.), time measuring via RESET input (auto)
Output		
Sensor supply		connected power supply is looped through, max. 80 mA
Response time		approx. 1 ms
Optocoupler		Schaltleistung 30 V DC / 10 mA
Signal voltage		U _{CESAT} with IC = 10 mA: max. 2 V U _{CESAT} with IC = 5 mA: max. 0.4 V
Compliance with standards and directives		
Directive conformity		
EMC Directive 2004/108/EC		EN 61000-6-2:2005, EN 50295:1999
Standard conformity		
Emitted interference		DIN EN 55011:2009, Class B
Mech. capacity		EN 60068-2-6:2008 10 ... 55 Hz / 1 mm / XYZ 30 min in each direction
Shock and impact resistance		EN 60068-2-27:1995 100 G / 2 ms / XYZ 3 times in each direction
Ambient conditions		
Ambient temperature		-20 ... 65 °C (-4 ... 149 °F)
Storage temperature		-25 ... 75 °C (-13 ... 167 °F)
Relative humidity		≤ 93 % at 40 °C (noncondensing)
Altitude		0 ... 2000 m
Mechanical specifications		
Degree of protection		IP65 (front)
Mass		approx. 130 g
Dimensions		48 mm x 48 mm x 109.8 mm

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Connection



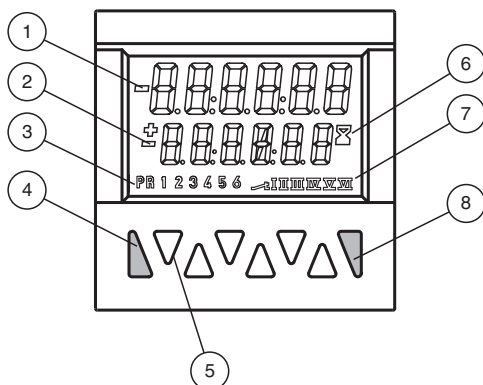
Signal and control inputs

- | | |
|---|--------------------------|
| 1 | Sensor supply voltage |
| 2 | GND (0V) |
| 3 | INP A (Signal input A) |
| 4 | INP B (Signal input B) |
| 5 | RESET (Reset input) |
| 6 | LOCK (Input Keypad lock) |
| 7 | GATE (Gate input) |
| 8 | MPI (User input) |

Supply voltage and outputs

- | | | |
|----|----------------|------------------|
| 9 | Collector |] Output 1 |
| 10 | Emitter | |
| 11 | Collector |] Output 2 |
| 12 | not connected | |
| 13 | Emitter |] Supply voltage |
| 14 | 10 ... 30 V DC | |
| 15 | GND (0V) | |

Assembly



- | | |
|---|--|
| 1 | Current count value |
| 2 | Preset value |
| 3 | Indicator preset value (at 9) |
| 4 | Reset key |
| 5 | Decade keys 1 to 6 /
Keys for programming |
| 6 | Run display for timer |
| 7 | Shows the active output |
| 8 | Prog/Mode key |