

Overview

- For universal counting inputs
- For tachometer and frequency
- Display range can be linearised
- Three control inputs, programmable
- Display stabilization filter
- LED display, 5-digits, 3 colors, programmable
- Min, Max functions
- Without output
- DIN housing 96 x 48 mm



Technical data

Technical data - electrical ratings

Voltage supply	10.5...70 VDC 21...53 VAC
Nominal frequency	50 / 60 Hz
Power consumption	8 W
Sensor supply	8.2 VDC @ 30 mA 20 VDC (not stabilized) @ 100 mA
Display	LED, 7-segment display (with 100 unit stickers for front)
Display color	3 colors - red, green, amber
Number of digits	5-digits + activity indicator
Digit height	14 mm
Display range	-99999 ... 99999 "OvE" as overflow display
Function	Totalizer Hour counter Tachometers Frequency display
Programmable parameters	Analog input Measuring range Display intensity Display color Display range can be linearised Decimal point Relay outputs with time delay or hysteresis
Limits	Without
Calculating functions	Unidirectional 1 input A Unidirectional 1 input A + Stop count input B Differential inputs A - B Bidirectional 1 input A + direction input B (Up/Down) Bidirectional inputs A 90° B
Control inputs	3 programmable Optocoupler inputs logic NPN

Technical data - electrical ratings

Inputs	NPN PNP Namur Voltage 10...300 VAC Encoder 2x90° TTL
Control functions	13 programmable functions
Counting frequency	Tachometer 0.01 Hz ... 8 kHz (with counter) Tachometer 0.01 Hz ... 20 kHz (without counter) Pulse counter 9 kHz (with counter) Pulse counter 11 kHz (without counter)
Scaling factor	0.0001 ... 99999
Count mode	Pulse counter: Main counter XP + Totalizer Σ Operating hours counter: Main counter XP + Totalizer Σ Tachometer XP with direction of rotation + Totalizer Σ Frequency counter XP
Measuring range	Main counter from -99999 ... 99999 Operating hours counter 999 s 99/100 s - 99999 h Tachometer 0 ... 99999 Frequency counter 0 ... 99999 Totalizer -99999 ... 99999 Programmable decimal point
Data memory	>10 years in EEPROM
Reset	Button and electric
Analog output	Without
Outputs relay	Without
Standard DIN EN 61010-1	ISO 16750-2 (Electrical loads)
Emitted interference	EN 61000-6-3
Interference immunity	EN 61000-6-2
Approval	CE

Technical data - mechanical design

Operating temperature	-10...+60 °C
-----------------------	--------------

Technical data

Technical data - mechanical design

Storage temperature	-25 ... +80 °C
Relative humidity	95 %
Connection	Spring-loaded terminal connector, detachable
Core cross-section	1 mm ² (Grid 5.08) 2.5 mm ² (Grid 7.62)
Protection EN 60529	IP 65 (face)
Operation / keypad	Membrane with softkeys
Housing type	Built-in housing

Technical data - mechanical design

Dimensions W x H x L	1/8 DIN 96 x 48 x 96 mm
Cutout dimensions	92 x 45 mm (+0.3)
Mounting depth	83 mm
Mounting type	Front panel installation by clip frame
Weight approx.	160 g
Material	Housing: Polycarbonate, UL 94V-0

Inputs and outputs

Inputs

Input	Frequency	Specification	Input resistance
Namur	Counter input max. 11 kHz	I _{on} <1 mA DC / I _{off} >3 mA DC	3.3 kΩ
NPN, PNP	Tachometer 0.01 Hz...20 kHz	„0“ <2.4 VDC / „1“ >2.6 VDC	
TTL/24 VDC (encoder)			
Contact input	Counter input max. 20 Hz	Control voltage 5 VDC	3.9 kΩ
Voltage (1 input)		Control voltage 10...300 VAC	

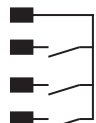
Terminal assignment

Voltage supply

Pin	Assignment VAC	Assignment VDC
1	Phase	-
2	Neutral	+

Control inputs

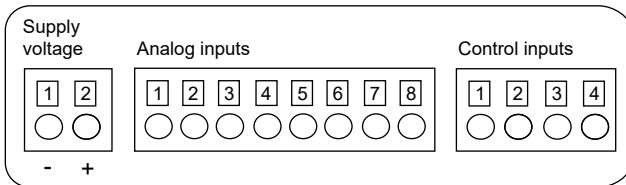
Pin	Assignment
1	Common
2	IN 1
3	IN 2
4	IN 3



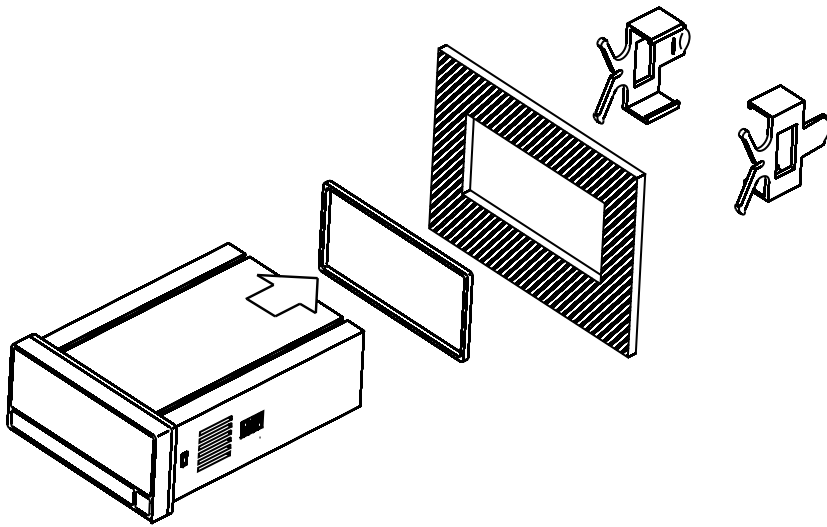
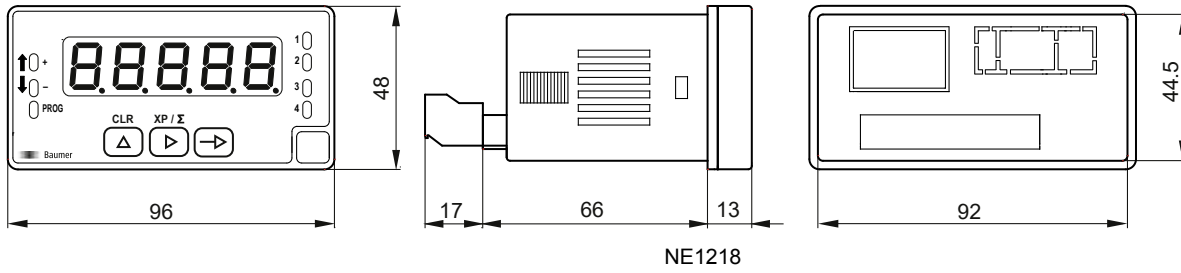
Analog inputs

Pin	Assignment
1	n.c.
2	Sensor supply +20 V
3	Sensor supply +8.2 V
4	Sensor supply - / IN-
5	Track B +
6	Track A +
7	n.c.
8	Input 10...300 VAC

Connection diagram



Dimensions



Clip frame mounting