

**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
- With 2 relay outputs
- 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	Input signal Measuring range Display intensity Display color Display range can be linearised Decimal point Relay outputs with time delay or hysteresis
Limits	2
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	2 change-over contact, floating
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
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The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

## 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 <sup>2</sup> (Grid 5.08) 2.5 mm <sup>2</sup> (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 <sub>on</sub> <1 mA DC / I <sub>off</sub> >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	

**Relay outputs**

Relay	Switching voltage max.	Switching current max.	Switching performance max.
2x changeover	250 VAC / 110 VDC	1 A	150 VA / 30 W
4x normally open	250 VAC / 50 VDC	0.2 A	30 VA / 6 W

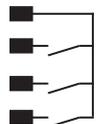
**Terminal assignment**

**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

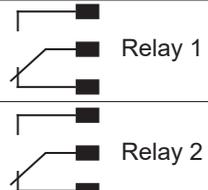


**Analog inputs**

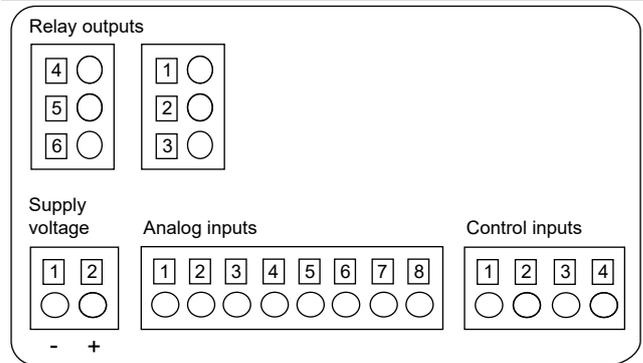
Pin	Assignment
1	n.c.
2	Sensor supply +20 V
3	Sensor supply +8.2 V
4	Sensor supply - / IN-
5	Track B +
6	Track A +
7	n.c.
8	Input 10...300 VAC

**Relay outputs / two relays**

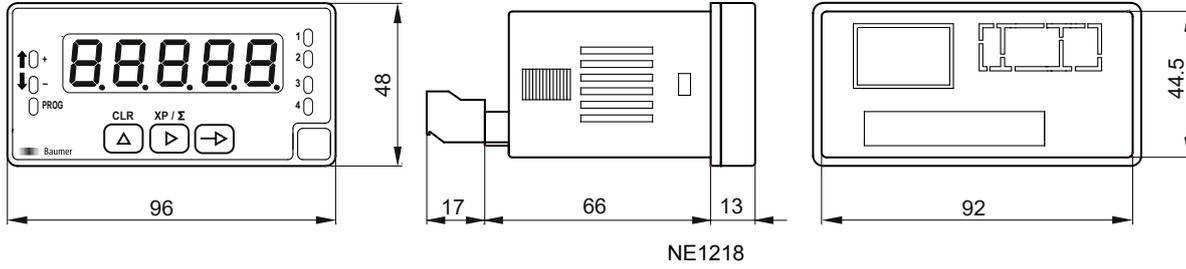
Pin	Assignment
1	Normally open
2	Changeover
3	Normally closed
4	Normally open
5	Changeover
6	Normally closed



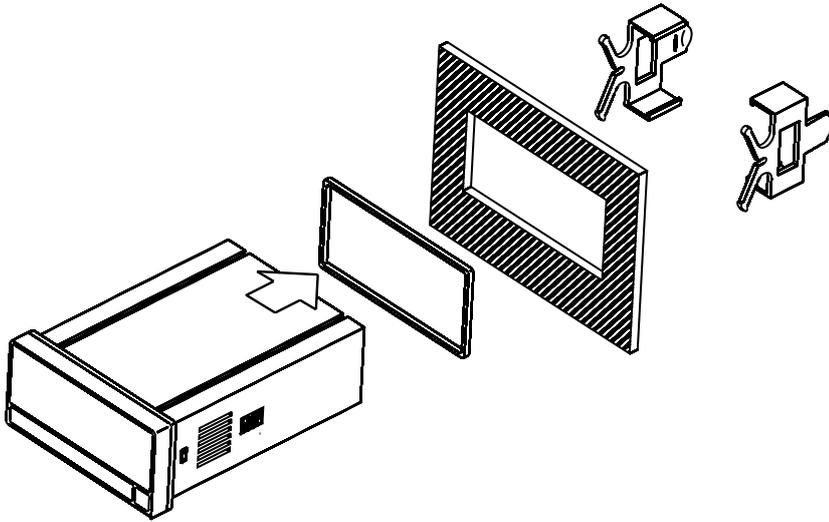
**Connection diagram**



**Dimensions**



NE1218



Clip frame mounting (Seal and Clamping frame included in the scope of delivery)