

Universal counter: Counter / Timer / Tachometer / Frequency

4 presets, analog output, serial interface, Ethernet interface

Display LED 3 colors, 5 digits

Format DIN 48 x 96 mm

NE1218



NE1218

Technical data

Device configurable in

- Pulses counters: Main XP + Totalizer Σ
- Timers: Main XP + Totalizer Σ
- Tachometer XP with rotation direction + Pulses totalizer Σ
- Frequency XP

⇒ Main counter XP

5 digits with sign, from -99999 to 99999
Decimal point programmable
Adding or subtracting
Scaling factor
Repositioning offset value

5 counting modes, 2 inputs A and B

Unidirectional 1 input A
Unidirectional 1 input A + Stop count input B
Differential 2 inputs A - B
Bidirectional 1 input A + direction input B (Up/Down)
Bidirectional 2 inputs A 90° B

5 operating modes, 2 or 4 presets

Parallel comparison, Main presets, Step presets, Self-adjusting

⇒ Timer XP

5 digits, 4 resolutions
999 s 99/100 s - 999 min 59 s - 999 h 59 min - 99999 h
Adding or subtracting
Repositioning offset value

2 counting modes, 2 inputs A and B

Count the time while input A is activated
Start counting on input A, Stop on input B

5 operating modes, 2 or 4 presets

Parallel comparison, Main presets, Step presets, Self-adjusting

⇒ Tachometer XP

5 digits, from 0 to 99999, decimal point programmable
Measure and display speeds, cadencies,
Measure and display duty cycle PWM
Scaling factor

2 counting modes, 2 inputs A and B

Unidirectional 1 input A
Bidirectional 2 inputs A 90° B

Functions MINI, MAXI

The MIN and MAX functions continuously record the minimum and maximum values of the measures.

Features

- **Display 5 digits, LED 14 mm**
3 colours red, green and amber
- **Universal counting inputs**
Sensor NPN, PNP, Namur, TTL, in voltage 10-300 VAC or encoder 2x90°
- **Functions MINI, MAXI in tachometer / frequency**
- **3 programmable inputs**
- **2 or 4 presets with relay or electronic outputs**
- **Analog output 4-20 mA or 0-10 V**
- **Serial interface RS232, RS485 or Ethernet interface**
- **Power supply voltage**
85 to 260 VAC or 100 to 300 VDC
10,5 to 70 VDC or 21 to 53 VAC

Operating modes, 2 or 4 presets

Parallel comparison of the presets as high threshold (over speed) or low threshold (under speed)

⇒ Frequency XP

5 digits, from 0 to 99999, decimal point programmable
Unidirectional 1 input A -- Display unit in Hz

Functions MINI, MAXI

The MIN and MAX functions continuously record the minimum and maximum values of the measures.

Operating modes, 2 or 4 presets

Parallel comparison of the presets as high or low threshold

⇒ Pulses or time totalizer Σ

8 digits with sign, from -99999999 to 99999999, displayed in 2x 4 digits, Lxxxx and Hxxxx for values >99999
Decimal point programmable
Adding or subtracting
Scaling factor
Repositioning offset value

Counting modes and Operating modes

Identical to the counting modes and operating modes of the counter XP used as pulses counter or as timer. Or as batch counter from the counter XP used as pulses counter.

5 operating modes, 2 or 4 presets

Parallel comparison, Main presets, Step presets, Self-adjusting

Display

5 digits, LED 14 mm, 3 colours red, green and amber
Overflow display capacity indicated by "oUEr"
Delivered with 100 self-adhesive labels

Counting inputs

Programmable in

- **NPN, PNP, Namur, TTL or encoder 2x90°**
Counting frequency 15 kHz max
Tachometer frequency from 0,01 Hz to 10 kHz max
Control voltage 5 to 24 VDC max
- **Free potential input**
Frequency 20 Hz max
Control voltage 0 VDC delivered by the counter
- **Supply VAC – 1 input only**
Frequency 20 Hz max
Control voltage 10 à 300 VAC max

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4 presets, analog output, serial interface, Ethernet interface

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Sensor / Encoder supply

- 20 VDC current 100 mA max
 - 8.2 VDC (sensor Namur) current 30 mA max

Programmable inputs

The functions associated to the 3 control inputs are programmable and make among other things, to reset the count values, ...

Optocoupled inputs logic NPN
 Control voltage < 40 VDC

2 relay outputs option

Inverter contact
 Switching power 260 VAC / 1A / 150 VA

4 relay outputs option

Closing contact with a common point
 Switching power 260 VAC / 0,1A / 50 VA

4 Electronic outputs PNP or NPN option

Voltage max. 50 V
 Current max. 50 mA

Serial interface RS232 or RS485

To connect the counter to:
 - a PC or a PLC for the acquisition of production data or for programming the device.
 - a printer to keep a written record of production data

Removable connectors type RJ45
 Protocol ASCII, ISO 1745 or Modbus RTU
 Speed max. 19200 bauds

Ethernet interface 10/100

Protocol Modbus TCP
 Connection Connector RJ45

Analog output 4-20 mA or 0-10 V

Converts the display value of the counter XP or the totalizer Σ to current or voltage

Resolution 13 bits
 Accuracy 0,1% ±1 bit
 Response time 50 ms
 Load max. 500 Ω

Power supply voltage

85 to 260 VAC and 100 to 300 VDC
 10,5 to 70 VDC and 21 to 53 VAC
 Power consumption 8 W

Weight 160 g

Ambient temperature -10 °C ... +60°C

Protection face side IP65

Dimensions 48 x 96 x 90 mm

Cut-out dimensions 45 x 93 mm

Built-in housing Clip frame

Connection

Plug-in screw connectors with spring retention system, core cross-section 1,5 mm² max.

Standard DIN EN 61010-1 Protection class II
Overvoltage category II
Pollution degree 2

Emitted interference DIN EN 61000-6-3

Interference immunity DIN EN 61000-6-2

Approval CE

Part number

NE1218. AX01

- | Power supply
- 4** 85 to 265 VAC and 100 to 300 VDC
- 5** 10,5 to 70 VDC and 21 to 53 VAC
- |
- | Outputs
- 0** Without
- 1** 2 relay outputs
- 2** 4 relay outputs
- 3** 4 electronic outputs PNP
- 4** 4 electronic outputs NPN **5** Analog output 4-20 mA
- 6** 2 relay outputs + analog output 4-20 mA
- 7** 4 relay outputs + analog output 4-20 mA
- 8** 4 electronic outputs PNP + analog output 4-20 mA
- 9** 4 electronic outputs NPN + analog output 4-20 mA
- A** Analog output 0-10 V
- B** 2 relay outputs + analog output 0-10 V
- C** 4 relay outputs + analog output 0-10 V
- D** 4 electronic outputs PNP + analog output 0-10 V
- E** 4 electronic outputs NPN + analog output 0-10 V
- |
- | Interface
- 0** Without
- 1** RS485
- 2** RS232
- 3** Ethernet

Accessory

ZPA4.001 Mounting accessory for DIN rail