

# Preset counters electronic

2 presets, serial interfaces

Large 14 mm display LED, 6-digits, programmable

## NE214



NE214 - LED Preset counter

### Features

- Preset counter with two presets
- Display 6-digits
- Batch counter, totalizer, hour counter
- Operating mode, start count, scaling factor, momentary signal time programmable
- Connection: Incremental encoder or digital sensors
- Batch counter with multiplier
- Preset mode programmable
- Interface RS232, RS422 or RS485

### Technical data - electrical ratings

|                             |                                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Voltage supply              | 115/230 VAC $\pm 10\%$ (50/60 Hz)<br>24/48 VAC $\pm 10\%$ (50/60 Hz)<br>24 VDC $\pm 10\%$                                  |
| Power consumption           | 7 VA, 5 W                                                                                                                  |
| Sensor supply               | 12...26 VDC / max. 100 mA                                                                                                  |
| Display                     | LED, 7-segment display                                                                                                     |
| Number of digits            | 6-digits                                                                                                                   |
| Digit height                | 14 mm                                                                                                                      |
| Function                    | Preset counter<br>Main counter with 2 presets<br>Batch counter with 1 preset<br>Totalizer<br>Hour counter                  |
| Scaling factor              | 0.0001...9999.99                                                                                                           |
| Multitplier / batch counter | 1...999                                                                                                                    |
| Count modes                 | Adding or subtracting<br>A-B (difference counting)<br>A+B total (parallel counting)<br>Up/Down<br>A 90° B phase evaluation |
| Counting frequency          | 3 Hz, 25 Hz, 10 kHz<br>programmable                                                                                        |
| Operating modes             | Step preset, Main preset,<br>Parallel alignment, Trailing<br>preset                                                        |
| Data memory                 | >10 years in EEPROM                                                                                                        |
| Reset                       | Button, electric or automatic                                                                                              |
| Outputs electronic          | Optocoupler                                                                                                                |
| Outputs relay               | Potential-free change-over<br>contact                                                                                      |
| Output holding time         | 0.01...99.99 s                                                                                                             |
| Analogue output             | 0(2)...10 V, 0(4)...20 mA                                                                                                  |
| Interfaces                  | RS232, RS422, RS485                                                                                                        |

### Technical data - electrical ratings

|                            |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|
| Standard<br>DIN EN 61010-1 | Protection class II<br>Overvoltage category II<br>Pollution degree 2              |
| Emitted interference       | DIN EN 61000-6-3                                                                  |
| Interference immunity      | DIN EN 61000-6-2                                                                  |
| Programmable<br>parameters | Operating modes<br>Sensor logic<br>Scaling factor<br>Count mode<br>Control inputs |
| Approvals                  | UL/cUL, CE conform                                                                |

### Technical data - mechanical design

|                         |                                                  |
|-------------------------|--------------------------------------------------|
| Operating temperature   | 0...+50 °C                                       |
| Storing temperature     | -20...+70 °C                                     |
| Relative humidity       | 80 % non-condensing                              |
| E-connection            | Plug-in screw terminals                          |
| Core cross-section      | 1.5 mm <sup>2</sup>                              |
| Protection DIN EN 60529 | IP 65 face with seal                             |
| Operation / keypad      | Membrane with softkeys                           |
| Housing type            | Built-in housing                                 |
| Dimensions W x H x L    | 96 x 48 x 124 mm                                 |
| Installation depth      | 124 mm                                           |
| Mounting                | Clip frame                                       |
| Cutout dimensions       | 92 x 45 mm (+0.6)                                |
| Materials               | Housing: Makrolon 6485 (PC)<br>Keypad: Polyester |
| Weight approx.          | 350 g (AC), 250 g (DC)                           |

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#### Part number

NE214.          AX01

#### Voltage supply

- 1 24 / 48 VAC
- 2 115 / 230 VAC
- 3 12...30 VDC

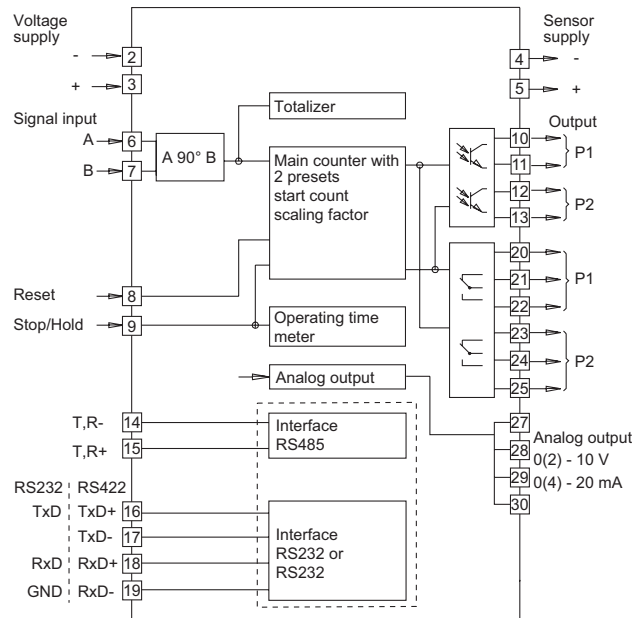
#### Outputs

- 0 Without relay
- 1 Relay outputs
- 2 Relay and optocoupler outputs / analogue output

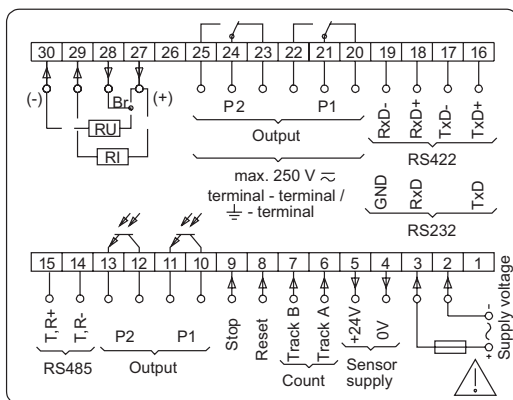
#### Interface

- 0 Without interface
- 1 RS485
- 2 RS422
- 3 RS232

#### Block circuit diagram



#### Connection diagram



#### Trigger level

| Comparator inputs | Input circuit    |
|-------------------|------------------|
| Inputs            | PNP- / NPN-logic |
| Input level       | Programmable     |
| Input level Low   | 0...2 VDC        |
| Input level High  | 3...40 VDC       |
| Input resistance  | 3 kΩ             |

| Relay outputs           | Output circuit    |
|-------------------------|-------------------|
| Switching voltage max.  | 250 VAC / 110 VDC |
| Switching current max.  | 1 A               |
| Switching capacity max. | 150 VA / 30 W     |
| Relay responding time   | 5 ms              |

| Electronical outputs   | Output circuit                  |
|------------------------|---------------------------------|
|                        | Optocoupler short-circuit proof |
| Switching voltage max. | 40 V                            |
| Switching current max. | 15 mA                           |
| Residual voltage       | <1 V                            |

#### Dimensions

