

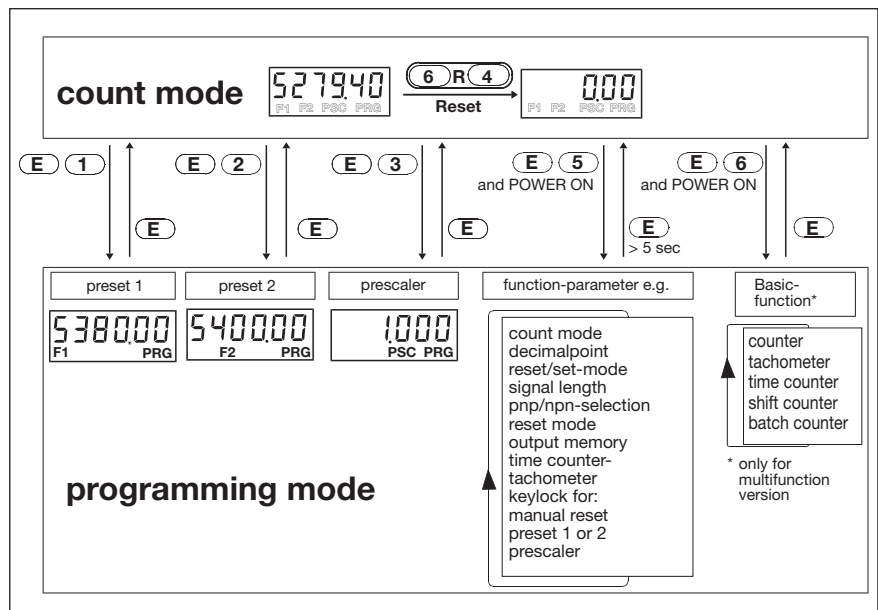
# Multifunctional Counter - tico 732

## Bi-directional



- high-contrast LED or LCD-Display, 6 digits
- small and compact DIN dimensions 48 x 48 mm
- easy operation by one key per digit
- direct access to parameters
- available with 1 or 2 presets
- transistor and relay with changeover contact, for each preset
- with integrated separate totalizer
- 5 basic functions easily programmable: counter, tachometer, time counter, shift counter and batch counter
- display range from - 99999 to 999999

### PROGRAMMING



The important values, preset 1, preset 2, prescaler and separate totalizer can be directly selected. It is necessary only to press the relevant button and the E-button together. To make the operation still more easy, access to those values can be locked separately.

All other system parameters like operation and count modes are laid down in a common operation level. These parameters are usually programmed once only during the first initiation.

### TECHNICAL DATA

#### General

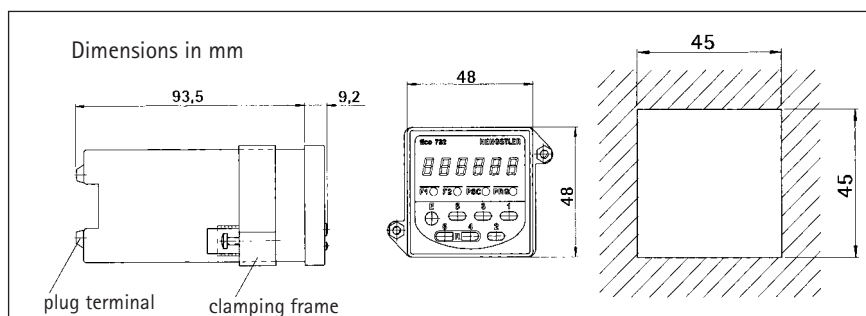
|                            |   |
|----------------------------|---|
| Display                    | LED or LCD, 6 digits, leading zero suppression, decimal point   |
| Digit height               | LED 7.6 mm; LCD 9 mm  |
| Supply voltage             | 12...24 VDC; 24 VAC; 115 VAC; 230 VAC; 50/60 Hz, depending  |
| Current consumption        | 12...24 VDC < 150 mA<br>100/115/230 VAC < 50 mA; including sensor supply  |
| Sensor supply              | only when AC operated: 12 ... 30 VDC, max 50 mA   |
| Data retention             | non-volatile memory > 10 years  |
| Operating temperature      | 0 ... +50 °C  |
| Storage temperature        | - 20 ... + 70 °C  |
| Electrical connection      | screw terminals   |
| Mounting                   | with clamping frame   |
| Protection class (IEC 144) | front side IP 65, terminals IP 20   |
| Vibro-stability            | 10 m/s <sup>2</sup> (10...150 Hz) according to IEC 68-T2-6  |
| Shock stability            | 100 m/s <sup>2</sup> (18 ms) according to IEC 68-T2-27  |
| General design             | according to VDE 0411, DIN 57411, protection class II   |
| Approvals                  | UL + CUL E 96337  |
| Amplitude thresholds       | < 2 V and > 8 V, max 40 VDC   |
| Active edge                | programmable; positive with pnp input; negative with npn input  |
| Pulse shape                | any (squarewave 1:1 for max. frequency)   |
| Input resistance           | approx. 5 kOhm (static)   |
| Counting frequency         | max. 5 kHz (2.5 kHz bi-directional)   |
| Prescaler                  | programmable from 0.001 to 9.999 (999.999)  |
| Count inputs A, B          | - phase discriminator with single evaluation<br>- differential mode (add/sub)<br>- count direction mode<br>- totalizing mode (add/add)                                  |
| Pulse length min.          | 17 ms (30 Hz), 100 µs (5 kHz)   |
| Control input C            | - manual reset possible<br>- external reset, static or dynamic, programmable, pulse length > 5 ms<br>- automatic reset when main preset has been reached (programmable) |
| Relay                      | changeover contact max. 250 VAC / 30 VDC, min. 5 V AC/DC<br>max. 1 A, min. 10 mA, delay < 5 ms  |
| Transistor                 | pnp output 12...24 VDC max 10 mA of DC-supply; 12...30 VDC  |
| Method                     | time interval (1/Tau)   |
| Display range              | 1/min or 1/sec  |
| Min input frequency        | 0.125 Hz = 8 sec  |
| Alarms                     | 2 alarms with programmable start-up-suppression   |
| Time bases                 | programmable; sec, min., h or hh.mm.ss  |
| Resolution                 | programmable 1; 0.1; 0.01; 0.001  |
| Function                   | single pulse measurement (short time meter) or cumulated counting (hour meter)  |
| Count mode                 | pulse width or period measurement (start-stop)  |

#### Counter

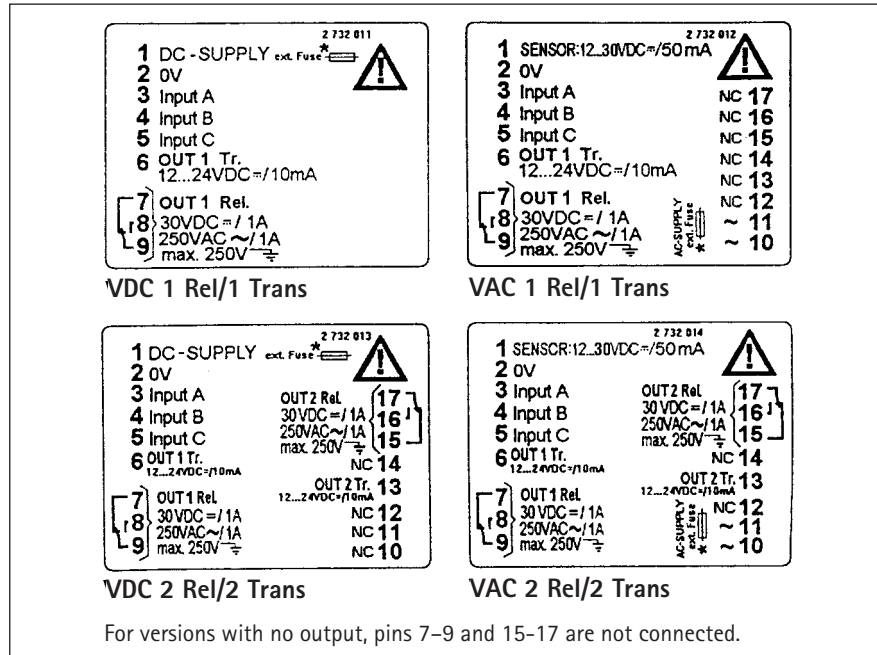
#### Tacho

#### Time-counter

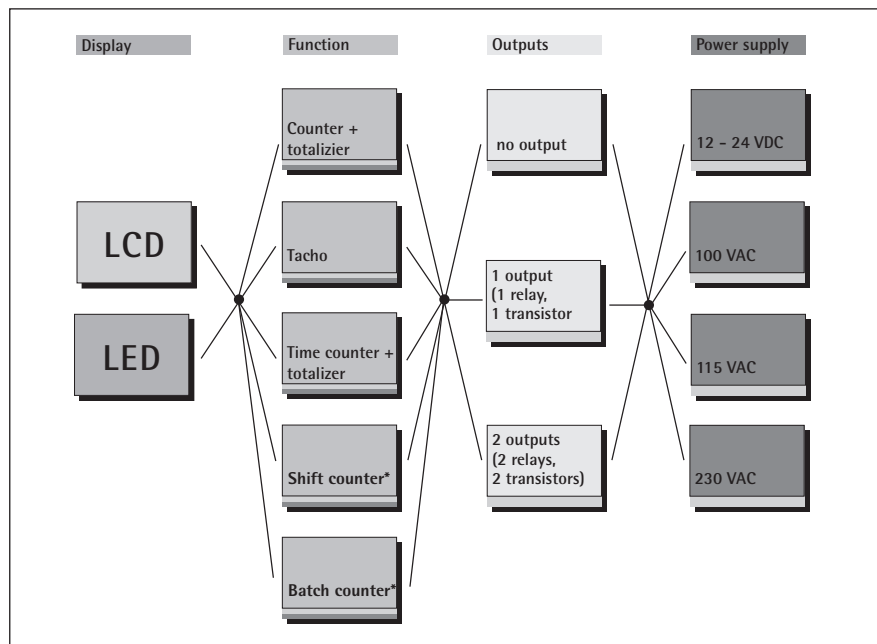
### DIMENSIONS



## DIMENSIONS



## POSSIBLE VARIANTS



## ORDER INFORMATION

| Display | Preset | 12-24 VDC | 24 VAC                 | 115 VAC   | 230 VAC   |
|---------|--------|-----------|------------------------|-----------|-----------|
| LCD     | -      | 0 732 000 | 0 732 071              | 0 732 037 | 0 732 001 |
| LCD     | 1      | 0 732 002 | 0 732 073              | 0 732 031 | 0 732 003 |
| LCD     | 2      | 0 732 012 | 0 732 078              | 0 732 049 | 0 732 013 |
| LED     | -      | 0 732 018 | 0 732 080              | 0 732 055 | 0 732 019 |
| LED     | 1      | 0 732 020 | 0 732 082 <sup>1</sup> | 0 732 057 | 0 732 021 |
| LED     | 2      | 0 732 030 | 0 732 087              | 0 732 067 | 0 732 031 |

Important: Only versions with 2 presets or without preset can be used as tachometers.