

Multifunction-Counter

Bi-directional

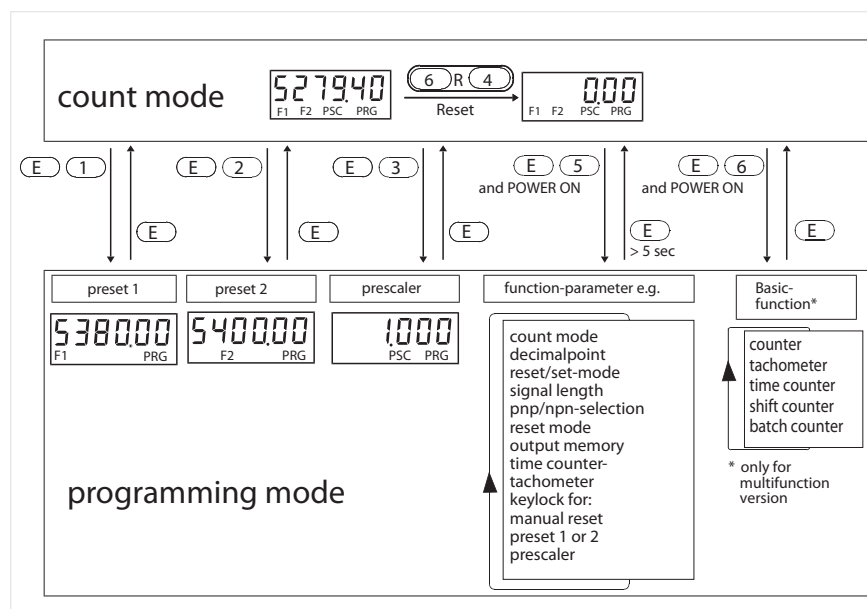
tico 732



- 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

Totalizing
Counters

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.

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Technical data

TECHNICAL DATA

General

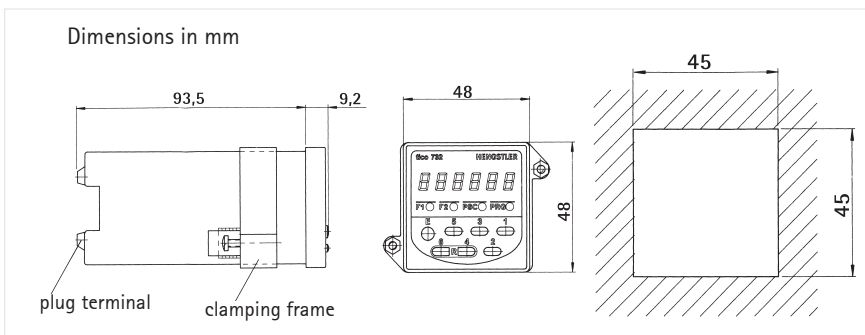
Counter

Tacho

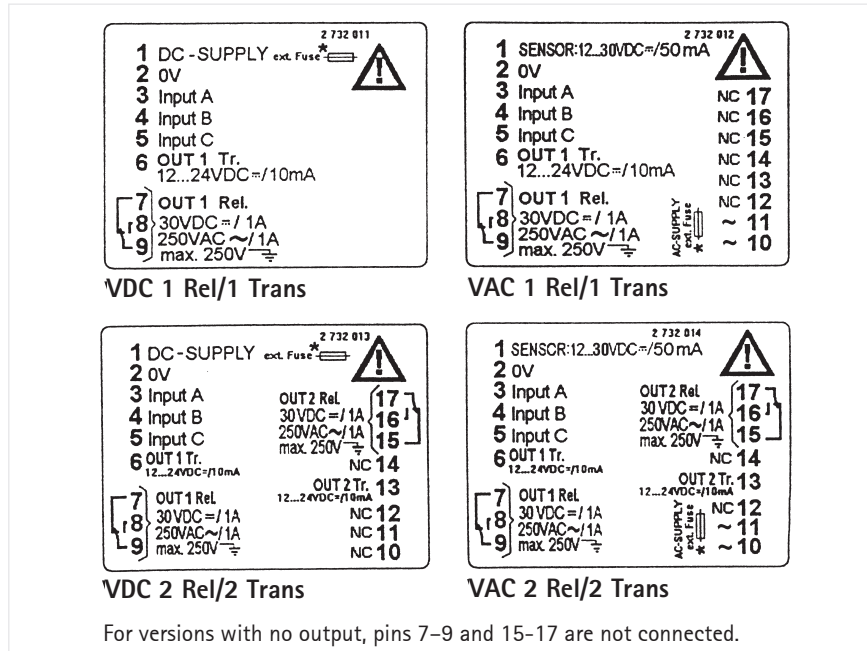
Time-counter

DIMENSIONS

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
Current consumption	12...24 VDC < 150 mA 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, cable length < 30 m
Mounting	with clamping frame
Protection class (IEC 144)	front side IP 65, terminals IP 20
Vibro stability	10 m/s ² (10...150 Hz) according to IEC 68-T2-6
Shock stability	100 m/s ² (18 ms) according to IEC 68-T2-27
General rating	according to EN 61010-1, EN 50178, protection class II
Approvals	UL + CUL E 96337
Amplitude thresholds	< 2 V and > 8 V or < 2 V and > 3.8 V with TTL level, 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 - differential mode (add/sub) - count direction mode - totalizing mode (add/add)
Pulse length min.	17 ms (30 Hz), 100 µs (5 kHz)
Control input C	- manual reset possible - external reset, static or dynamic, programmable, pulse length > 5 ms - automatic reset when main preset has been reached (programmable)
Relay	changeover contact max. 250 VAC / 30 VDC, min. 5 V AC/DC max. 1 A, min. 10 mA, delay < 5 ms
Transistor	pnp output 12...24 VDC max 10 mA of DC-supply; 12...30 VDC max. 10 mA of AC-supply, cable length < 30 m
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)

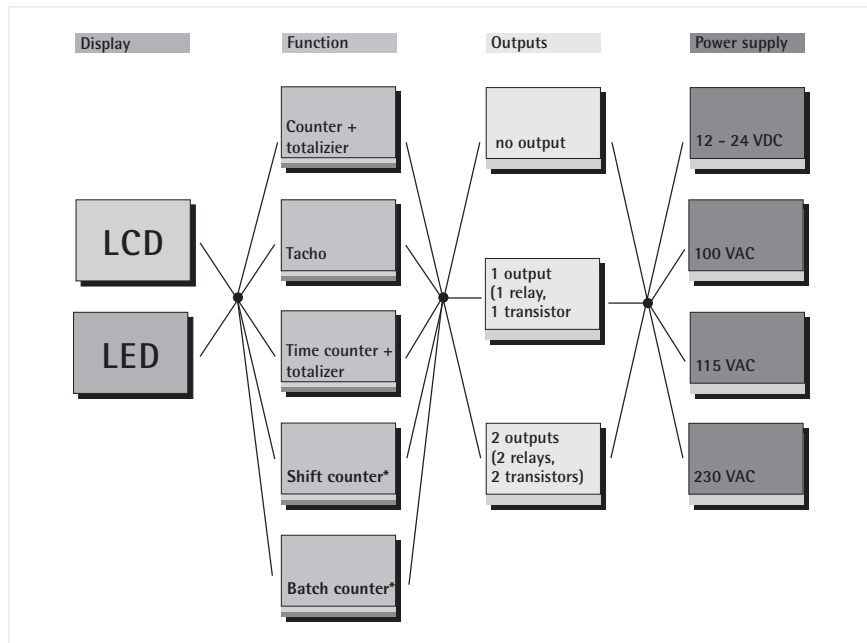


CONNECTION DIAGRAM



Totalizing Counters

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 ¹	0 732 039 ¹	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 ¹	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.