

Flexible Counter Series, tico 735

Dual Colour Display in DIN size 48 x 96 mm



FEATURES

COUNTING - MEASURING - INDICATING - MONITORING - TRANSMITTING

Because of the unlimited number of measurements it can handle, the **tico 735** device family is equally well suited to applications in the world of impulse and time counting as to those in the processing area.

If you are looking for display clarity and high levels of accuracy, then the **tico 735** is the right choice for you. The dual-colour display is unique, highlighting an alarm situation or an excess value at a single glance. You can program your own choice of display colour to indicate normal or alarm conditions.

- Brilliant 18.5 mm high dual-colour red/green LED display with programmable colour settings
- As standard, all models have limit or preset values
- Scaling available as standard
- Universal Power Supply 90...264 V AC or 20...50 V AC/DC
- Simple structured operation with switchable help function

- External Program Lockout
- DIN housing 48 x 96 mm, mounting depth < 100 mm
- Conveniently sized Screw Terminals
- Large keys offer safety and ease of operation

- NPN and Relay Outputs
- Option: RS 485 ASCII protocol serial interface for all versions. "Remote Display" version receives process values over RS 485

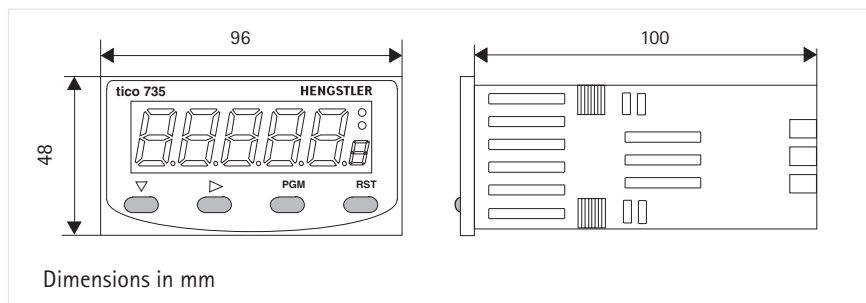
POSITION INDICATOR

Input Modes, Features	Value Range
Quad	-19999...99999
Upper and Lower Range Limits	-19999...99999
Set Value	-19999...99999
Option: Linear Output, scalable, isolated	0/4-20 mA, 0/1-5 V, 0/2-10 V

tico 735

Technical data

DIMENSIONS



DISPLAY AND KEYBOARD

Primary Display	Red/Green, 7 segment LED, 5 digits, height 18.5 mm
Secondary Display	single digit 7 segment LED, height 7 mm, red/green
Output Indicators	2 red LEDs for OUT 1 and OUT 2 status
Keyboard	4 rubber keys for programming and manual reset

PHYSICAL

Front Dimensions	DIN 48 mm x 96 mm, 110 mm total depth
Mounting	Front panel mounting (mounting bracket supplied)
Panel Cutout	45 mm x 92 mm, panel thickness max 12 mm
Construction	Front carrier with PCBs can be pulled out
Terminals	Screw Type (combination head)

OPERATING CONDITIONS

Power Supply	90 - 264 V AC 50/60 Hz (electrically separated from all inputs and outputs) or 20...50 V AC / 22...55 V DC
Temperature	Operation: 0 °C to +55 °C (32 °F to 131 °F) Storage: -20 °C to +60 °C (-4 °F to 176 °F)
Relative Humidity	0 to 90 %, non-condensing

APPROVALS

Protection class	Frontpanel IP 66
CE	EN 50082-1/92-95; EN 50081-1/92, -2/94
Safety	DIN EN 61010 part 1; protection according to class II
General	UL, CUL, Overvoltage cat. II, Contamination level 2

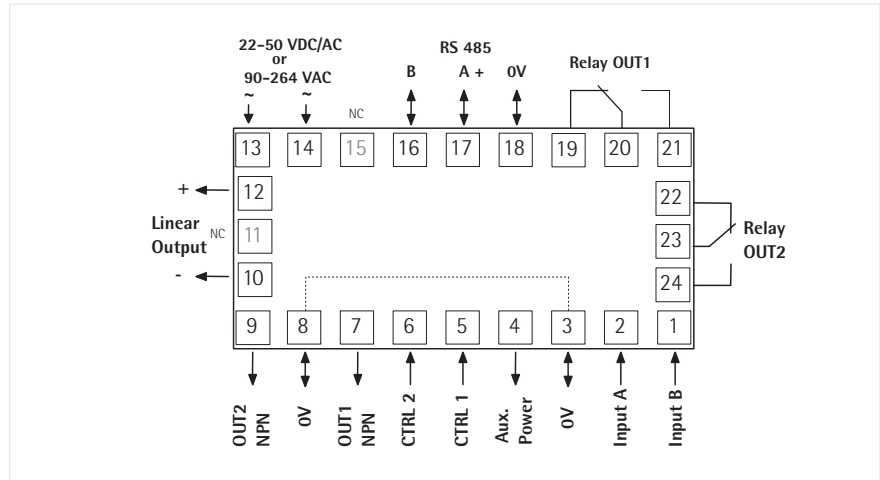
OPTION LINEAR OUTPUT

Insulation	optically isolated, 250 V AC or 400 V DC from all inputs and outputs
Output Ranges	0-20 mA, 4-20 mA, 0-10 V, 2-10 V, 0-5 V, 1-5 V
Accuracy	± 0.25 % (mA on 250 Ohms, V at 2 kOhm); Deviation ± 0.5 %
Resolution	8 bits after 250 ms (10 bits after 1000 ms typically)
Updates	approx. 4 per second
Load	mA: max 500 Ohm, V: min. 500 Ohm

OPTION RS 485

Type	RS 485, serial asynchronous, Open ASCII, Master-Slave, up to 99 zones
Parameters	9600...1200 Bd, 1 start, 7 data, 1 stop, even parity

TERMINALS



COUNT INPUTS

Active Edge	NPN or PNP programmable; capable of TTL; 30 V DC max
with PNP	High ≥ 3.0 V, Low < 2.0 V or open; 10 kOhm to 0 V
with NPN	High ≥ 3.0 V or open, Low < 2.0 V; 4.7 kOhm to V+
Frequency	20 Hz, 200 Hz or 10 kHz programmable

CONTROL INPUTS

CTRL1 (Reset or hold)	NPN; High ≥ 3.0 V or open, Low < 2.0 V; 4,7 kOhm to V+ edge sensitive; 25 ms min., max 30 V DC
CTRL 2 (Progr. security))	NPN; High ≥ 3.0 V or open, Low < 2.0 V; 4,7 kOhm to V+ level sensitive; 25 ms min.; max 30 V DC

OUTPUTS

OUT 1 NPN	NPN, open collector; 30 V DC max; 100 mA max
OUT 2 NPN	response time $< 75 \mu\text{s}$
Relay 1, Relays 2 (opt.)	Changeover (Form C); 240 V AC / 3A or 110 V AC / 5 A; pull-in time 8 ms
Auxiliary Power Supply	9...15 (unregulated V DC), 125 mA max; residual ripple < 0.5 V

SPECIAL FEATURES

- Display colour programmable
- Preset Lockout and Reset Disable programmable
- Program Security via CTRL 2
- Optional Linear Output
- Scaling available as standard

ORDERING DATA

Type 0735 P

Output Relay 2 0 none 1 with Relay 2 nicht für Funktion 1, 6, 7	Interface 0 none 5 with RS 485
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0 7 3 5 P

Function 1 Totalizer 2 Position Indicator 4 Tacho/Rate Meter 5 Rate + Totalizer 6 Time Counter 7 1 Preset Counter 8 2 Preset Counter 9 Batch Counter	Linear Output 0 none 3 with 4-20 mA (only with function 2, 4, 5)	Power Supply 0 90...264 V AC 2 20...50 V AC or 22...55 V DC
	Option module Relay 2 Linear output RS 485 interface	Ordering code 1 901 001 1 901 003 1 901 004