Command contact

Can be switched in two ways:

- By closing an external voltage free contact between M and S.
- By connecting 5-35 Vac,dc between M(+) and R(-)

Each diagram represents the effet of the command contact for the two initial states of the output relay: de-energized (1L) and energized (1H).
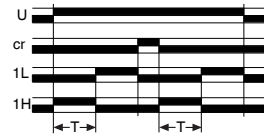
U: power supply

cu Switched off contact. Its function is blocked.
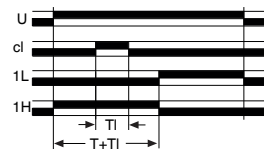
Su función está inhibida

cr Reset contact

When connected the output relay is de-energized upon disconnecting, the programmed timing starts.
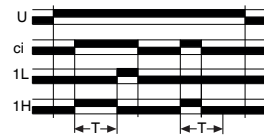
cl Lock contact

A partial shutdown of the timing takes place during its operation.

ci Delay on contact

When disconnected the output relay is de-energized; when connected the programmed timings starts.

co Delay off contact

When disconnected the output relay is de-energized. When connected, the relay is energized. When disconnected again, the programmed timings starts.

www.fanox.com
fanox@fanox.com
Tlf. +34 94 471 14 09
Fax +34 94 471 05 92
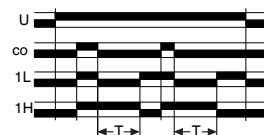
Function examples diagrams

U: power supply

R: output relay

Output relay at start: **1L** de-energized; **1H** energized.

Work mode: **CO** non-cycle; **C1** cycle.

Command contact: **cu, cr, cl, ci, co.**
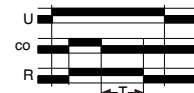
Delay ON
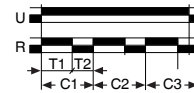1L - CO - cu

Timing ON
1H - CO - cu

Delay OFF with command contact
1H - CO - co

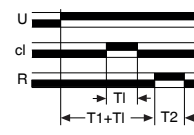**Double timing**
1L - CO - cu

Double timing cycle work mode
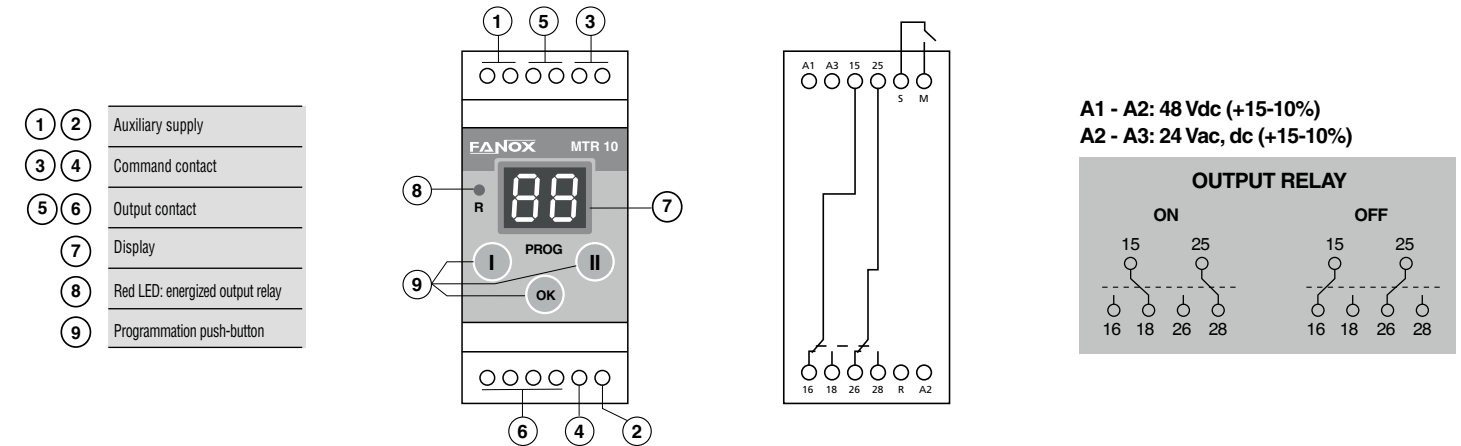1H - C1 - cu

Four timings cycle work mode
1H - C1 - cu

Timing with partial shutdown
by command contact
1L - CO - cl

MULTIFUNCTION DIGITAL TIMER MTR 10

A1 - A2: 48 Vdc (+15-10%)
A2 - A3: 24 Vac, dc (+15-10%)

	Auxiliary supply
1 2	
3 4	Command contact
5 6	Output contact
7	Display
8	Red LED: energized output relay
9	Programmation push-button

OUTPUT RELAY	
ON	OFF
15 25	15 25
16 18 26 28	16 18 26 28

Technical data

Auxiliary supply +15-10% / Consumption	48 Vcc 50/60 Hz / 2.5 VA 24 Vdc.ac / 1W
Accuracy	1% ± 10 ms
Repeat accuracy	0,5%
Output contacts: 1 relay with 2 timed change over contacts NO-NC	C300 - 125/250V I_{th}= 5 A AC15 - 250V - 2A DC13 - 30V - 2A DC13 - 115V - 2A
Terminals: max section / screw torque	2,5mm², No.22 - 12AWG/ 20 Ncm, 1,8 LB - IN
Mechanical / electrical life	>20 x 10⁶ OP / 10⁵ OP
Protection degree / weight	IP40 front / 0,15 kg
Storage / operation temperature	-30°C +70°C / -20°C +55°C
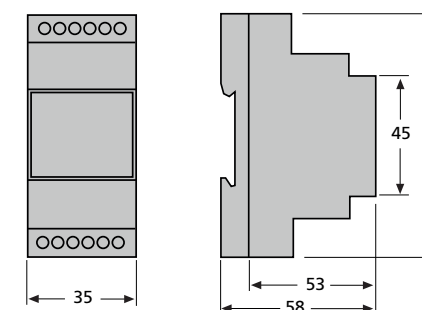
TIMES RANGES: THREE (seconds, minutes and hours)

[s]	[m]	[h]
0.1 ÷ 9.9 s	0.1 ÷ 9.9 m	0.1 ÷ 9.9 h
1 ÷ 99 s	1 ÷ 99 m	1 ÷ 99 h

Dimensions

45 90
53
58
35
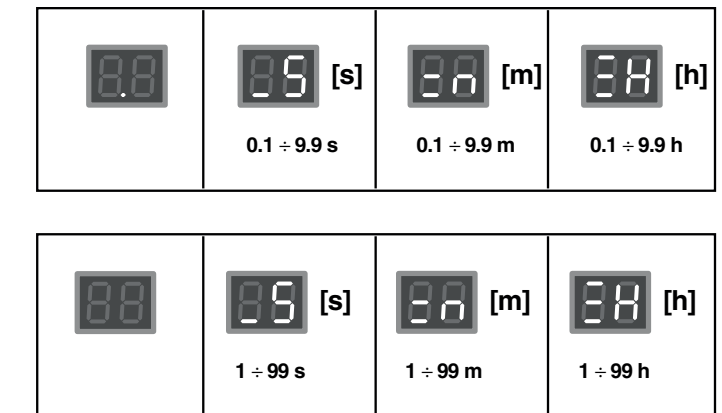
PROGRAMMABLES PARAMETERS

1º Initial state of output relays:

energized (1H) or de-energized (1L).

2º Working mode: cycle (C1) or non-cycle (CO).

3º Number of different times per program: up to 8 in cycle mode and up to 9 in non-cycle.

4º Time setting range: from 0,1 seconds to 99 hours.

5º Command contact.

With built-in battery which allows timer to be programmed without connecting to auxiliary voltage.

- ATTENTION: To prevent electrical shock, disconnect from power source before installing or servicing.
- Check that the auxiliary voltage supply is correct.

Programmation

The built-in battery allows timer to be programmed without connecting to auxiliary voltage.

Display Flashing   Display Permanent

1 Start

Hold down (OK), and in less than 4 seconds, first push (I) and then push (II).
Release (OK)

<4s

2 Initial state of output relay

1L: de-energized "0" 15/25 — 16/26
— 18/28

1H: energized "1" 15/25 — 16/26
— 18/28

3 Working mode

CO: non cycle
C1: cycle

4 Number of timings

Non cycle mode (CO)
1, 2, 3, 4, 5, 6, 7, 8 or 9

Cycle mode (C1)
2, 4, 6 or 8

5 Time settings

5.1 Digits

Left digit (I)

Right digit (II)

5.2 Conversion factor

F1: without decimal point (x1)
F.1: with decimal point (x0,1)

5.3 Unit

:05 : seconds
:0 : minutes
:H : hours

6 End of timing

¿Last timing?

• **NO:** go to 5

• **YES:** display shows for 4s and then:

– Programmation with battery:
  Its turns off.
– Programmation with auxiliary voltage:
  The program starts.

NO

OFF

7 Command contact

At the end of programmation, select command contact mode.
Hold down OF for 10s.
The programmed mode is shows in 5s. The timer is supplied with **cu** (function blocked).

10s
5s 10s

The display shows during 4s and then:
– Programmation with battery:
  Its turns off.
– Programmation with auxiliary voltage:
  The program starts.

4s

OFF

Review of the programmed settings

With timer working. Timing does not stop.

- The initial state of output relay is showed for 3s: 1L or 1H

- The working cycle is showed for 3s: CO or C1

- The number of timings is showed for 3s.
• Non cycle mode CO.   • Cycle mode C1
  1, 2, 3, 4, 5, 6, 7, 8 or 9   2, 4, 6 or 8

- Present timing time is showed.

- Programmed value per timing.

• Select the timing number.

• Programmed time value.

• Time unit:
  Seconds: :05
  Minutes: :0
  Hours: :H
  Present timing time is showed.

3s
3s
3s

3,5s

3,5s

Timing monitoring

Nearly each 10s information about the number of timings in curse and the display time unit appears for 2s.
• First digit:
  seconds
  minutes
  hours
• Second digit: timing number.
  1 1ª, 2 2ª, 3 3ª, ...

2s

e.g.

[m] 2nd