



Main applications

- Timer
- Delay timer

Main features

- Three time ranges
- Two relay outputs
- Digital setting

GENERAL

The 55 is a timer with internally generated frequency base.
The time range is selected using the yellow thumbwheel switch according to the positions:

- A** (9.99 sec),
- B** (99.9 sec),
- C** (999 sec).

Afterwards the time set is selected using the numerical thumbwheel switches.

TECHNICAL DATA

OUTPUT

Relay

5A, 250Vac $\cos\phi=1$ (3,5A at $\cos\phi = 0,4$)

POWER SUPPLY

- 24/48Vac $\pm 10\%$, 50/60Hz, 6VA max.
- 110/220, 120/240Vac $\pm 10\%$
- 24Vdc $\pm 10\%$
- 50/60Hz, 3VA max.

AMBIENT CONDITIONS

Working temperature: 0...50°C

Storage temperature: -20...70°C

Humidity: 20...85%Ur non condensing

FUNCTIONS

Timer start on power-on.

Repeatability: $\pm 1\%$ of selected value at nominal conditions (20°C and nominal voltage value).

Accuracy, $\pm 1\%$ selected value.

Reset time, 200 msec.

WEIGHT

300 g

MAINTENANCE

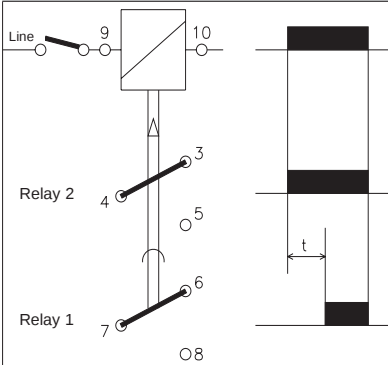
Repairs must be carried out only by trained and specialised personnel. Remove the power to the instrument before accessing the internal parts. DO NOT clean the case with hydrocarbon derivatives (trichlorethylene, petrol, etc.). The use of such solvents can adversely affect the mechanical reliability of the instrument.

To clean the plastics case please use a clean cloth with ethyl alcohol or water.

SERVICE

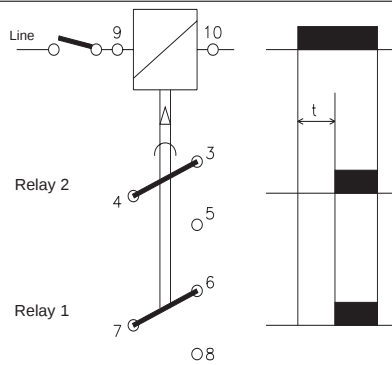
GEFRAN has a service department. The guarantee excludes defects caused by usage that does not conform to the instructions.

MAIN FUNCTIONS



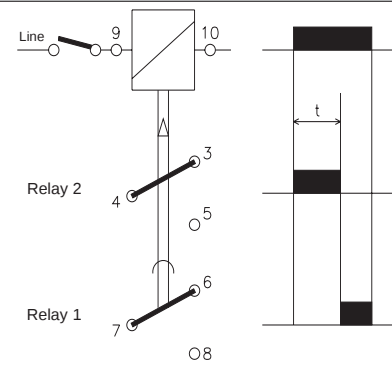
Mod. 55/2

Timer with one time relay (Relay 1) and one instantaneous relay (Relay 2).
Timing starts through connection to the power supply voltage.
Relay 1 energises at the end of timing t .
Relay 2 energises instantaneously when line switch closes.



Mod. 55/3

Timer with two time relays in parallel.
Timing starts through connection to the power supply voltage.
Relay 1 and relay 2 energise at the end of timing t .

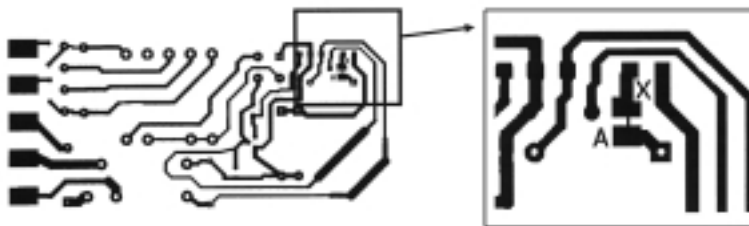


Mod. 55/4

Timer with one time relay (Relay 1) and Relay 2 in opposition.
Relay 1 is de-energised during timing and energised at the end of time t .
Relay 1 is energised during timing and de-energised at the end of time t .

JUMPERS DESCRIPTION

Power supply board / Copper side

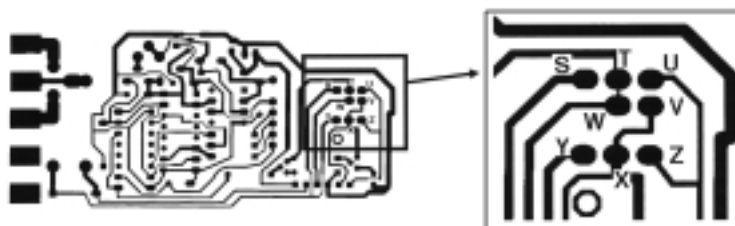


Jumpers configuration:

Mod. 55/2

T-W, X-Y, A-X CLOSED
The other ones are OPEN

Logic board / Copper side



Mod. 55/3

T-W, T-S, X-2, A-X CLOSED
The other ones are OPEN

Mod. 55/4

T-W, X-Y CLOSED
The other ones are OPEN

FACEPLATE DESCRIPTION

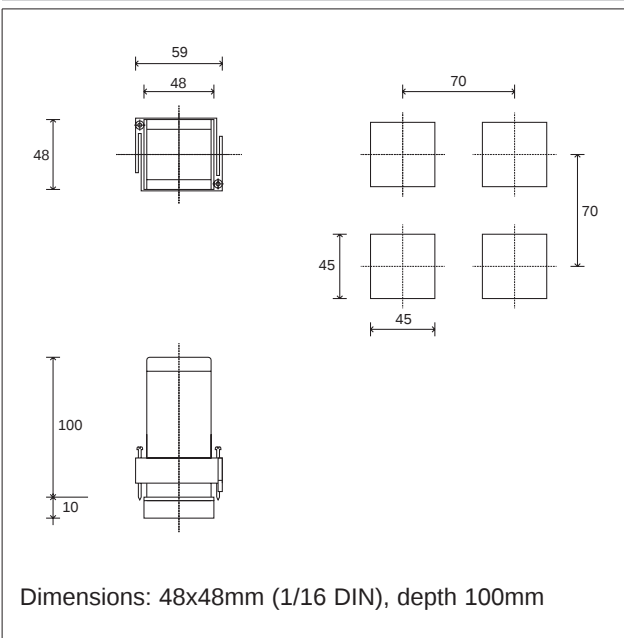
- A - Full scale preset
- B - Time Set
- C - Red LED for timing indication

IP20 faceplate protection, IP65 available with silicon rubber cover cod. **51183** (see accessories)

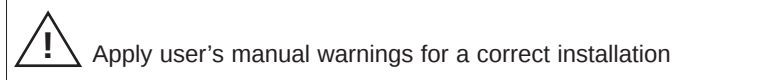
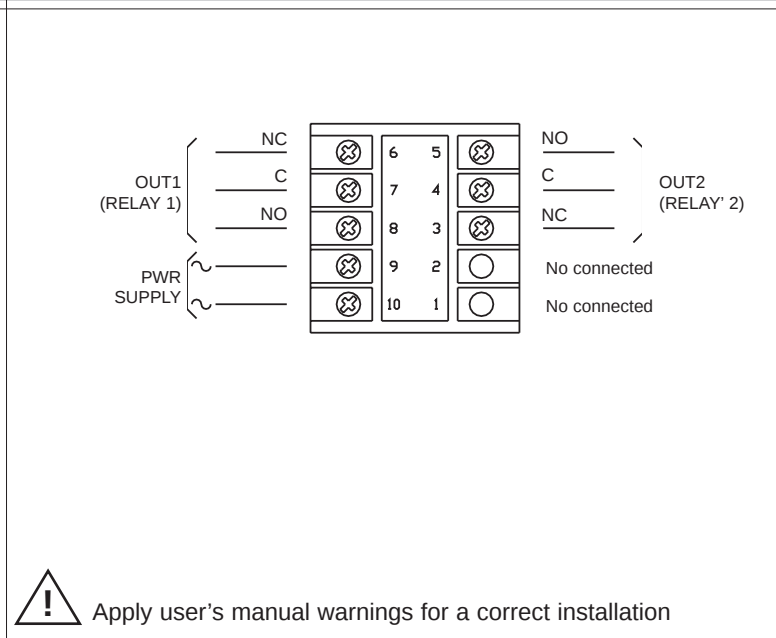


DIMENSIONS AND CUT-OUT	CONNECTION DIAGRAM
------------------------	--------------------

DIMENSIONS AND CUT-OUT	CONNECTION DIAGRAM
------------------------	--------------------

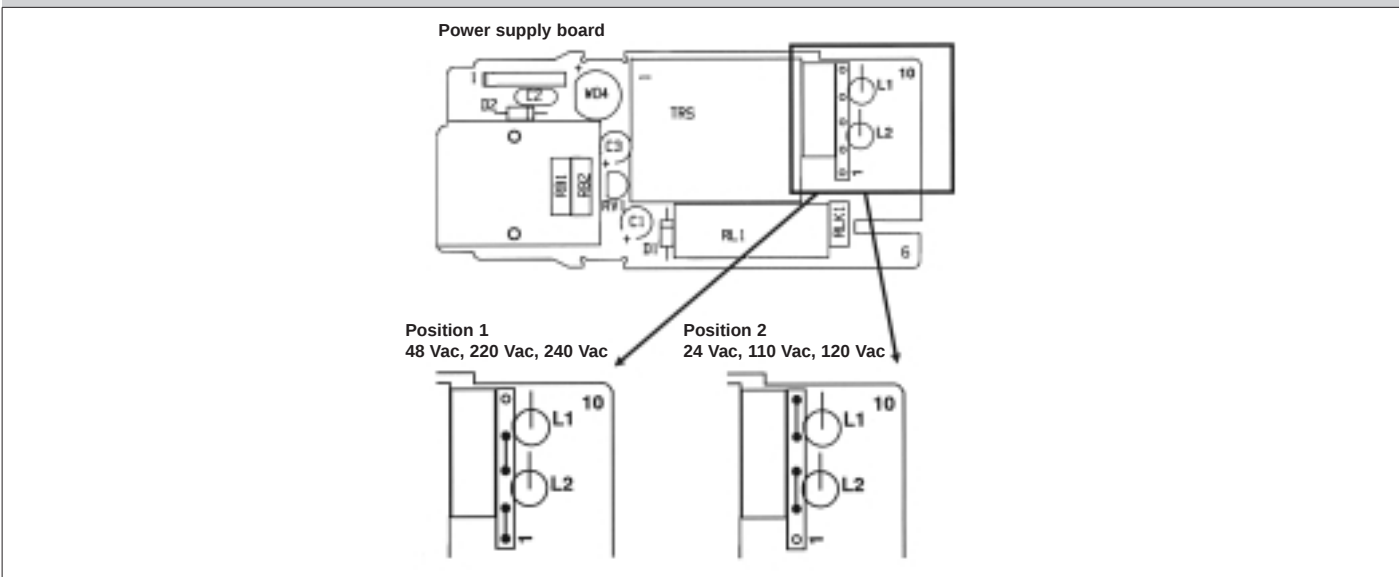
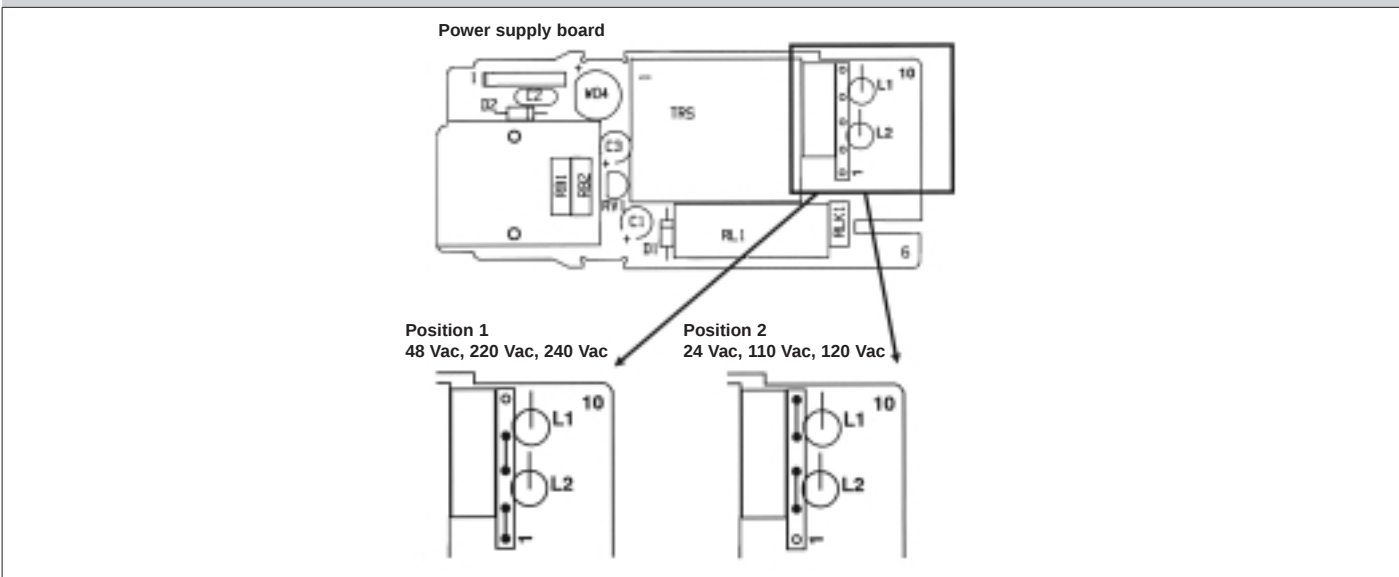


Dimensions: 48x48mm (1/16 DIN), depth 100mm



 Apply user's manual warnings for a correct installation

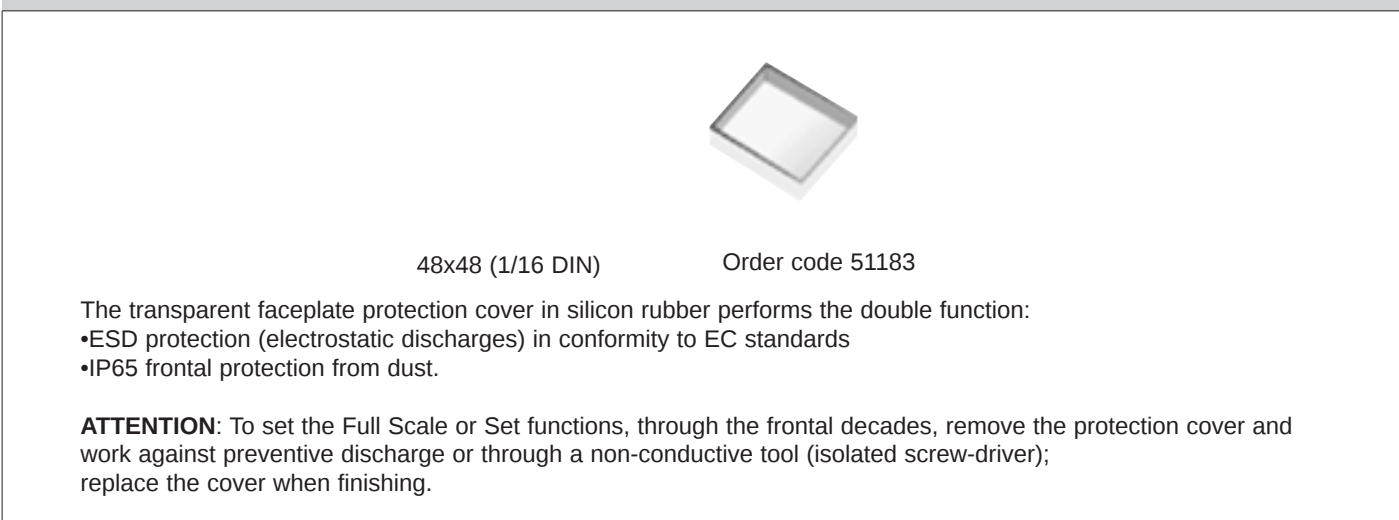
POWER SUPPLY SELECTION



Position 1
48 Vac, 220 Vac, 240 Vac

Position 2
24 Vac, 110 Vac, 120 Vac

ACCESSORIES - PROTECTION IN SILICON RUBBER



48x48 (1/16 DIN)

Order code 51183

The transparent faceplate protection cover in silicon rubber performs the double function:

- ESD protection (electrostatic discharges) in conformity to EC standards
- IP65 frontal protection from dust.

ATTENTION: To set the Full Scale or Set functions, through the frontal decades, remove the protection cover and work against preventive discharge or through a non-conductive tool (isolated screw-driver); replace the cover when finishing.

ORDER CODE

55

VERSION	
1 time relay + 1 instantaneous relay (relay 2)	2
2 time relays in parallel	3

POWER SUPPLY	
24Vdc	0
24Vac (*)	4
220Vac (*)	2
240Vac (*)	3

* Power supply voltage selectable by jumper, see **"POWER SUPPLY SELECTION"** figure

Please, contact GEFRA spa sales people for the codes availability.

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice



In conformity to ECC 89/336/CEE and 73/23/CEE with reference to standards:
- CEI-EN 61000-6-2 (immunity in industrial environment) - EN 50081-1 (emission in residential environment) - EN 61010-1 (safety)

• WARNINGS



WARNING: this symbol indicates danger.
It is seen near the power supply circuit and near high-voltage relay contacts.

Read the following warnings before installing, connecting or using the device:

- follow instructions precisely when connecting the device.
 - always use cables that are suitable for the voltage and current levels indicated in the technical specifications.
 - the device has no ON/OFF switch: it switches on immediately when power is turned on. For safety reasons, devices permanently connected to the power supply require a two-phase disconnecting switch with proper marking. Such switch must be located near the device and must be easily reachable by the user. A single switch can control several units.
 - if the device is connected to electrically NON-ISOLATED equipment (e.g. thermocouples), a grounding wire must be applied to assure that this connection is not made directly through the machine structure.
 - if the device is used in applications where there is risk of injury to persons and/or damage to machines or materials, it MUST be used with auxiliary alarm units. You should be able to check the correct operation of such units during normal operation of the device.
 - before using the device, the user must check that all device parameters are correctly set in order to avoid injury to persons and/or damage to property.
 - the device must NOT be used in inflammable or explosive environments. It may be connected to units operating in such environments only by means of suitable interfaces in conformity to local safety regulations.
 - the device contains components that are sensitive to static electrical discharges. Therefore, take appropriate precautions when handling electronic circuit boards in order to prevent permanent damage to these components.
- Installation:** installation category II, pollution level 2, double isolation
- power supply lines must be separated from device input and output lines; always check that the supply voltage matches the voltage indicated on the device label.
 - install the instrumentation separately from the relays and power switching devices
 - do not install high-power remote switches, contactors, relays, thyristor power units (particularly if "phase angle" type), motors, etc... in the same cabinet.
 - avoid dust, humidity, corrosive gases and heat sources.
 - do not close the ventilation holes; working temperature must be in the range of 0...50°C.

If the device has faston terminals, they must be protected and isolated; if the device has screw terminals, wires should be attached at least in pairs.

- **Power:** supplied from a disconnecting switch with fuse for the device section; path of wires from switch to devices should be as straight as possible; the same supply should not be used to power relays, contactors, solenoid valves, etc.; if the voltage waveform is strongly distorted by thyristor switching units or by electric motors, it is recommended that an isolation transformer be used only for the devices, connecting the screen to ground; it is important for the electrical system to have a good ground connection; voltage between neutral and ground must not exceed 1V and resistance must be less than 60Ω; if the supply voltage is highly variable, use a voltage stabilizer for the device; use line filters in the vicinity of high frequency generators or arc welders; power supply lines must be separated from device input and output lines; always check that the supply voltage matches the voltage indicated on the device label.
- **Input and output connections:** external connected circuits must have double insulation; to connect analog inputs (TC, RTD) you have to: physically separate input wiring from power supply wiring, from output wiring, and from power connections; use twisted and screened cables, with screen connected to ground at only one point; to connect adjustment and alarm outputs (contactors, solenoid valves, motors, fans, etc.), install RC groups (resistor and capacitor in series) in parallel with inductive loads that work in AC (*Note: all capacitors must conform to VDE standards (class x2) and support at least 220 VAC. Resistors must be at least 2W*); fit a 1N4007 diode in parallel with the coil of inductive loads that operate in DC.

GEFRAN spa will not be held liable for any injury to persons and/or damage to property deriving from tampering, from any incorrect or erroneous use, or from any use not conforming to the device specifications.