



Main applications

- Extrusion lines
- Electrical panels
- Test equipment
- Food processing plant

Main features

- AC voltage, AC current direct input on instrument terminals
- Protected code configurable from keypad
- 4 to 20mA retransmitted output
- Up to 3 relay outputs
- Configurable by serial link
- Labels to customize measured physical unit

GENERAL

Microprocessor based indicator in both 48x48 (1/16 DIN) and 96x48 (1/8 DIN) formats manufactured with SMT.

The instruments have a lexan membrane faceplate (guaranteed to IP65) which has 3 keys, a 3 digit display for the 48x48 format and a 3 / 4 digit display for the 96x48 format, and 3 indicating LED's for the output statuses.

The input signal section provides for the visualisation of the sinusoidal effective value corresponding to following signals:

- AC voltage:
0 to 2, 0 to 20, 0 to 200 and 0 to 500Vac
- AC current:
0 to 20, 0 to 50, 0 to 200mAac
0 to 1, 0 to 5Aac

The selection is made using the faceplate keys and correct input terminals.

No external shunt or adapter is required.

A digital input (24Vdc/4mA) is available for resetting, hold, flash, peak handling or releasing latch. The instruments have a maximum of 3 outputs that can be mechanical relays (5A/250V) or logic outputs (0 to 11Vdc).

One output of 4 to 20mA (max. 150Ω) is available for retransmitting the measured input signal.

The retransmission output, the digital input and the third output are alternatives in the 48x48 format, all these options are available contemporaneously in the 96x48 format.

Finally, a triac can be fitted (as an alternative to the other two relay outputs) to drive resistive loads up to a maximum of 2,5A at 220V.

The programming of the instrument is made easy by grouping the parameters in function blocks (**CFG** for the alarm hysteresis, **Inp** for the inputs, **Out** for the outputs...) and by a simplified data entry menu.

The configuration can be simplified even further using the PC programming kit made up of a connection cable and a menu guide program that runs under Windows (See Manual Quick Guide GF_eXpress).

A configurable personal software protection code (password protection) can be used to restrict the levels of editing and displaying the configuration parameters.

TECHNICAL DATA

INPUTS

Accuracy:

- 0,2% f.s. ±1 digit for 2Vac, 20Vac, 20mAac, 50mAac, 1Aac inputs
- 0,5% f.s. ±1 digit for 200Vac, 500Vac, 200mAac, 5Aac inputs

The measurement of the effective value considers the sinusoidal signal.

Sampling time 120msec, resolution 8000 steps.

Configurable decimal point position, scale -1999 to 9999 (4 digit display) or -999 to 999 (3 digit display with sign, only for the 96 format) with over- and under-range indication.

Voltage input for 2Vac, 20Vac, 200Vac, 500Vac with $R_i > 1M\Omega$.

Current input for 20mAac, 50mAac, 200mAac with $R_i = 1,6\Omega$.

Current input for 1Aac, 5Aac with $R_i = 16 m\Omega$.

Digital input

$R_i = 5,6K\Omega$ (24V, 4mA) isolated to 1500V
Function is configurable as alarm or memory reset, hold, flash, zero, display of the peak value (max., min. or peak to peak).

OUTPUTS

Relay

with NO (NC) contacts rated at 5A/250V at $\cos\varphi = 1$.

Logic (only for Out1 and Out2)

Output type D 11Vdc, $R_{out} = 220\Omega$ (6V/20mA).

Triac (only 96 format) for Out1, excluded Out2

24 to 240Vac $\pm 10\%$, 3Amax
Snubberless, $I^2t = 128A^2sec$

A maximum of three trip points can be set as absolute, deviation or symmetrical deviation alarms. The hysteresis of each alarm is individually configurable.

Alarm masking with exclusion on power up, memory and configurable delay and minimum intervention time.

The trip point may be set at any point on the scale.

Analog Retransmission

4 to 20mA on max. 150 Ω load.

POWER SUPPLY

40A 48

Standard: 100...240Vac $\pm 10\%$ max 8VA
optional: 20...27Vac/dc $\pm 10\%$ max 8VA

40A 96

Standard: 100...240Vac/dc $\pm 10\%$ max 7,5VA

optional: 11...27Vac/dc $\pm 10\%$ max 5VA

50/60Hz, Protected by an internal fuse (not replaceable by the operator).

AMBIENT CONDITIONS

Working temperature range: 0 to 50°C

Storage temperature range: -20 to 70°C

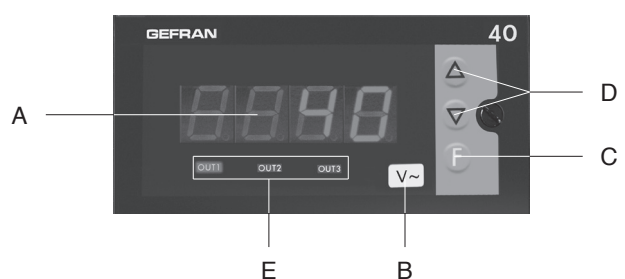
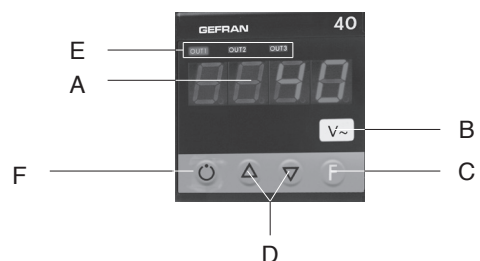
Humidity: 20 to 85%Ur non-condensing

WEIGHT

160g. (48 format), 320g. (96 format) in the complete version

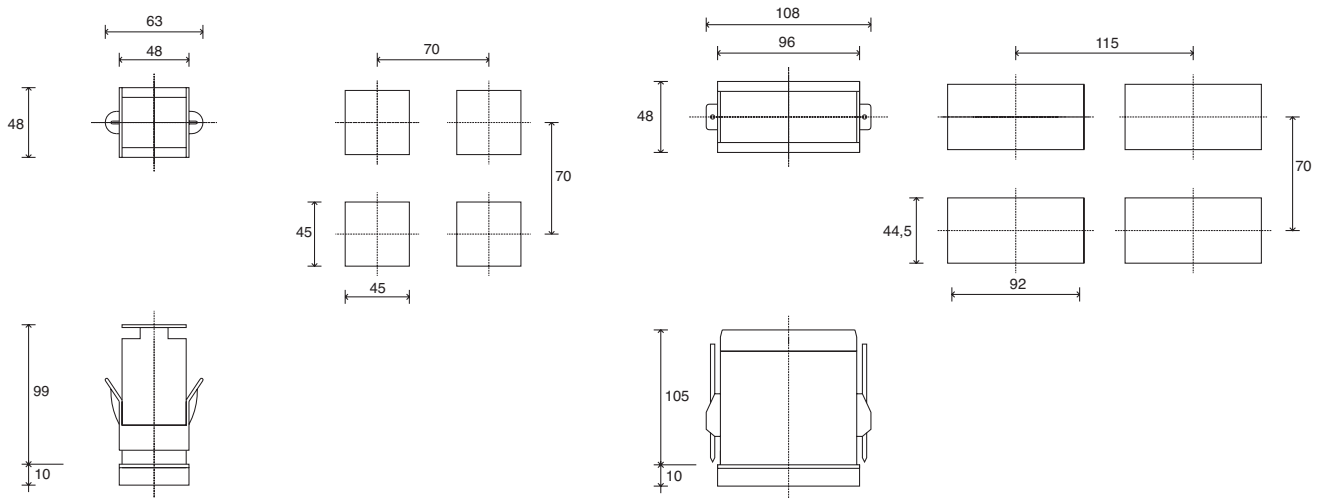
FACEPLATE DESCRIPTION

- A - PV display: indication of process variable
- B - Label for engineering units
- C - "Function" key
- D - "Raise" and "Lower" keys
- E - Indication of the states of the outputs
- F - Key not used



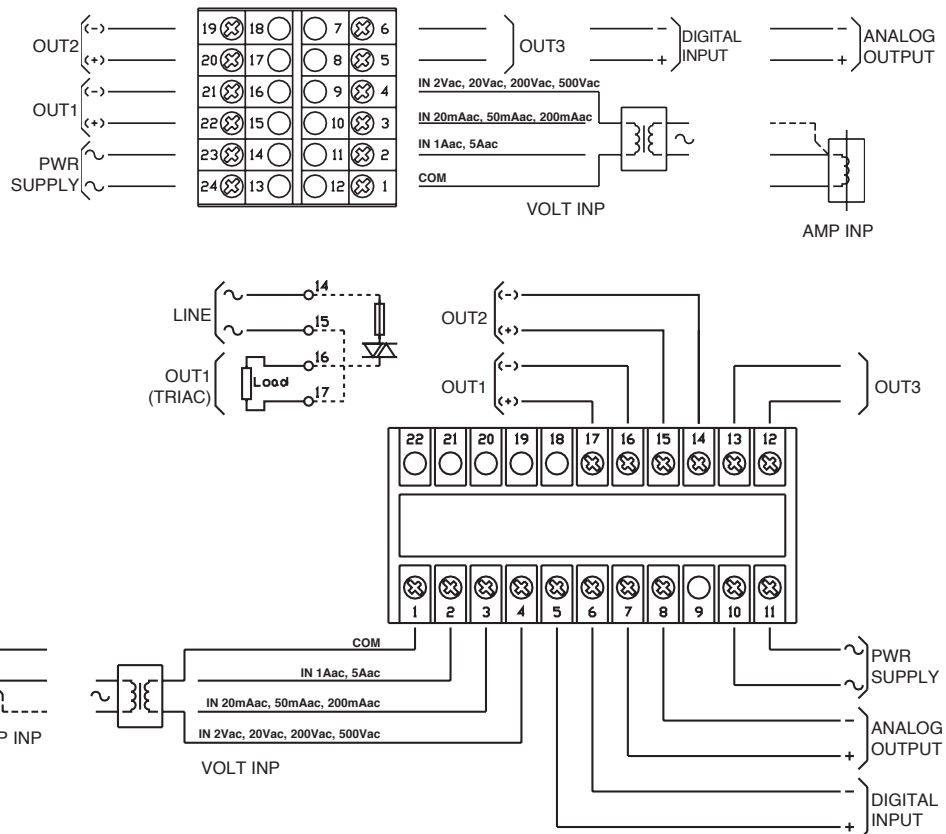
Red LED display
IP65 faceplate protection

DIMENSIONS and CUT-OUT



Dimensions: 48x48mm - 96x48mm (1/16DIN - 1/8DIN), depth 99mm - 105mm

CONNECTION DIAGRAM



Apply user's manual warnings for a correct installation

ORDER CODE

40A 48 4 0 0

NR. DIGITS	
4	4

OUTPUT 1, OUTPUT 2	
Relay, Relay	R R
Relay, Logic	R D

POWER SUPPLY	
0	20 to 27Vac/dc
1	100 to 240Vac

DIGITAL INPUT / RETRANSMISSION OUTPUT (alternative to output 3)	
0	None
1	Digital input
2	Analog retransmis. output 4...20mA on max 150Ω

OUTPUT 3 (alternative to digital input / retransmission output)	
0	None
R	Relay

40A 96 0 0

NR. DIGITS	
3 + sign	3
4	4

OUTPUT 1, OUTPUT 2	
Relay, Relay	R R
Relay, Logic	R D
Triac, None	T 0

POWER SUPPLY	
0	11 to 27Vac/dc
1	100 to 240Vac/dc

DIGITAL INPUT / RETRANSMISSION OUTPUT	
0	None
1	Digital input
3	Digital input + Analog retransmis. output 4...20mA on max 150Ω

OUTPUT 3	
0	None
R	Relay

Please, contact GEFRAN sales people for the codes availability.

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



EMC (electromagnetic compatibility): conforms to directive 2014/30/EU with reference to standard **EN 61326-1**
Safety LVD: conforms to directive 2014/35/EU with reference to standard **EN61010-1**

GEFRAN

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