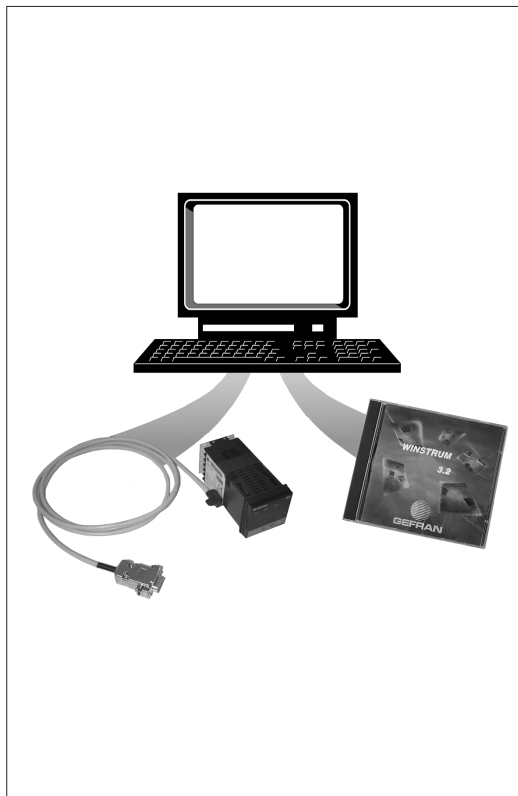


Main applications

- Rapid configuration of instruments
- Storage and management of parameter formulas
- On-line trend and historical data storage functions
- On-line User Manual
- Recovery of factory settings
- Control functions for programmer profile and custom linearization



Main features

- Developed for Windows 95, Windows 98, Windows NT
- No hardware key
- Available in Italian / English / German
- Connectable to instrument networks multidrop
- Communication with MODBUS and CENCAL protocol
- Supplied complete with connector cable for programming via auxiliary serial port (for instruments that support it)

PROFILE

Winstrum is a Windows-environment software whose main function is writing or reading all of the parameters of a single instrument via serial connection. Winstrum software is supplied in a kit with an interface cable.

One end of the cable has a 9-pole connector that attaches to the RS232 port of any PC; the other end has a 3-pin connector that attaches to the instrument.

At the serial communication level, Winstrum lets you choose CENCAL (proprietary) and MODBUS protocols, baud rate, parity, and the serial communication port.

You can configure or analyze one instrument at a time, even if it is part of a network.

Other Winstrum functions:

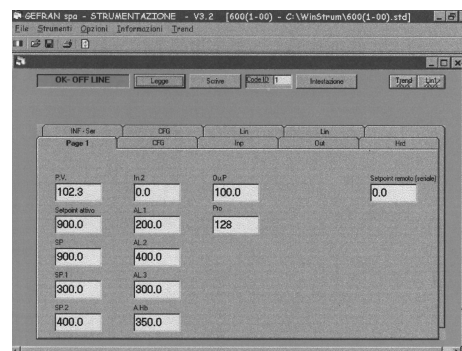
- Storage of configurations (formulas) and rapid duplication.
- Running of a trend to monitor the progress of a maximum of 5 variables, with easy setting of scales and time base on the graph to be obtained.
- Printout of the graph.

- Storage of trend data, with settable time base, in a file loadable by Excel to perform all mathematical or graphic processing required.
- Graphic display of custom linearizations.
- Link from each parameter to on-line help accessible with a double click in the window of the parameter.

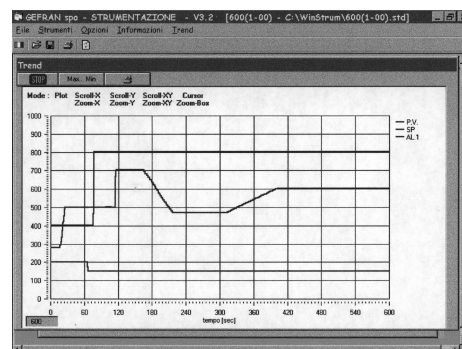
Connection from the PC to the GEFAN instrument with RS485 serial interface can be made directly by cable according to the following table:

RS232 PC connector 9 pole box	GEFRAN instrument connection
2 - Rx	← Tx+
3 - Tx	→ Rx+
5 - GND	← Tx- / Rx-

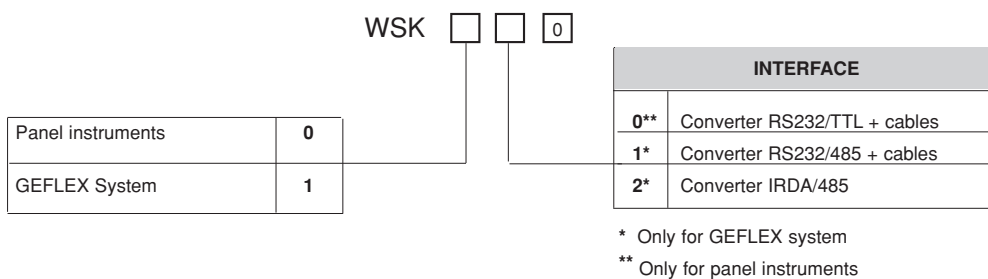
CONFIGURATION PAGE



TREND GRAPH



ORDER CODE



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



Main applications

- Chemical and pharmaceutical industries
- Weighing systems
- Food processing plant
- Naval applications

Main features

- 8 relay or logic outputs
- LED indication of energised relays

GENERAL

The MD8 instrument is an external relay unit for use as an alarm expansion with any GEFran instrument that supports it. The MD8 makes available up to 8 relay outputs which may be configured internally as normally open or normally closed contacts.

Eight logic outputs are available as an alternative.

Eight faceplate LED's illuminate in the relay energised condition.

A simple 3-wires connection links the unit with the "master" instrument.

TECHNICAL DATA

INPUTS

Synchronous digital communication for GEFran instruments connection

OUTPUTS

Relay

NO/NC contact selectable by internal jumpers

5A/250Vac at $\cos\varphi = 1$

(3,5A at $\cos\varphi = 0,4$).

Spark suppression on the NO contact.

Logic

PNP 24V/15mA max.

POWER SUPPLY

100...240Vac $\pm 10\%$

20...27Vac/dc $\pm 10\%$

50/60Hz, 12VA max.

AMBIENT CONDITIONS

Working temperature: 0...50°C

Storage temperature: -20...70°C

Humidity: 20...85%Ur non condensing

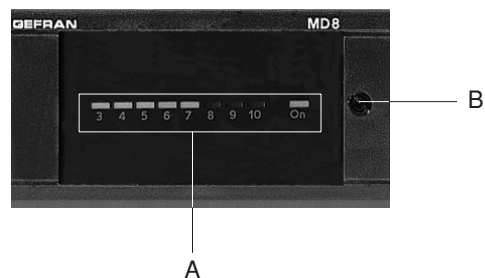
WEIGHT

600g

FACEPLATE DESCRIPTION

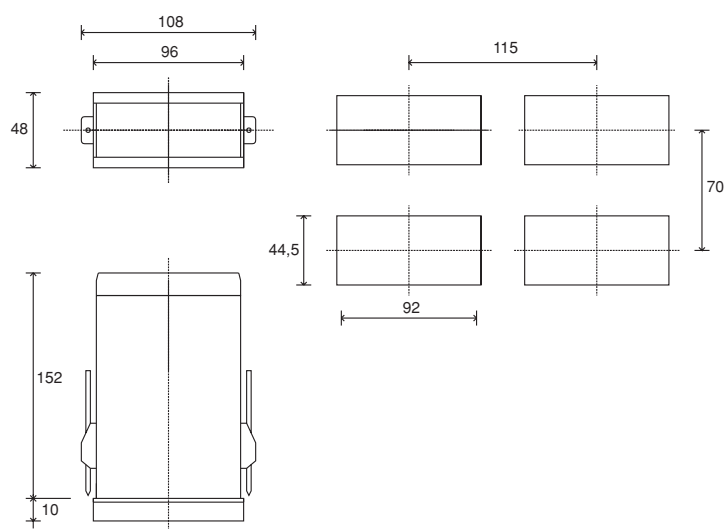
A - Output indication, red LED

B - Fixing screw



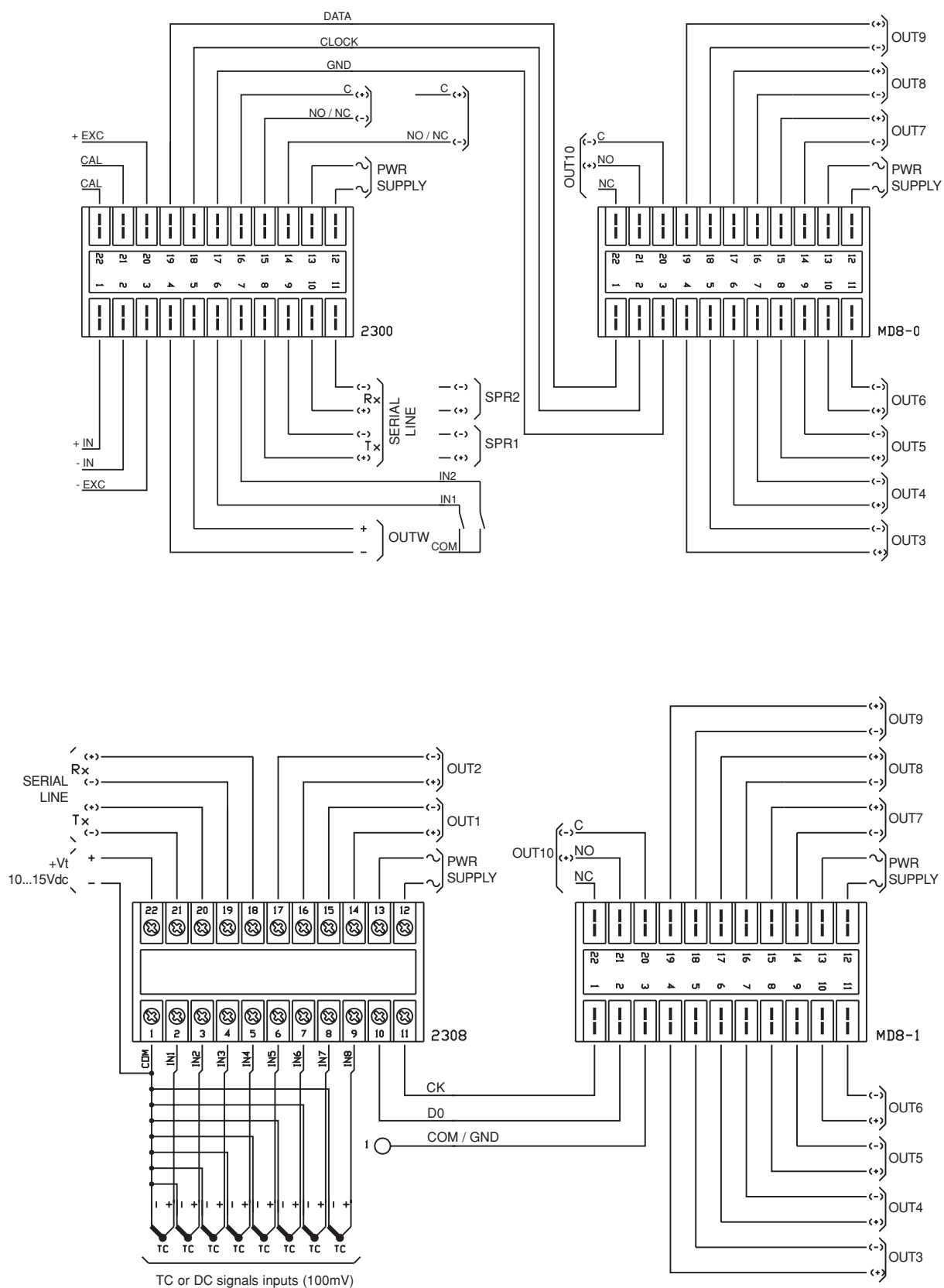
IP54 faceplate description (IP65 available)

DIMENSIONS AND CUT-OUT



Dimensions: 96x96mm (1/4 DIN), depth 152mm

CONNECTION DIAGRAM



ORDER CODE

MD8 ☐ ☐ ☐



VERSION	
For model 2300	0
For models: 3500/4500 - 2308	1

OUTPUT	
Relay	R0
Logic	D2

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

Please, contact GEFTRAN 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: EN 61000-6-2 (immunity in industrial environment) EN 61000-6-3 (emission in residential environment) - EN 61010-1 (safety)
	(Italian Naval Register) ELE / 124697 / 2 omologation

GEFRAN

GEFRAN spa via Sebina, 74 - 25050 Provaglio d'Iseo (BS)
Tel. 03098881 - fax 0309839063 - Internet: <http://www.gefran.com>

cod. MD8 - 06/04



Main Applications

- Signal conditioning
- Voltage dividers (max. 250V) or current shunts (max. 5A)

Main Features

- Voltage, current or resistor inputs
- 0...10V, 0...50mV, 60mV, 100mV voltage outputs

PROFILE

SHUNT modules are suitable to condition signals following to any need that may arise from the interface between sensors or transmitters and instruments with standard inputs.

Some models are offered with standard values, others are customizable and require, when ordering, the exact indication of input voltage or current value.

The resistance / voltage converter generates a steady current in the resistor to get a voltage output signal: an external power supply is needed.

TECHNICAL DATA

SHUNT 10V / 50mV

Input: 0...10Vdc voltage (max. 50Vdc), $R_i > 500\text{ K}\Omega$.

This divider can be used with instruments that have a 50mV voltage input and input impedance higher than 500K Ω .

Possible applications with the following instruments: 500/501, 1000, 3400/4400, 3500/4500 whole series

10V / 50mV SHUNT, LOW IMPEDANCE

An output "low impedance" model is available to carry out applications where a connection with instruments with input low impedance (100K Ω) or polarization current is requested:

Input: 0...10Vdc voltage (max. 50Vdc), $R_i > 8\text{ K}\Omega$.

Output : 0...50mVdv voltage, R_u max. 50 Ω .

20mA / 50mV SHUNT

Input: from On-Off contact, max. current 1mA_{dc}.

Output: voltage 0-1Vdc.

Application available with chart-recorder to change a contact on-off signal into a 0-1V analogue signal. 24Vdc power supply

Output: voltage 0...50mV or 0...60mV, R_u max 50 Ω .

V / 50mV SHUNT

Input: voltage $V > 50\text{mVac/dc}$ (max. 250V)

Output: voltage 0...50mVac/dc

The following models are available:

0.5V – $R_i > 1\text{ MW} / 50\text{ mV} - R_u$ max.

100K Ω 4V – $R_i > 1\text{ MW} / 50\text{mV} -$

R_u max. 12K Ω .

It is possible to ask for products with customized values. When asking, specify the input voltage value, direct or alternate.

V / 100 mV SHUNT

Input: voltage $V > 100\text{mVac/dc}$ (max 250V)

Output: voltage 100mVac/dc

Models available:

2V - $R_i > 200\text{ K}\Omega / 100\text{mV} - R_u$ max 12K Ω

20V- $R_i > 2\text{ M}\Omega / 100\text{mV} - R_u$ max 12K Ω

200V- $R_i > 3\text{ M}\Omega / 100\text{mV} - R_u$ max 12K Ω

Instruments with customized values are also available. When sending a request, please specify the input voltage value, either continuous or alternate.

V / 10V SHUNT

Input: voltage $V > 10\text{Vac/dc}$
(max 250V)

Output: voltage $0 \dots 10\text{Vac/dc}$

Models available:

90V - $R_i > 30\text{K}\Omega$ / 100mV - R_u max $5\text{K}\Omega$

120V - $R_i > 30\text{K}\Omega$ / 100mV - R_u max $4\text{K}\Omega$

170V - $R_i > 30\text{K}\Omega$ / 100mV - R_u max $3,5\text{K}\Omega$

180V - $R_i > 30\text{K}\Omega$ / 100mV - R_u max $2\text{K}\Omega$

Instruments with customized values are also available. When sending a request, please specify the input voltage value, either continuous or alternate.

$\pm 10\text{V}$ / 60mV SHUNT

Input: voltage $-10\text{V} \dots 10\text{V}$ (max. $\pm 50\text{V}$) $R_i > 10\text{K}\Omega$

Output: voltage $0 \dots 60\text{mV}$, R_u max. $5\text{K}\Omega$

Application available with 4/40 series indicators/alarm units, 60mV input (see the connection diagram).

ON-OFF 1V CONTACT SHUNT

Input: from On-Off contact, max. current 1mA_{dc} .

Output: voltage $0-1\text{V}_{dc}$.

Application available with chart-recorder to change a contact on-off signal into a $0-1\text{V}$ analogue signal. 24V_{dc} power supply needed.

AMBIENT CONDITIONS

Working Temperature: $0 \dots 50^\circ\text{C}$

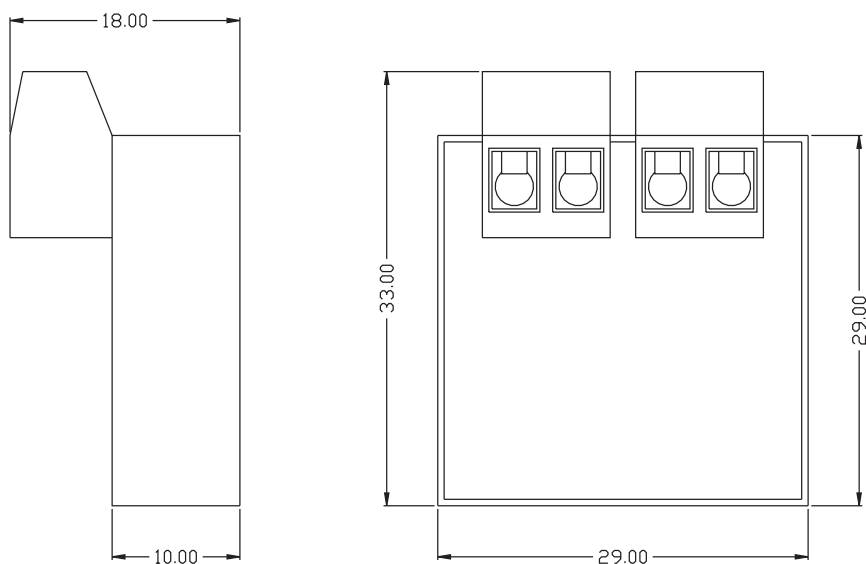
Storage Temperature: $-20 \dots 70^\circ\text{C}$

Humidity: $20 \dots 85\%$ Hr non condensing

WEIGHT

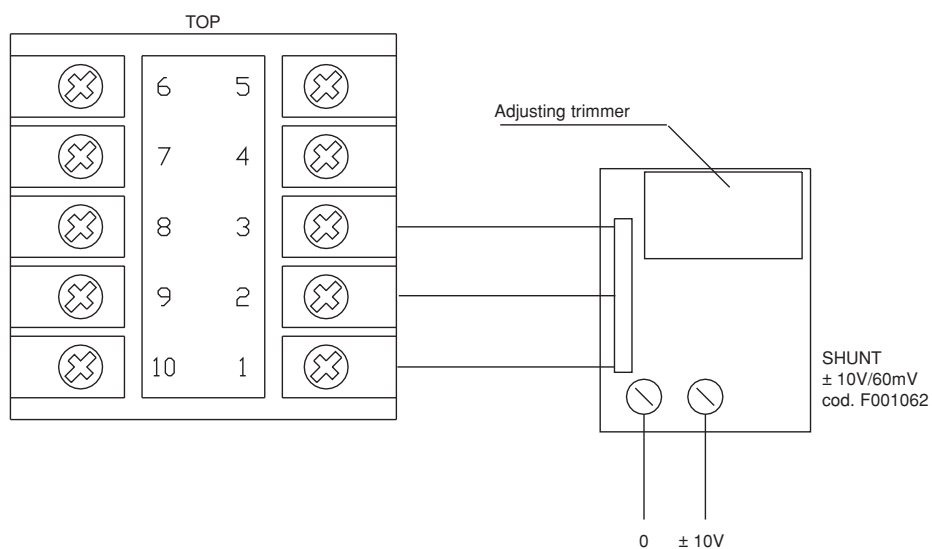
30 g

FACEPLATE DESCRIPTION



APPLICATION

4 / 40T instrument with interface module for $\pm 10\text{V}$ symmetric input



Follow user's manual mounting instructions to install the instrument properly.

ORDER CODE

SHUNT



POWER SUPPLY	
input 0...10V / output 0...50mV	F000222
input 0...20mA / output 0...50mV	F000223
input 0...180V / output 0...10V	F000224
input V / output 0...50mV	F001059
input V / output 0...10V	F001060
input V / output 0...100mV	F001061
input V 0...10V / output 0...50mV low impedance	F000225
input $\pm 10V$ / output 0...60mV	F001062
On-off contact input/ output 0...1V	F001063

Please, contact GEFTRAN 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.



The instrument conforms to the European Directives 89/336/CEE and 73/23/CEE with reference to the generic standards:
EN 61000-6-2 (immunity in industrial environments) **EN 61000-6-3** (emission in residential environments) - **EN 61010-1**(safety)

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GEFRAN spa

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Internet: <http://www.gefran.com> - e.commerce:www.gefranonline.com

cod. SHUNT - 06/04



Polycarbonate cover
Protection degree **IP54**
Gray (frame) / Trasparent (door)

For 96x96mm (1/4 DIN) units
Order code **51065**

For 48x96mm (1/8 DIN) units
Order code **51066**



Polycarbonate cover with rubber gasket
Protection degree **IP65**
Gray (frame) / Trasparent (door)

For 96x96mm (1/4 DIN) units
Order code **51064**

For 48x96mm (1/8 DIN) units
Order code **51067**

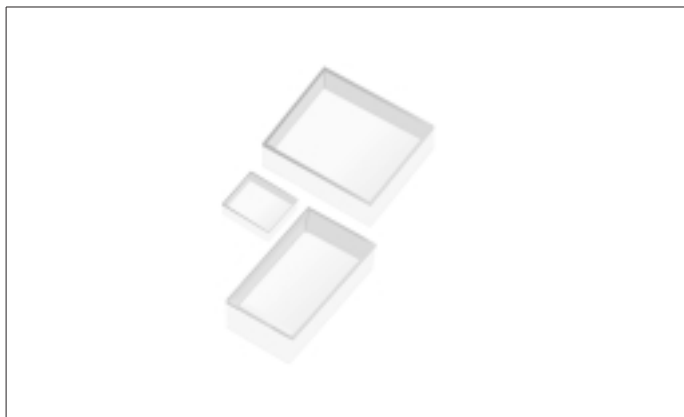


Polycarbonate antidust cover
Transparent color

mod. **CFA110**
for 48x48mm (1/16 DIN) units Order code **51060**

mod. **CFA120**
for 48x96mm (1/8 DIN) units Order code **51061**

mod. **CFA220**
for 96x96mm (1/4 DIN) units Order code **51062**



Sylicon rubber cover
Protection degree **IP65**
Trasparent color

for 48x48mm (1/16 DIN) units Order code **51183**

for 48x96mm (1/8 DIN) units Order code **51185**

for 96x96mm (1/4 DIN) units Order code **51186**

COVER PLATES FOR INSTRUMENTATION



mod. **Q48**
for 45x45mm hole
for 48x48mm (1/16 DIN) units
In self-extinguishing V0 polycarbonate Gray color
Order code **51177**

mod. **Q94**
for 45x93mm hole
for 48x96mm (1/8 DIN) units
In self-extinguishing V0 polycarbonate Gray color
Order code **51178**

mod. **Q96**
for 93x93mm hole
for 96x96mm (1/4 DIN) units
In self-extinguishing V0 polycarbonate Gray color
Order code **51179**

DIN RAIL BRACKET



Base for DIN rail mounting. EN50022
(vertical mounting) (48x48mm)
Order code **51155**

Base for DIN rail mounting. EN50022
(horizontal mounting) (48x96mm)
Order code **51156**

Base for DIN rail mounting (48x48mm) for models
series 800/400/4-40/600
Order code **51399**

Base for DIN rail mounting (48x96mm) for models
series 1600 e 1800
Order code **51479**

CASE REAR WITH SCREW TERMINALS



Case rear 48x48mm, 12 screw terminals,
for 400-401 controllers
Order code **51451**

Case rear 48x48mm, 24 screw terminals, for 600-800 serie
controllers and 4/40 serie indicators format 48x48mm
Order code **51453**

Case rear 96x48mm, 29 screw terminals, for 1600-1800
serie controllers and 40TB indicator
Order code **1105111**

Case rear 96x48mm, 22 screw terminals, for 1200-1300-
2301-3400-4400-3500-4500 controllers format 96x48 and
48x96mm, 2308-2351-4/40 serie indicators format 96x48
and 48x96mm and CLB instrument
Order code **1032099**

Case rear 96x48mm, 21 screw terminals,
for 1000-1001-1101 controllers
Order code **1032095**

CASE REAR WITH FASTON TERMINALS



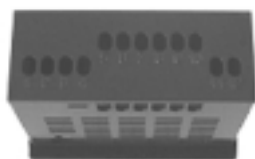
Case rear 96x48mm, 21 faston terminals,
for 1000-1001-1101 controllers

Order code **1032090**

Case rear 96x48mm, 22 faston terminals, for 2300 indi-
cator and SAL and MD8 instruments

Order code **1032097**

CASE REAR



Case rear 72x36mm, for 4/40 serie indicators format
72x36mm and 40T 72 PID controller

Order code **51330**

PANEL MOUNTING KIT



Panel mounting kit 48x48mm

Order code **51296**



Panel mounting kit 48x96mm and 96x96mm

Order code **49030**



Panel mounting kit 72x36mm

Order code **51331**



Mounting kit for 55-550-556 instruments

Order code **51250**

CASE REAR COVERS



Case rear covers 48x48mm, 12 and 24 screw terminals

Order code **51294**



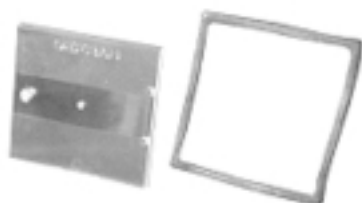
Case rear covers 96x48mm, 29 screw terminals

Order code **51328**



Case rear covers 96x48mm e 96x96mm, 21 and 22 screw terminals

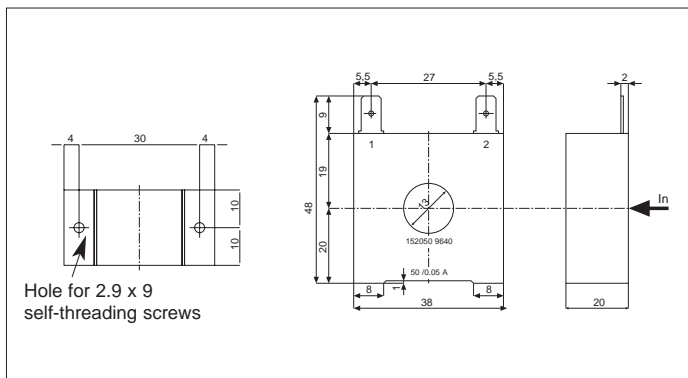
Order code **1032096**



Case rear covers for 55-550-556 instruments

Order code **51078**

CURRENT TRANSFORMER



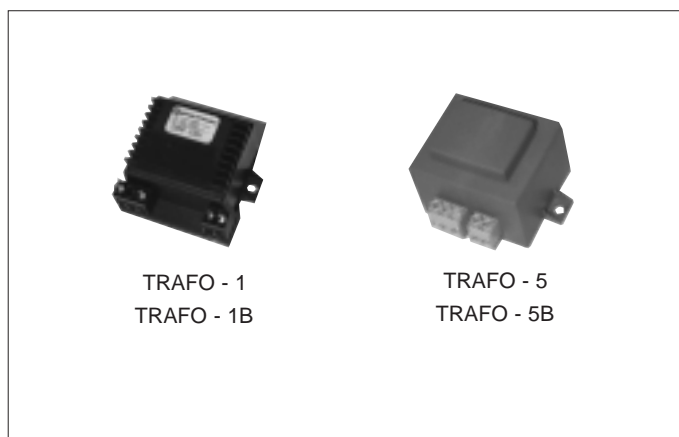
These transformers are used for currents of 50/60 Hz. The main characteristic of these transformers is the high number of turns in the secondary. This provides a very low secondary current, suitable for an electronic measurement circuit. The secondary current can be measured as a voltage on a resistor.

Order code

330200 IN = 50Aac OUT = 50mAac

330201 IN = 25Aac OUT = 50mAac

POWER TRANSFORMER AND ISOLATION



Transformer for galvanic isolation of power supply.

Dimensions TRAFO - 1 / TRAFO - 1B

L: 58mm **B:** 47mm **H:** 36mm

Dimensions TRAFO - 5 / TRAFO - 5B

L: 67mm **B:** 52mm **H:** 45mm

Order code

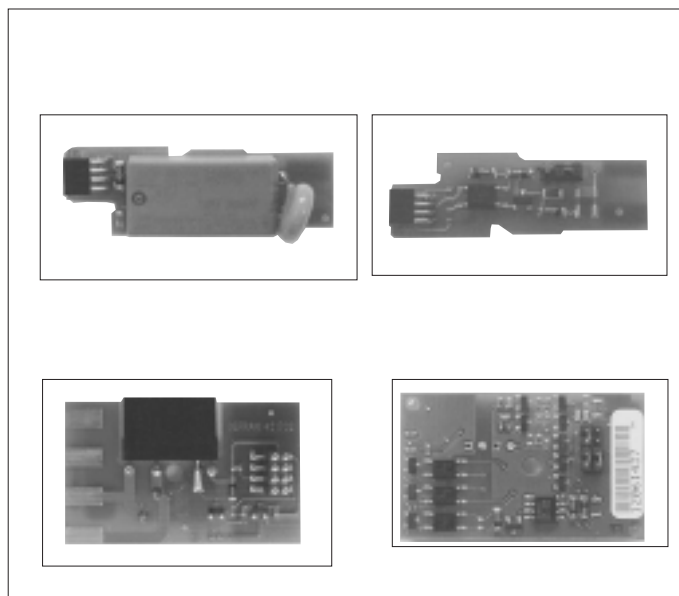
TRAFO - 1: 3VA transformer, 230/24Vac

TRAFO - 1B: 3VA transformer, 24/24Vac

TRAFO - 5: 10VA transformer, 230/24Vac

TRAFO - 5B: 10VA transformer, 24/24Vac

INTERCHANGEABLE ELEMENTS for CONTROLLER VERSION 600



Board I/O optionals (expansions)

Output 2

R-600-A Relay output - type A
D-600-A Logic output - type A
T-600-A Triac output 1A - type A
M-600-A Digital insulated - type A

Output 3 / Input

R-600-B Relay output - type B
D-600-B Logic output - type B
C-600-B Continuous output - type B
W-600-B Analog output - type B
H-600-B CT input 50mA - type B
N-600-B Digital input - type B
M-600-B Digital insulated - type B

Digital communication / Output 4

2-600-C Seriale output - type C
R-600-C Relay output - type C

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