GEFRAN

2308
MULTIZONE INDICATOR / ALARM UNIT

Main applications

- Chemical and pharmaceutical industries
- Extrusion lines in the plastics industry
- Paper industry
- Cement works
- Food industry plant
- Marble industry plant
- Industrial machinery in general

Main features

- Up to 8 displayed points with manual or automatic scanning
- Thermocouple, resistance thermometer, DC V/I, AC V/I, potentiometer inputs
- Heterogeneous inputs
- Up to 10 freely configurable alarm points
- Optoisolated 4-wires digital communication. Protocol: GEFRAN CENCAL or MODBUS

GENERAL

The 2308 is a universal panel instrument for displaying up to 8 different variables with configurable alarm or switch points. Its characteristics of configurability, as well as speed of acquisition and response, mean that it is an extremely versatile instrument that may be used for the display of physical phenomena with alarm switching in a diversity of industrial applications.

The instrument can accept temperature signals from isolated thermocouples, even of different types, and from 2 or 3-wires resistance thermometers, as well as from linear signals in dc voltage or current (e.g. potentiometers, amplified pressure probes, transmitters, etc.).

The selection of the input type for each channel is made by harware configuration, while the scale range (for linear inputs) may be configured from the front panel keys (software).

The instrument may be also be configured for 8 ac voltage inputs.

Shunts and dividers are available to condition the various ac voltage and current signal.

Alarm output are available with a minimum of 2 to a maximum of 10 using the MD81 external expansion unit.

The alarms themselves have multiple functions and allow ample freedom of choice.

In particular, AL1 and AL2 can be attributed to one of any of the 8 channels, or to indicate the state of the alarm condition of the input group (selectable in the range 1...8).

The passive current loop or RS485 serial link is convertible to RS232 using the CLB94 adapter.

TECHNICAL DATA

INPUTS

Accuracy: 0,2% fis. ±1 digit for linear inputs; 0,5% fis. ±1 digit for TC and RTD inputs.
Sampling time 0,9sec.
Number of variables to display impostable

TC - Thermocouple

J (Fe-CuNi) 0...800°C / 32...1472°F
K (NiCr-Ni) 0...1300°C / 32...2372°F
S (Pt10Rh-Pt) 0...1600°C / 32...2912°F
R (Pt13Rh-Pt) 0...1600°C / 32...2912°F
T (Cu-CuNi) -100...400°C / -148...752°F

RTD 2-3-wires

Pt100 -99,9...99,9°C / -99,9...211,8°F
Pt100 -200...400°C / -328...752°F

DC - Linear

20mV, 50mV, 100mV, 10V, $Ri \geq 1M\Omega$
0...20mA, 4...20mA; $Ri = 5\Omega$
100mVac
External dividers are available for signals from 1 to 1500Vac. $Ri \geq 1M\Omega$ and external ammeter shunts for currents from 20 to 5Aac $Rin \leq 5\Omega$
Internal jumper selection
The 2308 can be configured for different inputs on the same instrument with the exception of the acmV inputs which must all be of the same kind.

OUTPUTS

Relay
With rating: 5A/250Vac at cosφ = 1
(3,5A at cosφ = 0,4).
Spark suppression on the contacts.

Logic
23Vdc, Rout = 470Ω (20mA, max. 12V).

SERIAL LINE
Optoisolated 4-wires.
The instrument is available with interface
Passive current loop 1200 baud.
RS422/485 1200/2400/4800/9600 baud.
(convertible into RS232C using a CLB94
adapter).
Protocol:
GEFRAN CENCAL or MODBUS

POWER SUPPLY
100...240Vac ±10%
11...27Vac/dc ±10%
50...60Hz; 10VA max.

SENSOR/TRANSMITTER SUPLLY
For supplying potentiometers, amplified
probes, transmitters, signal conditioners.
10...15V 100mA max.

AMBIENT CONDITION
Working temperature range: 0...50°C
Storage temperature range: -20...70°C
Humidity: 20...85%Ur non condensing

ALARMS
Two alarm points that are configurable
using the faceplate keys as "HI" or "LO"
alarms.
- The alarm point may be set anywhere
within the selected scale range.
- The hysteresis of the trip point may be
adjusted from the faceplate keys.

- The response time is max. 1 sec.
non-repetitive
- It is possible to configure a "LO" alarm
such that it is automatically disabled
during each start up until the input has
exceeded the alarm setpoint.
The "LO" alarm will operate if the input
subsequently falls below the entered trip
point.
- 8 further absolute alarm points (one
alarm per channel) can be added connec-
ting an MD81 expansion unit.
The other characteristics are identical to
the standard alarms.

WEIGHT
500g

FACEPLATE DESCRIPTION

A - Displays the variables of the 8 channels, red digits h. 14mm

B - Function key: manual scan of the channels

C - D - Raise and Lower keys

E - Automatic/Manual scan key

F - Configuration key

G - Calibration key

H - Alarm relay energised indication, red led

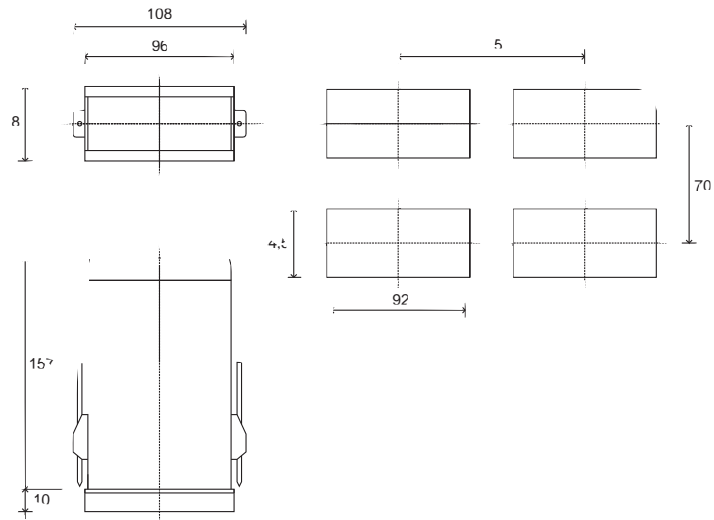**I** - Indication of serial communication REM and EXP, red led

L - Indication of displyed channel, red digits h. 7mm
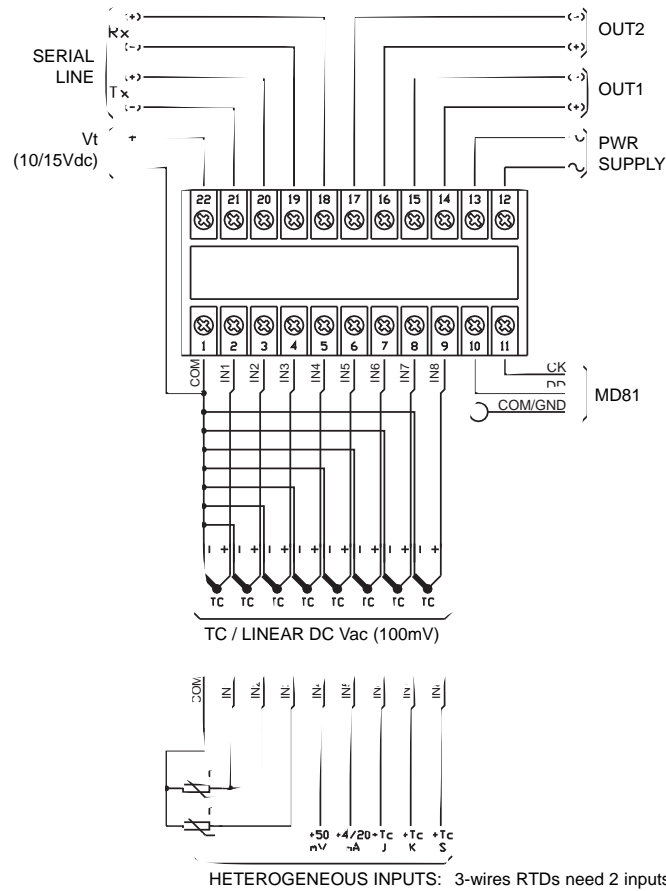
M - Label for engineering units.

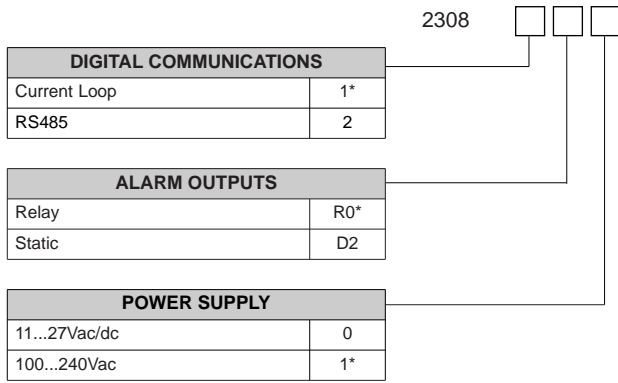IP54 faceplate protection (IP65 available).

DIMENSIONS AND CUT-OUT

Dimensions: 96x48mm (1/8 DIN), depth 157mm.

CONNECTION DIAGRAM

HETEROGENEOUS INPUTS: 3-wires RTDs need 2 inputs: odd main input (1-3-5-7) and next even compensation input for the 3rd wire.

⚠ Apply user's manual warnings for a correct installation

ORDER CODE

2308 ☐☐☐

DIGITAL COMMUNICATIONS	
Current Loop	1*
RS485	2

ALARM OUTPUTS	
Relay	R0*
Static	D2

POWER SUPPLY	
11...27Vac/dc	0
100...240Vac	1*

STANDARD CONFIGURATION Hardware and Software
CH1...CH8 - Thermocouple input J 0...800°C
Alarms - Setting 500 - Hysteresis -1 - Relay energised above alarm point - Relay contact NO
Supply output for external sensor 10VDC
Automatic scanning of the channels enabled
Configuration and settings enabled
Calibration disabled
Parallel connections for serial link

(*) Standard model

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

C€ In conformity to ECC 89/336/CEE and 73/23/CEE with reference to standards:
- EN 50082-2 (immunity in industrial environment) - **EN 50081-1** (emission in residential environment) - **EN 61010-1** (safety)

RINA (Italian Naval Register) ELE / 124697 / 1 omologation   (**available on request**)

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