THRESHOLD FOR ANALOG SIGNALS WITH RELAY OUTPUT

Z113S : 1 SET-POINT
Z113D : 2 SET-POINT
Z113T : 3 SET-POINT

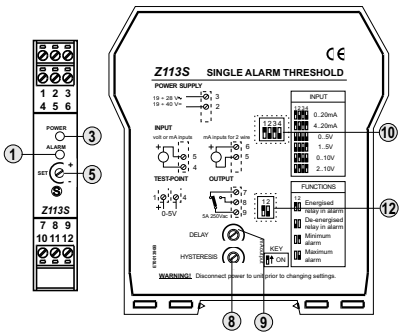
GENERAL FEATURES

Programmable analog input via DIP-switch for current and voltage signals.
Stabilized power supply for transducers 2 wires tecnique with protection against short-circuit.
Alarms set-point regulation, regulation also for working delay and hysteresis.
Indications on the front for presence of power supply and overflow for thresholds.
Test-point to control set-points.
Selection by DIP-switch for the type of alarm (min or max) for each of set-points and the state of relays (normally powered or normally not powered).
Output with relays.
3 points galvanic separation, 1500 Vac between power supply and input and outputs.
Box in auto extinguishing polycarbonate, 1 DIN module, back for rail 35 mm (DIN 46277).

TECHNICAL FEATURES

Power:	19-40 Vdc, 19-28 Vac 50-60Hz, max 2.5W.
Input:	• Current 0-20 mA or 4-20 mA both active and passive wiring, input impedance 100 ohm, sensor's stabilized power 20 Vdc 20 mA. • Voltage 0-5 Vdc, 1-5 Vdc, 0-10 Vdc and 2-10 Vdc, input impedance 1 Mohm.
Adjustments:	• Set-point for the alarms between 1 % and 100 % of the signal to be controlled. • Working delay between 0,3 s and 30 s. • Hysteresis between 2 % and 15 % for full-scale.
Output:	Relays, 1 A 30 Vdc / 5 A 250 Vac maximum (resistive load). Z113S 1 SPDT contacts, Z113D 2 SPST contacts, Z113T 3 SPST contacts.
Errors referred to input measure's field:	Thermic coefficient: 0, 02%/°C Linearity error: 0,05%
Protection Input / power supply:	Against pulse overvoltages 400W/ms.
Environemenytal conditions:	Temperature: 0..50°C, Humidity min:30%, max 90% at 40°C not condensating (see section ***Installatione***).
Dimensions / Weight:	17,5 x 100 x 112 mm / 200 g approx.
Norms: CE	Device complies the following norms: EN50081-2 (electromagnetic emission, industrial environement) EN50082-2 (electromagnetic immunity, industrial environement) EN61010-1 (safety)

Z113S - PROGRAMMATION



① LED Alarm

③ LED Power ON

⑤ Alarm Set-Point

⑧ HYSTERESIS adjustement
⑨ DELAY adjustement
⑩ INPUT setting

⑫ FUNCTION setting

Programmation for INPUT SETTING and for FUNCTION SETTING must be done when unit is not powered.

PROGRAMMATION FOR "INPUT SETTING" BY DIP-SWITCHES "INPUT" :

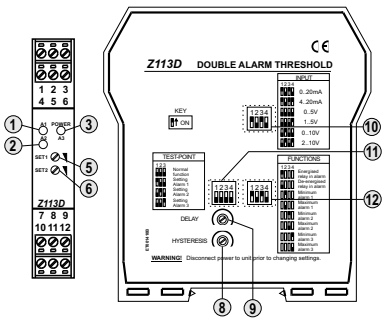
1234	1234	1234	1234	1234	1234
0 - 20 mA	4 - 20 mA	0 - 5 V	1 - 5 V	0 - 10 V	2 - 10 V

PROGRAMMATION FOR "FUNCTION SETTING" OF THE THRESHOLD BY DIP-SWITCHES "FUNCTIONS" :

12	12	12	12
Relay ENERGISED in alarm	Relay DE-ENERGISED in alarm	Alarm MINIMUM	Alarm MAXIMUM

Red LED starts instantaneously when exceeded SET-POINT and starts blinking after the operating time for the relay.

Z113D - PROGRAMMATION



① LED Alarm 1
② LED Alarm 2
③ LED Power ON

⑤ Alarm 1 Set-Point
⑥ Alarm 2 Set-Point

⑧ HYSTERESIS adjustement
⑨ DELAY adjustement
⑩ INPUT setting
⑪ TEST-POINT setting
⑫ FUNCTION setting

Programmation for INPUT SETTING and for FUNCTION SETTING must be done when unit is not powered.

PROGRAMMATION FOR "INPUT SETTING" BY DIP-SWITCHES "INPUT" :

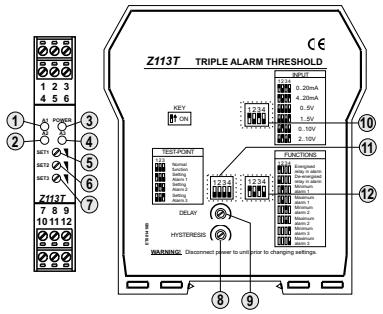
1234	1234	1234	1234	1234	1234
0 - 20 mA	4 - 20 mA	0 - 5 V	1 - 5 V	0 - 10 V	2 - 10 V

PROGRAMMATION FOR "FUNCTION SETTING" OF THE THRESHOLD BY DIP-SWITCHES "FUNCTIONS" :

Relay ENERGISED in alarm 1234	Relay DE-ENERGISED in alarm 1234	ALARM 1 MIN 1234	ALARM 1 MAX 1234	ALARM 2 MIN 1234	ALARM 2 MAX 1234

FUNCTIONING FOR RED LED "ALARM
Red LED "ALARM" starts istantaneously when exceeded SET-POINT and starts blinking after the operating time for the relay .

Z113T - PROGRAMMATION



① LED Alarm 1
② LED Alarm 2
③ LED Power ON
④ LED Alarm 3
⑤ Alarm 1 Set-Point
⑥ Alarm 2 Set-Point
⑦ Alarm 3 Set-Point
⑧ HYSTERESIS adjustement
⑨ DELAY adjustement
⑩ INPUT setting
⑪ TEST-POINT setting
⑫ FUNCTION setting

Programmation for INPUT SETTING and for FUNCTION SETTING must be done when unit is not powered.

PROGRAMMATION FOR "INPUT SETTING" BY DIP-SWITCHES "INPUT" :

1234	1234	1234	1234	1234	1234
0 - 20 mA	4 - 20 mA	0 - 5 V	1 - 5 V	0 - 10 V	2 - 10 V

PROGRAMMATION FOR "FUNCTION SETTING" OF THE THRESHOLD BY DIP-SWITCHES "FUNCTIONS" :

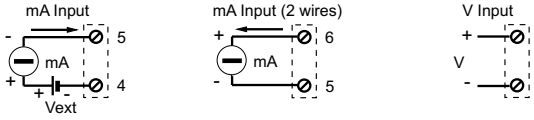
Relay ENERGISED in alarm 1234	Relay DE-ENERGISED in alarm 1234	ALARM 1 MIN 1234	ALARM 1 MAX 1234	ALARM 2 MIN 1234	ALARM 2 MAX 1234	ALARM 3 MIN 1234	ALARM 3 MAX 1234

Red LED starts instantaneously when exceeded SET-POINT and starts blinking after the operating time for the relay.

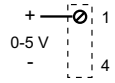
POWER SUPPLY

Power supply voltage must be in a range from 19 to 40 Vdc (polarity indifferent), 19 and 28 Vac; see I***NSTALLATION NORMS.***
Upper limits have not to be exceeded, on the contrary modules will be damaged.
It is necessary to protect power supply source from possible module's damages by a fuse correctly calculated.

INPUT



TEST-POINT



OUTPUTS

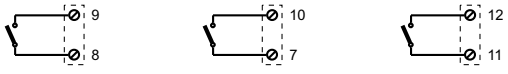
Maximun load for relays is 5 A 250 Vac (resistive load)..
To drive inductive loads (as electrovalves coils, remote control switches, etc.) it is necessary to use filters dedicated to the extra voltage spike due to the off and on of those loads that in other way drastically reduce relay contact electrical life.

Z113S

Z113D

Alarm 1 **Alarm 2**

Z113T



Alarm 1 **Alarm 2** **Alarm 3**

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