## Limit value switch GS 225

## Limit value controlling of electrical standard signals

$\square$ Two adjustable limit values with scale $0 . . .100 \%$
$\square$ Input standard signals $\mathbf{0} / 2 \ldots 10 \mathrm{~V}, 0 / 0,2 \ldots 1 \mathrm{~V}, 0 / 4 \ldots 2 \mathrm{~mA}$
$\square$ Supply voltage for one two-wire-transmitter
$\square$ Adjustable hysteresis and time delay
$\square$ Switch-function min or max
$\square$ Supply voltage 230 Vac, 115 Vac, 24 Vac or 24 Vdc
$\square$ Slim structural shape $\mathbf{2 2 . 5} \mathbf{~ m m}$ for DIN-rail mounting


Description and operation

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Safety instructions

> Attention! Please read these instructions carefully prior to connecting the device and putting it into operation. The device contains shock hazardous voltage, it may only be connected and put into operation by qualified expert staff.

## Application

The limit value switch GS 225 is a controller for one electric standard signal. It has two adjustable limit values.

The unit is designed for mounting into a control cabinet onto a DIN-rail.
An auxiliary energy is required for supplying the limit value switch.

## Description

The input-signal is controlled by two comparators with adjustable setpoints and hysteresis. The switch-function $\mathbf{m i n}$ (outputrelais pulls up when adjusted nominal value get undercrossed ) or max (outputrelais pulls up when adjusted nominal value get overcrossed) is chooseable by DIP-Switches.

An adjustable timing circuit from $0 . . .7 \mathrm{~s}$ is for fade out a momentary difference from the setpoint.

The device has an incorporated power supply for two-wire-transmitter 4... 20 mA .
The measuring transmitter can be supplied with $230 \mathrm{Vac}, 115 \mathrm{Vac}, 24 \mathrm{Vac}$ or with 24 Vdc . 230 Vac and 115 Vac are separated from the input and output by means of a mains transformer. Supply is effected directly with 24 Vac or 24 Vdc .

## Display and operating elements



## Physical dimensions



Mounting on 35 mm DIN-rail acc. to EN 50022
Ambient temperature $0 . . .50^{\circ} \mathrm{C}$
rel. humidity max. 85 \%, no bedewing

## Wiring diagram



Two-wire-transmitter 4... 20 mA at terminals 8+ and 7-
Active standard signals at terminals 7+ and 6 -
Outputcontact K2 at 9 and 10, max. contact load 250 V 8 A noninductive
Outputcontact K1 at 11 and 12, max. contact load 250 V 8 A noninductive
Supply voltage 230 Vac or 115 Vac at terminals 3 and 4
(incorpoated mains transformer)
Supply voltage 24 Vac and 24 Vdc at terminals 1 (+) and $2(-)$
Terminals 6 and 2 are internally connected.

The nominal voltage adjusted at delivery can be seen on the identification plate. The mains transfomer can be converted in the device from 230 Vac to 115 Vac by means of two plug-in jumpers.


Attention! The plug-in jumpers for converting the mains transformer carry shock hazardous voltage when the device is in operation.
Disconnect the supply voltage of the measuring transformer before touching these components.

## Setting of hysteresis and time delay

Hysteresis and time delay can be seperatly changed for each limit value.


## Setting of switch-function min or max

The switch-function can be seperately (for each channel) changed by means of two DIPswitches.
switch-function min:
Outputrelais pulls up when adjusted nominal value get undercrossed switch-function max:

Outputrelais pulls up when adjusted nominal value get overcrossed


DIP-switch for contact K2
min-function: 1 on 2 off max-function: 1 off 2 on

DIP-Switch for contact K1 min-function: 1 on 2 off max-function: 1 off 2 on


## Attention!

Disconnect the supply voltage of the measuring transformer before touching these components.

## Setting to other measuring ranges



Input signal ranges can be adapted by means of DIP-Switch S1

Switch S1
Input
1 on 2 off
4... 20 mA ,
$0,2 \ldots 1 \mathrm{~V}, 2 \ldots 10 \mathrm{~V}$
1 off 2 on
0... 20 mA ,
0... 1 V, $0 . . .10$ V

Technical Data

Input:
Supply voltage:
Setpoint-range:
Hysteresis:
Time delay:
Switch-function:
(for each contact with
DIP-Switch chooseable)
Contact-output:
Contact-load:
Supply Voltage:
Power consumption:
Case:

Connections:
Protection:
Displays:
Ambient temperature:
rel. humidity:
Weight:
EMC:
standard signals $0 / 2 \ldots 10 \mathrm{~V}, 0 / 0,2 \ldots 1 \mathrm{~V}, 0 / 4 \ldots 20 \mathrm{~mA}$ approx. 18 Vdc , non-stabilized, max. current 25 mA Potentiometer with scale $0 . . .100 \%$
for each limit value adjustable 0,25... 5 \%
for each limit value adjustable $0 . . .7 \mathrm{~s}$
min (relais pulls up when adjusted nominal value get undercrossed) or
max (relais pulls up when adjusted nominal value get overcrossed)
potential free relaiscontact
max. 250 V 8 A noninductive
230 Vac or 115 Vac via incorporated mains transformer or 24 Vac or 24 Vdc direct supply
approx. 1,5 VA
Polyamide grey, for mounting on 35 mm DIN-rail acc. to EN 50022
dimensions $22,5 \times 99 \times 110 \mathrm{~mm}$ (width $\times$ height $\times$ depth)
Terminal screws up to $2.5 \mathrm{~mm}^{2}$
IP20 acc. to EN 60529
Operation LED green,
switch of contact K1 and K2 LED red
$0 . . .50^{\circ} \mathrm{C}$
$0 . . .85 \%$, no bedewing
approx. 160 g
Test as per EN 50082-1, EN 50082-2
CE-Sign

Error limits:
$\begin{array}{ll}\text { Resolution of scales: } & \text { approx. } 5 \% \\ \text { Temperature drift: } & \pm 0,2 \% / 10 \mathrm{~K}\end{array}$

