

## Evaluator TK-313

### Sa dva limita veze

TK-313 limitni uporedjivac može da se koristi u kombinaciji sa našim TK-30... trajnim senzorom nivoa za kontrolu i merenje nivoa.

Kada je potrebno nekoliko limitnih vrednosti, pojedinačni uporedjivaci nivoa mogu da se povežu u paralelnu vezu i formiraju funkcionalnu jedinicu.

Sve limitne vrednosti mogu da se slobodno podešavaju kroz celavu dužinu merenja i da variraju po zahtevu.

Uporedjivac limita je takodje pogodan za opštu primenu tamo gde su standardizovane struje (0/4...20 mA) i signalni voltaže (0...5 V) dostupni kao promenljive vrednosti ulaza.

TK-313 uporedjivac limita nudi opciju kontrole u dva koraka, gde je limitna vrednost K1 maksimalna vrednost, a limitna vrednost K2 minimalna vrednost. Ovakav način operacije može se izabrati preko prekidača za kodiranje na samoj jedinici.

Pad voltaže preko otpornika ulaza uporedjivaca limita se poredi sa ustanovljenom vrednošću koju može da podesi sam korisnik. Ako je ova limitna vrednost prekoračena ili nije dostignuta, onda pocinje da radi izolovani kontakt izlaza.

U načinu rada sa kontrolom u dva koraka, obe individualne limitne vrednosti sacinjavaju kontrolne limite obima. Ako je limitna vrednost K1 prekoračena, njen izolovan izlaz je uključen. Ako limitna vrednost K2 nije dostignuta, izlaz K1 se ponovo uspostavlja.

Limitna vrednost K2 je dostupna i na izlaznim terminalima.

Izlazni releji TK-313 uporedjivaca limita funkcionišu po principu struje otvorenog kola; K1 je takodje dostupna i u verziji sa strujom zavorenog kola.

TK-313 uporedjivac limita nudi još i na zahtev mogućnost nadgledanja velicine ulaza. Promene (prekid kabla / kratki spoj u kablu) mogu se prikazati povlačenjem izlaza releja.

## Detalji o sistemu

Instrumenti za merenje nivoa tecnosti TK-30... vidite sekciju 11.

## TK-313 Evaluator

### with 2 limit contacts

The TK-313 limit comparator can be used in conjunction with our TK-30... continuous level sensors for level control/measurement.

Where several limit values are required, individual limit comparators can be connected in parallel to form a functional unit.

All limit values can be adjusted freely over the entire measuring length and varied as required.

The limit comparator is also suitable for general application where standardised current (0/4...20 mA) and voltage signals (0...5 V) are available as input variables.

The TK-313 limit comparator offers a two-step control option, where the limit value K1 is the maximum value and the limit value K2 is the minimum value. This mode can be selected via a coding switch at the unit.

The voltage drop across the input resistor of the limit comparator is compared with a setpoint value which can be adjusted by the user. If this limit value is exceeded or not reached, the isolated output contact operates.

In the "two-step control mode", both individual limit values form the control range limits. If limit value K1 is exceeded, its isolated output is switched. If the limit value K2 is not reached, the output of K1 is reset.

The limit value K2 is still available at the output terminals.

The output relays of the TK-313 limit comparator operate on an open-circuit current principle; K1 is also available in a closed-circuit current version.

The limit comparator TK-313 offers furthermore on request the possibility of monitoring the input size. Changes (cable break / cable short circuit) can be indicated by pull or decline of the exit relay.



TK-313

## System Details

Liquid level measuring instruments TK-30... please see section 11.



## Tehnicki podaci

<b>Sistem zaštite</b> <b>DIN 40050</b>	Terminali: IP20 Kucište: Ip50
<b>Operativna temp.</b>	-20...+60°C
<b>Procenjena voltaža</b> <b>Na zahtev</b>	230 V AC 24, 42, 115, 127 V AC 12, 24 V DC
<b>Utrošnja struje</b>	Oko 3,5 VA
<b>Ulazni signal</b>	
<b>Struja</b>	0/4...20 mA
<b>Voltaža</b>	0...5 V
<b>Otpor u trožicom</b> <b>kolu RG</b>	0-2...10 kΩ
<b>Merna voltaža</b>	Oko 6,2 V
<b>Merna struja</b>	Max. 12 mA
<b>Izlaz</b>	
<b>Veze izlaza</b>	2 promenljive veze bez potencijala
<b>Voltaža uključenja</b>	Max. 250 V AC
<b>Struja uključenja</b>	Max. 5 A (na zahtev 8 A)
<b>Kapacitet</b> <b>ukljucivanja</b>	max. 1100 VA / 180 W
<b>Izolacija</b>	Ulaz (izlaz) nasuprot pomocnoj struji (VAC) kroz transformator. Za VDC kroz DC/DC transformator na zahtev
<b>Tolerancije</b>	Max. ±0,6% obima signala
<b>Prilog</b>	Šina za ugradnju po EN 50022, 2 rupe 35x50
<b>Dodaci</b>	IP 55 kucište: ŠxDxV (mm) 87/110/128
<b>Mogucnosti ekstenzija</b>	
<b>Nadgledanje prekida</b> <b>kabla/ kratkog spoja u</b> <b>kablu</b>	
<b>Struja izlaza</b>	0/4...20 mA u vezi sa masom ulaza

## Kljuc tipa

Osnovne oznake	
Voltaža napajanja	
0 = 24 V DC	
1 = 24 V AC	
2 = 42 V AC	
5 = 127 V AC	
6 = 230 V AC	
8 = 115 V AC	
9 = 12 V DC	
Izlaz	
0 = 0...20 mA	
1 = 4...20 mA	
2 = 0...10 V	
3 = Widerstand 0-2...10 kΩ	

TK-313 00

## Technical Data

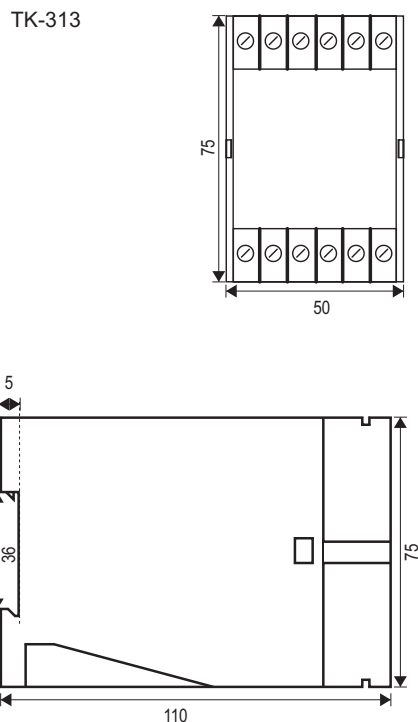
System of protection DIN 40050	Terminals: IP 20 Housing: IP 50
Operating temperature	-20...+60 °C
Rated voltage	230 V AC
On request	24, 42, 115, 127 V AC 12, 24 V DC
Power consumption	about 3,5 VA
<b>Input signal:</b>	
Current	0/4...20 mA
Voltage	0...5 V
Resistance in three-wire circuit RG	0-2...10 kΩ
Measuring voltage	about 6,2 V
Measuring current	max. 12 mA
<b>Output:</b>	
Output contacts	2 potential free change-over contacts
Switching voltage	max. 250 V AC
Switching current	max. 5 A (on request 8 A)
Switching capacity	max. 1100 VA / 180 W
Isolation	Input against auxiliary power (VAC) via transformer. For VDC via DC/DC transformer on request
Tolerances	max. ± 0,6 % of signal range
Attachment	Mounting rail according to EN 50022, 2 holes 35x50
Accessories	IP 55 housing: WxDxH (mm) 87/110/128
<b>Extension possibilities:</b>	
Monitoring cable break / cable short circuit	
Exit current	0/4...20 mA related to the mass of the input

## Type Key

Basic designation	
Supply voltage	
0 = 24 V DC	
1 = 24 V AC	
2 = 42 V AC	
5 = 127 V AC	
6 = 230 V AC	
8 = 115 V AC	
9 = 12 V DC	
Input	
0 = 0...20 mA	
1 = 4...20 mA	
2 = 0...10 V	
3 = resistance 0-2...10 kΩ	

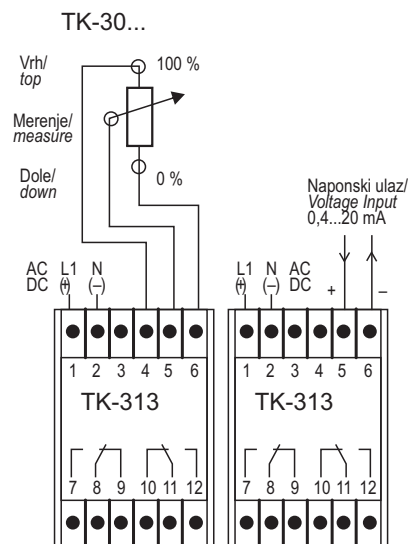
TK-313 00

## Dimenzioni crtez Dimensional Drawing



Dimenzije u mm / Dimensioning in mm

## Veza Connection



Moguce izmene bez prethodne najave.

Subject to change without prior notice, errors excepted.