

BEZBEDNOŠNA TEHNOLOGIJA
ZA ZAŠTITU ŽIVOTNE SREDINE

SAFETY AND
ENVIRONMENTAL
TECHNOLOGY

E.L.B.
FÜLLSTANDSGERÄTE

14-03-01E

Svetleći displeji niza Tip TK-325

Kao 19" jedinica uticnice 24 LED

Tip TK-326

Za instal. na razvodnoj tabli 24 LED

Tip TK-327

Za instal. na razvodnoj tabli 24 LED

E.L.B. svetleći displeji niza tipa iz serije TK-325...TK-327 se koriste za procese vizuelnog prikazivanja stanja kao što su nivoi ispunjavanja.

Kroz njihov dizajn u kom se koriste jako svetleće diode koje emituju svetlost oni su idealni za primenu u problematičnim uslovima, na primer, u okolini koja je već obojena.

Osvetljeni niz dozvoljava opšti pregled stanja procesa čak i iz veće daljine.

Kroz ulazne signale, kao što su struja nezavisna od tereta u standardnom obimu (0/4...20 mA) ove jedinice displeja mogu se koristiti u svim mogućim situacijama.

U kombinaciji sa našim instrumetima za merenje nivoa tecnosti iz serije TK-30 i procenjivačima iz serije TK-31, ovi svetleći displeji niza obezbeđuju optimalnu kombinaciju uređaja za signalizaciju nivoa tecnosti.

Različite forme kombinacija obezbeđuju korisniku mogućnost da izabere verijantu koja mu najviše odgovara za instalaciju određenog tipa. TK-325 svetleći displej niza može da se koristi u modulima 19" kao utikac na ploči - tipovi TK-326 i TK-327 su dizajnirani za instalaciju svetlećih displeja niza na razvodnim pločama.

Ulazni signal se konvertuje u signal rada za module rada svetlećeg niza uz pomoć mernog pojačivača. Nulta tačka i maksimalna vrednost su pojedinačno podešive uz pomoć dva potencijometra. Moduli rada svetlećeg niza se koriste za kovertovanje radnog signala u izlaznu struju kroz svaku individualnu diodu koja emituje svetlost.

U TK-325 i TK-326 tipovima rezolucija od < 5% je postignuta uz pomoć 24 individualne diode koje emituju svetlost. U TK-327 tabla displeja sastoji se od 32 individualne diode koje emituju svetlost koje omogućavaju da se postigne rezolucija od < 3,5%.

Paket konvertuje voltažu glavnog napajanja u stabilizovanu operativnu voltažu kola.

Funkcionalna ugradnja svetlećih displeja niza sastoji se od paketa, mernog pojačivača sa poredjenjem nulte i maksimalne vrednosti, module rada i table dioda koje emituju svetlost.

Luminous Row Displays Type TK-325

as 19" plug-in unit - 24 LED

Type TK-326

for switchboard installation - 24 LED

Type TK-327

for switchboard installation - 24 LED

E.L.B. luminous row displays of type series TK-325...TK-327 are used for visually displaying process states such as filling levels.

Through their design using strongly illuminating light-emitting diodes they are ideal for difficult applications, e.g. with light coloured surroundings.

The luminous row permits a general view of the process state even from a distance.

Through the input signals, such as load-independent current in the standard range (0/4...20 mA) these display units can be used in all applications.

In combination with our liquid level measuring instruments of the type series TK-30 and the evaluators of our type series TK-31, these luminous row displays provide an optimum device combination for signalling liquid levels.

The various forms of combinations permit the user to select the variant most suitable for his particular installation.

The TK-325 luminous row display can be used as a plug-in board in 19" modules. Types TK-326 and TK-327 are designed for installation of luminous row displays in switchboards etc.

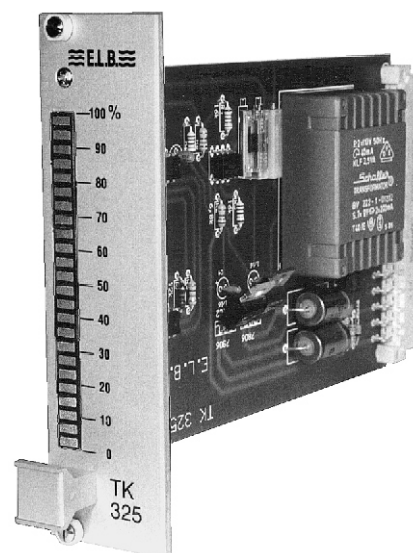
The input signal is converted into the drive signal for the luminous row driver modules by a measuring amplifier. The zero point and maximum value are individually adjustable by means of two potentiometers.

Luminous row driver modules are used for converting the driving signal into output currents through each individual light-emitting diode.

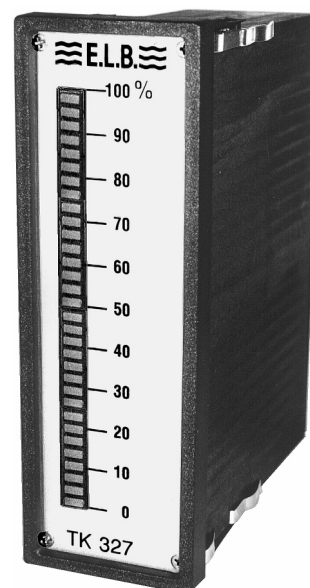
In the TK-325 and TK-326 types a resolution of < 5% is achieved with 24 individual light-emitting diodes. In the TK-327 the bar display consists of 32 individual light-emitting diodes which enable a resolution of < 3,5% to be achieved.

The power pack converts the mains voltage into the stabilised operating voltage of the circuit.

The functional setup of luminous row displays consists of the power pack, measuring amplifier with zero/max. comparison, driver modules and light-emitting diode bars.



TK-325



TK-327

Detalji o sistemu

Instrumenti za merenje nivoa tecnosti TK-30... vidite sekciju 11. Merni transduktori TK-100 i TK-312 vidite sekciju 14.

System Details

Liquid level measuring instruments TK-30... please see section 11. Measuring transducers TK-100 and TK-312 please see section 14.

AUSWERTEGERÄTE • ANZEIGEN / EVALUATION AND DISPLAY UNITS



Tehnicki podaci

| | |
|---|---|
| Dizajn TK-325 | Tabla utikaca 19" za instalaciju, ugradjena u kabine prekidaca sa tipom zaštite pogodnim da odgovaraju zahtevima. |
| TK-326/327 | Prednja ploca ugradjena u kucište za instalaciju na razvodnoj tabli / razvodnoj kabini sa tipom zaštite pogodnom da odgovara uslovima. |
| Sistem zaštite DIN 40050 | IP 40 pre prednje ploce |
| Materijal | TK-326: celicne ploce TK-327: plastika |
| Operativna temperatura | Min. -20°C Max. +40°C |
| Proc. voltaža Na zahtev | 230 V AC 24,42,48,115 V AC 24 V DC |
| Utrošnja struje Displej | TK-325/326: max.pribl. 5,5 VA TK-327: max.pribl. 6,5 VA |
| Broj dioda koje emituju svetlost | TK-325/326: 24 TK-327: 36 |
| Rezolucija: | TK-325/326: 4.2% TK-327: 3.1% |
| Greška | Max. ±1 LED |
| Elektricno povezivanje | TK-325: konektor višestrukih tacaka prema DIN 41612, tip B/32 TK-326: konektor višestrukih tacaka prema DIN 41612, integrisan u kucištu TK-327: Kabl mreža i signal, svaki po 1 m dužine, presek kabla 0.5mm ² |
| Ulaz | |
| Voltaža ulaza | max. 6V |
| Ulazna struja | max. 30 mA |
| Ulazni otpor | 0/4...20 mA max.52Ω 0...1 mA max. 1.1 kΩ 0...5 V min. 660 kΩ |
| Nominalne dimenzije | TK-325: 3HE/7TE/dubina 174mm TK-326/327: 48x144 |
| Isecak razvodne table | TK-326: 42x138 TK-327: A 48 x 144 DIN 43 700 |
| Dubina kucišta | TK-326: 200mm TK-327: 110mm |
| Težina | TK-325: pribl.260g TK-326: pribl.1000g TK-327: pribl.510g |

Kljuc tipa

| | |
|---|--|
| Osnovne oznake svetlećih displeja niza | |
| Dizajn: | 5 = ploca utikaca 160*100 3HE/7TE sa 24 LED |
| | 6 = kucište ugradjeno u prednju ploču sa 24 LED 7 = kucište ugradjeno u prednju ploču sa 32 LED |
| Voltaža napajanja | 0 = 24 V DC 1 = 24 V AC 2 = 42 V AC 3 = 48 V AC 6 = 230 V AC 8 = 115 V AC |
| Obim ulaza | 0 = 0...20 mA 1 = 0...1 mA 4 = 4...20 mA 5 = 0...5 V |
| TK-32 | - - - |

Technical Data

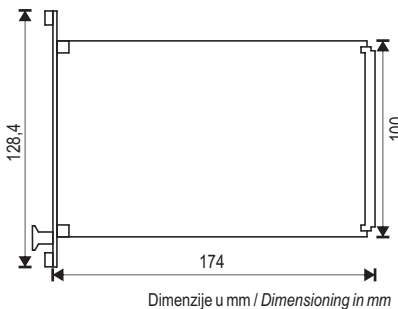
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| Design TK-325 | Plug-in board for installation in 19" support, built into switch cabinets with type of protection suitable for requirements. |
| TK-326/327 | Front panel built-in housing for installation in switchboards / switch cabinets with type of protection suitable for requirements. |
| System of protection DIN 40050 | IP 40 before the front panel |
| Material | TK-326: Steel sheet TK-327: Plastic |
| Operating temperature | min. -20 °C max. +40 °C |
| Rated voltage | 230 V AC |
| On request | 24, 42, 48, 115 V AC 24 V DC |
| Power consumption | TK-325/TK-326: max. approx. 5,5 VA TK-327: max. approx. 6,5 VA |
| Display: | |
| Number of light emitting diodes | TK-325/TK-326: 24 TK-327: 36 |
| Resolution | TK-325/TK-326: 4.2 % TK-327: 3.1 % |
| Error | max. ± 1 LED |
| Electrical connection | TK-325: multipoint connector according to DIN 41612, type B/32 TK-326: multipoint connector according to DIN 41612, integrated in the housing TK-327: Cable: network and signal each 1 m length, cable cross-section 0.5 mm ² |
| Input: | |
| Input voltage | max: 6 V |
| Input current | max: 30 mA |
| Input resistance | 0/4...20 mA max. 52 Ω 0...1 mA max. 1.1 kΩ 0...5 V min. 660 kΩ |
| Nominal dimensions | TK-325: 3HE/7TE/depth 174 mm TK-326/TK-327: 48 x 144 |
| Switchboard cutout | TK-326: 42 x 138 TK-327: A 48 x 144 DIN 43 700 |
| Housing depth | TK-326: 200 mm TK-327: 110 mm |
| Weight | TK-325: approx. 260 g TK-326: approx. 1000 g TK-327: approx. 510 g |

Type Key

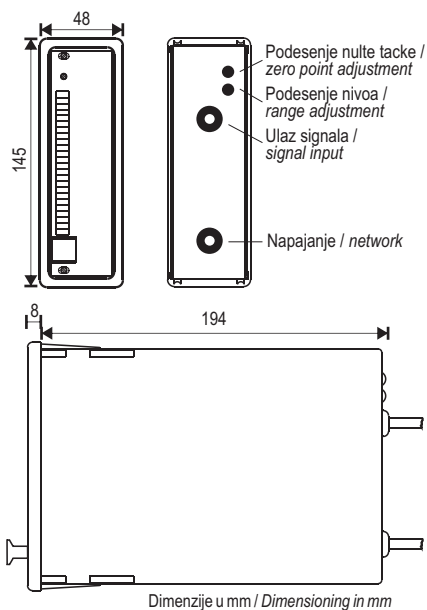
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|---|--|
| Basic designation of luminous row displays | |
| Designs: | 5 = plug-in board 160*100 3HE/7TE with 24 LED |
| | 6 = front panel built-in housing with 24 LED 7 = front panel built-in housing with 32 LED |
| Supply voltage | 0 = 24 V DC 1 = 24 V AC 2 = 42 V AC 3 = 48 V AC 6 = 230 V AC 8 = 115 V AC |
| Input range | 0 = 0...20 mA 1 = 0...1 mA 4 = 4...20 mA 5 = 0...5 V |
| TK-32 | - - - |

Dimenzioni crtez Dimensional Drawing

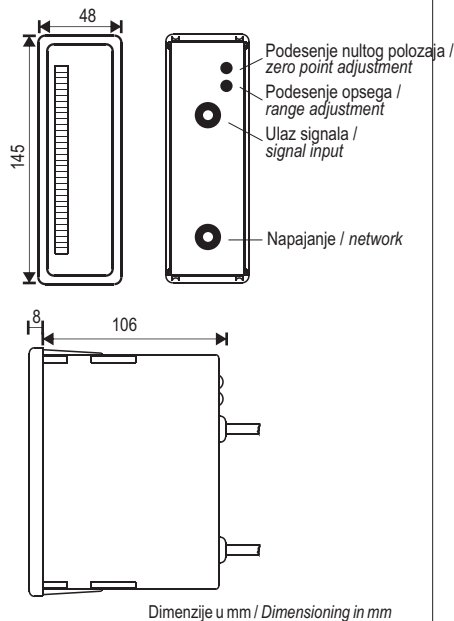
TK-325



TK-326



TK-327



Moguće izmene bez prethodne najave.

Subject to change without prior notice, errors excepted.