

BEZBEDNOŠNA TEHNOLOGIJA
ZA ZAŠTITU ŽIVOTNE SREDINE

SAFETY AND
ENVIRONMENTAL
TECHNOLOGY

E.L.B.
FÜLLSTANDSGERÄTE

11-03-01E

Instrumenti za merenje nivoa tecnosti

Bivša Kategorija oblasti 1
(Bivša Zona 0)

Serijska TK-30...

EG-EC Sertifikat za Ispitivanje tipa
TÜV 02 ATEX 1795 X

Opšti podaci

- **EG-EC Sertifikat za Ispitivanje tipa TÜV 02 ATEX 1795 X**
- Nezavisni od pritiska temperature, pene provodljivosti dielektrike
- Izlazni signal je proporcionalan nivou tecnosti, bez obzira na oblik rezervoara
- Rezolucija merenja je odredjena izborom bolje strukture
- Slobodan izbor limitnih vrednosti u sveukupnom mernom obimu sonde

Uz prsten magneta, plovak, smešten na provodnoj cevi, ukljucuje se u stanju bez kontakta gasnih veza, koje su okupljene na ploci kola unutar provodne cevi.

Kontakti za ukljucivanje su uronjeni u elemenat integrisanog kola, što obezbedjuje mehanicku zaštitu.

Na lancu otpora, koji se sastoji od individualnih otpora, parcijalni otpor, koji je proporcionalan nivou tecnosti, se neprestano meri.

Uz ovu tehniku, merenje je manje više neprekidno. Zbog velikog izbora, 7,5/10/15/20 mm ili 1%/ 2%/ 5%, rezolucija se lako podešava da bi odgovarala uslovima i zahtevima.

Detalji o sistemu

Upotrebljeni sa evaluacionim instrumentima / instrumentima za limitne vrednosti iz serije TK/AD-31... ili sa transdukotorom R/I TK-100 (ugradjenom u fasungu veze) i uredjajima za displej, serije TK-32..., ovi instrumenti za merenje nivoa tecnosti mogu se koristiti u skoro svim oblastima gde je potrebno merenje / kontrola / indikacija tecnosti.

(Za dalje informacije o tipovima TK/AD-31 i TK-32, vidite sekciju 14).

Specijalni modeli dostupni na zahtev

Liquid Level Measuring Instruments

for Ex Area Category 1 (Ex Zone 0)

Series TK-30...

EC Type-Examination Certificate

TÜV 02 ATEX 1795 X

General Data

EG-EC Type-Examination Certificate TÜV 02 ATEX 1795 X

- Independent of
- Pressure, - Temperature, - Foam,
- Conductivity, - Dielectrics
- The output signal is proportional to the liquid level, regardless of container shape
- Measurement resolution determined by selection of fine structure
- Freely-selectable limiting values in the overall measurement range of probes

With the ring magnet, the float, placed on the guide tube, switches in non-contact mode gas contacts, which are assembled on a circuit board inside the guide tube.

The switch contacts are imbedded in a chip, which provides mechanical protection.

On a resistance chain, consisting of individual resistances, a part resistance, which is proportional to the liquid level, is continuously measured.

With this technique, the measuring is more or less continuous. Due to a wide choice 7,5/10/15/20 mm or 1%/2%/5%, the resolution is easily adapted to suit requirements.

System Details

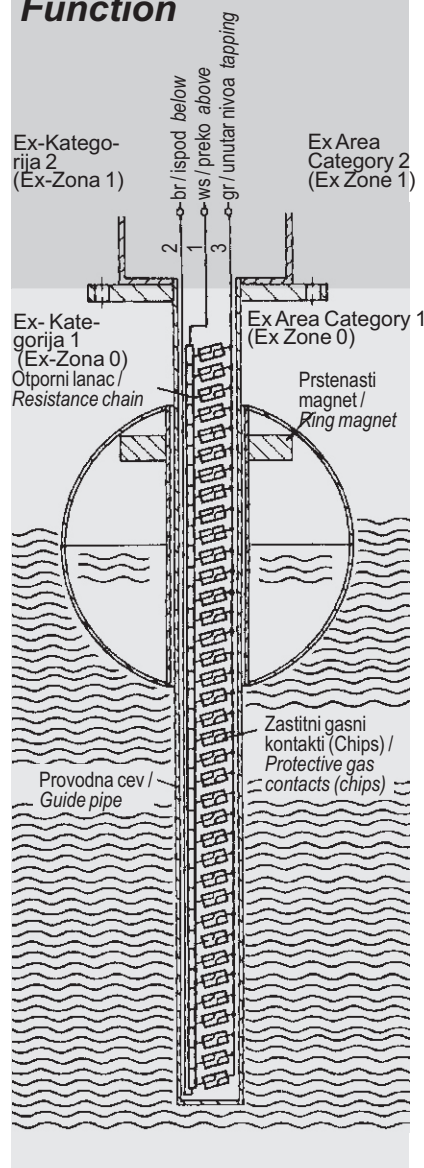
Used with evaluation instruments/ limiting value instruments from the TK/AD-31... series or with the R/I-transducer TK-100 (fitted in connector socket) and display instruments, series TK-32..., these liquid level measuring instruments can be used in almost all areas where the measuring/controlling/indicating of liquid levels is required.

(For further information on types TK/AD-31 and TK-32 see section 14).

Special models available on request



Funkcionisanje Function



Tehnicki podaci

Spoj	PE Poliester-kutija (IP 65) Površinski otpor $R < 10^9 \Omega$ AA Aluminijum-kutija (IP 65)
Sistem zaštite EN 60529	IP 65 kucište spoja IP 68 provodna cev
Navoj veze	G 1/2", G 1", G 1 1/4", G 1 1/2", G 2", G 2 1/2", G 3"
Materijal plovka	Nerdjajuci celik 1.4571
Materijal prov. cevi	Nerdjajuci celik 1.4571
Temperatura okoline	-20...+100°C (vidite sertifikat za ispitivanje tipa)
Operativni pritisak	Max. 20 bar u zavisnosti od modela
Temperatura supstance	Max. +135°C za trajne uronjene magnetne sonde (vidite sertifikat za ispitivanje tipa)
Gustina supstance	Vidite podatke o plovku
Viskoznost	<100cp
Rezolucija	7,5mm, 10mm, 15mm, 20mm ili 1%, 2%, 5%
Histereza ukljucenja	Pribl. pola rezolucije
Ukupni otpor	Pribl. 40 kΩ (suštinski bezbedan)
Merna voltaža	Max. 24 V (vidite sertifikat za ispitivanje tipa)
Merna struja	Max. 100 mA (vidite sertifikat za ispitivanje tipa)
Potencijalna ekvalizacija	2x4mm ² (minimalna sposobnost sponse) vidite navoje od nerdjajuceg celika
Dimenzije cevi	8x1mm, 12x1mm, 15x1.5mm, 18x2mm sa max. dužinom cevi od 6000mm

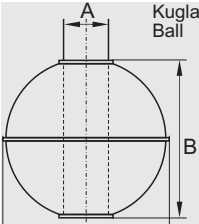
Iz bezbednostnih razloga ustanovljeni standard EN 60079-14 (1997) treba da se uzme u obzir pri sklapanju i ugradnji.

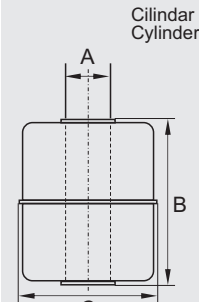
Technical Data

Connector	PE Polyester box (IP 65) Surface resistance $R < 10^9 \Omega$ AA Aluminium box (IP 65)
System of protection EN 60529	IP 65 connector casing, IP 68 guide tube
Connecting thread	G 1/2", G 1", G 1 1/4", G 1 1/2", G 2", G 2 1/2", G 3"
Material float	Stainless steel 1.4571
Material guide tube	Stainless steel 1.4571
Ambient temperature	-20...+100 °C (see type-examination certificate)
Operating pressure	max. 20 bar depending on model
Media temperature	max. +135 °C for continuous immersible magnetic probes (see type-examination certificate)
Media density	see floater data
Viscosity	< 100 cp
Resolution	7,5 mm - 10 mm - 15 mm - 20 mm or 1% - 2% - 5%
Switching hysteresis	approx. half resolution
Total resistance	approx. 40 kΩ (intrinsically safe)
Measuring voltage	max. 24 V (see type-examination certificate)
Measuring current	max. 100 mA (see type-examination certificate)
Potential equalization	2 x 4 mm ² (minimum clamping ability), see stainless steel threads
Tube dimensions	8 x 1 mm, 12 x 1 mm, 15 x 1,5 mm and 18 x 2 mm with max. tube length 6000 mm.

For safety-relevant reasons the establisher standard EN 60079-14 (1997) is to be considered when assembling!

Tip plovka / Float Type

Kugla Ball	Tip Type	Material	A			ET	Min. Temp	Max. Temp	Max.prit. Max. Press.	Min.gust. Min.Density
			A	B	C					
	03	1.4571	15	52	52	33	-10 °C	+130 °C	20 bar	0,87 g/cm ³
	04	1.4571	15	62	62	35	-10 °C	+130 °C	20 bar	0,72 g/cm ³
	05	1.4571	18	96	80	60	-20 °C	+130 °C	20 bar	0,89 g/cm ³
	06	1.4571	18	110	94	65	-20 °C	+130 °C	20 bar	0,72 g/cm ³
	07	1.4571	23	102	105	50	-20 °C	+130 °C	20 bar	0,58 g/cm ³

Cilindar Cylinder	Tip Type	Material	A			ET	Min. Temp	Max. Temp	Max.prit. Max. Press.	Min.gust. Min.Density
			A	B	C					
	09	1.4571	15	52	44	38	-10 °C	+130 °C	15 bar	0,87 g/cm ³

Dimenzije u mm / Dimensioning in mm

ET = dubina uranjanja (pri gustini 1 g/cm³) /
depth of immersion (at density 1 g/cm³)

Moguće izmene bez prethodne najave.

Subject to change without prior notice,
errors excepted.