

BEZBEDNOŠNA TEHNOLOGIJA
ZA ZAŠTITU ŽIVOTNE SREDINE

SAFETY AND
ENVIRONMENTAL
TECHNOLOGY

E.L.B.
FÜLLSTANDSGERÄTE

Uredjaj za zaštitu od udara groma BL-100 EC Sertifikat za Ispitivanje tipa **TÜV 02 ATEX 1796 X**

Ovaj uredjaj za zaštitu od udara groma obezbeđuje grubu zaštitu, koja oganica prejaku voltažu na signalnoj liniji prouzorkovanu atmosferskim uticajima ili ometanjima elektromasnetnog polja (udar groma) do određene vrednosti, tako da ne može da dodje do paljenja usled lektricnog pražnjenja u eksplozivnoj atmosferi.

Uredjaj za zaštitu od udara groma ne sadrži zaštitne komponente koje obezbeđuju zaštitu opreme naknadno povezane.

Prevelika voltaža se prenosi do potencijalnog konektora zaštitnicima Koji rade po principu ispuštanja gasa.

Lightning Protection Device BL-100 EC Type-Examination Certificate **TÜV 02 ATEX 1796 X**

This lightning protection device gives coarse protection, which limits overvoltages on the signal lines caused through atmospheric influences or interference of electromagnetic fields (lightning strokes) to a certain value, so that no ignition through flash-over can occur within the explosive atmosphere.

The lightning protection device contains no protective components giving fine protection of equipment subsequently connected.

Overvoltages are lead away to the potential connections by gas dis-charge protectors.



BL-100



01-10-01E

ÜBERFÜLLSICHERUNGEN • LECKAGESONDEN / OVERFILL CUT-OUT DEVICE • LEAK DETECTOR

Tehnicki podaci

Sistem zaštite	EN 60529	IP 65
Materijal kucišta	aluminijum	
Operativni uslovi u neposrednoj blizini senzora nivoa (max 3m)		
Operativna temperatura	-20... +70 °C	
Uredjaj za zaštitu od udara groma BL-100 se koristi (prema TRBF100) kao zaštitna komponenta protiv prejake voltaže u instalacijama		
Presek veze		
Signalne linije	Max. 4mm ² proste žice	
	Max. 2.5mm ² fine žice	
Povezivanje mesta sa istim potencijalom		
	Spolj. Max. 2 x 4 mm ²	
	Min. 4 mm ²	
	Unutr. 2 x max. 4 mm ²	
Ulaz kabla	Metric M20	
Broj jezgara za zaštitu	1, 2 ili 3	
Procenjeni minimum operativne direktne voltaže	600V ± 15%	
Granicni minimum operativne voltaže	≤ 1200 V na 1 kV / μs	

Veza

Kucište BL-100 treba da bude pouzdano povezano elektricno sa rezervoarom u svojoj neposrednoj blizini.

Veza jednakih potencijala preko spoljašnjih terminala veze za BL-100 uz procenjeni presek od min. 4 mm².

Signalna linija od pojačivaca za uključivanje van eksplozivne oblasti do BL-100 uredjaja za zaštitu od udara groma može biti zašticena. Zaštitni oklop treba da bude povezan za mesto jednakih potencijala (terminal PE 1) samo u okviru BL-100. Kabl mora biti konstruisan prema zahtevima dokumentata za harmonizaciju 21 i 22 iz CENELECa.

Signalna linija od komponente za zaštitu od udara groma do potencijalno eksplozivne oblasti treba da bude instalirana sa kablom dužine max do 3m kao zašticenim kablom ili unutar fleksibilnog metalnog zaštitnog ovoja ili metalne cevi. Zaštitni, fleksibilni metalni oklopni ovoj ili metalna cev moraju biti pouzdano i tacno povezani preko veze jednakog potencijala. Zaštita kabla mora biti povezana samo sa terminalom (PE 2) unutar modula za zaštitu od udara groma.

Za liniju / kabl od BL-100 do rezervoara za skladištenje merna voltaža U između jezgara i metalne obloge, zaštite ili fleksibilne metalne zaštitne cevi mora biti najmanje 1500V.

Jezgra signalne linije od pojačivaca za uključivanje moraju biti povezana sa strane, gde je obeleženo "ulaz, nezašticena oblast" (terminali: IN 1...3).

Jezgra signalne linije koja vode do senzora nivoa moraju biti povezana za izlaz, Sa strane EX-zone (terminali OUT 1...3).

Zaštite signalnih linija moraju biti povezane preko terminala "PE 1 zaštita linije do pojačivaca, PE 2 - zaštita linije do senzora nivoa" unutar modula za zaštitu od udara groma.

Technical Data

System of protection	EN 60529	IP 65
Material housing	Aluminum	
Operating conditions in the immediate vicinity of the level sensor (max 3 m)		
Operating temperature	-20...+70 °C	
The BL-100 lightning protection device is used (according to Trbf 100) as an overvoltage protective component in installations		
Connection cross-sections:		
Signal lines	max. 4 mm ² single wire	
	max. 2.5 mm ² fine wire	
Equipotential bonding	exterior max. 2 x 4 mm ²	
	min. 4 mm ²	
	interior 2 x max. 4 mm ²	
Cable inlet	metric M20	
Number of cores to be protected	1, 2 or 3	
Rated minimum operating direct voltage	600 V ± 15 %	
Limiting minimum operating voltage	≤ 1200 V at 1kV/μs	

Connection

The BL-100 casing should be reliably connected electrically to the tank in its immediate vicinity.

The equipotential bonding is connected via the exterior connection terminals of the BL-100 with a rated cross-section of min. 4 mm².

The signal line from the switching amplifier outside the explosive area to the BL-100 lightning protection device can be shielded. The shielding should be connected to the equipotential bonding (terminal PE 1) only within the BL-100. The cable must be constructed according to the harmonization documents 21 and 22 CENELEC.

The signal line from the lightning protection component into the potentially explosive area should be installed with a cable length of max. 3 m as a shielded cable or inside flexible metallic protective tubing or a metal tube. The shielding, flexible metallic protective tubing or metal tube must be reliably connected to the equipotential bonding. Cable shielding must be connected only to the terminal (PE 2) inside the lightning protection module.

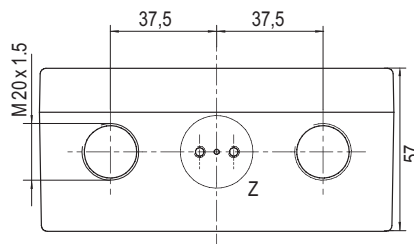
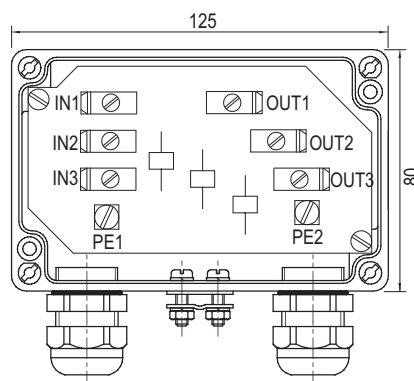
For the line / cable from the BL-100 to the storage tank the testing voltage U_{eff} between the cores and the metallic sheath, shielding or flexible metallic protective tubing must be at least 1500V_{eff}.

The cores of the signal line coming from the switching amplifier must be connected to the side marked "input, unprotected area" (terminals: IN 1...3).

The cores of the signal line leading to the level sensor must be connected to the output, Ex-zone side (terminals OUT 1...3).

Shielding of the signal lines must be connected to the terminals "PE 1 - shielding of line to switching amplifier, PE 2 - shielding of line to level sensor" inside the lightning protection module.

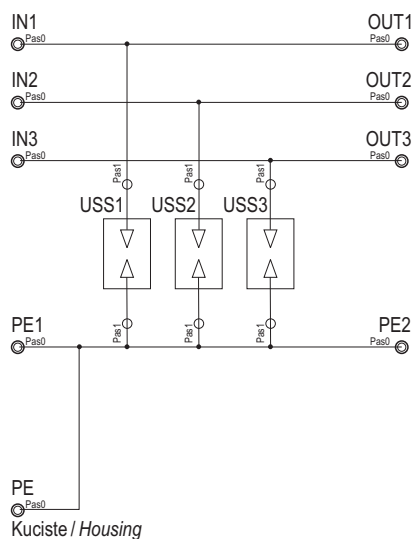
Dimenzioni crtez Dimensional Drawing



Svi otvori i navoji na zidu
All threads and boreholes in wall A

Dimenzije u mm / Dimensioning in mm

Sema veza BL-100 / Circuit diagram BL-100



Moguće izmene bez prethodne najave.

Subject to change without prior notice, errors excepted.

E.L.B.
FÜLLSTANDSGERÄTE

KOLTEX D.O.O.
Kralja Milana 21
11000 Beograd

Telefon: 381 (0)11/3232-687
Fax: + 381 (0)11/3343-740
E-Mail: Koltexdoo@ptt.yu
Info: www.elb-bensheim.de