EA01 || LED Tank Display

The LED Tank Display EA01 is developed especially to fit into heavy duty applications in fire engines. It serves as an exact level teleindicator of water and foam tanks.

Principles of Operation

Filling level is indicated by a tricoloured scale of 10 extremely bright LEDs (red/yellow/green). Intermediate steps are indicated by changements of the resp. highest LED's brightness. For observers it looks like a nearly continuously lit lightbar.

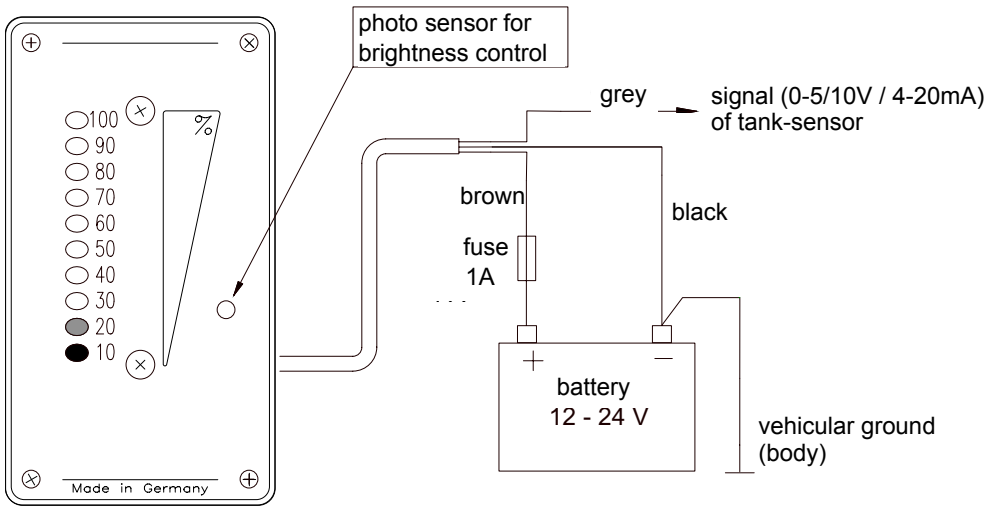
The LEDs' brightness is controlled by a photo sensor. It is readable well in bright sunshine and darkness.

This indicator in rugged design is constructed very compact, water- and dustproof and resistant to vibration. It fits into indicator panels. The EA01 is designed for operating voltages 12 V to 24 V DC. It is adjusted ex factory as a unitized measuring signal of 0-5 V, 0-10 V or 4-20 mA.

The instrument is protected against voltage reversal and overvoltage.

Controlling of tanks at various places is done easily by connecting the desired amount of EA01 in parallel (only for voltage input).

Schematic Diagram



Specifications

Operating voltage	12 V - 24 V (10.8 V - 32 V on-board powery supply voltage)	
Power input at 100 %	< 15 mA (darkness) up to max. < 60 mA (brightness)	
Input signal 0 - 100 %	0 .. 5/10 V	4 .. 20 mA
Input resistance	10 k Ω	150 Ω
Operating temperature	-20/+45 °C	
Storing temperature	-25/+60 °C	
Protection class / weight	IP 67 / 80g	
Dimensions frontpanel	85 x 47 mm	
Mounting cut-out / installation depth	38 x 56 mm (rectangular) / 27 mm	

Only qualified technicians authorized for this type of work should undertake installation!

Compliance with building and safety regulations of all kind is subject to supervision of user or purchaser. In case of disregarding safety instructions or alienated usage of instrument we assume no liability.

Make electrical connections to the instrument through a suitable energy-limiting safety device (isolation or zener barrier)!

Use only in permanent 24 V DC systems and in good order and condition!

Do not use at places in imminent danger of gas or dust explosion!

Installation and Initial Operation

The EA01 is designed for installation into indicating panels. Mounting into indication panel is done by provided fastening screws.

Filling level of tank is indicated after operating voltage is set up and the EA01 is connected to a tank-sensor. EA01 is adjusted ex factory therefore adjustment of indicator is not necessary.

Troubleshooting Hints

Tank Display doesn't react:
- connection to battery or fuse defective - please check
- interrupted wire "+12-24V" - please check
- interrupted wire "signal" - please check
- short circuit in wire "signal" against ground - please check

Brightness of display minimized during direct sunshine:
- please clean photo sensor

Tank Display always indicates 100%:
- short circuit in wire "signal" against "+12-24V" - please check

Nil returns:
- bad contact on wire "-" - please check
- additional current on wire "-" and cause voltage offsets by e.g. further consumers - please check

Ordering Code

LED Tank Display **EA01** [ ][ ][ ][G]

Input signal
0-10 V ..... > 1
0-5 V ..... > 4
4-20 mA ..... > 2

Front plate
neutral ..... > 2
without front plate ..... > 3

Indication
without indication ..... > 0
with indication ..... > L

Operating voltage
12 V - 24 V (10.8 V - 32 V on-board powery supply voltage) ..... > G

Declaration of Conformity

CE The product LED Tank Display EA01 meets the requirements of protection according to the EC directive 89/336/EWG and its modifications 92/31/EWG, 93/68/EWG referring to the electromagnetic compatibility and the requirements of protection according to the low voltage directive 73/23/EWG and its modification 93/68/EWG as well as EC directive 95/54/EG.
Generic standards:
Immunity standard: EN61000-4-2; EN61000-4-3; EN 61000-4-4; ENV 50204
Radio interference: EN55022 B
Noise suppression: EN55014
DIN14685; DIN40839-1

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