



1 GuardMagic DLLS1 TECHNICAL DATA

1. GENERAL DATA

Operation principle	<ul style="list-style-type: none"> capacitive
Power voltage	<ul style="list-style-type: none"> 12/24 V (8...40V)
Consumption power	<ul style="list-style-type: none"> < 0,4 W
Power line	<ul style="list-style-type: none"> isolated
Data line	<ul style="list-style-type: none"> isolated
Resolution (digital scale of gradation)	<ul style="list-style-type: none"> 1024 or 4096 User programmable
Ratio error of level detection	<ul style="list-style-type: none"> +/-1
Communication interface	<ul style="list-style-type: none"> EIA-485 (RS-485 name is out-dated) semiduplex
Communication speed	<ul style="list-style-type: none"> 19200 38400 57600 User programmable
Sensor response time, not more:	<ul style="list-style-type: none"> 20 msec
Ready for operation after power On:	<ul style="list-style-type: none"> 6 sec

2. FUNCTIONALITY SPECIFICATION

Sensor serial connection	<ul style="list-style-type: none"> YES
485 interface re-transmitting	<ul style="list-style-type: none"> YES, Only DLLS1b
Operation mode in communication bus	<ul style="list-style-type: none"> Master Net mode User programmable
Net address area in communication bus (in Net mode)	<ul style="list-style-type: none"> 1... 32 User programmable
Periodicity of data sending in master mode (automatic mode)	<ul style="list-style-type: none"> 1...255 sec User programmable
Internal data filter	<ul style="list-style-type: none"> YES User programmable
Internal data filter remote On/Off	<ul style="list-style-type: none"> YES
Self testing	<ul style="list-style-type: none"> YES
Information about malfunction	<ul style="list-style-type: none"> YES
Sensor programming	<ul style="list-style-type: none"> User programming by PC

3. PHISICAL CONNECTION SPECIFICATION

GuardMagic DLLS1a	
cables	<ul style="list-style-type: none"> One
cable connector	<ul style="list-style-type: none"> AMP SUPERSEAL, Mail
GuardMagic DLLS1a	
cables	<ul style="list-style-type: none"> Two
cable connector	<ul style="list-style-type: none"> AMP SUPERSEAL, Mail AMP SUPERSEAL, Female
GuardMagic DLLS1ct	
cables	<ul style="list-style-type: none"> One
cable connector	<ul style="list-style-type: none"> NO
Connection cable	
Oil, petrol, water, UF resistance	<ul style="list-style-type: none"> YES



4. PROTECTION, OPERATION, STORAGE

PROTECTION	
Ingress protection	• IP 67
IK protection	• IK10
OPERATION AND STORAGE	
Operation mode	• continuous
Working pressure	• atmospheric
Ambient operation temperature	• -40 ... +80 C
Measurement liquid temperature	• -40 ... +105 C
Storage temperature	• -40 ... +85 C
Humidity (operating and storage)	• 5% ... 97%
Other	• absence salt and aggressive steam

5. PHYSICAL SPECIFICATION

OPERATION AND STORAGE	
Anti vandal protection	• YES
Head material	• die cast aluminum
Tube material	• aluminum
Head size (without glands)	• diameter: 86mm • height: 29mm
Main tube diameter	• 25mm
Mounting holes in head	• 6,3 mm , 6 holes
Mounting	• 6 self drilling screws 5,5 mm (DIN 7504) , or • 6 bolts 6mm
Sensor length (mm)	• 300 mm - min. • 2500 mm - max. factory order; see paragraph 4
Weight	• Depend of sensor length (for example: 700mm sensor weight is about 1100gr)

Note:

GuardMagic DLLS1 fuel level sensor is not measurement-inspection or verifying equipment

6. FUEL TYPE FOR OPERATION

1) fuel level sensor primarily intended for level measurement of carbon fuels and oils:

- crude,
- factories grade: oil, fuel oil, transformer oil, diesel fuel, petrol, kerosene, jet fuel.

2) fuel level sensors are **strictly prohibited** to use in any liquids which are not the carbon fuels or oil or contain: BIOFUEL, METHANOL, ETHANOL, UREA and similar aggressive components in pure form or as additives.

3) Prohibits use the sensor in:

- oils containing additives or metal particles;
- used engine oil;
- dirty oil or mix of used carbon fluids.

4) fuel level sensor not operate in water.

Note:

For operation in industrial tanks or cargo tanks of road tanker with petrol, kerosene, jet fuel, will need use additional „safety barriers” and recommend to use special version of fuel level sensor: GuardMagic DLLE series.