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Единый адрес: frn@nt-rt.ru **Веб-сайт:** www.fafnir.nt-rt.ru

Техническое описание термического ограничителя переполнения LS 300, LS 500 FAFNIR

LS 300/LS 500

Protect Your Most Valuable Assets with the LS 300/LS 500 Point Level and Overfill Solution: Thermal Level Detector

With the FAFNIR thermal level detector LS 300 with ATEX approval, your business and valuable liquid assets are protected. Our solution comprises a sensor, LS 300, which sits inside the tank and a transducer, LS 500, which manages the output relays. For polluting, corrosive and expensive liquids, the LS 300/LS 500 certified as overfill prevention device is an indispensable component for environmental and business protection.

Why Choose LS 300/LS 500?

Quick and Precise

- + Easy installation with a 2-wire terminal to the transducer, fitted independent of polarity
- + The level detector requires no maintenance after installation; no hidden costs
- + No on-site calibration required

Dependable

- + Full and empty notifications in most containers, storage tanks, underground and above-ground tanks, IBCs, tank wagons, barrels, bottles and collecting vats
- + Proven: tens of thousands of installations across Europe
- + Self-testing sensors
- + The overfill prevention device fulfils the requirements of the German Water Resources Act (WHG)
- + SIL 2 certified

Durable

- + With no moving parts, the LS 300 boasts excellent life expectancy and outstanding reliability
- + Space-saving, robust and corrosion-free design
- + Adaptable, flexible; with an intermediate flange which is only 3 mm in diameter or with DN 200 flange, we have a solution for almost any application

Applications

- + Any tank type or size
- + Collecting vats
- + Pilot plant and prototype systems
- + Tank arm during filling



LS 300 Sensor – Technical Data

Process temperature	Standard temperature: -25 °C to +50 °C High temperature: -25 °C to +80 °C Low temperature: -40 °C to +50 °C (ambient pressure)
Process pressure	0 bar to 25 bar
Immersion switch delay	< 2 s
Heating-up time	At -20 °C < 2 min.; At +60 °C < 15 s
Probe tube	
Wetted parts	Stainless steel 1.4571 (316Ti); Hastelloy C4/C22; Titan



LS 500 (wall housing)



LS 500 H Duo

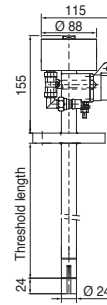
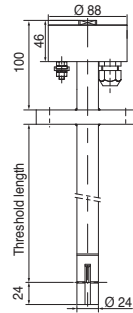
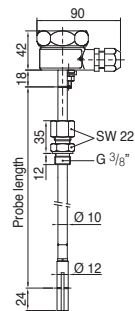
LS 500 Transducer – Technical Data

Name	LS 500	LS 500 H	LS 500 H Duo
Number of connections	1 Level Detector	1 Level Detector	2 Level Detector
Auxiliary power	230 V _{AC} ; 115 V _{AC} ; 24 V _{DC} ; 24 V _{AC}	24 V _{DC}	24 V _{DC}
Power input	Max. 5 W	Max. 5 W	Max. 10 W
Ambient temperature	-25 °C to +50 °C	-25 °C to +50 °C	-25 °C to +50 °C
Casing protection class	IP40		
Dimensions	H 150 x W 75 x D 110 [mm]	H 114.5 x W 22.5 x D 99 [mm]	H 114.5 x W 22.5 x D 99 [mm]
Outputs	Potential-free changeover contact: AC: U ≤250 V, I ≤5 A, P ≤100 VA; DC: U ≤250 V, I ≤5 A, P ≤100 W	Potential-free changeover contact: AC: U ≤250 V, I ≤5 A, P ≤100 VA; DC: U ≤250 V, I ≤5 A, P ≤100 W	Potential-free changeover contact: AC: U ≤250 V, I ≤5 A, P ≤100 VA; DC: U ≤250 V, I ≤5 A, P ≤100 W
Output 1	Response to level detector 1	Response to level detector 1	Response to level detector 1
Output 2	Function S (dysfunction); Optional: Option Z (response to level detector 1)	Function S (dysfunction); Optional: Option Z (response to level detector 1)	Response to level detector 2
Options	Approval for LPG	SIL 2*	

* No second output, available in 1st quarter 2016.

Versions

Our standard sensor is suitable for most process connections, with variable screw-in unit or welded flange. For mobile applications with plug, for very critical applications also with pneumatic test connection, to test the sensor not only electronically, but the real physical measurement principal. For vehicles, tank containers and tanks which are moved frequently, we also offer our level detector with a plug. This allows a quick coupling and decoupling of the level detector.

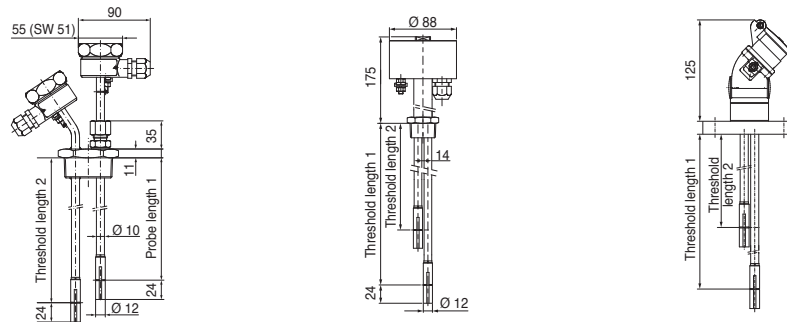


Name	LS 300 Standard	LS 300 FSU	LS 300 FSPU-Steck
Connection housing	Brass chrome-plated	Stainless steel	Stainless steel
Cable terminal	Cable gland	Cable gland	DD28 Connector
Probe tube	10 mm/protective sleeve 12 mm	24 mm	24 mm
Minimum process connection			
Tube fitting	G 3/8"	G 1"	G 1"
Flange	DN 15	DN 25	DN 25

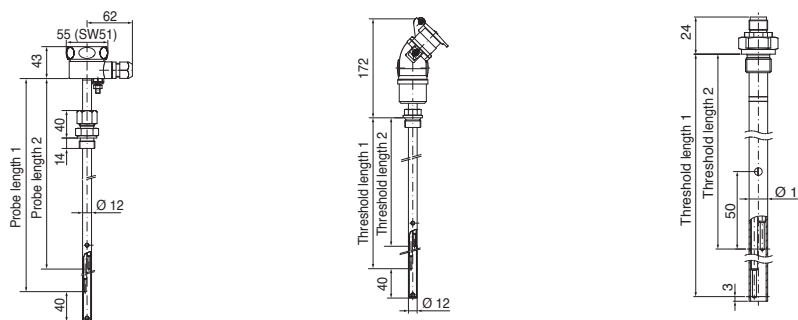


DUO Versions

For all applications where you need more than one level detector for your process control or as a warning in addition to the overflow protection. For vehicles, tank containers, and tanks which are moved frequently, we also offer our level detector with a plug. This allows a quick coupling and decoupling of the level detector.



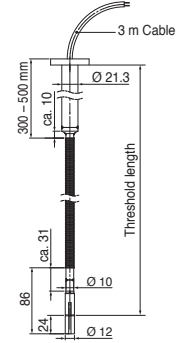
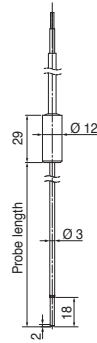
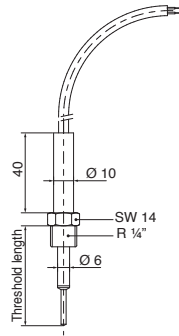
Name	LS 300 EU Duo	LS 300 ESU Duo	LS 300 FU Duo Steck
Connection housing	Brass chrome-plated	Stainless steel	Stainless steel
Cable terminal	Cable gland	Cable gland	DD28 Connector
Probe tube	2 x 10 mm/protective sleeve 12 mm	2 x 10 mm/protective sleeve 12 mm	2 x 10 mm/protective sleeve 12 mm
Minimum process connection			
Tube fitting	R 1"	R 1"	R 1"
Flange	DN 25	DN 25	DN 25



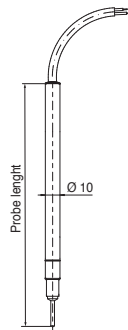
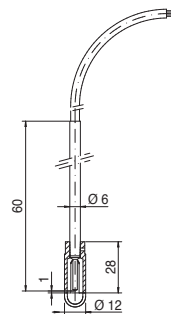
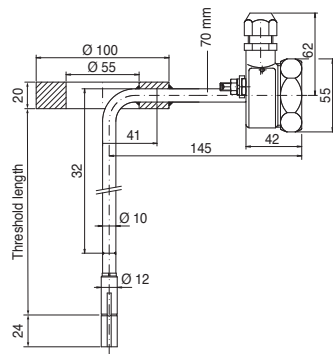
Name	LS 300 E Duo	LS 300 EXU Steck Duo	LS 300 Ex Steck (Mono/Duo)
Connection housing	Brass chrome-plated		
Cable terminal	Cable gland	DD28 Connector	M12 connector
Probe tube	12 mm	12 mm	12 mm
Minimum process connection			
Tube fitting	G ½" (variable)	G ¾"	G ¾"

Special Design

We offer a variety of special designs that are designed where space is limited or installation conditions are difficult and challenging. Here are some examples from our portfolio of special designs – challenge us!



Name	LS 300 E B6	LS 300 B3	LS 300 FUX
Connection housing			
Cable terminal	Cable is moulded and fixed	Cable is moulded and fixed	Cable is moulded and fixed
Probe tube	6 mm	3 mm	10 mm/protective sleeve 12 mm
Minimum process connection			
Tube fitting	R 1/4"		



Name	LS 300 Intermediate Flange	LS 300 Interstitial	LS 300
Connection housing	Brass chrome-plated		
Cable Connection	Cable gland	Cable is moulded and fixed	Cable is moulded and fixed
Probe tube	10 mm/protective sleeve 12 mm	6 mm/12 mm	10 mm
Minimum process connection			
Flange	DN 50		

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