



Level



Pressure



Flow



Temperature



Liquid Analysis



Registration



Systems Components



Services



Solutions

Float switch for point level detection in liquids

Liquifloat T FTS20

E-direct

www.ie.endress.com/e-direct



- Simple and cost-effective
- Switching element as proximity or microswitch
- Different cable materials for different liquids

Application

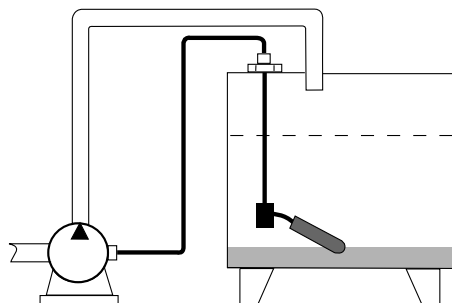
The Liquifloat T FTS20 is an easy and cost-effective alternative for point level detection in liquids. It can be used as overspill or pump protection. Different cable materials are available for a range of liquids including acids, alkalies, oils and wastewater.

Function

An element built into the float switch switches when a change in level is detected. The switching process is triggered by the movement of a steel ball and, depending on the version, is carried out by an inductive initiator or a microswitch. The inductive initiator acts as a switching output and provides a switching signal to EN 60947- 5- 6 (NAMUR). The microswitch version is a two-way switch.

Product: Liquids	Ambient temperature: ≤ 85 °C
Density: ≥ 0.8 g/cm ³	Ambient pressure: ≤ 3 bar

Application example



Liquifloat T FTS20 for pump control.

- The measuring system consists of
- a FTS20 float switch and
 - a NAMUR isolating amplifier (e.g. Nivotester FTL325N)
- or
- FTS20 in AC/DC version

Liquifloat T FTS20

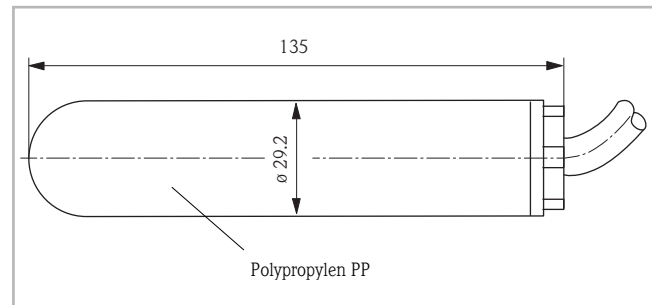
Technical data

FTS20 AC/DC	
Switching element	Microswitch with switching ball
Switching function	Changeover contact
Switching voltage	AC: max. 250 V; DC: max. 150 V
Switching current	Max. 3 (I) A
Switching angle	Upper switching point: $+25^\circ \pm 6^\circ$ lower switching point: $+14^\circ \pm 3^\circ$ measured to the horizontal
Ambient temperature	PVC: $+5$ to $+70$ °C PUR and CSM: -20 to $+85$ °C
Ambient pressure	≤ 3 bar
Density	≥ 0.8 g/cm ³

FTS20 NAMUR	
Switching element	Inductive proximity switch with switching ball, closed when floating
Power supply	8.2 V ± 2 V
Operating current	< 1.2 mA unswitched; > 2.1 mA switched
Reverse polarity protection	Yes
Switching angle	Switching points top $+12^\circ$; switching points bottom -12° ; measured to the horizontal
Ambient temperature	PVC: $+5$ to $+70$ °C PUR and CSM: -20 to $+85$ °C
Ambient pressure	≤ 3 bar
Density	≥ 0.8 g/cm ³
Approvals	TÜV 01 ATEX 1709, Ex approval: II 2G EEx ia IIB T5

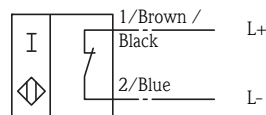
Cable	
Material	PVC, CSM: cross section 2×0.75 mm ² PUR: cross section 2×0.50 mm ²
Areas of application and minimum cable length between fixing and floating body	PVC: ≥ 50 mm suitable for water, dirty water, slightly aggressive media PUR: ≥ 100 mm suitable for fuels, heating oils, liquids containing oil CSM: ≥ 100 mm suitable for acids and alkalis

Dimensions (mm) and materials



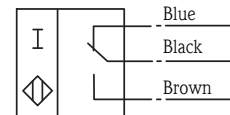
Electrical connection

Inductive proximity switch with switching ball (NAMUR)



Connection indication
L+ = black or brown
L- = blue
(closing when floating)

Changeover contact (AC/DC)



Connection indication
Cable colors:
black + brown = contact open
black + blue = contact closed
(contact position when floating)

Liquifloat T FTS20			Order no.	Price/pcs. in €			Quantity:	Total:
Electronics	Cable	Version		1 to 3	4 to 10	11 to 35		
AC/DC	5 m	With PVC cable material	52010122	42.-	40.-	39.-	pcs.	€
		With PUR cable material	52010123	42.-	40.-	39.-	pcs.	€
		With CSM cable material	52010124	42.-	40.-	39.-	pcs.	€
	20 m	With PVC cable material	71035520	84.-	81.-	77.-	pcs.	€
		With PUR cable material	71035521	84.-	81.-	77.-	pcs.	€
		With CSM cable material	71035522	84.-	81.-	77.-	pcs.	€
NAMUR	5 m	With PVC cable material	52010119	42.-	40.-	39.-	pcs.	€
		With PUR cable material	52010120	42.-	40.-	39.-	pcs.	€
		With CSM cable material	52010121	42.-	40.-	39.-	pcs.	€
	20 m	With PVC cable material	71035516	84.-	81.-	77.-	pcs.	€
		With PUR cable material	71035517	84.-	81.-	77.-	pcs.	€
		With CSM cable material	71035518	84.-	81.-	77.-	pcs.	€

Accessories (Liquifloat T FTS20)	Order no.	Price/pcs. in €	Quantity:	Total:
Compression gland G 1", PVC	52010125	17.50	pcs.	€
Weight coated with polyamide	52010127	23.-	pcs.	€
Counter nut G 1", PVC	52010126	5.50	pcs.	€

Total price:

€

Prices are applicable for Ireland until 30.09.2013, in Euro per unit. At Endress+Hauser sales and delivery terms excluding value added tax (VAT); Including cost of packing and despatch.

■ **E-direct catalogue (free)**

E-direct

Endress+Hauser (Ireland) Ltd.
Industrial Instrumentation Centre
Clane Business Park
Clane/County Kildare
Ireland

Company: _____

Name: _____

Street: _____

City, County: _____

Phone: _____

Fax: _____

Date/Signature

direct order:

Internet www.ie.endress.com/e-direct

Phone 045 98 92 17

Fax 045 86 81 82

E-mail e-direct@ie.endress.com

Warranty Should an instrument break down during the warranty period you will receive a new instrument

Despatch 48-hour despatch service

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