Certificato No. LRC 180457
ISO 9001

SENSILEVEL

Series 5500 Float Operated Level Controls with cast iron external chamber

7A.150-E
Issue 4 - 2005

Description

This series is designed for external mounting on tanks, surge tanks or boilers up to 16 bar and 205°C. On the standard model the float chamber is in cast iron G25 with screwed process connections as indicated in the table below, while the internal elements are in AISI 316, the float is in AISI 316 L, and the attraction sleeve is in AISI 446.
The opening flanged type case enables the internal organs to be checked and maintenance to be carried out. There are two basic models: the first, with very small dimensions, can be fitted with a single type 1, 2 or 3 switch mechanism: it comes with a differential of about 20 mm as standard, which can be extended in range up to 40 mm.
The second device has a longer chamber which allows differentials of up to 75 mm in single-stage applications, or allows the use of several switch mechanisms in sequence: up to 3 SPDT or 2 DPDT for type 1, 2, and 3 mechanisms or a single type 4 and 5 mechanism.
Some of the models come with a brass anti-scaling element inside the body that reduces the formation of lime scale deposits, and a manual switch rearming device (only with switch housing type 1 protection IP 40). Manual rearming can also be provided on request for increasing (high level) switching on models 5511 ÷ 5552.

Use

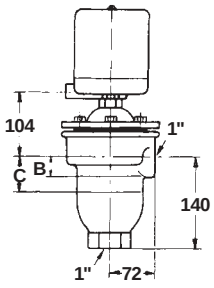
This device should be considered an accessory under pressure used to control level, and should not be considered a safety device.
The device can be used only with group 2 fluids.
In line with article 3, paragraph 3, they do not bear CE marking.

Switch selection

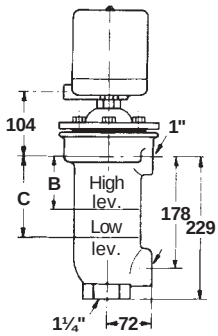
The table below contains the necessary information for selecting the correct model according to the operating conditions, the type of connections wanted and the accessories.
To select the switch mechanisms and switch housings, consult specification 7A.100.

Specifications

Dimensions in mm



Models 5501 - 5502 - 5503 - 5504



Models: 5511 - 5512 - 5551 - 5552

Model	Maximum pressure (bar)		Minimum specific gravity of liquid (kg/dm³)			Connections		Standard accessories
	40°C	205°C	one switch	two switches	three switches	Vertical	Horizontal	
5501	17.5	16	0.83	--	--	1" NPT	1" NPT	--
5502								anti-scaling element
5503								manual rearming (1)
5504								anti-scaling element and manual rearming (1)
5511	17.5	16	0.78	0.80	0.86	1¼"	1" NPT	--
5512								anti-scaling element
5551						Gj 1¼" UNI 339	Gj 1" UNI 339	--
5552								anti-scaling element

Notes:

(1) Only for decreasing switching.

(2) Heights B and C, relating to switching levels are given in the table on the following page.

Local regulations may restrict the use of this product to below the conditions quoted.
In the interests of development and improvement of the product, we reserve the right to change the specification.

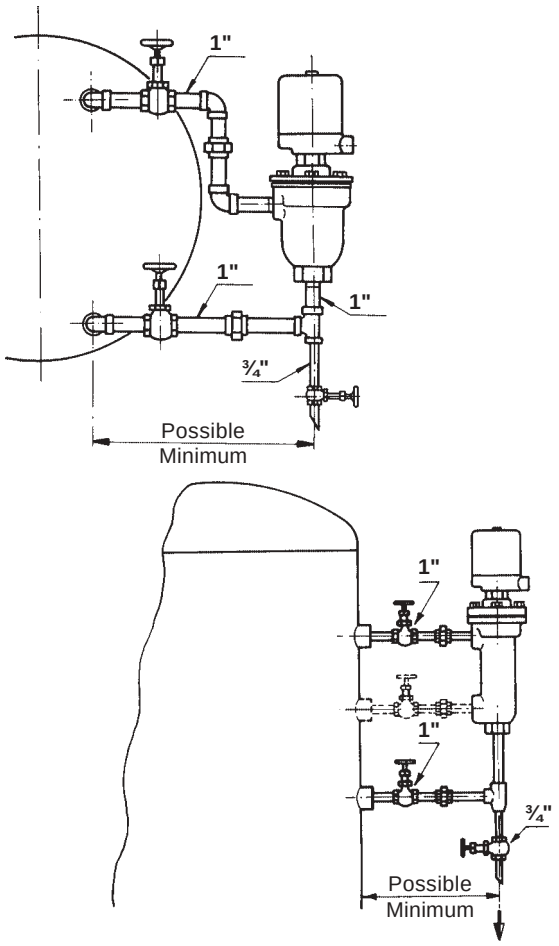
Switching levels (mm) **as a function of specific gravity** (minimum differential)

Specific gravity (kg/dm³)	Models 5501/02/03/04 1 switch mech. SPOT		Models 5511/12/51/52 1 switch mech. SPOT		Models 5511/12/51/52 with 2 SPDT switch mechanisms in sequence			
					Lower switch		Upper switch	
	B	C	B	C	B	C	B	C
0.78	--	--	72	106	--	--	--	--
0.80	--	--	74	108	74	108	50	89
0.83	9	32	77	110	77	110	54	91
0.90	13	35	93	115	93	115	61	95
1.00	18	38	101	121	101	121	70	101

Installation

The reference line on the float case indicates the point at which the electric switch cuts in to lower the level.

The instruments shown must be installed vertically with a minimum deviation of 3°.

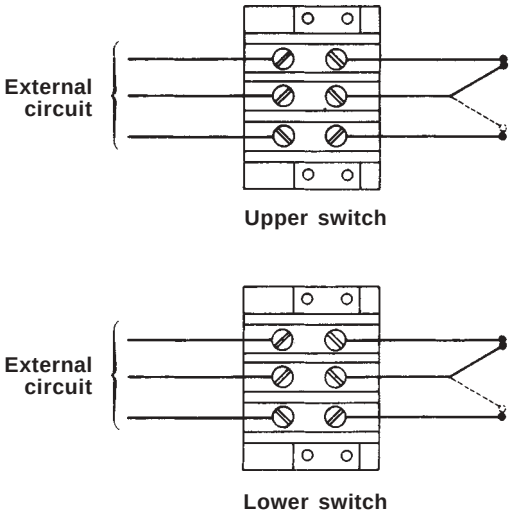


Electrical connections

The electrical connection can be rotated by 360° by loosening the screw at the base of the housing.

Careful: replace each switch mechanism in its factory-set position if it has been removed during installation.

Switching mechanisms wiring diagram (SPDT)



Sequence of contacts according to level

Level \ Contact	closed	open
increasing	2 - 3 and 5 - 6	1 - 2 and 4 - 5
decreasing	1 - 2 and 4 - 5	2 - 3 and 5 - 6

How to request or order

Each instrument is identified by a code formed of three components, each of which defines part of the instrument: the first identifies the sensing unit model, the second identifies the type and quantity of switch mechanisms, and the third identifies the type of switch housing. It will be necessary to specify any further special requests.

Example: Mod. 5501 - 210 - 2 - S

- S — Options (connections, interface, etc.)
- 2 — Type of switch housing (see specification 7A.100)
- 210 — Type of switch mechanism (see specification 7A.100)
- 5501 — Sensing unit model (see page 1)