

Level switches Series LC40

Float level switch for liquids



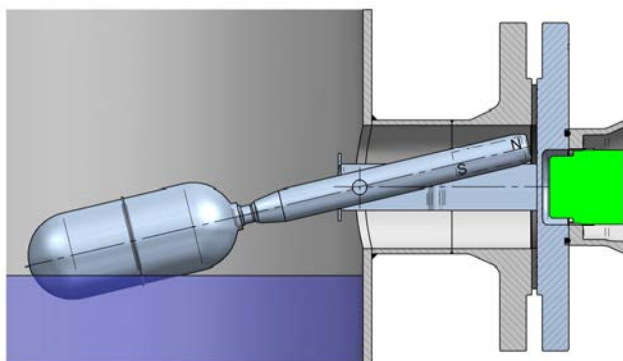
- Simple and robust construction
- Versatile and easily adaptable to the different control positions of the industrial processes
- Side or top of the tank mounting
- Watertight and safe installation
- Excellent chemical resistance
- Design for high pressure and temperature available
- Connections: EN 1092-1 DN65 flange. Other sizes and flange standards (ASME B16.5, JIS,...) on request
- Materials: EN 1.4404 (AISI 316L), PVC, PP, PVDF, PTFE
- Level detection
- Options:
 - ATEX Ex d IIC T6 version
 - Extended temperature range version
 - Accessories for extended switching differential
 - Chamber for external mounting



Working principle

Float level switches. When a liquid reaches the level where the level switch is positioned, its float follows the level variations in a such way that the articulated rod is moved. A magnet placed in the opposite side of this rod activates a switch.

This switch can be either a micro-switch, a reed switch, an inductive detector or a pneumatic switch, depending on the application requirements.



Applications

- Pumps start-stop
- Control of industrial processes
- Dosing and process tanks
- Tanks in machinery for chemical industry
- Level detection in tanks for food and textile industries,...
- Level control in tanks of steam condensates

Models

- LC40 side mounting
- LC40-BA side mounting
- LC40-V top mounting
- LC40-VR top mounting

Technical data

- **Switching differential:** 52 mm
Up to 1100 mm, depending on the accessories
- **Liquid density:** 0.45 ... 3 kg/l
- **Liquid maximum viscosity:** 3000 mPa·s
- **Liquid temperature:**
 - LC40 / AISI 316L: -50°C ... +150°C
 - 50°C ... +300°C on request
 - LC40 / PVC: 0°C ... +50°C
 - LC40 / PP: -20°C ... +90°C
 - LC40 / PTFE: -20°C ... +150°C
 - LC40 / PVDF: -20°C ... +150°C
- **Ambient temperature:** -30°C ... +80°C

• Working pressure:

- AISI 316L: PN16
Others on request
- PP, PVC, PTFE: PN10

• Connections:

- EN 1092-1 DN65 flange
- Other sizes and flange standards on request
- Special square flange 92 x 92 / 108 x 108 mm

• Mounting:

- side of the tank. On top with special models

• Housing:

- IP66/IP67 - anodized aluminium.

- EN 1.4404 (AISI 316L), PP, PVC, PTFE on request

• Accessory A21 for extended switching differential

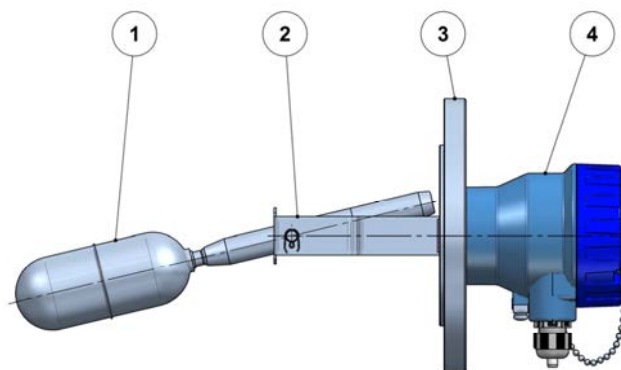
• Chamber for external mounting

Limit switches

- **AMM:** SPDT micro-switch
- **AMD:** inductive detector
- **AMR:** SPDT reed switch
- **AMP:** ON/OFF two-way pneumatic switch

All switches can be supplied in ATEX Ex d IIC T6 version on request

Materials



N°	Description	Materials			
		AISI 316L	PVC	PP	PTFE
1	Float	EN 1.4404 (AISI 316L)	PVC	PP	PTFE
2	Fork	EN 1.4404 (AISI 316L)	PVC	PP	PTFE
3	Flange	EN 1.4404 (AISI 316L)	PVC	PP	PTFE
4	Housing	Aluminium *			

* Others on request

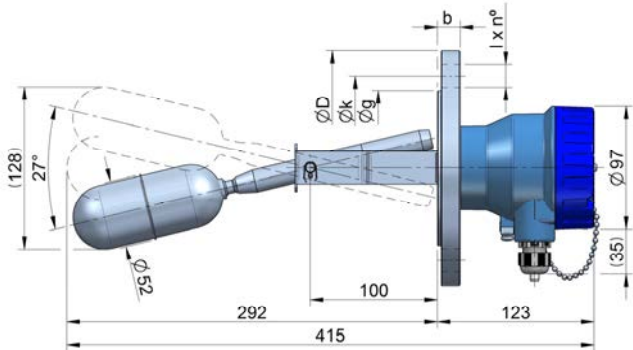
Level switches

Series LC40

Dimensions

Side mounting

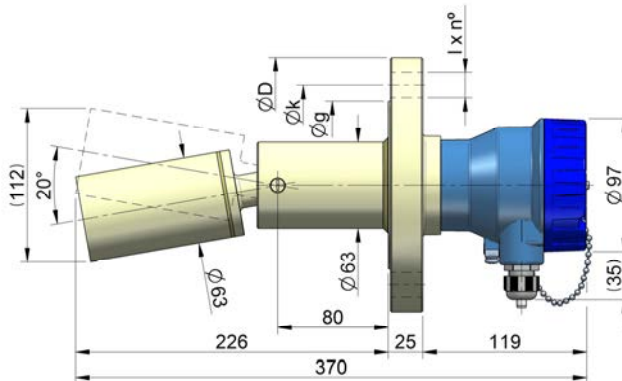
Model LC40 / AISI 316L



PN	EN 1.4404 (AISI 316L)					
	DN	D	g	k	l x n°	b
16	65	185	122	145	18 x 8	18

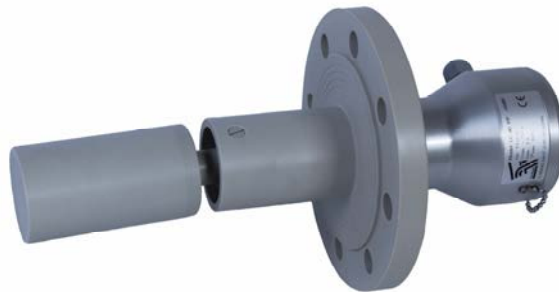
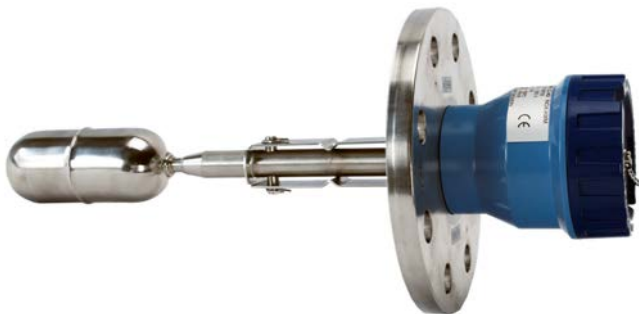
Other sizes (minimum DN50) and flange standards (ASME B16.5, JIS,...) on request

Model LC40 / PP, PVC, PTFE, PVDF

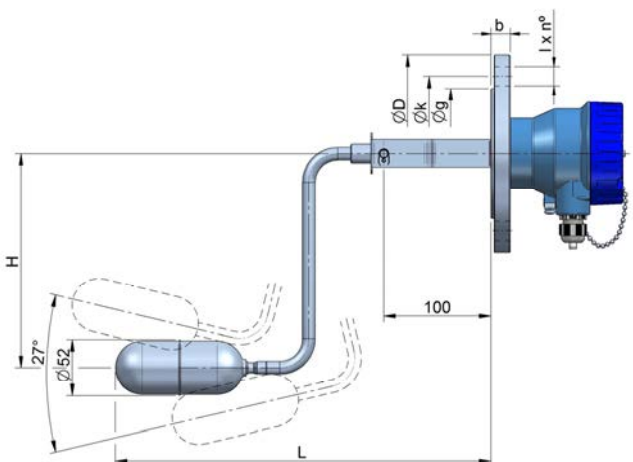


PN	PVC / PTFE / PP / PVDF					
	DN	D	g	k	l x n°	b
10	65	185	122	145	18 x 4	18

Flanges in PVC, PTFE, PP and PVDF acc. to DIN 8063 PN10



Model LC40-BA / AISI 316L



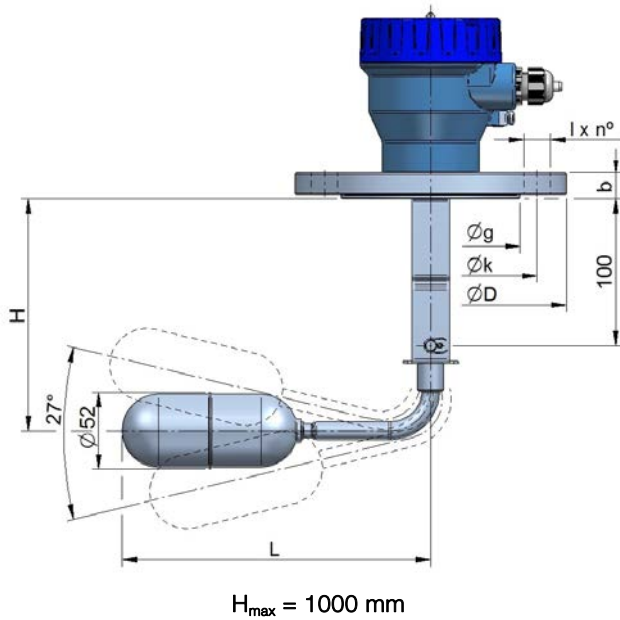
Standard dimensions

H (mm)	150	200	300	400
L (mm)	250	350	450	600

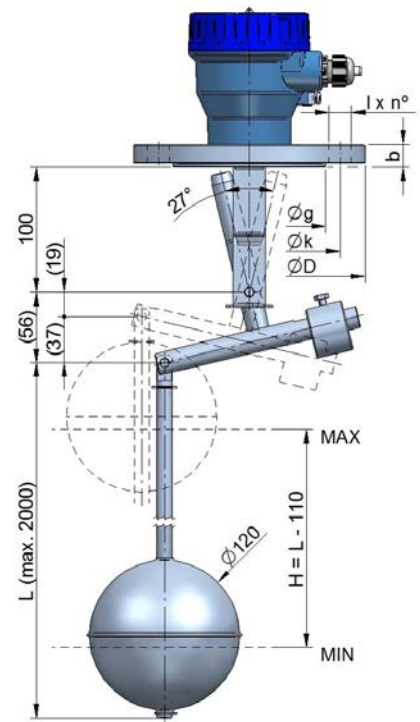
Others on request (H+L maximum 1000 mm)

Top mounting

Model LC40-V / AISI 316L



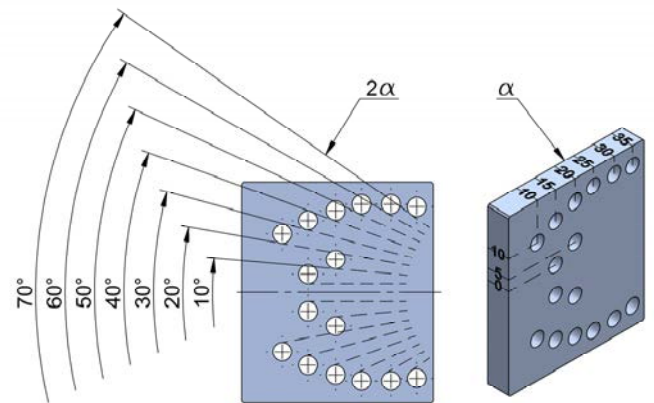
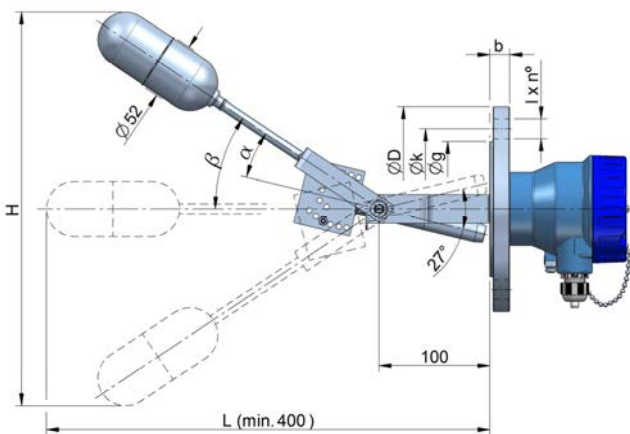
Model LC40-VR / AISI 316L



Requires manhole in the tank for the installation

Accessories

Complement A21



Available for connection size bigger than DN65 (included)

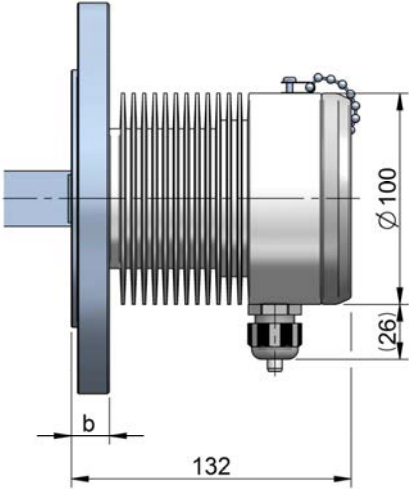
α	2α = 2α + 27°	H depending on L (mm)						
		L=400	L=500	L=600	L=700	L=800	L=900	L=1000
0°	27°	184	228	276	324	370	418	466
5°	37°	230	292	356	420	484	548	612
10°	47°	276	352	432	514	594	674	754
15°	57°	318	412	506	604	700	796	892
20°	67°	360	466	578	688	800	910	1022
25°	77°	398	520	644	770	894	1020	1144
30°	87°	434	568	706	844	984	1122	1260
35°	97°	468	614	764	914	1064	1214	1366

Level switches

Series LC40

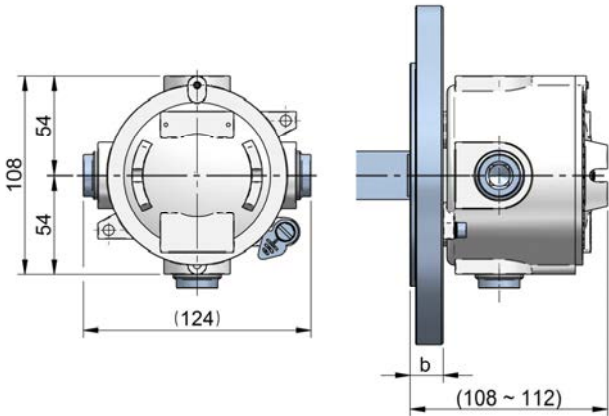
Thermal separator housing

For temperature up to 200°C.
 Special design for temperature up to 400°C on request.



ATEX version

ATEX Ex d IIC T6 certified.
 Suitable for temperatures up to 300°C.

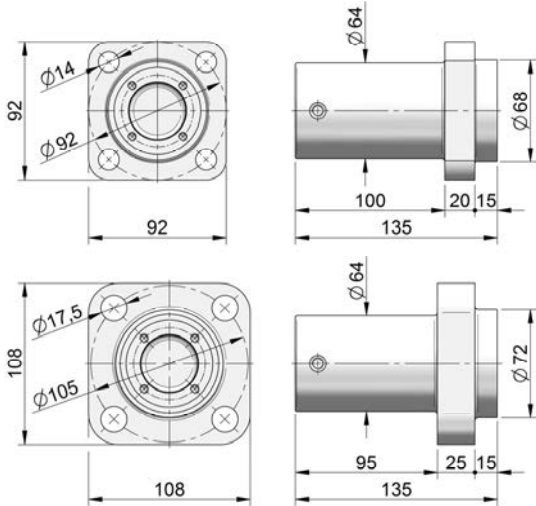
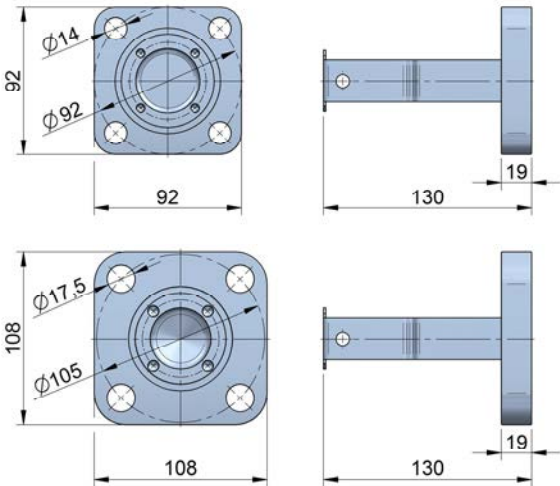


Ex d IIC T6 housing with ATEX packing gland

Square flange

EN 1.4404 (AISI 316L)

PP / PVC / PTFE / PVDF



Housing

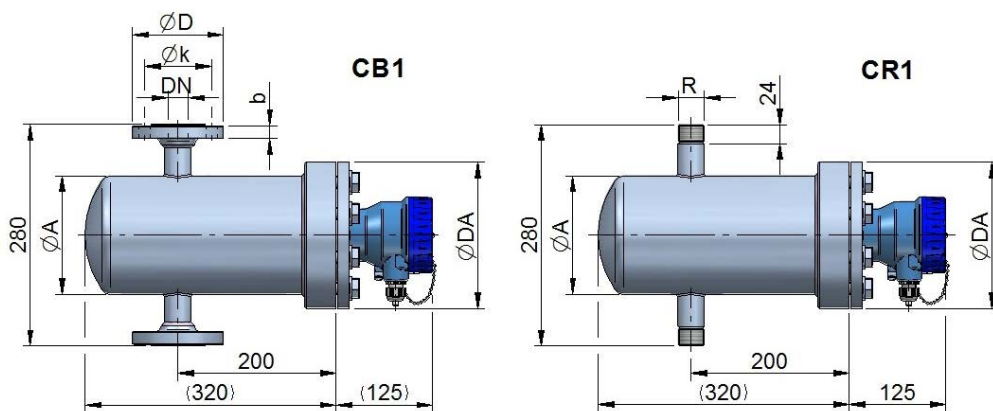
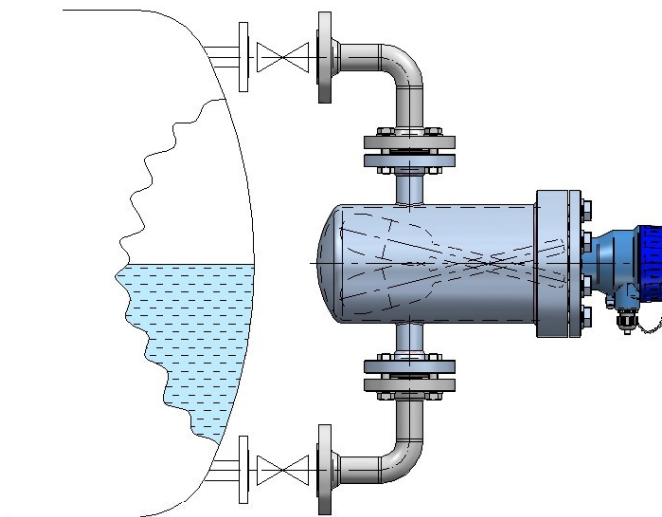


Standard anodized aluminium IP66 / IP67.

Other materials on request: EN 1.4404 (AISI 316L), PP, PVC,...

External mounting to tank or boiler

In applications where it is required, an external chamber for side mounting is available as an option.

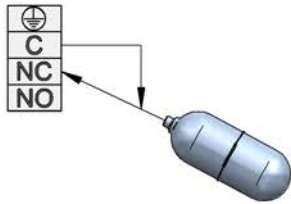


DN	PN	D	k	l x n°	b	R (BSP / NPT)	Material	A	AD
25	16	115	85	14 x 4	16	1"	AISI 316L / Steel	160	185
	25	115	85	14 x 4	17			160	185
	40	115	85	14 x 4	18			160	185
	64	140	100	18 x 4	18			160	205
	100	140	100	18 x 4	28			165	220

Limit switches

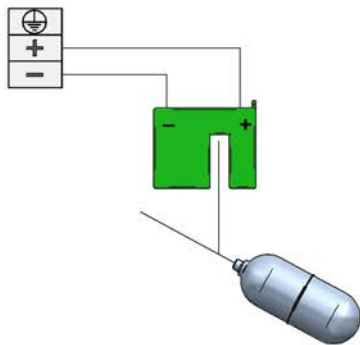
Switch	Contact rating	Protection	Ambient temperature
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AMM



SPDT micro-switch
20 x 10⁶ operations
3 A 220 VAC
0.5 A 24 VDC

AMD

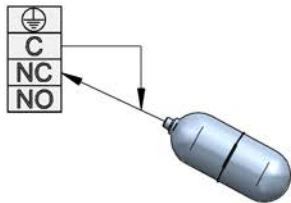


Inductive detector
NAMUR
(EN 60947-5-6)
8.2 VDC
(amplifier relay on request)

-25°C ... +85°C

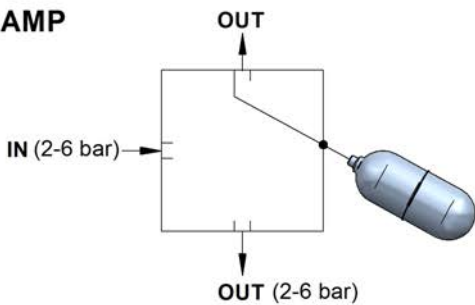
IP66 / IP67

AMR



SPDT reed switch 0.5 A 220 VAC 60 VA

AMP



ON/OFF two-way
pneumatic switch

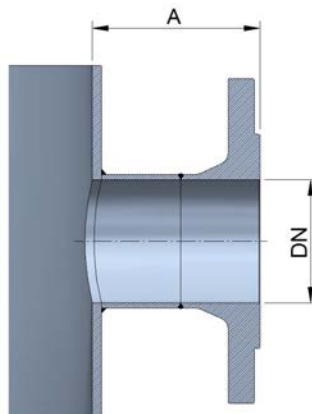
2 ... 6 bar

0°C ... +50°C

Recommendation for the installation

- LC40 / AISI 316L A = 90 ... 100 mm
- LC40 / PVC, PP, PTFE, PVDF A = 70 ... 80 mm

Note: for DN50 connection the maximum allowable PN for the flange is PN40



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