

## 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 (ANSI, 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



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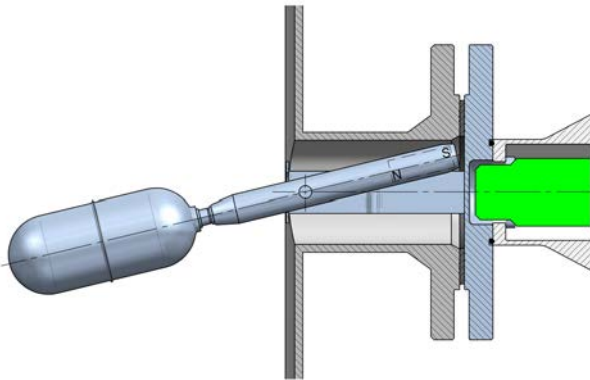
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## Working principle

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  
Up to PN400 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:

- IP65 - anodized aluminium.
- EN 1.4404 (AISI 316L), PP, PVC, PTFE on request

## • Accessory A21 for extended switching differential

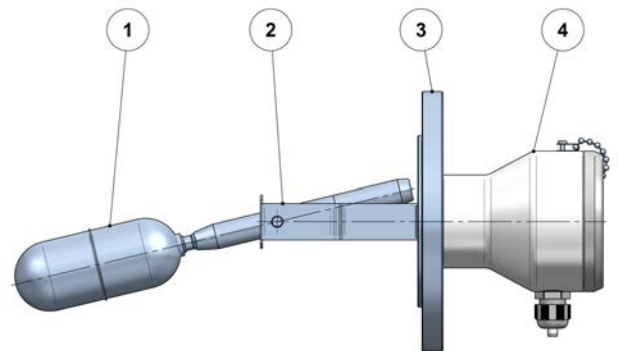
## • Chamber for external mounting

## 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

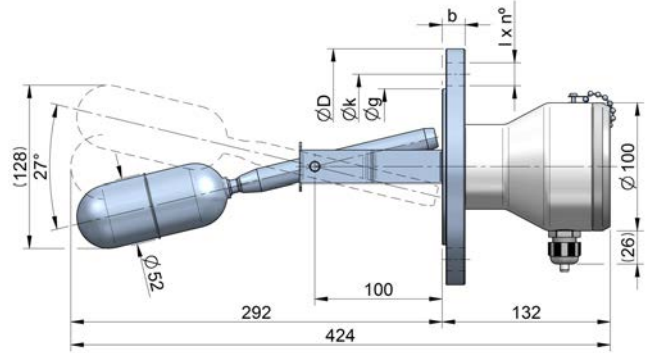
# Level switches

## Series LC40

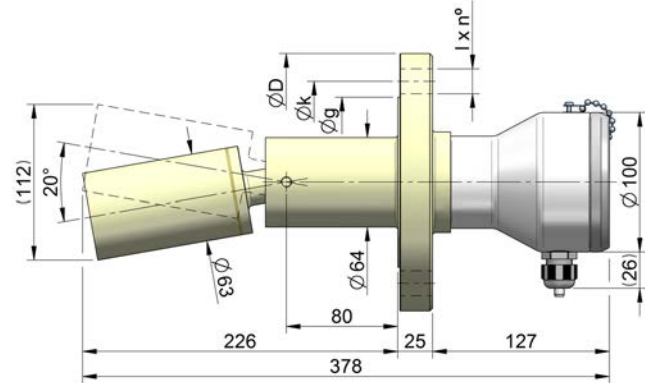
### Dimensions

#### Side mounting

Model LC40 / AISI 316L



Model LC40 / PP, PVC, PTFE, PVDF



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

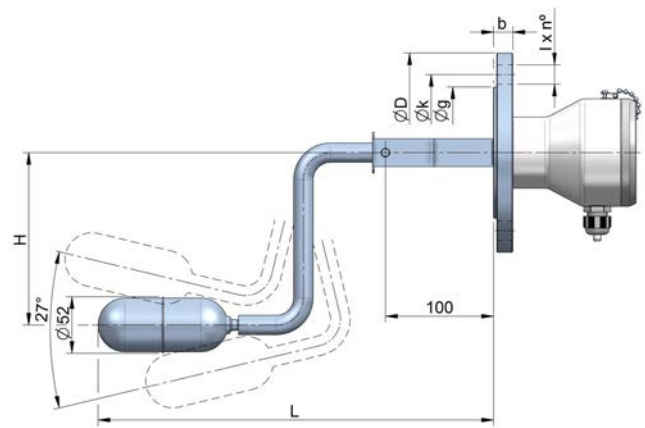
PN	PVC / PTFE / PP / PVDF					
	DN	D	g	k	l x n°	
10	65	185	122	145	18 x 4	

Other sizes (minimum DN50) and flange standards (ANSI, JIS,...) on request

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



Model LC40-BA / AISI 316L



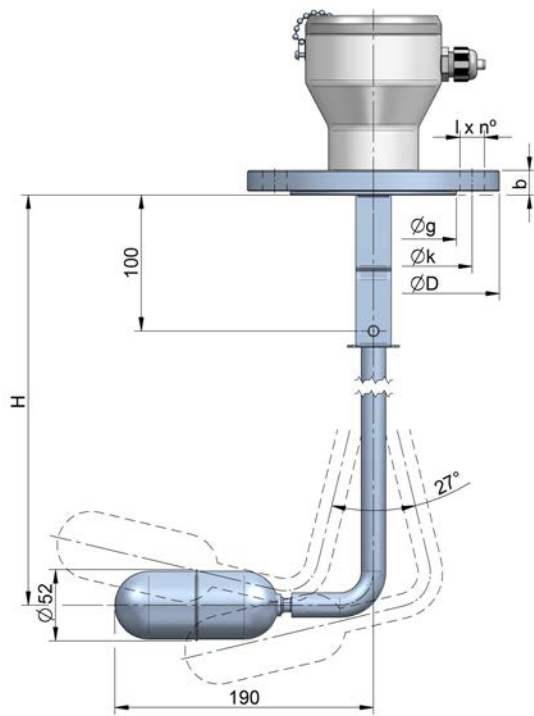
#### Standard dimensions

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

Others on request (H+L maximum 1000 mm)

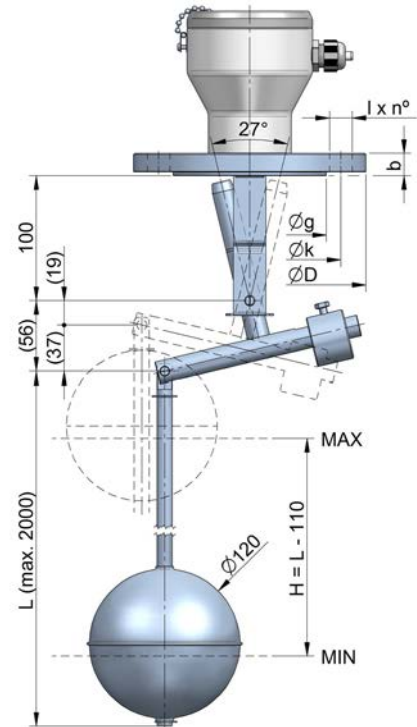
## Top mounting

Model LC40-V / AISI 316L



$H_{\max} = 1000 \text{ mm}$

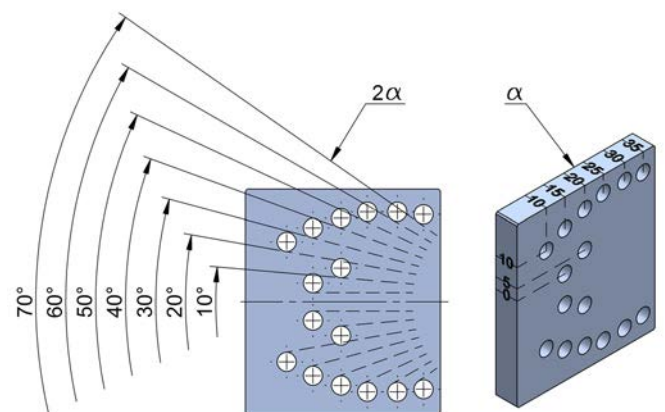
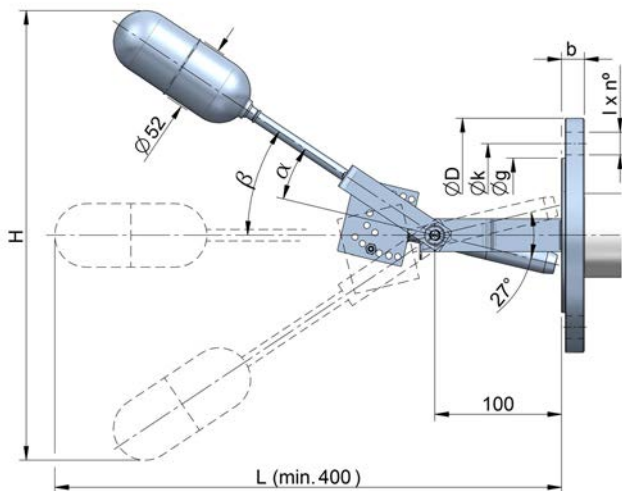
Model LC40-VR / AISI 316L



Requires manhole in the tank for the installation

## Accessories

Complement A21



Available for connection size bigger than DN65 (included)

$\alpha$	$2\beta = 2\alpha + 27^\circ$	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

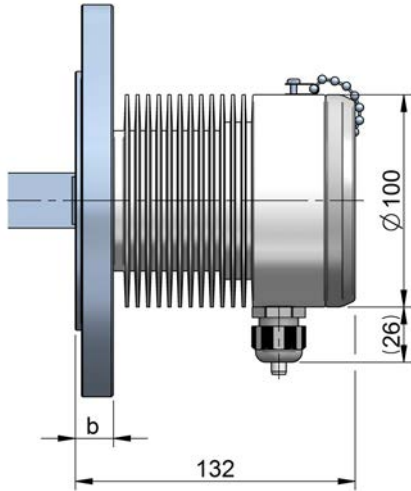
# Level switches

## Series LC40

### Thermal separator housing

For temperature up to 200°C.

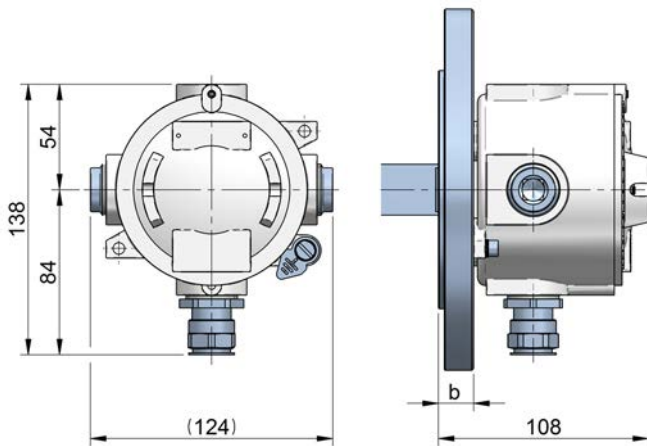
Special design for temperature up to 400°C on request.



### ATEX version

ATEX Ex d IIC T6 certified.

Suitable for temperatures up to 300°C.

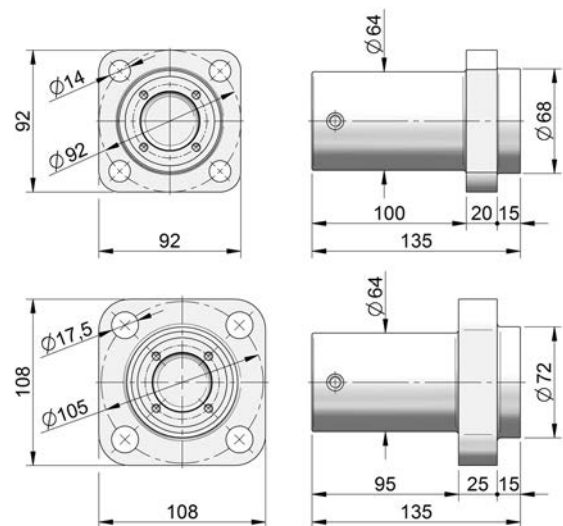
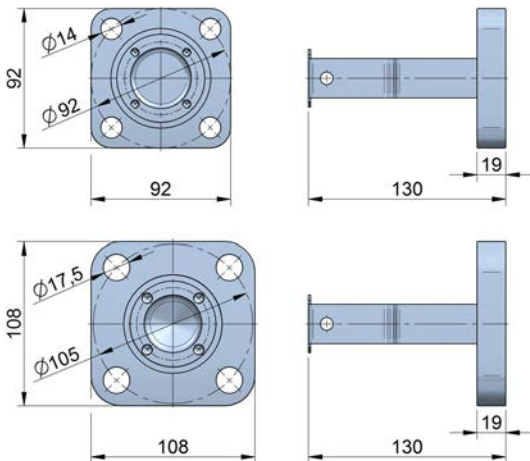


Ex d IIC T6 housing with ATEX packing gland, supplied only on request

### Square flange

EN 1.4404 (AISI 316L)

PP / PVC / PTFE / PVDF



## Housings



ALUMINIUM (standard)

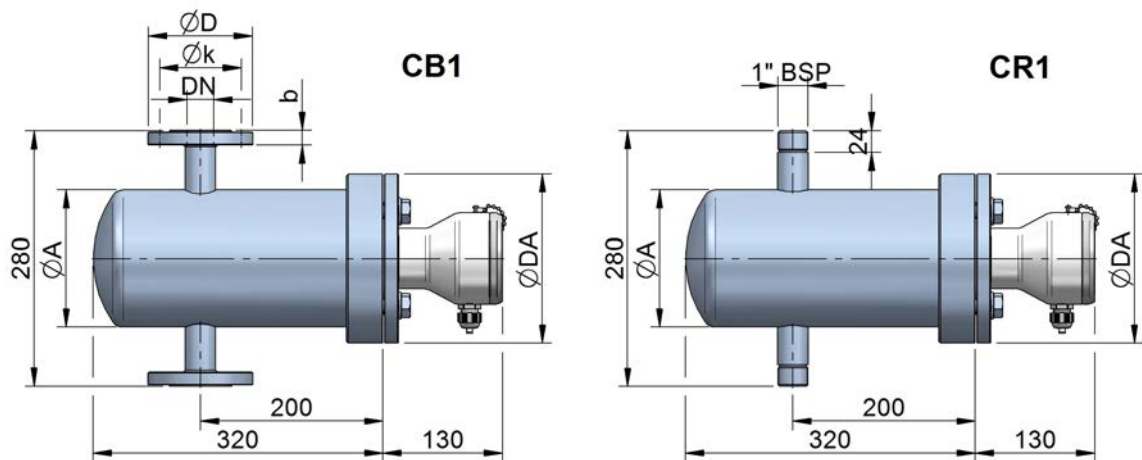
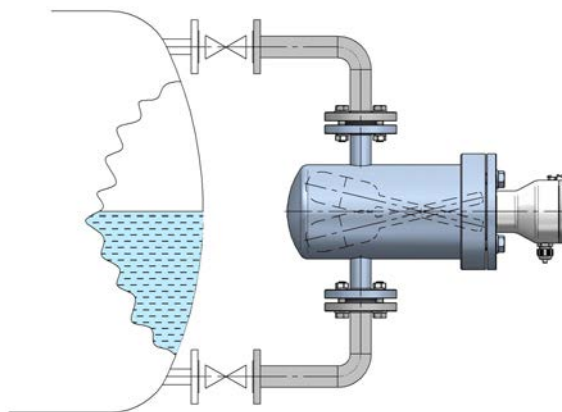


PVC

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

## External mounting to tank or boiler

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

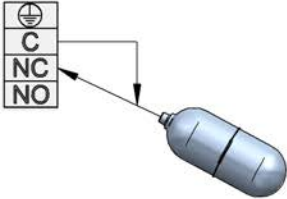


DN	PN	D	k	l x n°	b	R (BSP / NPT)	Material	A	AD
25	16	115	85	14 x 4	16	1"	AISI 316L / Steel	160	185
	25	115	85	14 x 4	17			160	185
	40	115	85	14 x 4	18			160	185
	64	140	100	18 x 4	18			160	205
	100	140	100	18 x 4	28			165	220

Limit switches

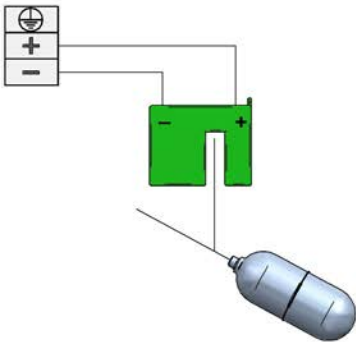
Switch	Contact rating	Protection	Ambient temperature
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**AMM**



SPDT micro-switch  
20 x 10<sup>6</sup> operations  
3 A 220 VAC  
0.5 A 24 VDC

**AMD**

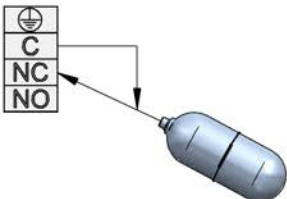


Inductive detector  
NAMUR  
(EN 60947-5-6)  
8.2 VDC  
(amplifier relay on request)

-25°C ... +85°C

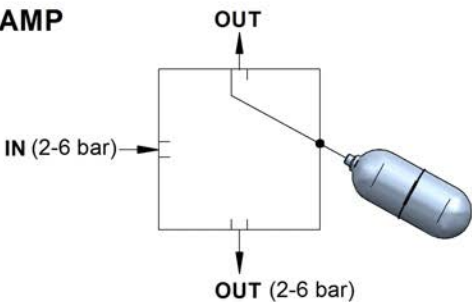
IP65

**AMR**



SPDT reed switch 0.5 A 220 VAC 60 VA

**AMP**



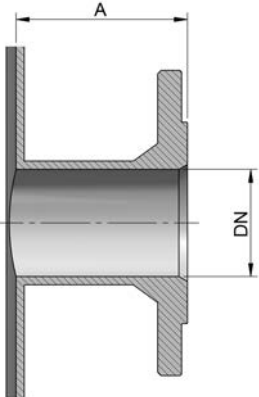
ON/OFF two-way  
pneumatic switch  
2 ... 6 bar

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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