


## GENERAL CHARACTERISTICS

The principle of operation is of potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside the guiding rod, by a magnetic float. The only moving element is the float that moves, for buoyancy, along the measuring rod. This ensures a high degree of reliability.

- **PVC – PP – PVDF**
- Measuring resolution 5 mm.
- Potentiometric signal output (**LC**).
- 4-20mA analog output (**LCT**).
- 0-5 / 0-10V analog output (**LCTV**).
- (0)4-20mA analog output with digital display (**LCO**).
- Up to 5m length.
- Maximum working pressure 6 Bar.
- Operating ambient temperature -30/+55°C UR 90%.
- Standard working temperature up to 130°C.
- Minimum degree of protection IP65.
- Built-in temperature sensors, on request.  
PT – PTC – NTC.
- ATEX  Executions (See Linear ATEX E – Linear ATEX I series)



## FLOATS

Tab.1

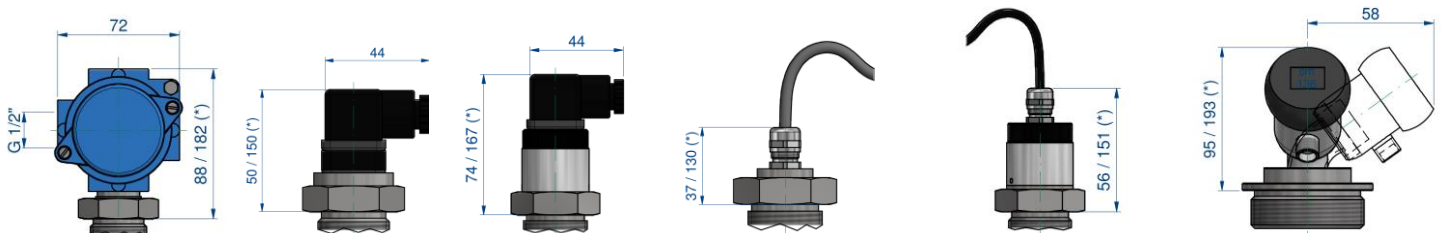


	F49 Ø49x53	P49 Ø49x53	V49 Ø49x53
<b>Material</b>	PVDF	PP - Polypropylene	PVC
<b>Specific gravity</b>	0,8	0,45	0,7
<b>Measuring resolution - mm</b>	5	5	5
<b>Max. bar</b>	6	3	6
<b>Max. °C - Class</b>	<b>N</b> = 130°C	<b>D</b> = 90°C	<b>B</b> = 60°C

## ELECTRICAL OUTPUT

Tab.2

W1	S1	S1	P1 - P2	P1 - P2	O1
IP65 Housing	DIN 43650 IP65 Plug	DIN 43650 IP65 Plug	P1 Brass cable-gland IP68 P2 Polyamide cable-gland IP67	P1 Brass cable-gland IP68 P2 Polyamide cable-gland IP67	OMNI electric head



<b>LC - LCT - LCTV</b>	<b>LC</b>	<b>LCT - LCTV</b>	<b>LC</b>	<b>LCT - LCTV</b>	<b>LCO</b>
<b>With heatsink – see dimension (*)</b>		<b>LCT - LCTV - LCO = Temperature class N</b>			

## PROCESS CONNECTIONS

Tab.3

LC type P1-P2 output = Installation from inside		Float type	LC - LCT - LCTV - LCO type = Installation from outside			
10	15		50	DN65	DN80	DN100
3/8"	1/2"		2"	Flange	Flange	Flange
All type of floats All type of thread		F49	G-C-N	•	•	•
		P49	G-C-N	•	•	•
		V49	G-C-N	•	•	•

### Male thread

G	C	N
Parallel UNI 228/1	Conical UNI 7/1	Conical NPT

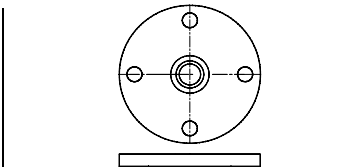
### Available materials

F	P	V
PVDF	PP	PVC

### DN = Available materials

V	S
PVC	Stainless steel On request

## FLANGES



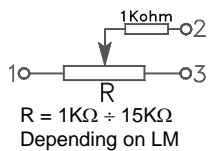
DN = UNI - DIN - ANSI Flanges

A Flanged connection  
A1 Threaded connection

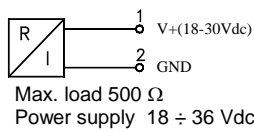


## WIRING

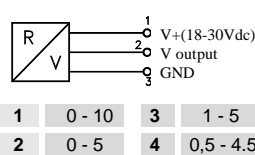
### POTENTIOMETRIC OUTPUT



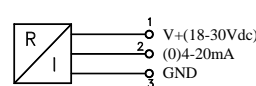
### 4-20 mA OUTPUT



### V OUTPUT



### 4-20 mA OUTPUT WITH DIGITAL DISPLAY



LC

LCT

LCTV..

LCO

## DIMENSIONS

mm.

Tab.4

The dimensions L0 and LM are referred to the stop of the fitting (A1) or flange (A) connection.  
Tolerance on dimension L0 and LM ± 3 mm.

	F49	P49	V49
A	25	25	25
A1	45	45	45
B	30	30	30

Damping tube On request	—	- V PVC	- S AISI-316
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## OPTION - Built-in temperature sensor

Only for LC type = On request, it is possible to install a temperature sensor located at the bottom of the rod inside the instrument.

PT100 - PT1000	PTC	NTC
EN 60751 - IEC 751	Resistance at 25°C ≤ 500 Ω	Resistance at 25°C 2-5-10-50-100 KΩ
Class B - (Class A on request)	Temperature 60°C ÷ 150°C	Precision ± 5% / ± 3% (on request)

## NOMENCLATURE

LC	V49	05	1300 / 1380	V	-V	50	G	V	W1	L	1,5 M	
•												Type: LC - LCT - LCTV - LCO
	•											Tab.1 Float
		•										Tab.1 Measuring resolution (mm).
			•									Tab.4 Measuring length LM / Total length L0 (mm).
				•								Tab.3 Rod material.
					•							Tab.4 Damping tube (option).
						•						Tab.3 Process connection dimension.
							•					Tab.3 Process connection thread.
								•				Tab.3 Process connection material.
									•			Tab.2 Electrical output.
										•		Tab.1 Temperature class.
											•	Tab.2 Cable length (P1 - P2) 1,5m / 3m, other lengths on request.



# LINEAR VF



## Request form

### External mounting

### Internal mounting

W1

Electrical housing IP 65

S1

Plug IP65  
DIN 43650

P1

P1 Cable-gland brass IP68  
P2 Cable-gland polyamide IP67  
L cable.....mm

P2

C

Only internal mounting  
Cable L.....mm

LC/LCT

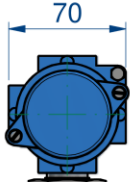
LC

LCT

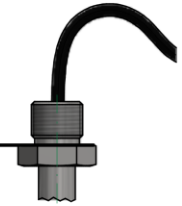
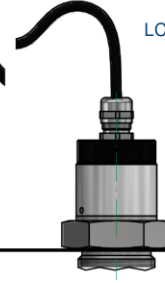
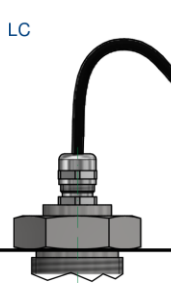
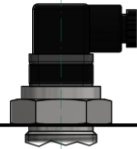
LC

LCT

LC



70



Liquid under control: .....

Specific gravity: .....

Maximum pressure: .....

Maximum temperature: .....

Measuring resolution:

5 mm

10 mm

20 mm

Process connection:

Threaded: .....

Flanged: .....

Material:

Brass

AISI-316

PVC

PP

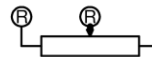
PVDF

Electrical output:

3-wires potentiometer



2-wires potentiometer

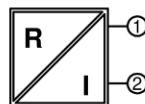


Calibrated potentiometer

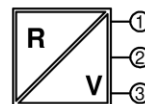
Empty tank = .....ohm

Full tank = .....ohm

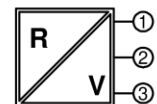
4 ÷ 20 mA output



0.5 ÷ 4.5 V output



1 ÷ 5 V output



Total length  
L0 (mm)

Measuring length  
LM (mm)

PRC Technologies Corp., Ltd. ลาดพร้าว 101 กรุงเทพฯ 10240

โทรศัพท์ : 02 530 1714, 02 932 1711 มือถือ : 086 360 8600

อีเมล : contact@prctech.net LINE ID1 : prctec-info, LINE ID2 : @prctec