

# VIBRATJ

## Specification Sheet

### Vibrating Fork Level Switch For Liquid

#### VSTJ Mini series



#### Technical Data

|                                    |  |
|------------------------------------|--|
| Material of housing                | SUS 304  |
| Protection class                   | IP65 Connector DIN<br>IP67 Connector M12x1.4pin                                  |
| Material of probe and thread parts | SUS 316L   |
| Process fitting                    | VSTJ-40: 1/2", 3/4" or 1" BSPT/G<br>VSTJ-100: 1" BSPT / G<br>Tri-Clamp<br>Flange |
| Operation Voltage                  | 12-55 VDC  |
| Power consumption                  | 10 mA  |
| Output                             | PNP / NPN (max.400mA)  |
| Frequency                          | 1200 Hz (VSTJ-40)<br>304 Hz (VSTJ-100)   |
| Switching delay                    | < 1.0s   |
| Electrical connections             | DIN<br>M12x4 pin   |
| Control indication                 | Green Power supply<br>Red Switching status                                       |
| Ambient temperature                | -40 ... +70°C  |
| Process temperature                | -40... +150°C  |
| Process pressure                   | VSTJ-40 -0.1...6.3MPa<br>VSTJ-100 -0.1...2.5MPa                                  |
| Density of medium                  | more 0.6g/dm <sup>3</sup>  |
| Viscosity of medium                | 1.0...10 000 cSt   |
| Wetted length                      | VSTJ-40 48 mm<br>VSTJ-100 106 mm   |

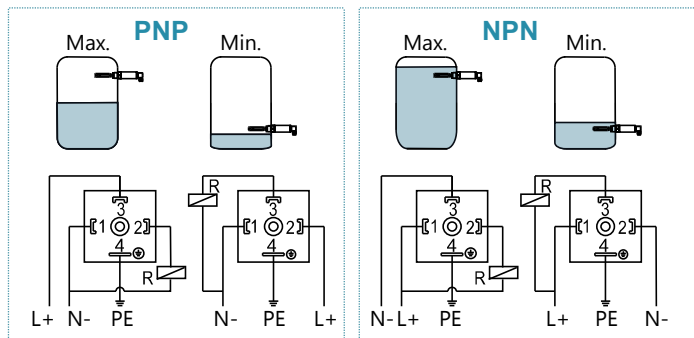
## Description

VSTJ-40 /100 series compact tuning fork level switch, its a point level switch for liquid level detection in storage tanks, tanks with agitators, and piping. It can be used as an alternative to float switches as well as in applications where build-up, turbulence, liquid flow and gas bubbles are present.

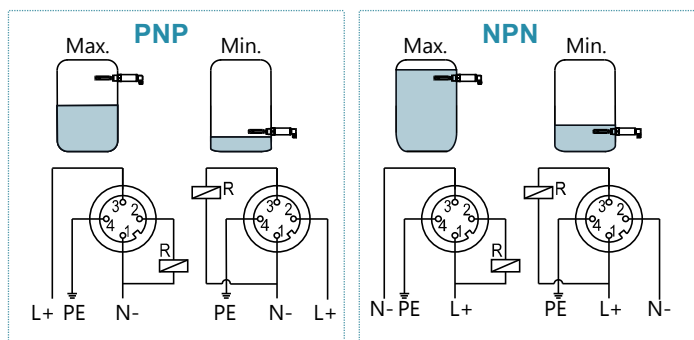
## Features

- Compact struction design. Low space requirement easy to installation in laces with limited access
- Stainless steel housing, rugged. Probe is SUS 316L
- Switching status, external testing, simple control
- Multi version process fitting
- Process temperature -30...+150°C

## DIN wiring



## M12x4 pin wiring



### PNP wiring:

#### High(Max.) Mode:

Pin 1 connects to N-.  
Pin 3 connects to L+.  
Pin 2 is output, it connects to N- with relay.  
Pin 4 connects to tank ground.

#### Low(Min.)Mode:

Pin 1 connects to N-.  
Pin 2 connects to L+  
Pin 3 is output, it connects to "N-" with relay.  
Pin 4 connects to tank ground.

### NPN wiring:

#### High(Max.) Mode:

Pin 1 connects to L+.  
Pin 3 connects to N-.  
Pin 2 is output, it connects to N- with relay.  
Pin 4 connects to tank ground.

#### Low(Min.)Mode:

Pin 1 connects to L+.  
Pin 2 connects to N-  
Pin 3 is output, it connects to "N-" with relay.  
Pin 4 connects to tank ground.

# Specification Sheet

## How to order

VSTJ - **40** -  -  -  -  -  -   
 01 02 03 04 05 06

### 01) Type of the Level Switch

- 40 Length of fork is 40 mm
- 100 Length of fork is 100 mm

### 02) Material of housing

- 1 SUS 304
- 2 SUS 316L

### 03) Electrical connection

- V DIN 43650 Plug
- M M12x4 pin connector

### 05) Process temperature

- A -30 to +80°C
- B -30 to +150°C

### 05) Process fitting

- B1 1/2' BSPT thread
- B2 3/4' BSPT thread
- B3 1' BSPT thread
- G1 1/2' G thread
- G2 3/4' G thread
- G3: 1' G thread
- N Thread NPT
- F Flange
- TC Tri-Clamp

### 06) Insertion length

- Blank Standard
- L200 200 mm
- ....

## Accessories



### Welded joint

Use to installation of process sensors in tanks or pipes



01 - Welded joint

W 01 - Welded joint  
 PT 02 - Thread version  
 3/4 03 - Size of thread  
 S 04 - Material  
 Bland - Steel 20  
 S - SUS304

02 - Thread version  
 PT - PT thread  
 PF - PF thread

03 - Size of thread  
 1/2 - 1/2" thread  
 3/4 - 3/4" thread  
 1 - 1" thread



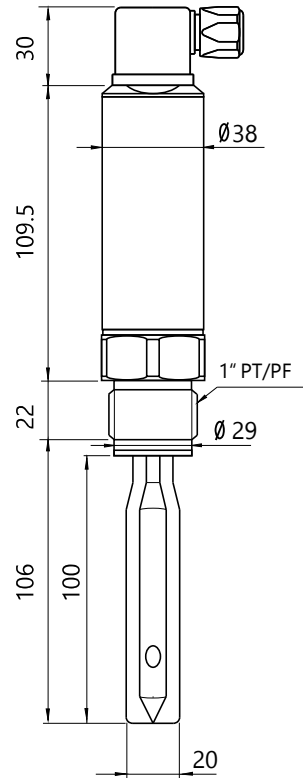
### Process Adaptor

For the installation of sensors in tanks or pipes

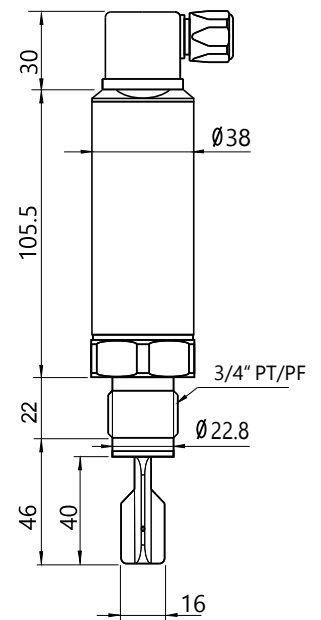
Internal thread is 3/4" PF  
 External thread is 1 1/2" G  
 Material of adaptor is SUS 304  
 Code of adaptor: PAFP-3/4PF-1 1/2G

## Dimension, mm

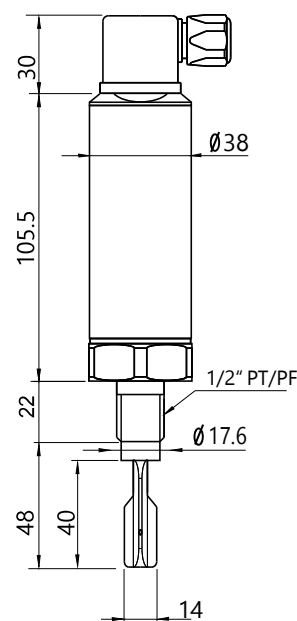
### VSTJ-100 DIN Connector



### VSTJ-40, 3/4" thread DIN Connector



### VSTJ-40, 1/2 thread DIN Connector



### M12x4 pin Connector

