

# RESISTIVE LEVEL PROBES TVI



TVI-3E

- For all conducting liquids.
- 1 up to 4 electrodes.
- Realization: Metal - PTFE.
- 200 bar maximum pressure.
- 220°C maximum temperature
- Connection process: threading Gas or NPT
- Connection housing: Cast aluminium

## PRINCIPLE

Electrical resistance variation, caused by a fluid presence between two electrodes, is converted by level relay as ON/OFF signal.  
(see level relay Redox or ES 2001 - doc. 530).  
Electrodes length is calibrated according to controlled level value

## APPLICATIONS

Level control or regulation, on open tanks or closed tanks..  
Presence of fluid or no fluid localisation (leak detection, empty piping, empty pumps protection).

## DESCRIPTION

Each probe has three parts:

- Cast aluminium head (IP 55 Protect) with connection housing and cable gland output (Ø 9).
- S.St.316 L connection process with PTFE insulator.
- 1 up to 4 electrode in S.St.316 L according to type and necessary length.  
Electrical connection by thimble.  
Ground connection screw for any probes with IP55 connection housing.



TVI-1E



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RESISTIVE LEVEL  
PROBES  
TVI & BM

13/03/2003

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## TECHNICAL CHARACTERISTICS

Probe type	TVI-1E (BE-B)	TVI-2E	TVI-3E	TVI-4E	MINITEV(BE-S)	BM 1/250
Code	541 310	541 420	541 430	541 440	541 330	541 300
Number of electrode	1	2	3	4	1	1
Connection process	3/4" Gas (1/2" op.)		1"		3/8"	1/4"
Tightness	PTFE		PTFE		PTFE	PTFE
Min. length (mm)	54		-		47	38
Max. length (mm)	3 000		3 000		800	1000
Max temperature (°C)	220		80		220	100
Max. pressure at T° max	25		25		25	1
20° (bar) pressure	200		50		200	5
Head material	Cast aluminium		Cast aluminium		Sans	Sans
Stem material	S.St. 316 L		S.St. 316 L		S.St. 304	S.St. 304
Stem Ø (mm)	Ø 6		Ø 6		Ø 4	Ø 4
Connection material	S.St. 316 L		S.St. 316 L		S.St. 304	Steel zing

## ASSEMBLY DESCRIPTION

1 electrode by level point + 1 reference electrode (if tank is not used as reference).

To mount the probes in vertical position, on the top tank.

If no possibility vertical mounting, to choice lateral position, with 45° angle in bottom tank direction.

(always think about conducting bridges to simulate fluid presence)

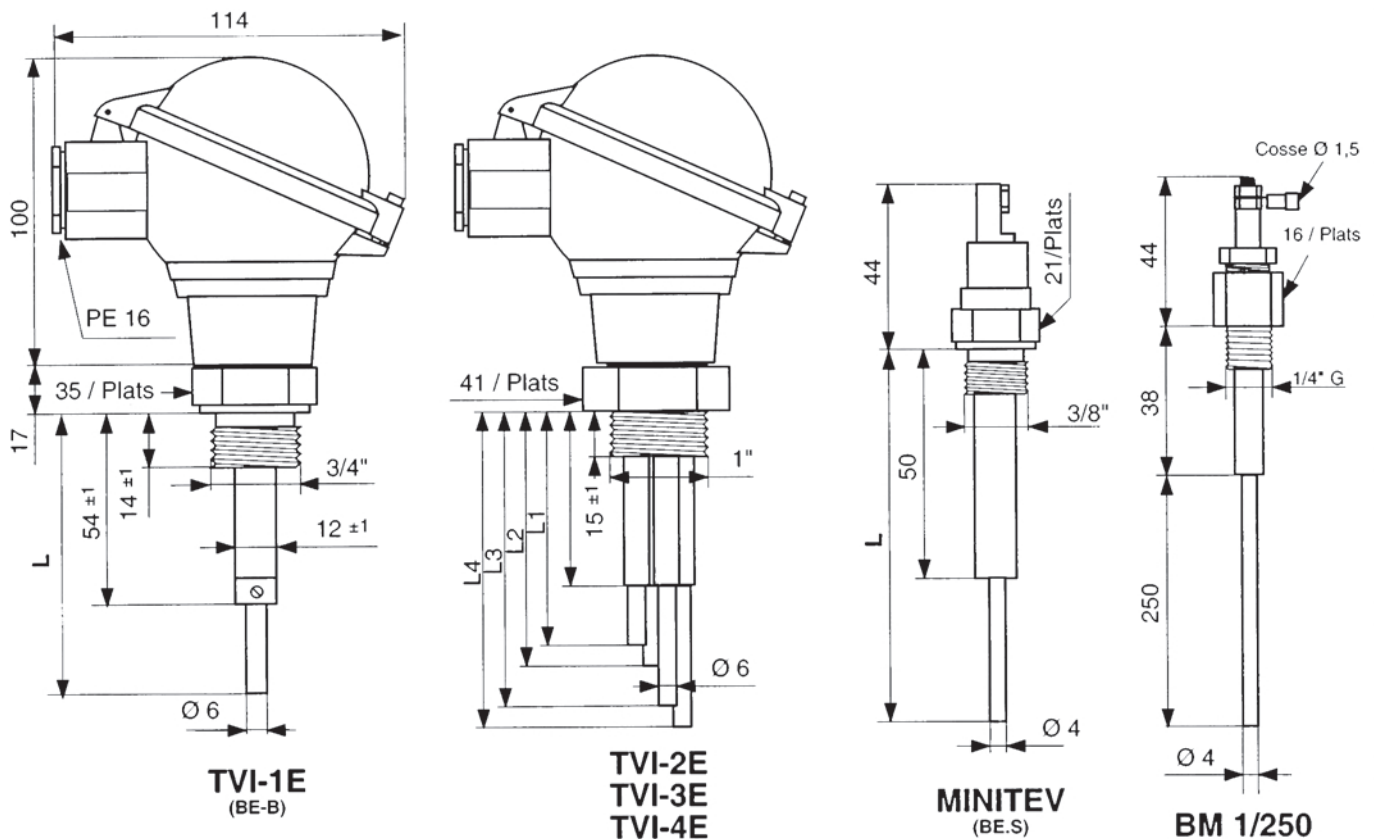
Check limits, temperature, pressure and chemical resistances of fluid in contact with material.

Be attentive with vapours, we recommend to coat connections after mounting or to use an holed cover for evacuation.

For no statics fluid, the probes should be insulated with PVC - polyolefine - or PTFE sheath or by tranquillization tube (a spacers kit is available per option).

For clogging liquids or having a vapour phase, to remove or restrict the possibility of conducting bridge between two electrodes.

## DIMENSIONS



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