

## VIBRATING TYPE LEVEL SWITCH

**ELT** series single vibrating material level switch is one of the tuning fork material level switches. It is not afraid of hanging materials, not afraid of impact, without clamping problems, and has higher sensitivity.

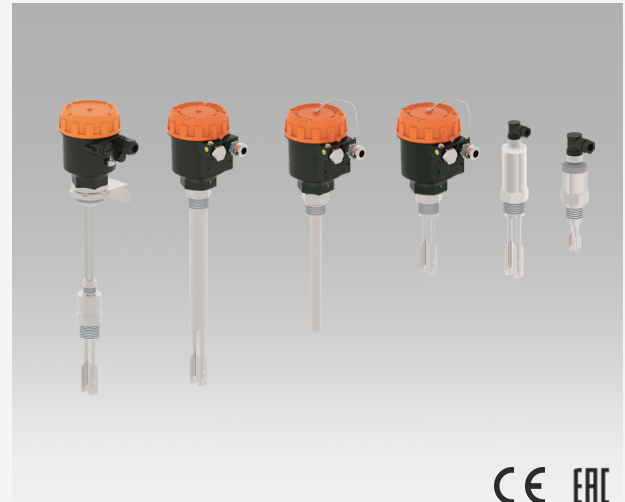
Its cylindrical single measuring rod structure determines its wider adaptability to industrial field. Single rod vibrating level switch uses the "resonance" principle of tuning fork to generate vibration under the driving of piezoelectric elements. Only when all around the probe rod are surrounded by materials, the vibration amplitude will be sharply reduced, resulting in switch action.

### Applications :

It can be used in process that containers , silos , free flowing dusts, granules and various types of small particule solids such ascereals, beans, edible oil process, sugar, animal feed, rice plants, detergents, dye powder, chalk, gypsum, fly-ash, cement, sand, plastic granules, spices, milk powder etc.

### Technical specifications

Fluid	Liquid, Solid, Powder
Wet Parts	316 St. St.
Fork Material	316 St. St.
Housing Material	Aluminum, St. St. (For ELT103, ELT103m)
Max. Solid Particle Size	≤ 10 mm
Max. Liquid Viscosity	< 1000 mm <sup>2</sup> / sec
Measurement Density	For Solid ≥ 0,1 g / cm <sup>3</sup> For Liquid ≥ 0.7 g / cm <sup>3</sup>
Vibration Frequency	280 KHz (For ELT102,104, 202, 204) 300 ± 50KHz (For ELT101, 201)
Delay Time	0.5 sec (Vibration Stop) 1-2 sec (Vibration Start) It can be adjusted between 1-60 seconds
Exit: (For ELT101, ELT103m, 201,105, 205) (For ELT103) (For ELT103m) (For ELT102,104, 202, 204)	2 x 5A NO / NC Relay 30 VDC / 220 VAC 1 x 5A NO / NC Relay 30 VDC / 220 VAC 1 x 5A NO Relay 30 VDC / 220 VAC 2 x 8A NO / NC Relay 24 VDC / 220 VAC
Supply	15-80 VDC , 15-260 VAC
Power consumption	2,5 W , 1 W (For ELT103, ELT103m)
Connection	1" BSP (Std.) Male Thread Opt. Flanged
Working Pressure	Max. 20 bar (For ELT101, 201) Max. 40 bar (For ELT102,104, 202, 204) Max. 30 bar (For ELT103, ELT103m)
Working Temperature	(-) 20 °C...(+) 150 °C (Std.) Opt. 200 °C
Ambient Temperature	(-) 20 °C...(+) 80 °C
Ambient Humidity	% 95 RH
Protection Class (EN60529)	IP 66 , IP 67 (For ELT103, ELT103m)

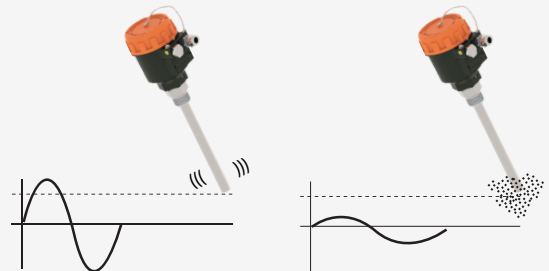


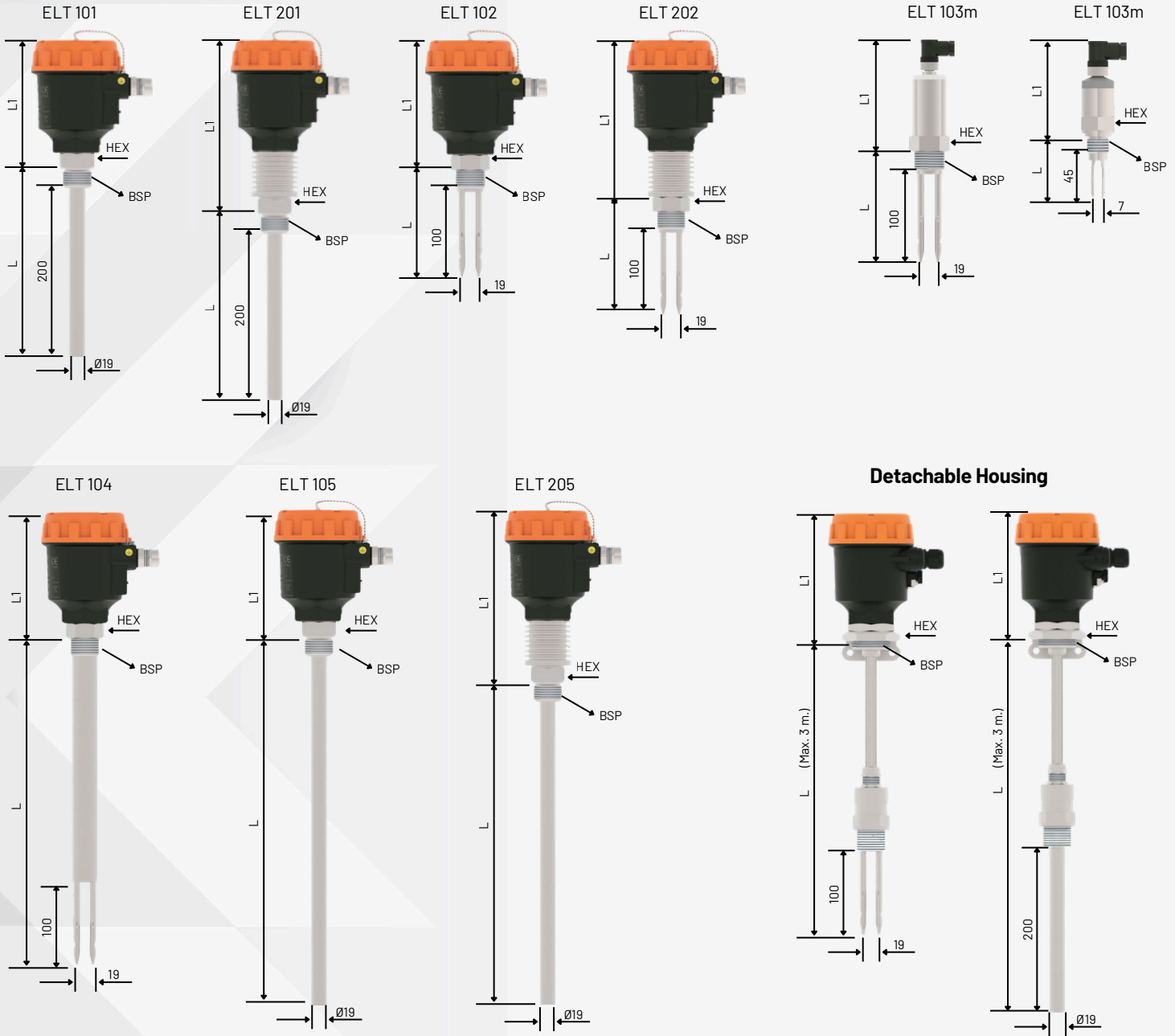
### Model

- ELT 101
- ELT 102
- ELT 103
- ELT 103m
- ELT 104
- ELT 105
- ELT201
- ELT202
- ELT204
- ELT 205

### Advantages

- Suitable for side as well as top mounting
- Minimum and maximum fail safe field selectable.
- Process pressure max. 40 bar
- Process temperature max 200 °C
- Low power consumption.
- No Calibration Required
- Settable switching delay as a standard feature
- Durable Construction
- Immune to External Vibrations

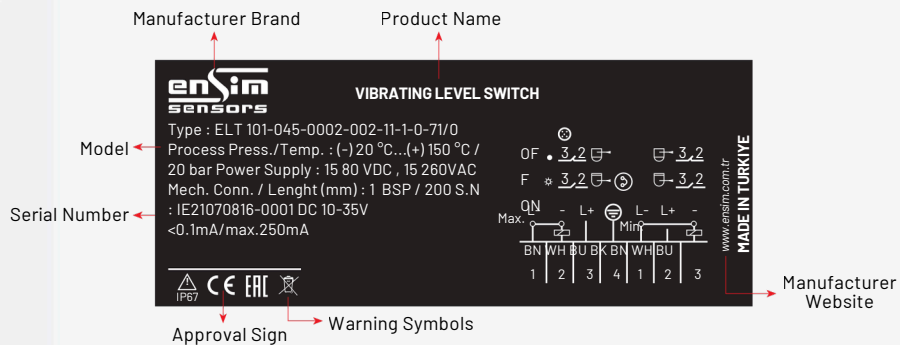




Dimensions

Model	Conn. BSP (mm)	L (mm)	L1 (mm)	HEX (mm)
ELT 101	1" BSP	220	134	40
ELT 201	1" BSP	220	217	40
ELT 102	1" BSP	125	134	38
ELT 202	1" BSP	125	217	38
ELT 103	1" BSP	100	115	38
ELT 103m	1/2" BSP	63	100	32
ELT 104	1" BSP	Max.	134	38
ELT 204	1" BSP		217	38
ELT 105	1" BSP	1500	134	38
ELT 205	1" BSP		217	38

Label



## Housing

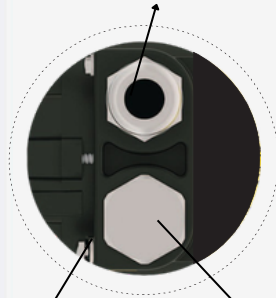
Order Code	Type	Material	Protection Class	Temperature (°C)	Size a x b (mm)
600	B20x	Aluminium	IP 66	-40...+200	132 x 104
103	B20p	Plastic (PBT)	IP 65	-40...+150	132 x 104



**DO NOT OPEN WHEN ENERGIZED  
KEEP TIGHT WHEN CIRCUIT ALIVE**



**Aluminium Housing**  
CablePlug  
(Suitable Cable Diameter : Ø 6-12mm)

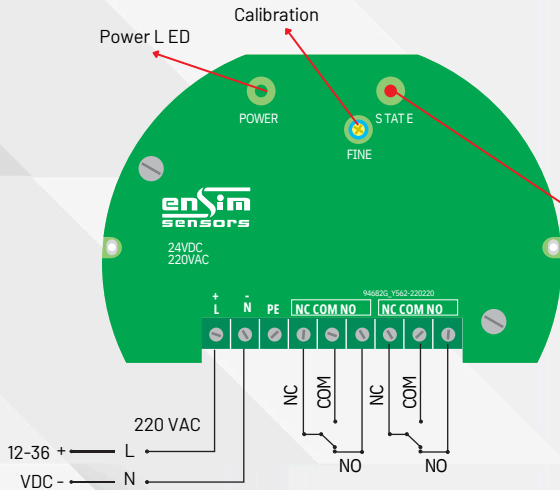


Grounding Terminal  
(Max. 1,5 mm<sup>2</sup>)  
Recommended Cable (5x1,5 mm<sup>2</sup>)

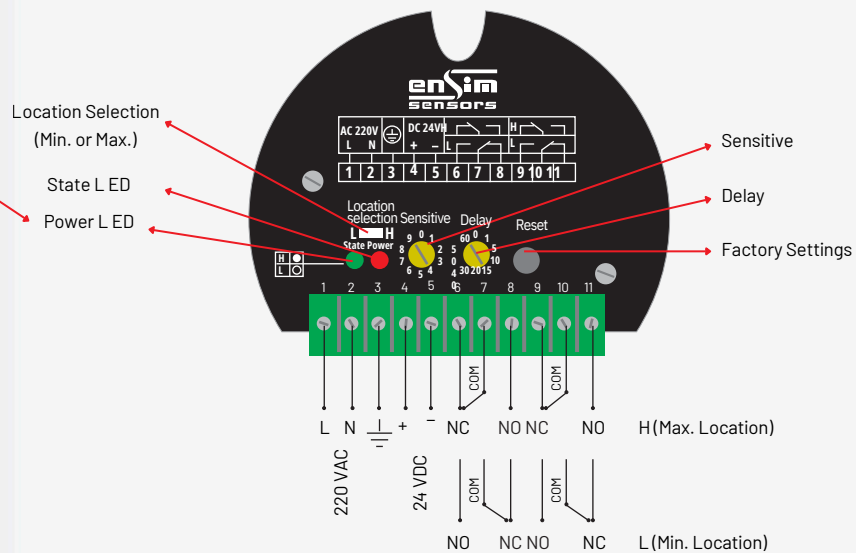


## Electrical Connection

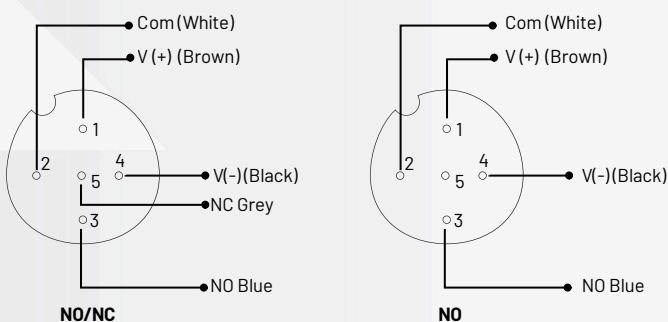
For ELT 101 / 201 / 105 / 205



For ELT 102 / 202



For ELT 103  
ELT 103m



### Protection Case

Material : 304 Stainless Steel  
Welded manufacturing  
Opens - Closes Hinged  
To Protect Against external conditions.



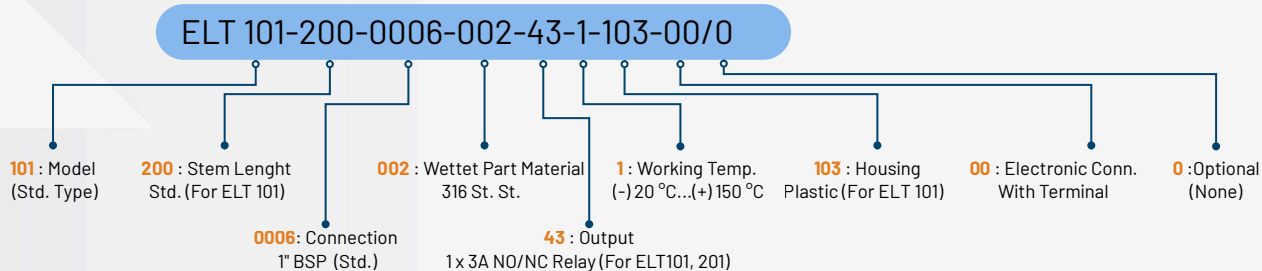
**Order Form:** You may use the sample models as a reference for coding..

LEVEL

<b>1</b>	<b>MODEL ELT</b>		
	Std. Type - <b>1</b>	High Temperature Type - <b>2</b>	
<b>2</b>	<b>CERTIFICATE</b>		
	None - <b>0</b>	(EN10204-3-1) Material Certification - <b>1</b>	
<b>3</b>	<b>CONNECTION TYPE</b>		
	Thread Type - <b>1</b>	Mini Fork Type - <b>3</b>	Long Fork Type - <b>4</b>
	Thread Fork Type - <b>2</b>	Mini Fork Type - NO - <b>3m</b>	Long Rode Type - <b>5</b>
			Special - <b>x</b>
<b>4</b>	<b>STEM LENGHT (mm) L</b>		
	Std. (For ELT103 and ELT103m) - <b>45</b>	Std. (For ELT 101) - <b>200</b>	Special - <b>x</b>
	Std. (For ELT102 , ELT103 and ELT103m) - <b>100</b>	Std. - <b>1000</b>	
<b>5</b>	<b>CONNECTION</b>		
	1/2" BSP (Std.) Only For ELT103 and ELT103m - <b>0002</b>	DN 50 - PN 16 (Std.) - <b>0505</b>	DN 100 - PN 16 - <b>0508</b>
	1" BSP (Std.) - <b>0006</b>	DN 80 - PN 16 - <b>0507</b>	Special - <b>x</b>
	1 1/ 2" BSP - <b>0008</b>		
<b>6</b>	<b>6 WETTED PART MATERIAL</b>		
	316 Stainless Steel - <b>002</b>	Special - <b>x</b>	
<b>7</b>	<b>OUTPUT</b>		
	1 x 5A NO/NC PNP (For ELT103)..(Opt.) - <b>05</b>	2 x 8A NO/NC Relay (For ELT102, 202) - <b>12</b>	1 x 5A NO Relay (For ELT103m) - <b>44</b>
	1 x 5A NO/NC PNP (For ELT103) - <b>11</b>	1 x 3A NO/NK Relay (For ELT101, 201) - <b>43</b>	Special - <b>x</b>
<b>8</b>	<b>WORKING TEMPERATURE</b>		
	(-)20 °C...(+)150 °C - <b>1</b>	(-)20 °C...(+)200 °C - <b>2</b>	Special - <b>x</b>
<b>9</b>	<b>HOUSING</b>		
	Plastic Housing (For ELT101, 102, 104, 105) - <b>103</b>	Aluminium Housing (For ELT201, 202, 204, 205) - <b>600</b>	
	No (ELT103, ELT103m) - <b>0</b>	Special - <b>x</b>	
<b>10</b>	<b>ELECTRICAL CONNECTION</b>		
	Terminal (For Housing Models) - <b>00</b>	M12 5 Pin - <b>71</b>	
	Polyamide Large Socket P01 - <b>50</b>	Special - <b>x</b>	
<b>11</b>	<b>OPTIONAL</b>		
	None / <b>0</b>	Separable Housing - St.St. Flexi Spiral <b>(It depends on the model)</b> / <b>S1</b>	
	Protection Case - for Outside Tank. 304 St. St. / <b>K2</b>	Separable Housing - Plastic Flexi Spiral <b>(It depends on the model)</b> / <b>S2</b>	
		Special / <b>x</b>	

### EXAMPLE

Vibrating Type Level Switch, Model ELT101, L=250 mm , 1" BSP Male Thread , 1 Contact



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