

DIAPHRAGM - TYPE LEVEL SWITCH

ELZ

Level control with membrane is the most economical method in measurement of level of bulk material in the storage. It can be used in open and non-pressure tanks. ELZ can check full, empty and loaded situations of powdered, dusty, corny, granular, grained bulk materials in the grain elevator. It is appropriate for using in the particles in 0,3 and 2,5 t/m³ and up to max. 30 mm. Membrane should contact with checked material certainly.

Working Principle:

As long as material, is poured to the grain elevator, accumulates, membrane is closed. Material pushes membrane back with composed press and mechanism pushes the contact.

Contact gives audible alarm or it is used for stopping filling mechanism of grain elevator. When material precipitates and reduces, contact reverts back. Precision setting is made during assembly by sliding the mechanism.

Areas of Application :

Sugar, Hazelnut, Clay, Sunflower Seed, Coffee, Various Granules, Wheat, Bauxite, Ceramic, Legumes, Cereal, Fish Feed, Sand, Pebble, Isolation Materials, Corn, Rice .

Materials Engineering and Durability

Environmentally Compatible Diaphragm Selection



Neoprene / NBR
-20°C/+80°C
Grains, Feed
Materials

Viton (FKM)
-20°C/+150°C
Harsh chemicals,
high temperatures

Stainless Steel
-20°C / +200°C
Food grade
(FDA compliant)

Technical Specifications

Installation	Vertical
Material	Fiber reinforced plastic. Opt. Aluminum Casting
Diaphragm	Neoprene, Viton, Stainless Steel
Working Temperature	(-)20...(+)80 °C ELZ 11 with NBR Diaphragm (-)20...(+)150 °C ELZ 21 with Viton Diaphragm (-)20...(+)200 °C Rust. ELZ 31 with Stainless Steel Diaphragm
Protection Class	IP 40 IP 53 (If the mounting position of the compensating filter is downwards) IP 65 (For ELZ31)
Max. Working Pressure	3 bar, NBR, for Viton Diaphragm 1 bar Stainless Diaphragm for
Weight With Box	525 g. Plastic Body 990 g. Aluminum Body
Accuracy	200 g. 600 g. Adjustable
Electrical Connection	PG 13,5 Plastic, PG 11 Metal (ELZ31)
Contact Output	1 x SPDT 15 A / 250 VAC



Model

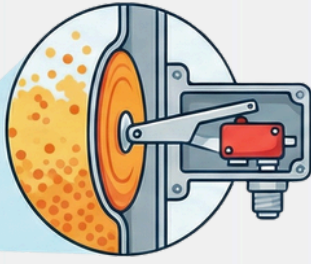
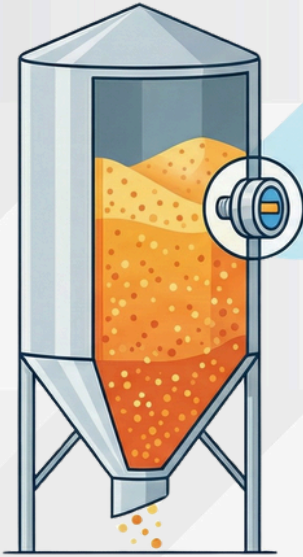
For Solid Materials

- ELZ 11
- ELZ 21
- ELZ 31

Advantages

- Cost-effective
- Easy installation and commissioning
- Fast delivery

Working Mechanism and Advantages



Pressure-Based Activation

Physical force exerted on the diaphragm by the material immediately triggers the internal micro-switch.



Economical and Mechanical Solution

With models that do not require an external power supply, it is one of the most cost-effective methods for solid level measurement.



Blocked Chute Detection

Monitors conveyor chutes for material buildup and blockage, helping to avoid unplanned shutdowns and equipment failure.



Operating Temperature Range -20°C to +200°C

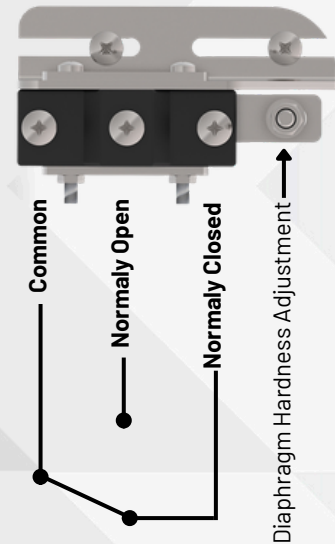
Engineered with diverse material options to ensure reliable performance across extreme temperature conditions.



IP65 Protection Class

With its dustproof and waterproof housing, it operates in the most demanding factory conditions.

Electrical Connection

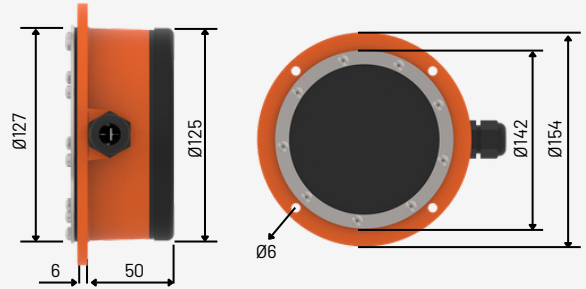


1 x SPDT, 15 A / 250 VAC

Product can be adjusted from the default position of press sensitivity on the diaphragm.
(+) Press sensitivity increased
(-) Press sensitivity decreased
Adjustment should be made according to bulk material.

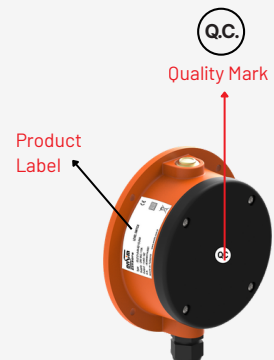
Dimensions

Mounting Type



Label Information

	Manufacturer Brand	Product Name	Approval Sign
	ensim sensors	LEVEL SWITCH	EAC CE
Model	Type	: ELZ 11-0-001-081-15/0	
	Output	: 1 x NO / NC - 15A/250VAC	
	Process Pressure	: Maks. 3 bar	
	Process Temperature	: (-)20 °C (+)80 °C	
Serial Number	Serial Number	: IE20040174-0001	
	MADE IN TURKEY	www.ensim.com.tr	
		Warning Symbols	



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

1 MODEL ELZ

Standard NBR with Diaphragm - **11**

Standard Viton Diaphragm - **21**

Standard Stainless Steel Diaphragm - **31**

2 CERTIFICATE

None - **0**

(EN10204-3-1) Material Certification - **1**

3 HOUSING MATERIAL

Plastic , PBT B03p - **001**

Special - **x**

Aluminium , B03x - **501**

4 DIAPHRAGM MATERIAL

NBR Rubber - **081**

304 Stainless Steel - **001**

Viton - **082**

Special - **x**

5 OUTPUT

Relay NO / NC (15 A) - **15**

Special - **x**

6 ELECTRICAL CONNECTION

Metal PG 11 Chrome Brass - **05**

Plastic PG 13.5 Black - **24**

Special - **x**

7 OPTIONAL

None / **0**

Special / **x**

SAMPLE

ELZ 11-0-001-081-15/0 , Level Switch , ELZ 11 , with NBR Diaphragm , NO / NC

ELZ 21-0-001-082-15/0 , Level Switch , ELZ 21 , with Viton Diaphragm , NO / NC

ELZ 31-0-501-15-05/0 , Level Switch , ELZ 31 , with Stainless Steel Diaphragm , NO / NC

