

# DryMix Processing

## Continuous Level Measurement - ILS

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### Description ▼

A sensor weight, attached to a metal tape or rope, is electromechanically lowered into the vessel. Once the sensor weight rests on the material, the winding direction of the motor changes and the sensor weight is rewound to the upper stop position. As the weight is lowered, the distance is electronically measured.

A microprocessor converts the measured distance together with the programmed silo geometry into a volumetric output signal. This signal is updated each time the sensor weight is lowered.

### Application ▼



### Benefits ▼

- ✓ **Appropriate for nearly all kinds of bulk solids;**
- ✓ **Insensitive to:**
  - *Dielectricity and conductivity of the bulk material;*
  - *Dust inside the silo;*
  - *Changes in moisture of the bulk material;*
  - *Materials that tend to stick;*
- ✓ **No mechanical force on the silo top; sensor touches material only on its surface;**
- ✓ **Simple installation and commissioning;**
- ✓ **High-tech measurement; easy to understand;**
- ✓ **Highly accurate measurement.**

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### Technical Features / Performance ▼

- ▶ **Silo pressure**  
max. 0.3 bar (44 psi)
- ▶ **Temperature inside silo**  
ILSC-ILSD: - 40°C + 80°C (-40°F +176°F) standard  
+ 150°C / + 250°C (+302°F / +482°F) option  
ILSE - ILSF: - 40°C + 80°C (-40°F +176°F)
- ▶ **Ambient temperature**  
ILSC - ILSD: -20°C/ +60°C (- 4°F +140°F) standard  
-40°C / +60°C (-40°F + 140°F) with internal heater  
ILSE - ILSF: -20°C/ +60°C (- 4°F +140°F)
- ▶ Microprocessor-controlled measurement with intelligent supervision;
- ▶ Integrated tape cleaner for extremely difficult materials (tape version);
- ▶ Different sensor weights, suitable for all applications;
- ▶ Robust dual-chamber aluminium die-cast casing IP66, NEMA 4.

Technical Characteristics	ILSE / ILSF	ILSC / ILSD
Measurement of	Solids	Solids - Interface
Version	Rope - Tape	Rope - Tape
Remote Box	NO	Max. 10 Units
Measuring Range	Rope: 15/30 m Tape 15/30 m	Rope 30 m      Tape 40 m
Process Temperature	- 40°C / + 80°C	- 40°C / + 250°C MAX
Process Pressure	+ 0.2 bar	+ 0.3 / 1.5 bar
Ex- Approval	ATEX II 1/2 D	ATEX II 1/2 D
Power	230 V AC 115 V AC 20...28 V DC	98...253 V AC      20...28 V DC
Process Connection	1 1/2" Thread Flange DN100	Flange DN 100
Diagnostics	4-20 mA	Relais, 4-20 mA Remote Box Diagnose History SD Card
Measurement Start	Internal Timer External Signal	Remote Box Internal Timer External Signal
Output	4-20 mA	0/4-20 mA MODBUS 5/10 cm Relay Pulse 1/2,5 cm opto pulse
Casing	Aluminium, Painted	Aluminium, Optionally Painted
IP Rating	IP 66	IP 66
Rope/Tape Cleaner	Tape Integrated	Tape Integrated
Motor	Standard	Standard Industrial
Number Of Pulleys	1	2

*This datasheet might not show the complete range but only the models specialised for the application.*