

MOLOS₁
bob

Level measurement

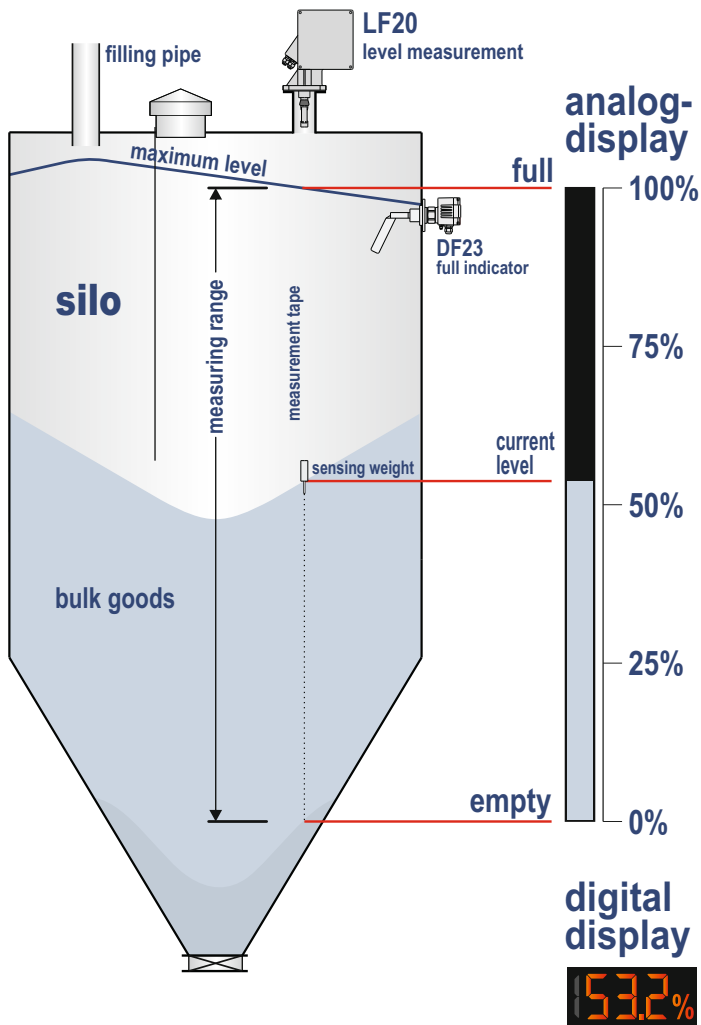


LF20

Yo-Yo sensing level measurement

..... Functional principle

Performance



- ▶ Reliable continuous level measurement up to a distance of 42 m
- ▶ Measurement technology unaffected by bulk material characteristics like dust, moisture, conductivity or grain size
- ▶ Measurement in silos with a process temperature up to 150 °C possible
- ▶ No influence on the measurement process by internals in silos or vessels
- ▶ High measurement accuracy of the actual filling level of ± 2.5 cm
- ▶ A four-line plain text display enables an easy menu-guided commissioning and local operation
- ▶ Use in dust incensive hazard areas possible, category 1/2D
- ▶ 4 - 20 mA current output and maximum 4 freely programmable relay outputs
- ▶ Compact and still robust design with low weight
- ▶ Specially designed tape wiper avoids pollution of internal housing
- ▶ No movement into silo outlet due to fully electronical minimum fail-safe mode

..... MOLOSbob

Application

A sensing weight is driven down into the silo or hopper with a stainless-steel tape. As soon as the weight touches the surface, the tensile force on the tape decreases. This reduced tensile force is detected by the electronic of the MOLOSbob LF20 and the lowering of the weight is stopped immediately. After this a 4-20 mA current output signal is given proportional to the measured distance and the sensing weight returns to the end position whereby the measured value determined is retained until the next measurement cycle starts. Different sensing weights enable exact level measurements independent of density or grain size of the bulk material.

Reliable continuous level measurement in silos, vessels and hoppers filled with dusty, powdery, granulated and grained bulk materials any kind like gravel, sand, cement, concrete, lime, gypsum, broken stones, animal feed, fishmeal, milk powder, grain, spices, salt, sugar, flour, coffee, cacao, cereals, graphite, fertilizer, zinc sulfate, aluminum oxide, polystyrene, plastic granulate, plastic powder, filler, wood pellets, wood chips, sawdust, foam flakes, ash, fly-ash, slag, carbon black, coal, coke dust and many others more. Interface measurement and level measurement of liquids are possible as well.




* Optional sensing weights

Housing / lid	Aluminium RAL 7001 / uncoated
Dimensions	300 x 260 x 225 [HxBxD]
Process connection	Flange DN100 PN16 / 4" Aluminium
Wiper	Aluminium / Steel or Stainless steel
Measurement range / - tape	0 m ... 42 m / Stainless steel
Weight	11,5 kg including sensing weight
Tape run-off speed	0,16 ... 0,25 m/s
Tensile force	maximum 150 N
Supply voltage	90 ... 253 VAC, 50/60 Hz 20 ... 28 VDC
Power consumption	maximum 150 VA without heater maximum 170 VA with heater (optional)
Signal inputs	active / passive
Outputs	Current output 0/4 ... 20 mA 2 relay outputs (2 additional as option) Optocoupler output (optional)
Terminals	maximum 2,5 mm ²
Process pressure	-0,5 ... +1,0 bar
Process temperature	-40 °C ... +150 °C
Ambient temperature	-40 °C ... +60 °C
Protection type	IP67 according EN 60529

...ATEX-option

Type of ignition protection

 II 1/2D Ex ta/tb III C T99°C

Use in dust hazardous areas

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