



## Buffer silo for raw materials in the ethanol plant

### Reliable

The measuring systems protect against mechanical overload, thereby ensuring smooth, trouble-free operation

### Cost effective

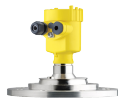
Enabling smoother continuous production guarantees economical operation

### User friendly

In case of extreme dust build up on the sensor, automatic cleaning can be enabled via the air purge connections on the sensor

### Level measurement and point level detection in buffer silos

In order to always have enough material available for downstream processes in the ethanol plant, the crushed raw materials are held ready to use in buffer silos. The ground-up grain 'flour' for the production of ethanol is transported directly from the mill into a silo, where it is temporarily stored. The vast material throughput can lead to extreme mechanical loading of the silos and the associated equipment and high levels of dust are generated in the process. Level sensors are deployed to optimise the throughput, reduce overloading and ensure continuous, economical production and operation of the plant.



#### VEGAPULS 69

Non-contact level measurement with radar in the buffer silo

- No wear on the sensor thanks to non-contact measurement
- Reliable measurement despite intense dust generation
- Lower costs due to simple, fast installation and commissioning

#### ▫ VEGAMIP 61

Point level detection with microwave barrier in the buffer silo

- No mechanical wear thanks to non-contact measurement
- Simple mounting with different mechanical options
- Maintenance-free operation and simple adjustment



□

VEGAPULS 69	VEGAMIP 61
Measuring range - Distance 120 m	Measuring range - Distance 100 m
Process temperature -40 ... 200 °C	Process temperature -40 ... 80 °C
Process pressure -1 ... 20 bar	Process pressure -1 ... 4 bar
Accuracy ± 5 mm / ± 0.2"	Version hygienically encapsulated horn antenna for separate horn antenna with horn antenna ø 40 mm with horn antenna ø 48 mm with horn antenna ø 75 mm with horn antenna ø 95 mm with plastic horn antenna ø 80 mm Horn antenna ø 1½" with encapsulated horn antenna
Frequency 80 GHz	
Beam angle ≥ 3,5°	
Version with plastic horn antenna ø 80 mm Metal jacketed lens antenna	Materials, wetted parts PTFE 316L 1.4848 PP
Materials, wetted parts 316L PP PEEK	Threaded connection ≥ G1½, ≥ 1½ NPT
Threaded connection G1½, 1½ NPT	Flange connection ≥ DN50, ≥ 2"
Flange connection ≥ DN80, ≥ 3"	Hygienic fittings Slotted nut ≥ 2", DN50 - DIN 11851 Varivent ≥ DN25 DRD connection ø 65 mm for NEUMO BioControl D50 PN16 / 316L
	Seal material FKM FFKM
	Housing material Plastic Aluminium Stainless steel (precision casting) Stainless steel (electropolished)