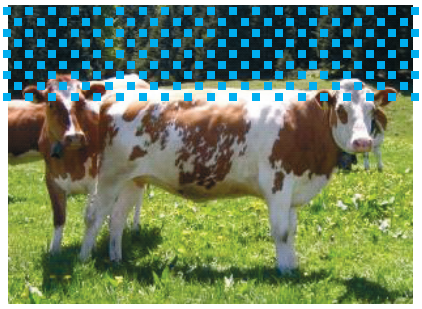
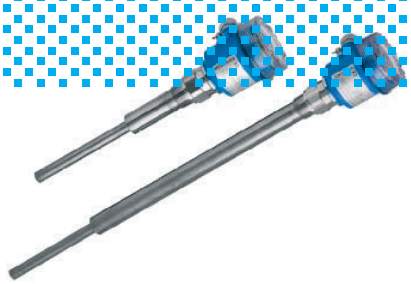
Level | Pressure | Flow | Temperature | Liquid Analysis | Registration | Systems Components | Services | Solutions

# FTM20 in Animal Feed Cooler Controls Pellet Press– Food

## FTM20 mono-rod sensor outperforms tuning fork sensor in moist elongated pellet material



Cattle feeding on the meadow



Soliphant T FTM20 / FTM21

Chickens fed with concentrated pellets

**The Soliphant T FTM20 "mono-rod" sensor is used in moist elongated pellet material for point level detection in an animal feed cooler. The mono-rod design of the sensor outperforms traditional tuning fork sensors in this application. Long and narrow-shaped material tends to stick between the tines and clog the forks resulting in a false level switch.**

### Company profile

The customer is a producer of animal feed in Germany who is focusing on straight feeds and compound feeds for cattle, pigs poultry, and sheep. The Soliphant T is installed in the production of concentrated feed pellets.

### Application

The Soliphant T is used for low level detection (minimum alarm) in a cooler to control the feeding of material in a pellet press. In this test installation, the FTM20 is installed in addition to two paddle switches.

| | |
|---|---|
| Material: | fodder concentrate pellets |
| Bulk density: | 32 lb/ft³ (500 g/l) |
| Shape: | 1.2" (3 cm) long |
| Temperature: | 140°F (60°C) |

Process environment is moist

### Application challenges

The material is elongated stick-like, is warm and moist, which causes condensate in the cooler.

### Previous instrument

Soliphant II FTM30 with vibrating fork
- gave false trips because of material bridging and build-up between the tines.
- Paddle-switch absorbs condensate causing moisture in bearings, down time to repair/replace

### Instrument description

FTM20 single rod, threaded process connection, DPDT relay and polyester housing. The Soliphant T is a robust level limit switch for silos with fine-grained or coarse non-fluidized bulk solids.

A piezoelectric drive excites the probe rod to its resonance frequency. If a bulk solid covers the vibrating rod, the vibrating amplitude changes, which causes a switch point. The electronics compare the actual amplitude with a target value and indicates whether the rod is vibrating freely or whether it is covered by material.

### Measurement results

The FTM20 mono-rod operates correctly, no jamming or clogging. No moisture in the housing because of a Gore-Tex® filter.

For more information, contact
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CS0250/24/ae

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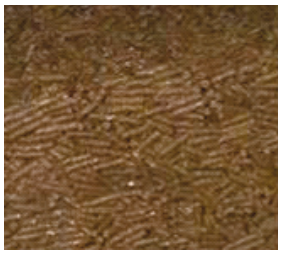
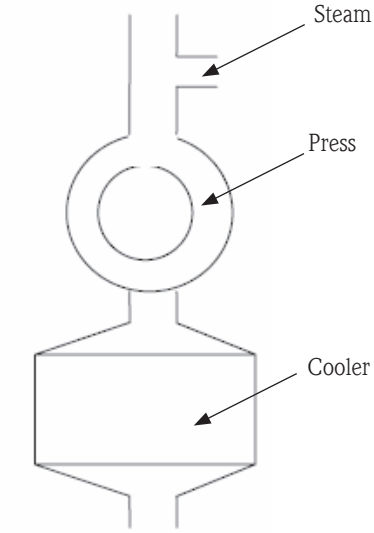
People for Process Automation

Soliphant T point level detection in pellet cooler

Mounting location of the Soliphant T



Finished product




ISO 9001:2000 Certified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