OPTICAL BELT SCALE FLO-3D II

EmWeA ®

Optical Belt Scale FLO-3D II.

The smart volume flow meter for bulk materials on belt, vibratory, or bucket conveyors.

Accuracy: ±5%.

Waste measurement on a conveyor belt
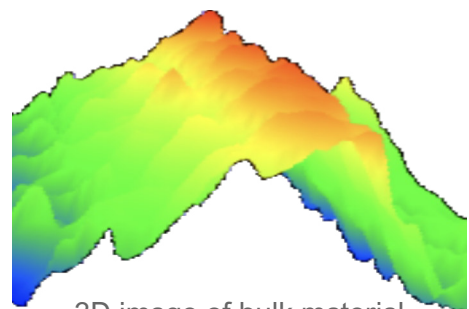
Smart Bulk Solids Flow Meter

This FLO-3D II optical belt scale is an easy-to-install alternative to a belt scale, especially for lightly loaded belts, vibratory or bucket conveyors. The volume flow meter is ideal for e.g. internal control applications, food, RDF, waste and much more.

The EmWeA FLO-3D II sensor is mounted above the conveyor. The integrated 3D camera continuously takes three-dimensional images of the bulk material. The profile of the empty conveyor is „taught" with the help of a zeroing function.

The internal display of the FLO-3D II sensor shows the current volume flow in m³/h. t/h can also be displayed if the bulk density of the measured material is constant. Binary inputs and outputs, an analog output, and Ethernet enable connection to your PLC.

Advantages:

- Robust design
- Easy installation and commissioning
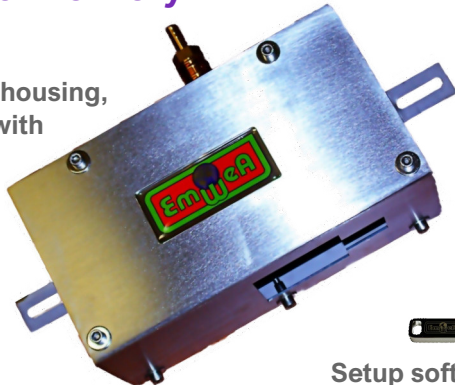- Inexpensive
- Low maintenancee
- Dust protection housing

3D image of bulk material

OPTICAL BELT SCALE FLO-3D II

Typical Scope of Delivery

Dust protection housing, stainless steel, with purge air connection.

Junction box 100 ... 240 V AC including power pack, terminal strips for inputs and outputs, Ethernet socket. Protection: IP65

Setup software and documentation.

10m pre-assembled cables to the sensor.

FLO-3D Sensor II. Protection: IP 67.

1.5m Ethernet cable for connection to PC during setup.

Technical Specifications

Sensor display:
8 LEDs, yellow/green
Four digit numeric display

Supply voltage:
100 ... 240 V AC ±10 %; 47 ... 64 Hz

Ambient temperature:
-10 °C ... +50 °C
Optional 0 °C ... +70 °C

Housing material:
Sensor body: Die-cast aluminum
Optics window: PMMA
Display window: PC
Dust protection housing: Stainless steel
Junction box: PC

Sensor connections:
M12 plug-in connectors IP 67

Junction box connections:
Terminal strips
RJ45 for PC connection

Degree of protection:
Sensor: IP 67
Junction box: IP 65

Inputs:
2 binary (24 V PNP) for belt stop and product change

Outputs:
1 analogue (4-20 mA or 0-10 V) and 1 binary (24 V PNP), or
2 binary (24 V PNP); selectable

Binary output functions:
Counting pulses
Min. threshold
Max. threshold

Analogue output functions:
Volume flow rate (m³/h)
Mass flow rate (t/h, at constant bulk density)

Ethernet port:
PC setup software*
Data transfer

* A Windows® PC is required to set up the optical belt scale. No PC is required for normal operation.