SENSORS.NL

Litronic-FMS planar sensor P78-E22 ⟨Ex⟩
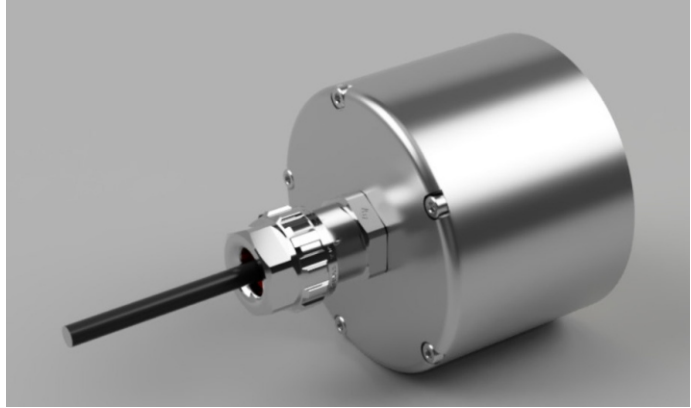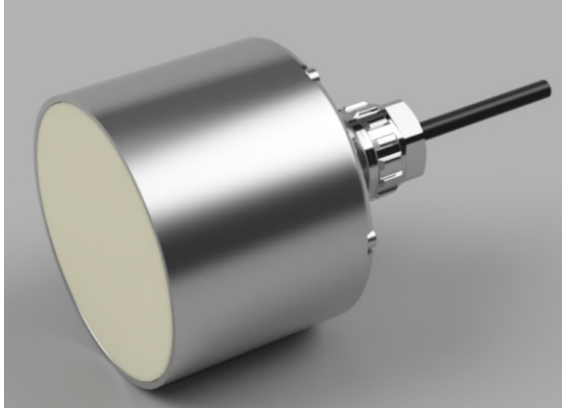
Basic Data

Suitable for use in potentially explosive atmospheres	3D - Zone 22
Physical principle:	Capacity determination with high-frequency stray field
Measured frequency:	16 - 22 MHz
Sensor location:	Outside silo via deflector, on conveyor belt with sliding shoe, pipes, worm conveyor, tanks, …
Measuring range:	0 – 100 % moisture content (measuring window adjustable)
Capacitance resolution:	10 fF
Cycle of up-date:	32,64 ms
Sampling rate for average calculation:	16 - 22 10^6
Max. measuring accuracy of moisture with optimal material specific calibration, mean value with ideal material flow, with Litronic-FMS II Interchange and evaluation unit / PC-software:	+/- 0,05 % moisture content
Measuring value transmission method:	digital: RS-485, Multi-processor protocol
Max. Number of sensors at the bus:	16
Max. cable length:	1200 m
Power supply:	8..30V, 0.4 VA
Measuring range of temperature::	-10 - 90 °C
Measuring accuracy - temperature measurement:	+/- 0,5 °C
Working ambient temperature:	5 - 72 °C
Working temperature electronics:	-20 - 80 °C

Temporary Technical Data
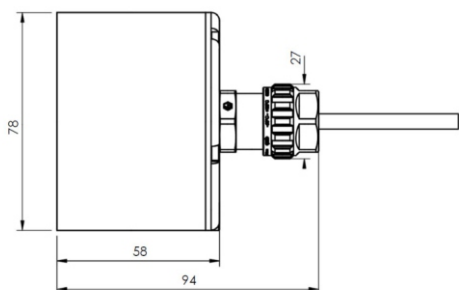Version 2

Storing temperature:	-25 - 80 °C
Protection class:	IP68
Connecting cable type / length	Multispeed 500-C PUR UL/CSA 7G0,5mm2 (20AWG) black, 6 m
Material wear protection:	Zirkon oxide ($ZrO_2Al_2O_3$)
Material shell / flange:	V4A 1.4404 (Option: 1.4571)
Dimension: Ø / height:	78 / 94 mm
Weight without cable:	0,900 kg
Weight clamping flange:	0,300 kg
Type examination certificate	in the approval process
Ex-identification	⟨Ex⟩ II 3D Ex Tc IP6x T120°C Dc

X   Please take care on following special conditions of use!

☐   For the power supply of the sensor use only a power supply for the relevant device category.

☐   The cable can only be installed movable if the ambient temperature around is between 5 °C and 70 °C.

☐   If the cable has to be connected within the potentially explosive area, the cable must have a minimum protection class of IP-6x or another accepted type of protection for that area.

☐   The allowed ambient temperature is between -20 °C and + 80 °C.

Dimensional drawing:

Assembly / Master gauge: