

Technical Data

Litronic-FMS II Planarsensor P78-E



Basic Data

Suitable for use in potentially explosive atmospheres	Dust – Zone 22
Physical principle	Capacity determination with high-frequency stray field
Sensor location	Outside silo, in silo, via deflector, on conveyor belt with sliding shoe, pipes, worm conveyor
Measured frequency	16 – 22 MHz
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 – 30 V, 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
Storing temperature	-25 – 80 °C
Protection class	IP68
Connecting cable type / length	LAPP UNITRONIC® ROBUST C 7x0,14 shielded / 6 m
Material wear protection	Zircon oxide (ZrO ₂ Al ₂ O ₃)
Material shell / flange	Steel Grade 1.4404 (Option: 1.4571)

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Dimension: Ø / height / height with cable connection

78 / 53 / 73 mm

Weight without cable

0,900 kg


Weight clamping flange

0,300 kg

Ex-protection

2014/34/EU ZELM 06 ATEX 3320X

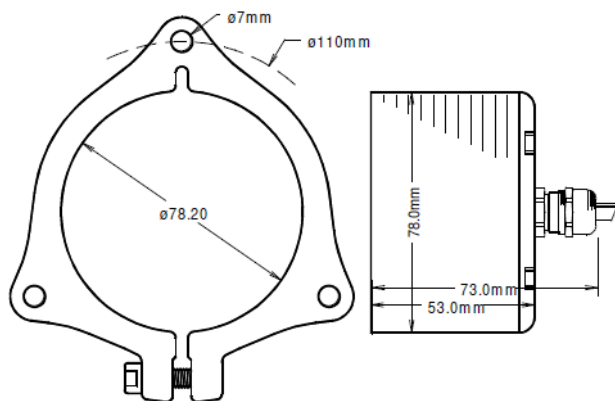
Ex-identification

 II 3D Ex tD A22 IP6x T85°C Dc

X Please take care on following special conditions of use!

- For energy supply for the sensor use only our power pack PH15-2406 (Id.No.10030513) or WAGO 787-1002 (Id.No.1116 9330).
- The cable can only be installed movable if the ambient temperature around the cable is over 5°C
- The connection of cable after installation have to show a protection of minimal IP-6x or another accepted protection for this area (if the installation is inside the explosion-danger-area)
- The allowed ambient temperature is between -20 °C and +80 °C

Assembly:



Master Gauge:

