Hydronix

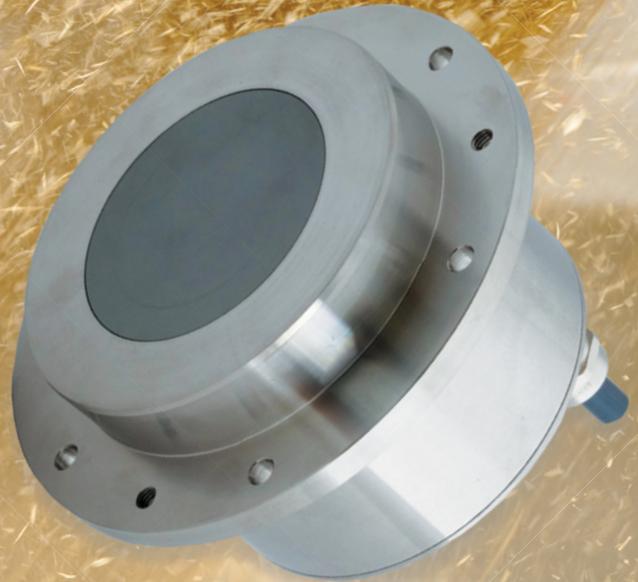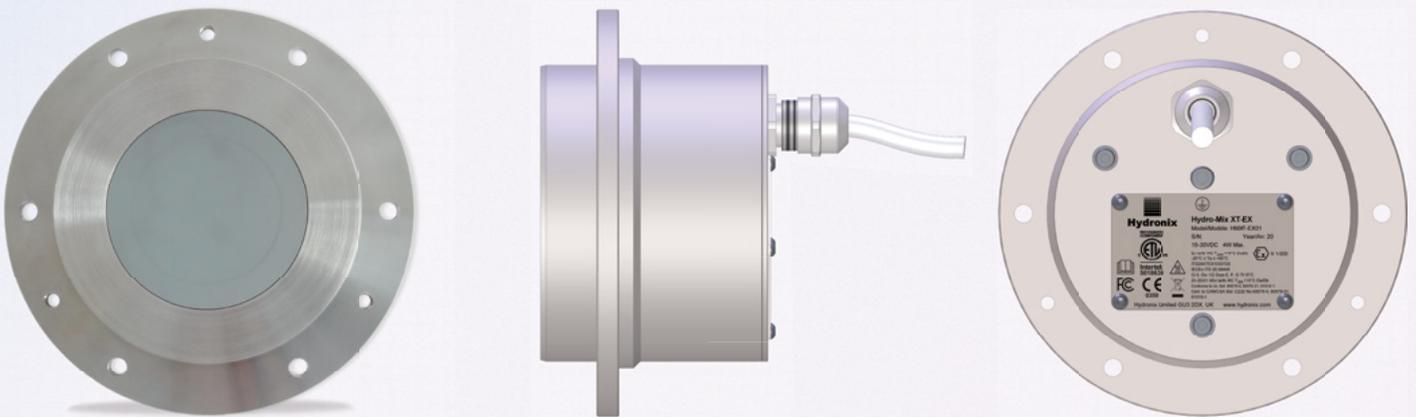# Hydro-Mix XT-EX

GRAIN · FEED · NUTS · GRANULES · LIQUIDS

Hydro-Mix XT-EX

*Flush mount, digital microwave moisture sensor
for installation into explosive dust environments*

The Hydro-Mix XT-EX has been designed to measure moisture in flowing bulk solids such as animal feed, grain, rice, pulses and also in liquids. The sensor can be easily installed in ducting, conveying and mixing systems. It is suitable for Zone 20 process environments (Zone 21 external to process).

Comprising a single, intelligent unit that contains all on-board functionality including signal processing and averaging, the Hydro-Mix XT-EX precisely measures the moisture content of material passing over the ceramic faceplate. Remote configuration, calibration, diagnostics and firmware upgrades are simple using Hydronix Hydro-Com software. The linear output allows direct integration with any control system using industry standard interfaces.
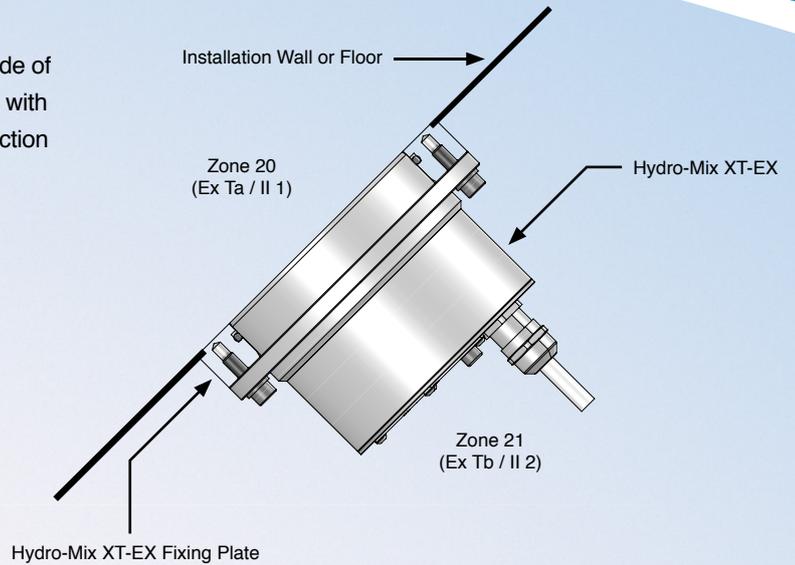
Features

- Compact, self-contained unit

- Fixing Plate seal enables installation in dusty or liquid processes or applications.

- Certified for installation in Zone 20/21, Class II Div 1/2 environments

- Digital measurement technology provides precise linear moisture measurement with 25 readings per second.

- Advanced Digital Signal Processing provides a clear signal with rapid response.

- Fully temperature compensated measurement.

- Two analogue outputs, digital RS485 communications and configurable digital inputs/output, alarms.

- Remote communication with Hydro-Com software allows configuration of all sensor parameters.

- Consistent performance with no need for recalibration for the same material.
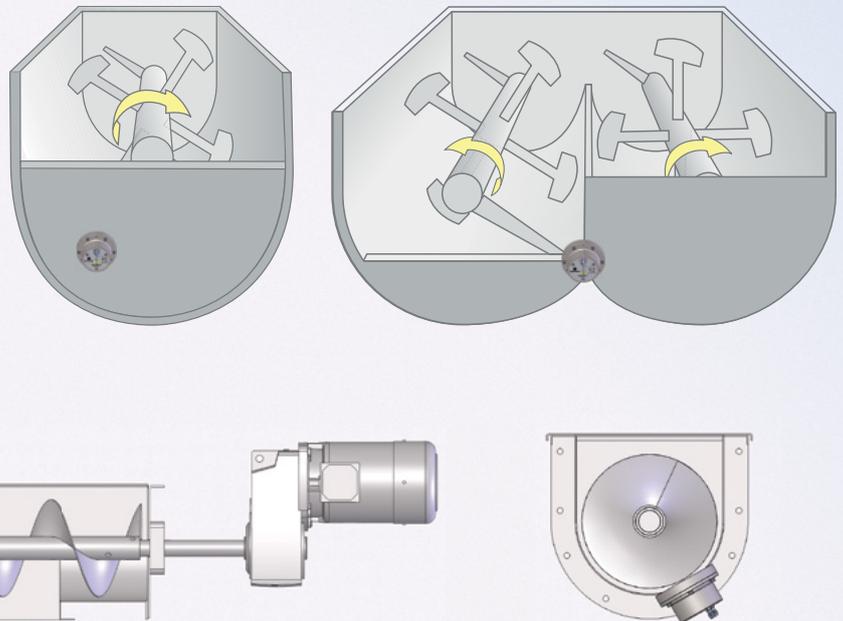
Installation

The electrical cable of this sensor has to be terminated outside of the protected area or within a suitable housing that complies with the relevant protection zone. All connections within the protection zone must be made with the power supply isolated.

Installation Wall or Floor

Zone 20
(Ex Ta / II 1)

Hydro-Mix XT-EX

Zone 21
(Ex Tb / II 2)

Hydro-Mix XT-EX Fixing Plate

Typical Installation into Mixers, Conveyors and Dryer Outlets

The Hydro-Mix XT-EX can be mounted in many different locations where there is a continuous flow of material across the ceramic faceplate. These include hoppers, ducting, conveyors and mixer systems.
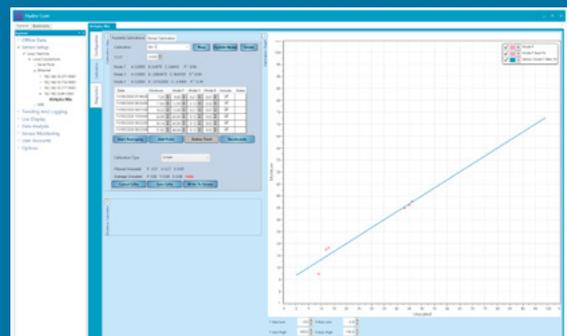
Display and Control Options

Hydronix has a range of display and control options.

20.49
21.31
19.4
100.0

Configure and Calibrate

Easily configure & calibrate the sensor using Hydro-Com Software.

hydronix.com

Technical Information

Construction
Body: 316 Stainless Steel.
Faceplate: Ceramic.
Internal Seals: EPDM FDA Approved O-Rings.
Fixing Plate O-Ring: EPDM FDA Approved

Fixing
The sensor is flush mounted with the internal wall of the installation using the included mounting assembly.

Measurement Range
Moisture: 0-100%, material dependant.
Depth: Approx. 75-100mm, material dependant.

Measurement Modes
Choice of modes for optimising sensor performance

Temperature
Operating temperature range: -20-60°C
Moisture detection range: 0-60°C

Refresh Rate
25 times per second

Analogue Outputs
Two configurable 4-20mA or 0-20mA current loop source available for moisture and temperature. May also be converted to 0-10V DC.

Digital Inputs/Output
Two configurable digital signals available for averaging and alarm functions.

Digital (Serial) Communication
Opto-Isolated RS485 2-wire port.
RS232, Ethernet and USB converters available.
Programming details to access sensor values and parameters are available on request.

Environmental
Pressure: 1 Bar Vacuum to 5 Bar pressure.
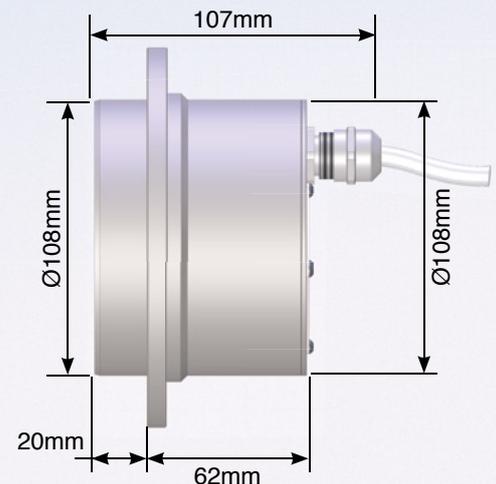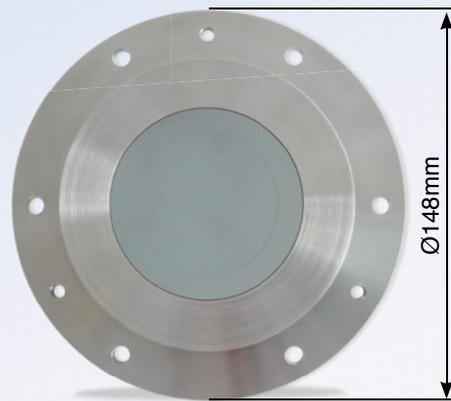Protection: Cable Gland IP68.

Integrated Cable
4m, six twisted pairs, 22AWG, 0.35mm² conductors. Screen braid with 65% minimum coverage plus aluminium/polyester foil. Maximum recommended cable run of 100m.

Power Supply
+15V to +30V DC, 4W.

Ratings
ATEX: Ex II 1/2D
IECEx: Zn 20/21 AEx ta/tb IIIC T_{200} 115°C Da/Db
ETL: Cl II, Div 1/2Grps E, F, G T115°C

Part Number	Description
HMXT-EX01	Hydro-Mix XT-EX Digital Microwave Moisture Sensor
HSXT01	Hydro-Skid fixed plate for mounting HMXT on flowing material on a belt conveyor
5010	HMXT Fixing Plate Kit (Fixing Plate, Bolts and O-Ring), required
5015	HMXT Fixing Plate (includes Fixing Plate Bolts)
5020	HMXT Fixing Plate O-Ring
5025	HMXT Fixing Plate Bolts
5030	HMXT Blanking Plug – used to create a seal if HMXT is removed
0116	Power Supply 30 Watt for up to 4 sensors
0049A	RS232-485 Converter - DIN rail mounting
0049B	RS232-485 Converter - 9 pin D-type to terminal block
SIMxx	USB Sensor Interface Module including cables and power supply
EAK01	Ethernet Adapter Kit
EPK01	Ethernet Power Kit
HMXTEXEW	4 Year extended warranty option

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