

Hydronix

Hydro-Mix XT-EX

Digital Microwave Moisture Sensor for
Hazardous Dust Environments



RECOGNIZED
COMPONENT



Intertek



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.

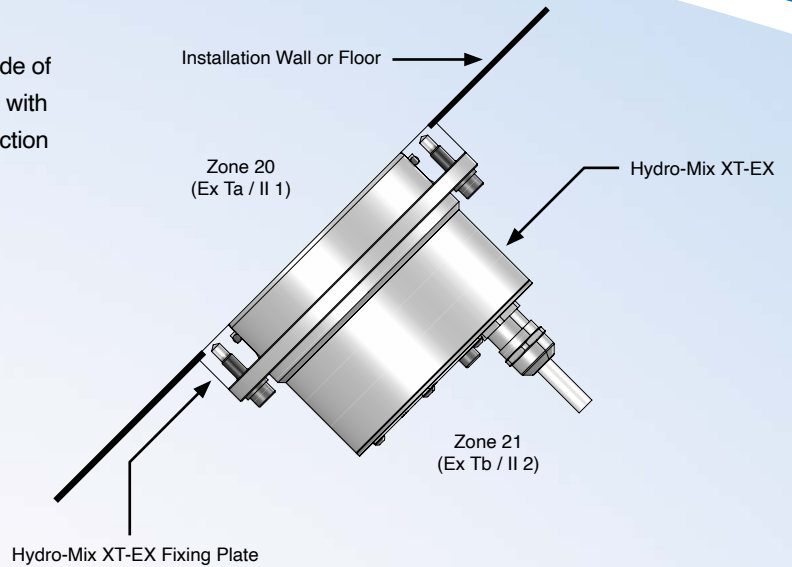


Features

- 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.

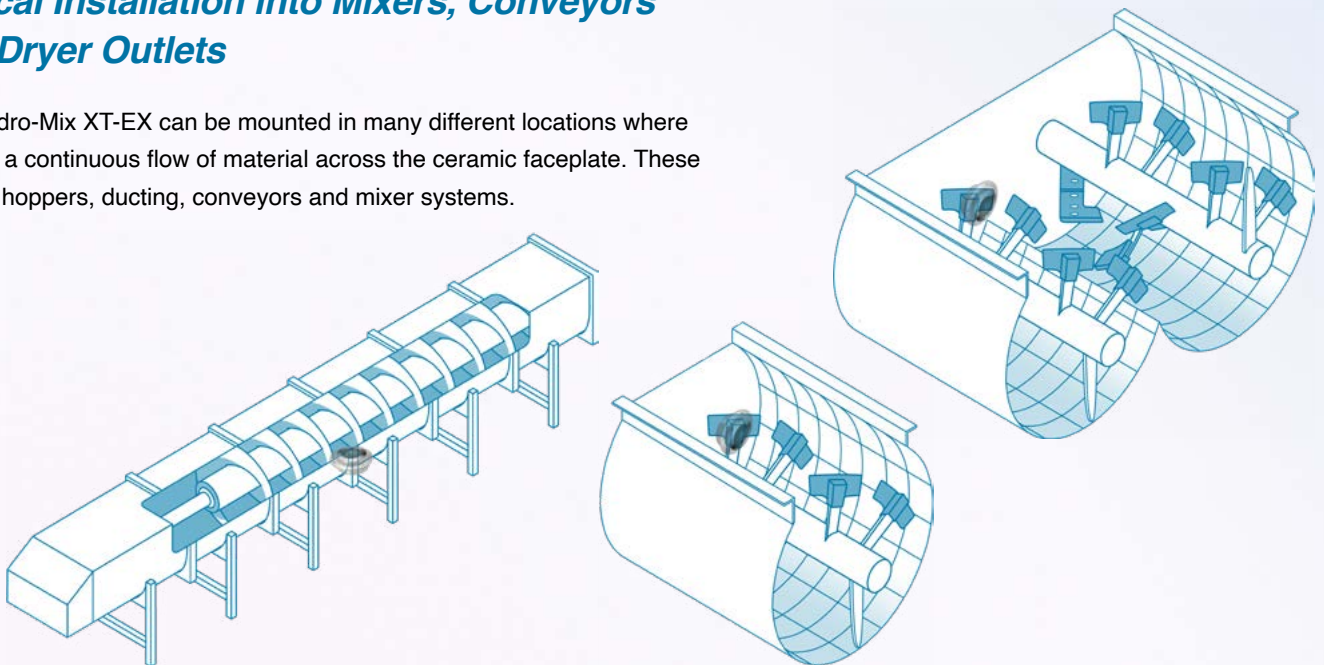
Installation

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.



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.



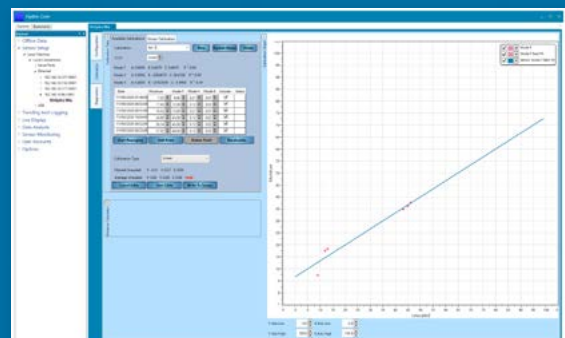
Display and Control Options

Hydronix has a range of display and control options.



Configure and Calibrate

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



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

Connectivity: Native to sensor

Two Analogue Outputs 4-20mA / 0-20mA (0-10V).
Two configurable Digital I/O.
Modbus.
Opto-Isolated RS485 2-wire port.

Connectivity: Through Hydro-Hub/Hydro-View

Ethernet/IP
PROFINET
PROFIBUS
Web API

Connectivity: Other Interfaces

RS232
Ethernet (TCP/IP)
USB

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 T₂₀₀ 115°C Da/Db
ETL: Cl II, Div 1/2Grps E, F, G T115°C



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hydronix.com

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
HMXTXEW	4 Year extended warranty option