



Digital Microwave Moisture Sensor  
for Food Safe Applications

# Hydro-Mix XT-FS



GRAINS · SEEDS · CEREALS · NUTS · PULSES · OILS



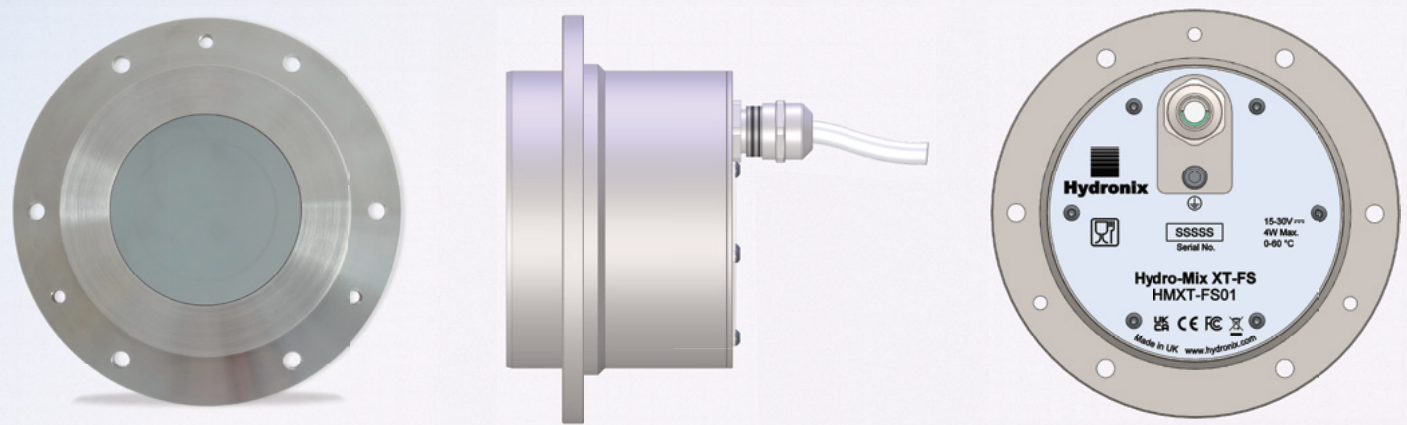
# Hydro-Mix XT-FS

## *Flush mount, food safe digital microwave moisture sensor*

The Hydro-Mix XT-FS has been designed to measure moisture in flowing material where there is a food safe requirement. The sensor is compliant with the requirements of EN 1935/2004 and can easily be installed in ducting, conveying and mixing systems in process control environments.

Comprising a single, intelligent unit that contains all on-board functionality including signal processing and averaging, the Hydro-Mix XT-FS accurately 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.

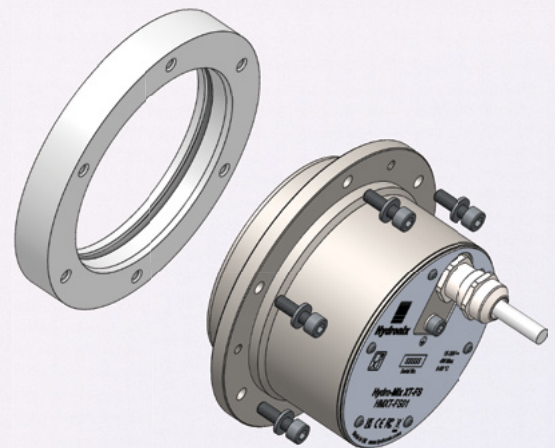


## **Features**

- EN1935/2004 Compliant
- Compact, self-contained unit
- Fixing Plate seal enables installation in dusty or liquid processes or applications
- 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.

## **Mixer / Conveyor Installation**

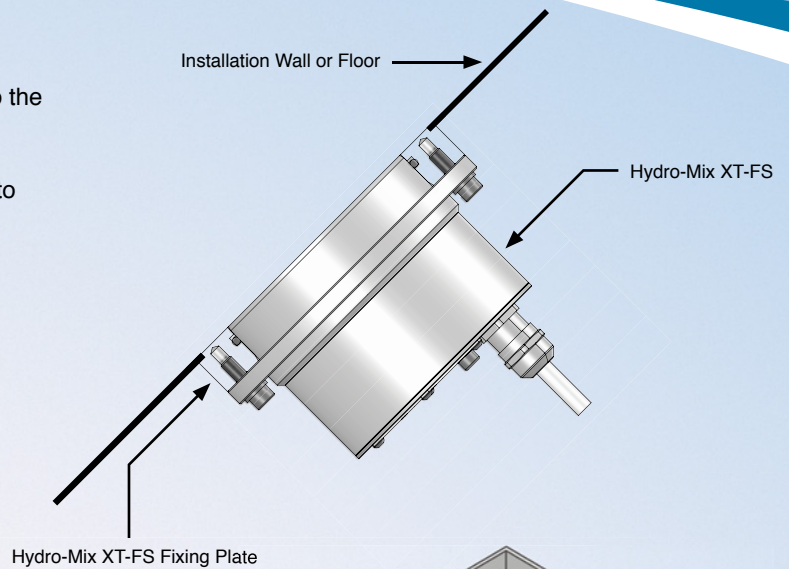
Fixing Plate for simple installation.



## Installation

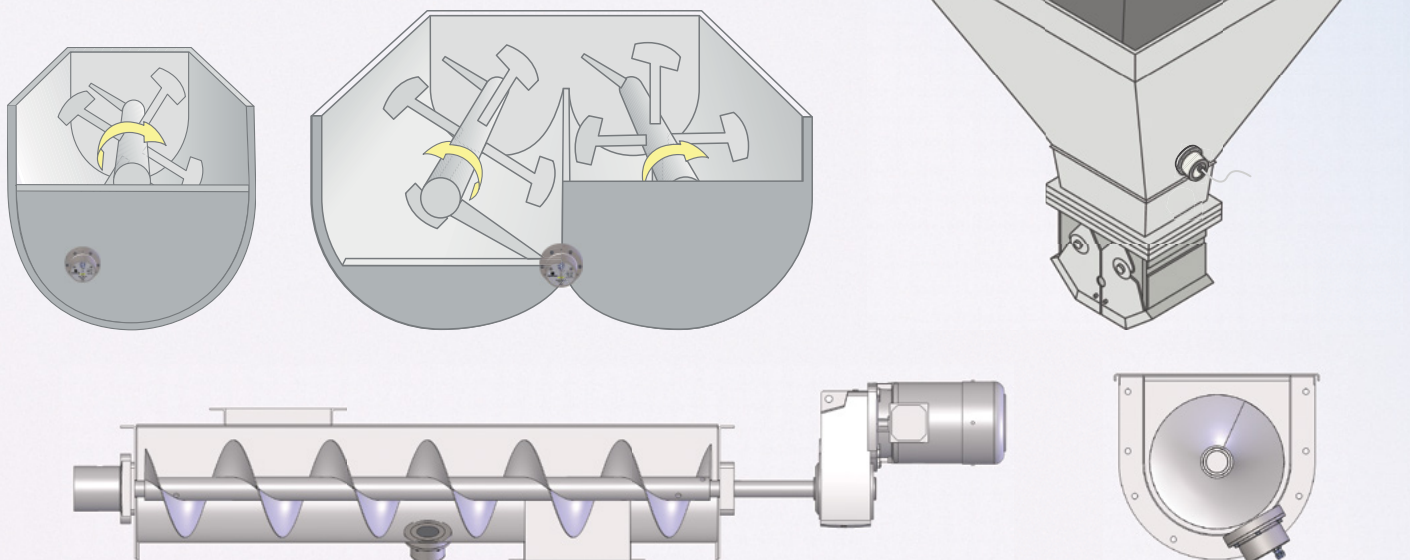
The sensor has a flange mounting to allow installation onto the fixing plate and seals with an O-Ring.

The sensor has an integrated 4m cable which is prepared to terminate in a junction box or other suitable panel.



## Installation into Hoppers, Mixers or Conveyors

The Hydro-Mix XT-FS 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.



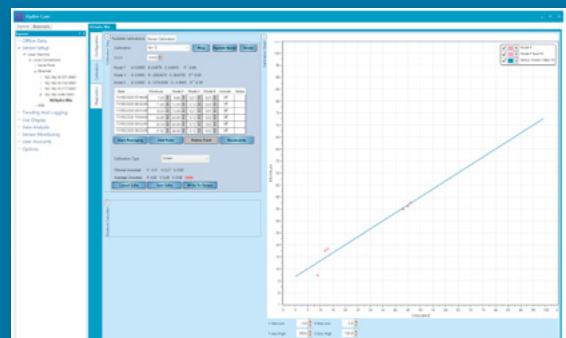
## Display and Control Options

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 and EN1935/2004 Compliant.

Internal Seals:

EN1935/2004 and EPDM FDA Approved O-Rings

Fixing Plate O-Ring:

EN1935/2004 and 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

Modbus.

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 IP69.

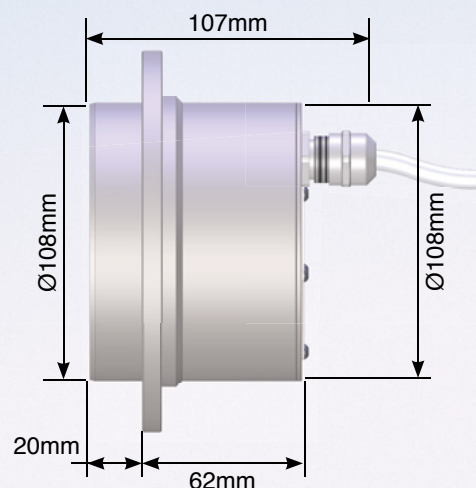
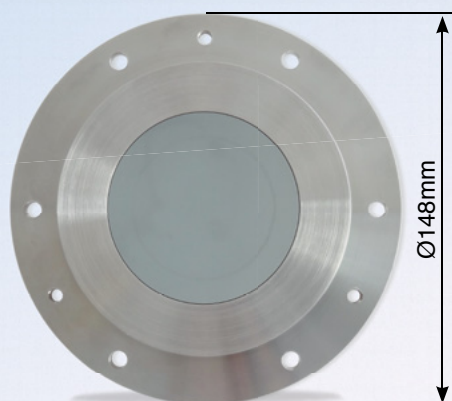
## Integrated Cable

4m, six twisted pairs, 22AWG, 0.35mm<sup>2</sup> conductors.

Screen braid with 65% minimum coverage plus aluminium/polyester foil. Maximum recommended cable run of 100m.

## Power Supply

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



# Hydronix

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[hydronix.com](http://hydronix.com)

Part Number	Description
HMXT-FS01	Hydro-Mix XT-FS Digital Microwave Moisture Sensor
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
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
HMXTFSEW	4 Year extended warranty option