

Moisture Sensor FHA 696 MF



- Moisture sensor for determination of the moisture content in mineral construction materials, wood and cardboard.
- Indirect measurement of the moisture through the determination of the dielectric constant.
- Capacity measurement through a high frequency electromagnetic field, which penetrates the material in a non-destructive way.

Technical Data

Measuring method:	capacitive	Measuring comb:	stainless spring steel 0.5mm, 70 x 35mm
Resolution:	0.1%	Weight:	260g
Measuring range (moisture):	0 to 50% moisture, referenced to mass	Nominal temperature:	15 to 25°C
Measuring range (material):		Operative range:	0 to +60°C
mineral construction materials	0 to 20%, moisture	Storage temperature:	-20 to +80°C
woods	0 to 50%, moisture	Signal output:	0 to 2V
paper and cardboard	0 to 20% moisture	Power supply:	+8 to +12V
Housing:	plastic handle with integrated electronics 40mm Ø, 130mm long	Current consumption	approx. 7 mA
Terminal block:	aluminium/plastic 20 x 25 x 70mm		

Accessories

	Order no.
Test block for min. construct. materials	ZB9696PE05
Test block for wood, paper, cardboard	ZB9696PE30

Type

	Order no.
Moisture sensor	FHA696MF

Wood moisture probe FHA 636 MF Hand-held probe for mobile test measurements



- Moisture sensor for determination of the moisture content in wood.
- Indirect moisture measurement according to the principle of conductivity.
- Determination of the moisture content in the material through the dependence of the electrical resistance on the moisture.

Technical Data

Measuring method:	principle of conductivity	Reproducibility:	± 1%
Measuring range:	7 to 30 % moisture, referenced to mass	Nominal temperature:	23°C ±2°C
Housing:	plastic handle 40mm Ø, 130mm long	Operating temperature:	0 to +60°C
Measuring tips:	stainless steel, uninsulated 3mm Ø, 50mm long	Storage temperature:	-20 to +80°C
Weight:	260g	Signal output:	0 to 2V
		Power supply:	7.5 to +12V
		Current consumption	max. 10 mA

Accessories

	Order no.
PTFE-insulated measuring tip - helps avoid measuring errors in the event of surface moisture, 1 piece (2 pieces are needed per probe)	ZB9636MFST

Type

	Order no.
Wood moisture probe	FHA636MF

Moisture in materials

Moisture content sensor - for wood, for stationary measuring operations FHA696MFS1 Capacitive sensor for applying onto the wood's surface



- Moisture content sensor for comparative measurement of moisture in wood materials
- The capacitive sensor with the measuring electronics is completely integrated in the damp-proof sensor housing. Plug-in ALMEMO® connecting cable
- This device is designed for stationary installation and long-term monitoring e.g. of wooden parts of buildings, roof structures (with laminated beams).
- It is also suitable for data logger operation in energy-saving sleep mode (intermittent mode).
- The sensor housing is quick and easy to install on the wooden surface in question.
- The material's moisture content is measured indirectly by determining its dielectric constant, which is moisture-dependent (but not temperature-dependent).
- Its capacity is measured via a high-frequency electrical field which penetrates the wood without destroying it.
- The ALMEMO® device acquires the material's moisture content based on the linearization curve stored in the ALMEMO® plug.
- This measuring operation can be performed using any current ALMEMO® device (version 6 and above).

06/2018 • We reserve the right to make technical changes.

Technical Data

Measuring method	capacitive	Housing	Plastic 51 x 53 x 36 mm (LxWxH)
Measuring range	0 to 50 % moisture percentage in wood with respect to total mass (at 23 °C)	Signal connection	Built-in plug
Resolution	0.1 % moisture content	Protection	Housing and plug connection IP64
Reproducibility	±1 % moisture content	ALMEMO® connecting cable	Coupling, PVC cable, 5 meters
Nominal temperature	23 °C ±2 K	ALMEMO® plug	Linearization for wood, stored in the ALMEMO® plug (for ALMEMO® devices version 6 and above)
Suitable conditions	0 to +80 °C Air humidity 0 to 90 % RH (no dew formation, no ice)	Supply voltage	via ALMEMO® plug (5 V)
Storage temperature	-20 to +80 °C	Current consumption	approx. 7 mA

Variants

Moisture content sensor for wood, sensor integrated in the sensor housing, with built-in plug, connecting cable 5 meters, ALMEMO® plug for current ALMEMO® devices, version 6 and above

Order no.

FHA696MFS1

Moisture content sensor - for wood, for stationary measuring operations **FHA636MFS1** Conductivity measurement with measuring tips that can be screwed into the wood Sensor with integrated temperature sensor for automatic temperature compensation



- Moisture content sensor for comparative measurement of moisture in wood materials
- Two hanger bolts are screwed into the wood surface and connected via measuring lines to the measuring electronics in the damp-proof sensor housing.
- The sensor housing with the integrated temperature sensor is also fixed in position on the wood surface.
- Plug-in ALMEMO® connecting cable
- This device is designed for stationary installation and long-term monitoring e.g. of wooden parts of buildings, roof structures (with laminated beams).
- Data logger operation in sleep mode (intermittent mode) is required in order to protect the wood from salinization or drying out.
- The material's moisture content is measured indirectly by determining its electrical conductivity, which is moisture-dependent.
- It is also temperature-dependent. However, the displayed moisture value is automatically temperature-compensated by means of an integrated temperature sensor.
- The ALMEMO® device acquires the material's moisture content based on the linearization curve stored in the ALMEMO® plug.
- This measuring operation can be performed using any current ALMEMO® device (version 6 and above).

Technical Data

Measuring method	Electrical conductivity	Measuring lines	2 lines, PTFE-insulated, length = 0.5 meters with circular cable lugs 4 mm
Measuring range	5 to 50 % moisture percentage in wood with respect to total mass (at 23 °C)	Measuring tips	2 stainless-steel M4 hanger bolts Total length = 60 mm including 4 stainless-steel nuts, 4 stainless-steel lock washers
Resolution	0.2 % moisture content	Clearance	2.5 cm at right angles to the grain
Reproducibility	±1 % moisture content	Signal connection	Built-in plug
Nominal temperature	23 °C ±2 K	Protection	Housing, including connectors IP63
Temperature sensor	NTC, integrated in sensor housing	ALMEMO® connecting cable	Coupling, PVC cable, 5 meters
Temperature compensation	in range 0 to +80 °C	ALMEMO® plug	Linearization for wood, stored in the ALMEMO® plug (for ALMEMO® devices version 6 and above)
Suitable conditions	0 to +80 °C Air humidity 0 to 90 % RH (no dew formation, no ice)	Supply voltage	via ALMEMO® plug (5 V)
Storage temperature	-20 to +80 °C	Current consumption	approx. 5 mA
Housing	Plastic 51 x 53 x 36 mm (LxWxH)		
Measuring connection	2 built-in sockets, 4 mm, with transverse hole		

Variants

Moisture content sensor for wood, with measuring tips, measuring line, sensor housing, connecting cable, 5 meters ALMEMO® plug, for current ALMEMO® devices, version 6 and above

Order no.

FHA636MFS1

Water Detection Probe FHA 936 WD



- Water detection probe for instant detection of uncombined water.
- Particularly suitable for construction applications, especially in locations that are difficult to check visually, e.g. at sealing joints, under cement floors etc.
- Indirect moisture measurement according to the principle of conductivity.
- Probe with two collets for easy electrode replacements.
- Electrodes in three different designs for matching any required application.

Technical Data

Measuring method:	detection of water	Weight:	260g
Meas. values:	<10% no water >10% water	Nominal temperature:	23°C ±2°C
Housing:	plastic handle 40mm Ø, 130mm long	Operating temperature:	0 to +60°C
Electrodes:	stainless steel	Storage temperature:	-20 to +80°C
Electrode types:	uninsulated with rounded tip: 200mm long, 3mm Ø uninsulated with sharp-edged tip: 50mm long, 3mm Ø spring steel strap: 200mm long, 6mm wide, 0.5mm high	Signal output:	ALMEMO® (approx. 0 to 2V)
		Power supply:	7.5 to 15V
		Current consumption	max. 10 mA

Type

Water detection probe

Order no.

FHA936WD