

Product overview

Duct sensor for measuring relative humidity and temperature in gaseous media of heating, cooling and air-conditioning systems (e.g. in fresh air / exhaust air ducts). Designed for locking on control and display systems. Additionally, the device can be supplied with a passive temperature sensor e.g. PT100, PT1000, NTC10k etc.



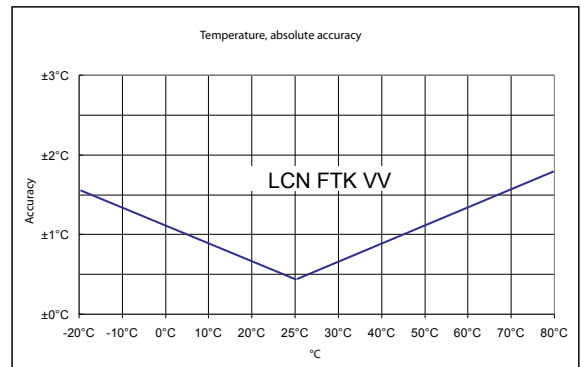
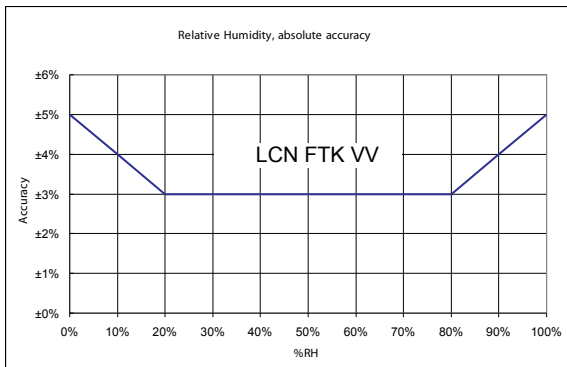
Types available

Type code	Type	Description
EXT-TN-1072358	LCN-FTK140VS PT1000	Duct sensor 140mm, 0...10V for humidity, PT1000
EXT-TN-1072334	LCN-FTK140VS NTC10k	Duct sensor 140mm, 0...10V for humidity, NTC10k
EXT-TN-1072341	LCN-FTK140VS NTC10kPRE	Duct sensor 140mm, 0...10V for humidity, NTC10k Precon
EXT-TN-1071283	LCN-FTK140VV	Duct sensor 140mm, 2x 0...10V for humidity and temperature
EXT-TN-1071290	LCN-FTK270VV	Duct sensor 270mm, 2x 0...10V for humidity and temperature

Technical data

Standards	CE conformity	- 2004/108/EG Electromagnetic compatibility - 2001/95/EG Product safety
	EN conformity	- EN60730-1:2002 EMC - EN60730-1:2002 Product safety
General data	Power supply	DC 15-24V / AC 24V(±10%)
	Power consumption	Typical 0.5W / 1.7VA
	Measuring range	Humidity : 0...100% RH Temperature: -20...+80°C
	Output	Humidity : DC 0...10V, load min. 5kΩ Temperature : DC 0...10V, load min. 5kΩ (Optional type VS: resistance NTC/PTC, depending on sensor choosed)
	Clamps	Terminal screw max. 1.5mm ²
	Mounting length L	140mm / 270mm
	Sensor pipe	Material PA6, colour black
	Filter element	Material stainless-steel, mesh size 80µm
	Connection head	Material PA6, colour white
	Protection	Connection head IP65
	Cable entry	Single entry M16 for cable max. D=8mm
	Ambient temperature	-20...+70°C
	Weight	120g

Accuracy



Security advice

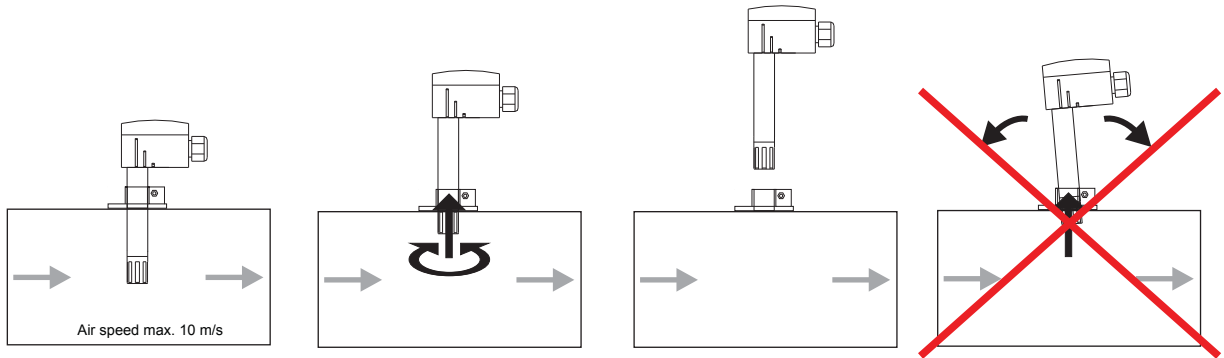
The installation and assembly of electrical equipment may only be performed by a skilled electrician. The modules must not be used with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people or animals.

Electrical connection

The devices are constructed for the operation of protective low voltage (SELV). For the electrical connection, the technical data of the corresponding device are valid. Sensing devices with transducer should in principle be operated in the middle of the measuring range to avoid deviations at the measuring end points. The ambient temperature of the transducer electronics should be kept constant. The transducers must be operated at a constant supply voltage ($\pm 0.2V$). When switching the supply voltage on/off, power surges must be avoided on site.

Mounting advice

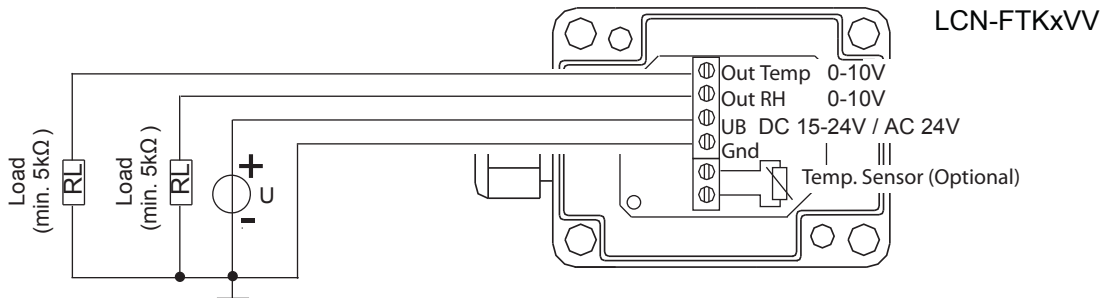
The sensor is directly mounted to the ventilation duct by means of a mounting flange or by screws.



Application notice

Due to air circulation dirt and dust particles can be piled up in the course of time on the internal filter which is protecting the sensor. Thus, the function of the sensor can be affected. After having dismantled the filter, this can be cleaned by blowing it out with oil-free and filtered compressed air, super-clean air or nitrogen or by washing it out with distilled water. If the filter is too dirty, this should be replaced. Refrain from touching the sensitive humidity sensor. Any tampering will result in an expiration of the warranty. With normal environmental conditions we recommend a recalibration interval of around 1 year to maintain the indicated accuracy. At high ambient temperatures and high humidity, or when using the sensor in aggressive gases, an early recalibration or a change of the humidity sensor can become necessary. Such a recalibration or a probable sensor change do not come under the general warranty.

Terminal connection plan



Dimensions (mm)

