

# Monitoring station

**osmos**

## Description

A specially developed signal processing unit is used for measuring, evaluating and displaying signals from the OSMOS fiber-optic sensors. It has a modular design and consists of two components: master and slave. The slave registers measurement values from the sensors, while the master processes and displays signals and performs communications with peripheral devices. Up to four OSMOS fiber-optic sensors, four temperature sensors and four analog signal transducers can be connected to a slave. Up to five slaves can be connected to a master via a bus (RS 485). Up to four masters can be networked together, thus allowing a measurement and evaluation of up to 20 slaves with a total of 80 fiber-optic sensors, 80 temperature sensors and 80 additional sensors for variables such as pressure, humidity, wind and inclination.



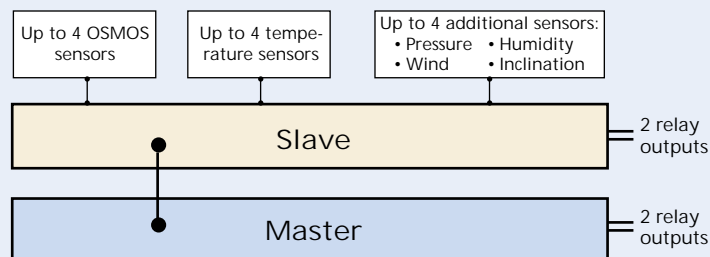
Monitoring station in a cabinet.



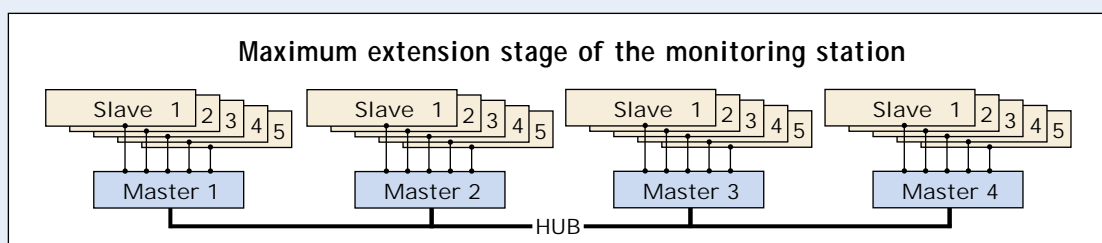
Monitoring station, wired.

## Applications

### Minimum configuration of the monitoring station



### Maximum extension stage of the monitoring station



# Technical specifications

## Master and Slave

Ambient temperature:	-40°C to +60°C
Service life:	> 10 years
Emergency power supply:	24 V, 1.6 A, with charge control for an external battery
Specification:	EN61010
Housing:	19" plug-in module, one rack unit

## Master

Operating voltage:	100 V to 260 V AC or 24 V DC, 30 W power consumption
Outputs:	24 V, 1.6 A for a slave 10/100 Base T Ethernet interface RS 232 serial interface Analog modem 2 relays, 24 V, 0.1 A changeover
Signal processing:	Connection of up to five slaves Dynamic average values, 10 ms to 1 s interval, configurable Toroidal-core memory for 300 dynamic average values, 3 s to 300 s Static average values, 100 s to 86,400 s (1 day), configurable
Alarms:	Dynamic ( $\Delta I/\Delta T$ ), static with 4 thresholds, configurable Information supply locally via a relay or externally via e-mail, SMS, fax, SNMP trap, configurable
Storage:	Dynamic average values if required, or transgression of threshold values Static average values as standard
Display:	Dashboard, X-Y graph, polar graph, table
Communications:	With up to 3 further masters and 5 slaves http, telnet, SNMP, SMTP, FTP, TCP/IP, PPP, SMS, Fax
Disc storage capacity:	20 GB - During dynamic measurements + Master's maximum extension sufficient for 10 days. - During static measurements ( 1 value / hour)+ Master's maximum extension sufficient for 9500 years.

## Slave

Operating voltage:	24 V DC, 1.6 A
Inputs:	4 fiber-optic sensors, 2 to 39 dB, 25 dB dynamics, 0.001 dB resolution, 0.005 dB accuracy, 100 Hz scanning rate 4 temperature sensors, Pt1000, 0.1 °C resolution, $\Delta T$ 0.1 °C accuracy, 0.5 °C absolute, 10 Hz scanning rate 4 voltage inputs for additional sensors, 0 V to 10 V DC, 16 bit resolution, 100 Hz scanning rate
Outputs:	RS 485 interface, 2 relays, 24 V, 0.1 A changeover

## Order

Please fill out the spaces below. Select an underscored letter or value for each of the option fields provided.

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Type: <input type="text"/> M <u>Master</u>	Quantity: <input type="text"/> 1	Type: <input type="text"/> S <u>Slave</u>	Quantity: <input type="text"/> 1
<input type="text"/> with <u>Relais</u>	Type: <input type="text"/> M	<input type="text"/> with <u>Relais</u>	Type: <input type="text"/> S
<input type="text"/> without Relais (Ø)	<input type="text"/> R	<input type="text"/> without Relais (Ø)	<input type="text"/> R