Climate Measurement
and Automated Software Implementation

Klimet A30 - Peak Accuracy
- Highest accuracy in one system
- Air humidity determination with dew point mirror
- 4 Temperature channels – **one** probe 2.5 m included
- Connects to METTLER TOLEDO's mass calibration software

ClimaLog30 - All in One
- ClimaLog30 includes highly accurate air pressure, air humidity and air temperature probes
- DataLog30 with two highly accurate Pt100 sensors for determination of weighing chamber temperature
- Connects to METTLER TOLEDO's mass calibration software

Constant Pressure Solution
- Measure air density accurately within pressure controlled systems
- Reduce influence of air density fluctuation
- Capable of measuring temperature under vacuum

Calibration Certificate
- ClimaLog30 and DataLog30 calibrated by DKD accredited calibration laboratory
- Kliment A30 / A30V calibrated with lowest uncertainties
- Fully traceable measurement accuracy

Climate Measurement Systems –
Efficient and Accurate Solutions

In mass calibration, physical effects significantly influence the measurement accuracy. These buoyancy effects ned to be corrected through calculations based on the density of air and of the measured weights.
The Klimet A30 and the ClimaLog30 systems measure air density at highest accuracy, and data is automatically imported to METTLER TOLEDO's software solutions.

The higher the laboratory and accuracy class, the greater is the influence of the weight density combined with the air density. OIML R 111-1 (chapter 10.2.2) states to measure the weight density under the following conditions: for E1 weights at all times, for class E2 weights if used above 330 m and for other classes when used above 800 m altitude. Measuring air density and weight density with METTLER TOLEDO solutions therefore enables highest accuracy mass determination.

METTLER TOLEDO

Climatic Measurement Systems –
Efficient and Accurate Solutions

To determine air density accurately, air temperature, air pressure and relative air humidity must be known. To measure these parameters, METTLER TOLEDO offers two levels of accuracy to fulfill all requirements.

- With the ClimaLog30 system, air parameters are measured accurately and easily at the calibration location. With the optional DataLog30, two temperature sensors are added to the system, which can be mounted within the weighing chamber of the comparators to allow air density determination.

- With the Klimet A30, the air parameters including up to 4 temperatures are measured with peak accuracy, leading to overall improved weighing uncertainty for OIML E class or scientific measurements. With the vacuum capable Klimet A30V version, air parameters can be tested within a closed system such as the M_one or similar.

Both systems perform fully automatic data reading and storage to a database system for ongoing analysis, or transfer to mass calibration software such as MC Link or a / AX control. With the implementation of software solutions accuracy is improved as the air buoyancy influence is corrected at the time of measurement.
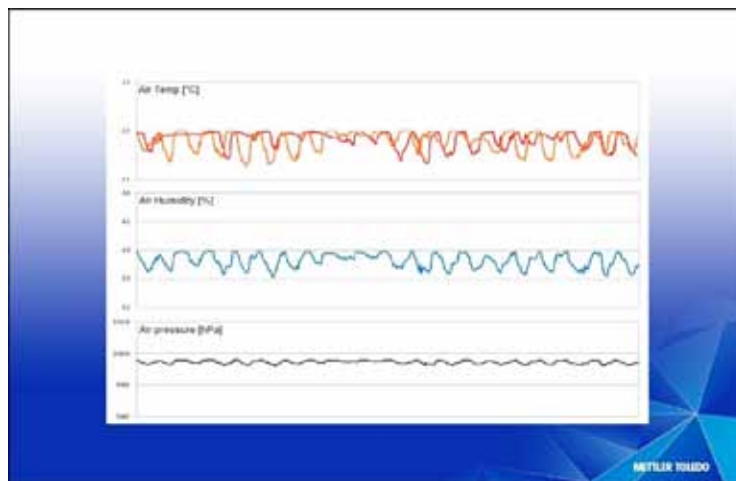
Full integration in mass calibration software enables high data security and efficiency. Air climatic data is retrieved in real time and processed to determine air buoyancy correction, improving weight measurement accuracy as a result.

Technical Data

Model		ClimaLog30	DataLog30	Klimet A30	Klimet A30V
Application range		E1　　　0 .. 330 m E2*　　0 .. 800 m F1 .. M3*　0 .. 2000 m	E1　　　0 .. 330 m E2*　　0 .. 800 m F1 .. M3*　0 .. 2000 m	E1　　　0 .. 2000 m E2*　　0 .. 2000 m F1 .. M3*　0 .. 2000 m	E1　　　0 .. 2000 m E2*　　0 .. 2000 m F1 .. M3*　0 .. 2000 m
Air temperature / Res / Unc	°C	-20 .. 50 / 0.1 / 0.3	-20 .. 50 / 0.1 / 0.3	15 .. 25 / 0.001 / 0.05	15 .. 25 / 0.001 / 0.05
Air pressure / Res / Unc	hPa	300 .. 1300 / 0.1 / 0.5	–	600 .. 1060 / 0.001 / 0.04	600 .. 1060 / 0.001 / 0.04
Dew point temperature / Res / Unc	°C	–	–	0 .. 17 / 0.001 / 0.05	0 .. 17 / 0.001 / 0.05
Relative air humidty / Unc	%	10 .. 95 / 0.5 / 2	–	20 .. 80 / 0.01 / 0.15	20 .. 80 / 0.01 / 0.15
CO_2 content / Res / Unc	ppm	–	–	200 .. 1500 / 0.1 / 50	200 .. 1500 / 0.1 / 50
Calibration		DAKKS (DKD) Accredited laboratory	DAKKS (DKD) Accredited laboratory	Optional	Optional
Power source		100 .. 250 V AC 50..60Hz / USB / Battery	100 .. 250 V AC 50..60Hz / USB / Battery	100 .. 130 V AC 50/60 Hz 200 ..250 V AC 50/60 Hz	100 .. 130 V AC 50/60 Hz 200 ..250 V AC 50/60 Hz
Communication		USB / Ethernet	USB / Ethernet	RS 232	RS 232
Control software		Included	Included	Included	Included
Dimension W x H x D	mm	166 x 78 x 32	166 x 78 x 32 + cables	449 x 133 x 348	Controller: 449 x 133 x 348 Sensor tube: 230 x 300 x 260
Length temperature sensor cable	m	0, bulit in	5	2.5 , 5 & 10 optional	4 and 1

*without weight density determination

Connectivity to METTLER TOLEDO Software

Products	Software	Klimet A30 / A30V	ClimaLog30 / DataLog30
Manual Comparators	MC Link 1.2	Supported	Not supported
Manuals Comparators	MC Link 2	Supported	Supported
Robotic Comparators	a_Control	Supported	Supported
Automated Comparators	AX_Control	Supported	Supported
M_one, M_10	M_Control	Supported	Not supported
VC1005, VC1005X	ComVol	Not supported	Not supported

www.mt.com/comparators

For more information