AUTOMATIC WEATHER STATIONS

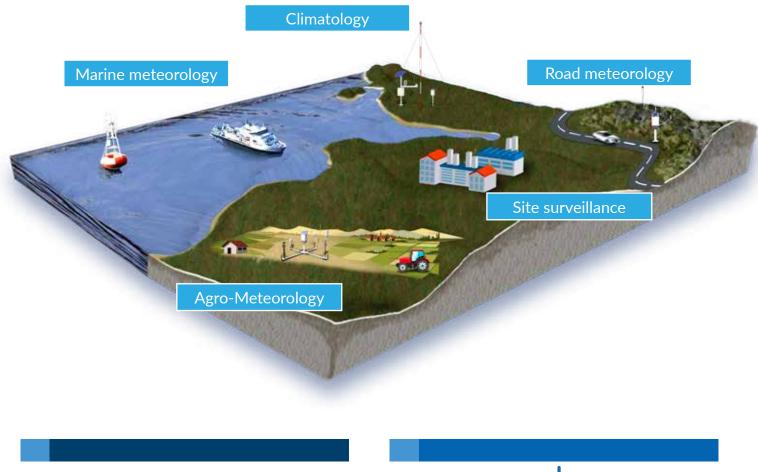
Surface weather observation MERCURY CATALOGUE











mercury

• Meteorological observation station

- neptune
- Marine meteorological observation station

STERELA meteo

Specialising in acquisition, communication and operating systems, STERELA has been designing and manufacturing weather stations for surface weather observation for more than 15 years.

Reliability and modularity

STERELA weather stations stand out first and foremost for their reliability and modularity. Many institutions have repeatedly placed their trust in us over recent years, making their projects reality with our 2 product lines

Automatic weather stations Expertise, design and execution



Sterela helps you through every phase of your projects, from engineering to execution:

- Engineering
- Technical report
- Steering committee
- Management Plan
- Configuration and performance
- Obsolescence management
- Hot-Mail and Hot-Line
- Preventive and curative maintenance
- Technical support



At your side

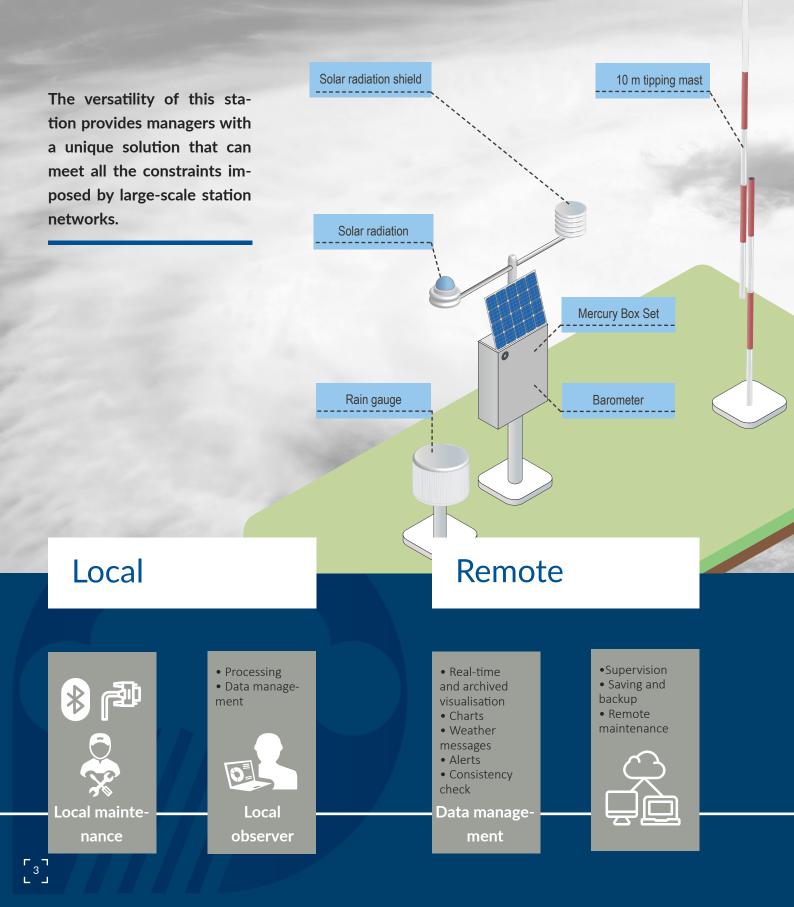
- Advice and professionalism
- Compliance with regulations
- Execution in line with the state of the art
- Continuing product improvement
- A single contact for your projects
- Technological watch



stereLa

MERCURY - S200

Automatic weather station for synoptic and climatological network



CLIMATOLOGY

AREAS OF APPLICATION

National weather station network

Isolated or difficult-to-access site

Harsh environment (tropical, high mountains)

Strengths

- High-precision measurement acquisition
- Data quality controls for acquisition
- Reliability and robustness
- Wide range of means of communication available
- Smart sensor power management
- Fully customisable station
- Compliant with OMM standards
- Metadata
- Local output for observer position
- Modular and scalable

Services

Installation and commissioning
Training
Preventive and corrective maintenance
After-sales support

Services

• Hot-line • Hot-mail

Calibration



Software

Maintenance Supervision

Data collection

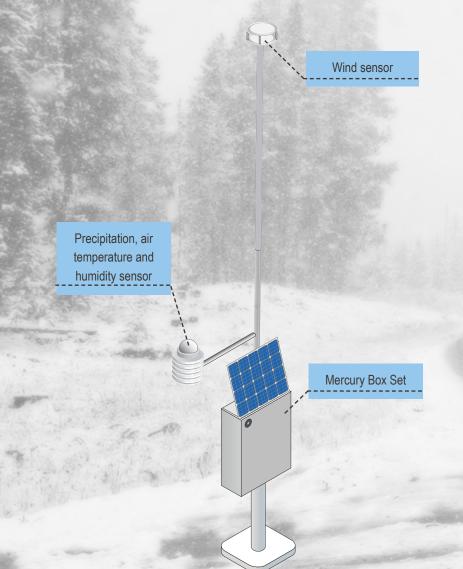






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MERCURY - S110 Road automatic weather station



Sterela offers a comprehensive decision-making assistance solution for road professionals, with the aim of improving the analysis of winter phenomena, anticipating servicing and reducing operating costs.

Measurements

Full Web Access



ROAD METEOROLOGY

AREAS OF APPLICATION

Road Managers

Private or public highways

Local authorities

Temperature and surface state sensor

Strengths

- High-precision measurement acquisition
- Data quality verification
- Reliability and robustness
- Wide range of means of communication available
- Smart sensor power management
- Fully configurable station
- Compliant EN/NF 15-538
- Metadata
- Open solution

Services

Installation and commissioning
Training
Preventive and corrective maintenance
After-sales support



Calibration

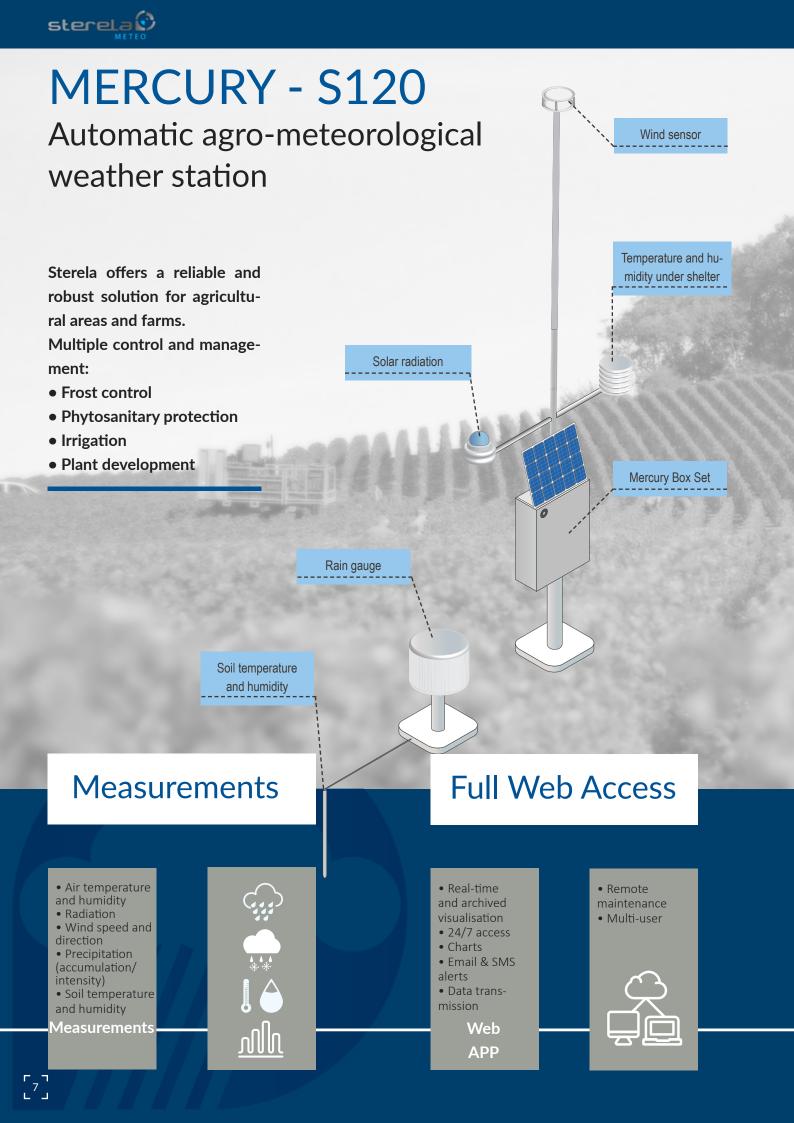


Software

Secured web platform







AGRO-METEOROLOGY

AREAS OF APPLICATION

Viticulture

Cooperatives

Arboriculture

Cereal growers...

Strengths

- High-capacity, high-precision measurement acquisitions
- Acquisition capacity
- Reliability and robustness
- Wide range of means of communication available
- Modular and scalable
- Fully configurable station
- Compliant with WMO standards
- Metadata
- Evapotranspiration, duration of insolation, daily data

Services

Installation and commissioning
Training
Preventive and corrective maintenance
After-sales support

Services



• Calibration



Software

Secured web platform



MERCURY - S140 Automatic Weather Station for site surveillance

Sterela offers a reliable and robust solution for monitoring sensitive areas.

sterela

The weather station interfaces with the site's central supervision system.

A second line of communication can be installed to provide access to real-time weather data to third-party services (e.g. backup)

Emergency service

Measurements

Remote

MERCURY station

Air temperature and humidity
Pressure
Wind speed and direction
Precipitation (accumulation/ intensity)

Measurements





- Backup
- Archive export
- Access to data 24/7

Web

• Graphic reports

SCADA Central system

- Remote
- maintenance
- Multi-user





Strengths

- High-capacity, high-precision measurement acquisitions
- Consistency check
- Reliability and robustness
- Wide range of means of communication available
- Weather and supervision data
- Local output to automaton
- Compliant with the NF, CE and international standard
- EMC (electromagnetic compatibility)

Services

Installation and commissioning
Training
Preventive and corrective maintenance
After-sales support

Services



Calibration



Software

Secured web platform

处话目目





Main MERCURY sensors Sterela AWS











Main MERCURY sensors			S200	S110	S120	S140			
Ŧ		Ultrasonic Wind Sensor Speed: 0 to 60 m/s Resolution: 0.1m/s Management: 0 to 359 Resolution: 1°		٠	•	٠	•	○ = standard ○ = option	
		Ultrasonic Wind Sensor Speed: 0 to 75m/s Resolution: 0.1m/s Management: 0 to 359 Resolution: 1°		•					
(the second sec		Air temperature Platinum resistance PT100 4-wire assembly Range from -40 to +60°C Accuracy: 0.1°C		•		•			
		Relative humidity of air Range from 0 to 100% Resolution 1% Accuracy: ±2% (0-90%) and ±3 (90-100%)		•		•			
		Solar radiation shield 9 cups Anti-UV		٠	٠	•	٠		
J		Tipping bucket rain gauge Cone: 400cm ² Resolution: 0.2mm Range: up to 500mm/h Accuracy <60mm/h: 3%		•		•			
		1st class Pyranometer Thermopile Range: 285 to 3000nm Sensitivity: 15μV/W/m ²		٠		•			
		Barometer Range: 500 to 1100hPa Resolution: 0.1hPa Accuracy: < 0.1hPa PE		٠		•	٠		
6		Soil temperature Platinum resistance PT100 4-wire assembly Range from -40 to +60°C Accuracy: 0.1°C		٠		•			
\mathbf{Q}		State of roadway Surface temperature State of roadway (dry, wet,etc.) Anti-freeze agent Ice			٠				
		Combined Sensor Precipitation: total, intensity and rain-snow distinction Temperature, humidity and pressure			٠				
								r	 12



Pacome Maintainer Configuration and maintenance software

This software makes it possible to configure and maintain MERCURY stations. Its interface, both simple and intuitive, enables a fast learning of the software.





Pacome Maintainer Strengths

CONFIGURATION AND MAINTENANCE

- Configuration model creation/modification
- Model loading/unloading in station
- Real-time data viewing
- Software update

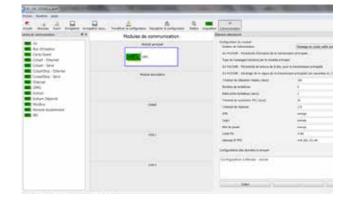
- Unloading of data and logs stored in a station
- Local or remote maintenance
- Connection to station via RS232 or Bluetooth
- Test and diagnostic mode

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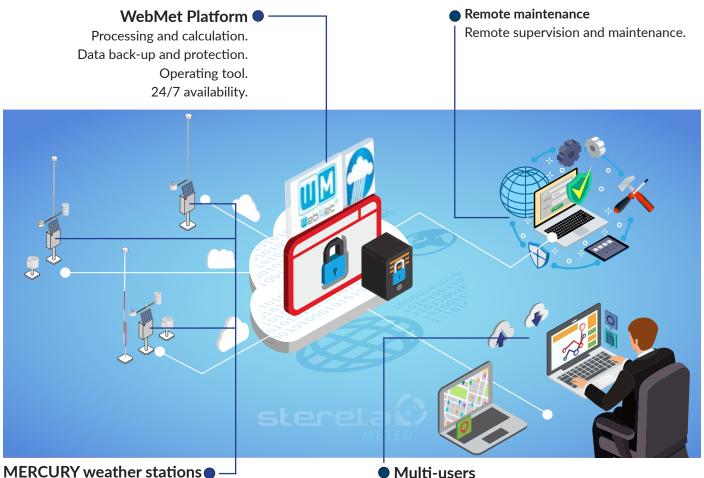
Sterela offers a professional and comprehensive web solution. With direct access to your data on an intuitive and user-friendly platform. Option for local hosting in your servers or those of STERELA.

30.5 50 m 19 m

997.3 hPa

736 w/m=

WebMet Data collection, processing and operating platform



Multi-users Secure and simultaneous connection. No software to install: web browser access.

Strengths

Full Web access Secure platform Multi-users Tables and graphs Decision support Advanced Customization High availability service Supervision Data consistency checks Remote maintenance of weather stations

Functionalities

Alerts Mapping Exporting data Graphic reports Weather messages Database management Account administration Configuration of functionalities Real-time visualisation by station/multi-stations

MERCURY lines of products

Example in a little a	AUTOMATIC WEATHER STATION				
Functionalities	S200	S110	S120	S140	
Self-configuration at start-up (application and configuration)	0	0	0	0	
Envelope					
Compact Box Set (IP66)	0	0	0	0	
Extended Box Set (IP66)	/	/	/	/	
Cabinet (IP54)	/	/	/	/	
Communication					
Configurable transmission frequency	0	0	0	0	
Automatic transmission after network outage (3 hrs)	0	0	0	0	
GPRS / 3G / PSTN / Ethernet (LAN)	0	0	0	0	
Iridium Satellite Modem / Remote Iridium Satellite	/	/	/	/	
Normal/standby mode	/	/	/	/	
Local RS232 / RS485 / RS422	/	/	/	/	
	/	/	/	/	
Optical fibre	/	/	/	/	
UHF Radio (free band) CAN	/	/	/	/	
WIFI	/	/	/	/	
Local Communications Protocol	/	/	/	/	
NMEA	/	/	/	/	
ASCII	/	/	/	/	
MODBUS	/	/	/	/	
Local maintenance port	,	,	,	/	
RS232	0	0	0	0	
Bluetooth	0	0	0	0	
Interface sensors					
Sensor power voltage from 10 to 24V	0	0	0	0	
Sensor offset >1km	/	/	/	/	
Analog (unmarked input)					
Impulsive / contact / unipolar / bipolar	0	0	0	0	
Voltage: -30mV / +30mV; 0/5V; -5V / +5V	0	0	0	0	
PT100	0	0	0	0	
A/D 24Bit converter	0	0	0	0	
Digital					
RS232 / RS485 / RS422	0	0	0	0	
FSK v23 / SDI12	/	/	/	/	
CAN	/	/	/	/	
Synchronization					
By GPS	0	0	0	0	
By server	/	/	/	/	
Internal clock drift < 5s per month	0	0	0	0	
Set locally or remotely	0	0	0	0	

o : basic equipment	 : optio	nal	x : una	vailable
	AUTOM	ATIC WE	ATHER S	TATION
Functionalities	S200	S110	S120	S140
	0200		0120	
Power supply				
Sector: 110V / 230V - 50/60Hz	/	/	/	/
Solar 20Wc + battery	0	0	0	0
Solar power (other power)	/	/	/	/
Battery protection against deep landfills	0	0	0	0
Memory card (non-volatile and extractable)				
4GB (extendable at 32GB)	0	0	0	0
Internal storage of weather and supervision data	0	0	0	0
Internal storage of event software and logs	0	0	0	0
Protection against overvoltage				
Individually and by detachable module (fuse type)	0	0	0	0
Remote maintenance				
Partial or total station configuration	0	0	0	0
Software update	0	0	0	0
Internal memory unloading (logs, weather data, supervision)	0	0	0	0
Environmental constraints				
Operating temperature -35°C/+65°C	0	0	0	0
Storage temperature -35°C/+70°C	0	0	0	0
Humidity 0-100%	0	0	0	0
Tropicalised board	0	0	0	0
Compliance				
EMC: IEC 61000-4-2/3/4/5/6	0	0	0	0
WMO standard	0	0	0	0
RoHS and WEEE	0	0	0	0
CE	0	0	0	0
Maintenance				
Supervision by LEDS	0	0	0	0
Test & maintenance mode	0	0	0	0
Standard exchange of sub-assemblies	0	0	0	0
Acquisition capacity (analogue or digital) and local communication	n output			
Compact H50xW50xD21 cm box Max acquisition path	for loca	l outpu	t	
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Compact H50XVV50XD21 cm box Max acquisition path	tor local output]
	16	0
	8	1
Extended H70xW54xD25.5 cm box		
	32	0
	24	1
	16	2
Cabinet H145xW65xD36 cm		
	32	0
	32	1
	24	2

Our know-how

Research Industrialisation and production Installation and training After-sales and maintenance



STERELA

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