



MS20

New 24 bit Datalogger

Integrated monitor Touch screen display

Integrated battery Lithium

Data acquisition system 10-20 channels

Welcome to the future of professional data acquisition. The MS20 represents excellence in precision measurement, combining cutting-edge technology and uncompromising versatility. With the ability to manage up to 20 independent channels and extraordinary precision guaranteed by 24-bit ADC technology, the MS20 is the definitive tool for professionals who do not accept compromises on data quality.

Main Features:

- Simultaneous acquisition on 20 channels
- 10" touch display with intuitive interface
- Dashboard or graph display in real time
- Dust protection for construction site environments
- Integrated wireless connectivity
- Autonomy starting from 8 hours in continuous acquisition

Designed to excel in the laboratory as well as in the field, the MS20 is perfectly suited to the needs of engineers, researchers and specialized technicians who require precise and reliable measurements in all operating conditions.

Its versatility is expressed through support for a wide range of sensors - from voltage to temperature, from current loop sensors to load cells - while the MAE graphical interface guarantees a modern and familiar user experience. When precision meets innovation: MS20, the tool that transforms the way you acquire and analyze data.

Methodologies

Load tests

Crack monitoring

General

General

Available channels	Up to 20 independent channels
Measurement mode	Continuous with real-time display or manual measurement
Technology and operating system	Based on Android CPU with ability to display real-time data on Windows system
Display	10" with touch system
Internal memory	Approximately 15M readings
Data format	.csv
Physical interfaces	2xUSB, 1xEthernet
Wi-Fi interfaces	Integrated antenna
Power supply	Internal 12V li-ion battery / External power supply 220 Vac-15 Vdc / External 12V battery
Operating time	Continuous display , up to 8 hours
Operating environmental conditions	-20°C 80°C
Environmental protection	IP68 (connectors)
Weight	5 kg
Dimensions	40x33x17 cm

Acquisition

ADC technology	24-bit Delta-Sigma
Measurement dynamic range	144 dB theoretical, 115 dB (@1Hz sampling)
Input signal	Up to +/- 10V (depending on set gain)
Input impedance	> 20MΩ
Sample rate	Starting from 1 sample per second
Adjustable gain	From 0dB to 42dB

General

Resolution	< 0.001 % (FS)
Accuracy	< 0.005 % (FS)
Non-linearity	< 0.001 % (FS)
Cross talk	> 100 dB
Common-mode rejection	> 110 dB
50 Hz and 60 Hz rejection	> 110 dB

Sensors

Sensors with Single Ended output	From 0-10V to 0-100mV
Resolution (V)	1.5μV (Gain: 0dB) 11nV (gain: 42dB)
Sensors with Differential output	From +/- 10V to +/- 100mV
Resolution (V)	1.5μV (Gain: 0dB) 11nV (gain: 42dB)
Current Loop sensors	0 - 20 mA (100Ω internal shunt)
Resolution (mA)	< 0.00001 mA
Compatible temperature sensors	PT100, PT1000, NTC (<10kΩ)
Resolution (°C)	< 0.01°C (depending on probe used)
RTD calibration curve	Callendar
NTC calibration curve	Stainhart-hart β-equation

Sensor power specifications

HV sensors power supply	24V
HV power output	Up to 6W total
Sensor power supply	2.5V, 5V, 10V

General

Power output Up to 5W total

Impressed current supply 0.250 mA

Maximum voltage for impressed current 5V

Additional features

Sensor calibration Multi-point linear calibration system with automatic calculation of calibration coefficients

Data transmission Real-time wireless communication with PC/laptop for acquisition

Electrical insulation 3kV galvanic protection between input circuits (sensors) and processing circuits

Configuration management System for saving and recalling recording and acquisition settings

Quick setup Integrated database to store and recall complete sensor and parameter configurations

Load channel Dedicated input with option for manual value entry

Data visualization Both in dashboard forma and through real-time graphs



