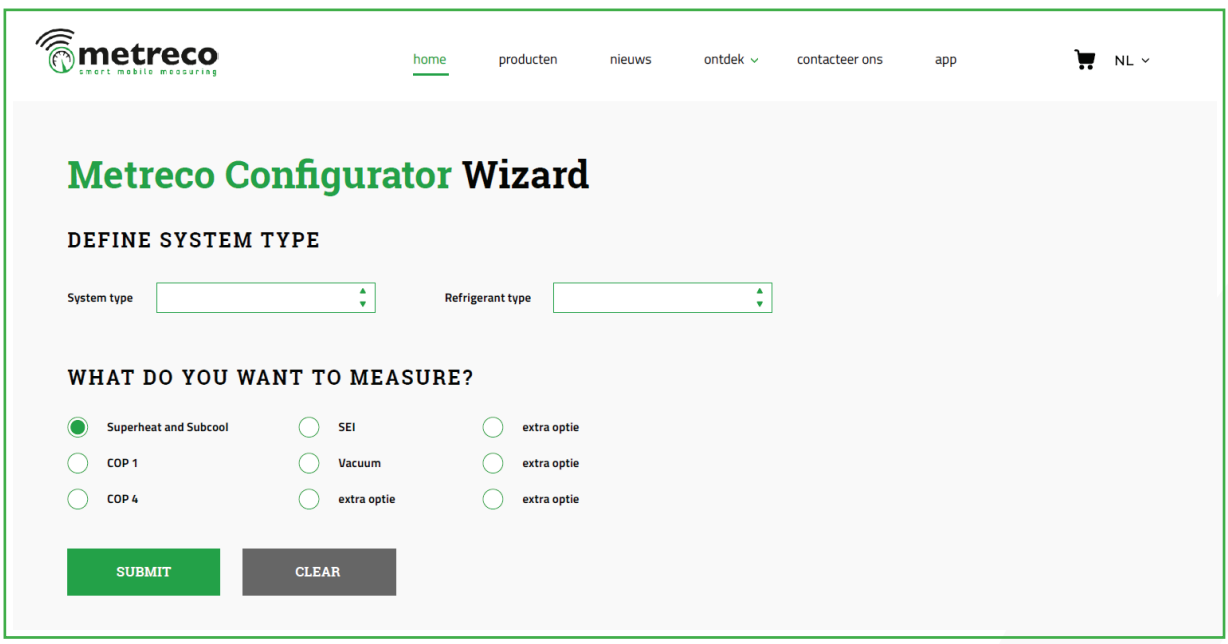
Discover the Configurator on www.metreco.com !

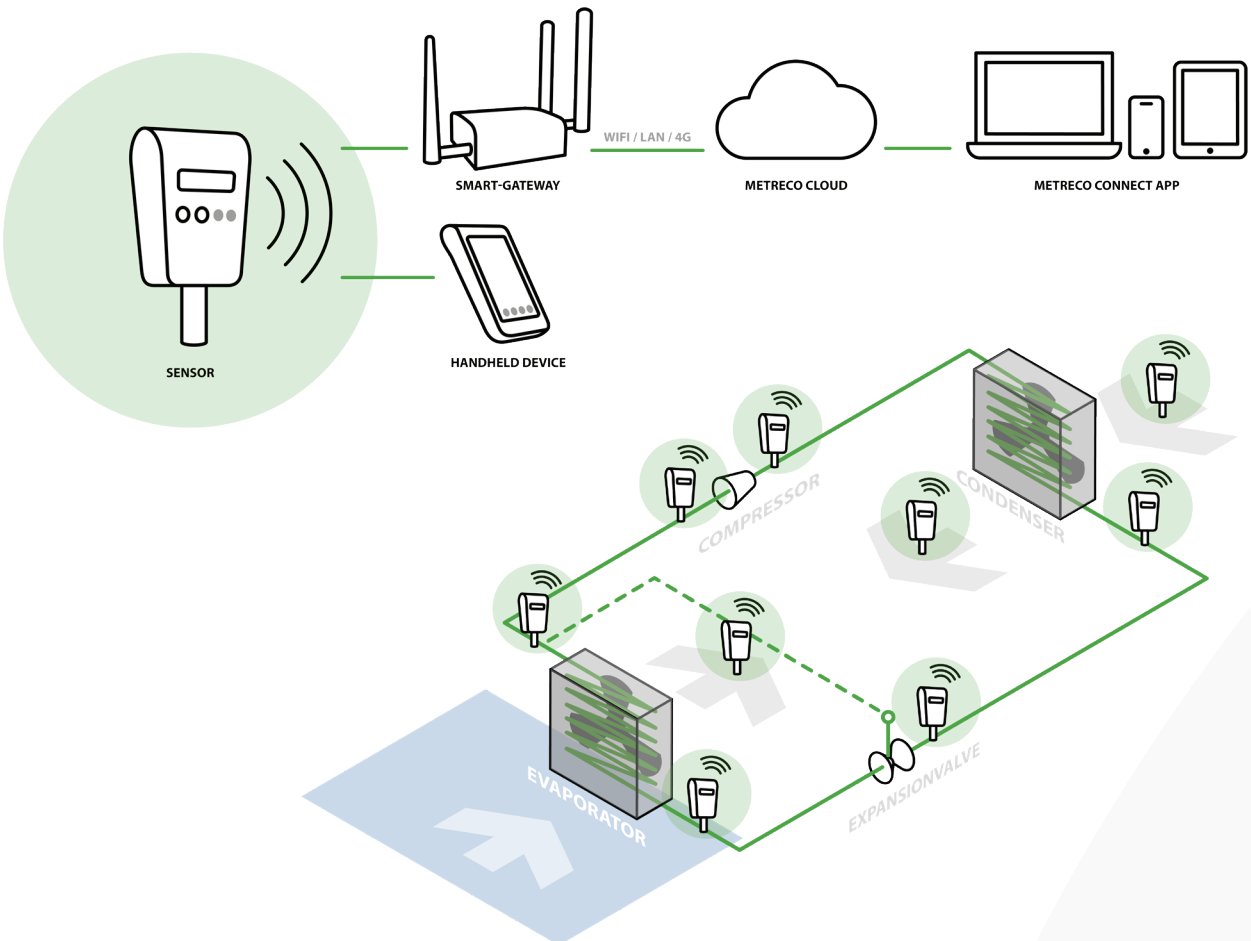


metreco
smart mobile measuring

METRECO

smart mobile measuring

Dynamic Control from your mobile devices & PC



Metreco Cloud Connect performs different types of measurements

- ✔ Instantaneously :
  1h - 1 day commissionning, or troubleshooting
- ✔ Medium and long term monitoring :
  1 to 4 weeks (troubleshooting, retrofit, etc.) 1 to 12 months and more (COP, etc.)

Wireless sensors are positioned on the installation, they transmit the data to a gateway which sends them to the Cloud. Up to 20 sensors can be used per gateway depending on the size of the system to be analyzed.

The results can be viewed on computer, tablet, smartphone via an application. It is possible to use several gateways on the same site and also to analyze several sites, geographically separated, using several gateways .

info@metreco.com

Why choose CLOUD Connect?

- easy monitoring, visualization and reporting of all critical values
- measurements, logging, short term & long term monitoring
- analysis of 1 system or several units
- connect to the Metreco CLOUD Connect with the Smart-Gateway through 4G & Ethernet
- ad hoc measurement, measurement campaign, logging and monitoring
- commissionning
- troubleshooting
- optimization of energy efficiency

DIAGNOSTICS

The analyzer makes it possible to identify the source of a failure very quickly and to intervene on the system without delay.

MONITORING

It controls the operation of the system when starting up or modifying an installation.

COP

It measures the energy efficiency of the installation to achieve energy savings.

CLOUD application

- energy performance indicators: COP, SCOP, SEER, SPF, SEI & COP / SEI Layers
- alerts and warnings
- traceable reporting, pressure test and vacuum test
- data analysis and Benchmarking
- Multi-site trend comparisons

ADVANTAGES Metreco Cloud Connect

- **Contractor advantages : Time savings**

  Simple system setup: wireless sensors are positioned on the selected points, they are recharged directly from the mains.

  Autonomy of the sensors, from 1 week to +6 months, depending on the frequency of data transmission.

  Remote consultation of measurements on computer, tablet, smartphone via the Metreco Cloud Connect application.

- **Customer advantages : Financial gains**

  Monitoring: monitoring of the correct functioning of the installations (prevention of breakdowns, maintenance).

  Quick restart in the event of a breakdown (avoids / limits operating losses).

  Real-time COP monitoring (energy savings).

- **Assurance for the contractor and customer : Reliability gains**

  Metreco COP was verified by POLE CRISTAL, an independent laboratory located in Dinan (France). The comparative tests were carried out in accordance with standard EN 14511.

PANIMPEX Measurement Solutions 8

Sensors

20 bar pressure sensor

50 bar pressure sensor

temperature sensor

amperage sensor

local measurements handheld

CLOUD Connect Smart-Gateway

Short or long term needs?

The sensors battery life depends on the send frequency, change the frequency depending according to the needs of your next project:

- ✔ 1s / 15s / 30s / 1min
- ✔ 1s = ±1 week / 60s = ±6 months (depending on sensor type)

The sensors are charged with a USB cable, included with every sensor.

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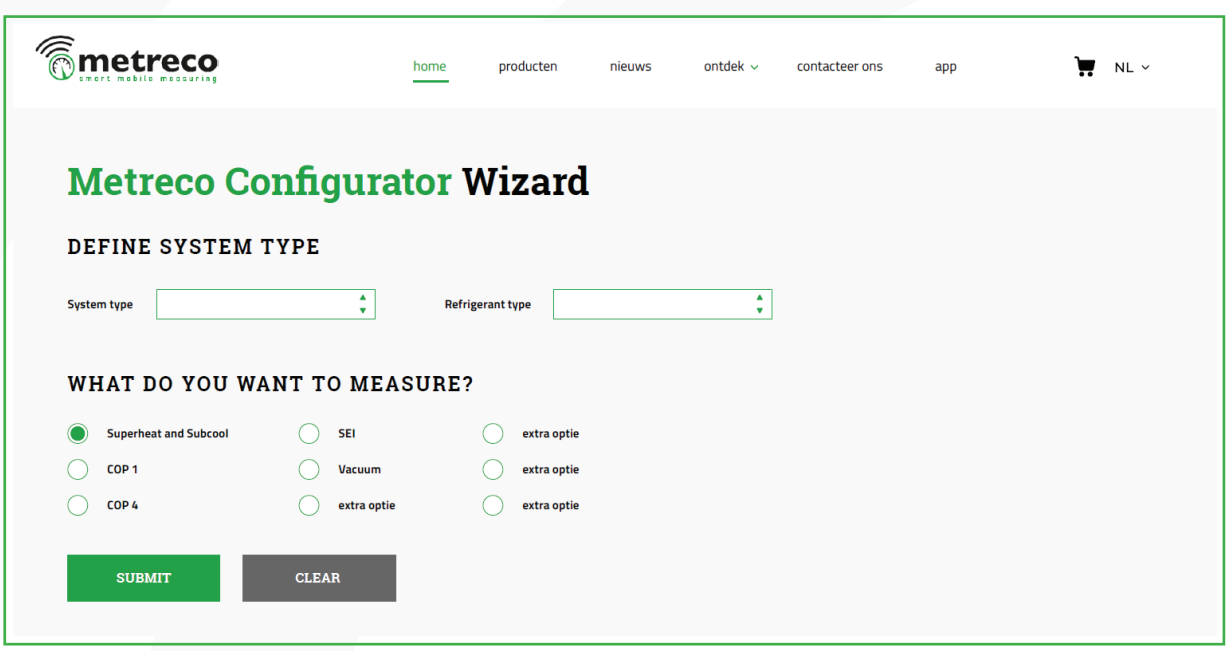

Metreco Standard Pressure Sensors

Standard refrigerants: HFC, HFO, CFC, HCFC & CO2 Subcritical

- -1+20 bar pressure sensor, 1/4"SAE female
- -1+50 bar pressure sensor, 1/4"SAE female
- USB-charging (cable supplied)

- HFC, HFO and CO2 Subcritical
- Suitable for measuring oil pressure
- Precision: Class 0,5 (0,5% FS)
- Overpressure: 40 bar / 100 bar
- Burst overpressure: 70 bar / 150 bar

- Autonomy
  - Battery : 7 days → +7 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- Product code:
  LP: Pb0020M14S-C
  HP: Pb0050M14S-C

Metreco CO2 Transcritical Pressure Sensors

CO2 Transcritical

- -1+100 bar pressure sensor, 1/4"SAE female, CO2 Transcritical LP
- -1+200 bar pressure sensor, 1/4"SAE female, CO2 Transcritical HP
- USB-charging (cable supplied)

- CO2 Transcritical, HFC, HFO and CO2 Subcritical
- Suitable for measuring oil pressure
- Precision: Class 0,5 (0,5% FS)
- Overpressure (100/200 bar) : 200 bar / 400 bar
- Burst overpressure (100/200 bar) : 250 bar / 450 bar

- Autonomy
  - Battery : 7 days → +7 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- Product code:
  LP: Pb0100M14S-C
  HP: Pb0200M14S-C

Metreco NH3 Pressure Sensors

NH3 - R717 - Ammonia

- -1+20 bar pressure sensor, stainless steel 1/4"SAE female, NH3
- -1+50 bar pressure sensor, stainless steel 1/4"SAE female, NH3
- USB-charging (cable supplied)

- R717 (NH3 - Ammonia), HFC, HFO and CO2 Subcritical
- Suitable for measuring oil pressure
- Precision: Class 0,5 (0,5% FS)
- Overpressure (20/50 bar) : 40 bar / 100 bar
- Burst overpressure (20/50 bar): 70 bar / 150 bar

- Autonomy
  - Battery : 7 days → +7 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- Product code:
  LP: Pb0020i14S-C
  HP: Pb0050i14S-C

Metreco NH3 Pressure Sensors

NH3 - R717 - Ammonia

- -1+100 bar pressure sensor, stainless steel 1/4"SAE female, NH3
- -1+100 bar pressure sensor, stainless steel 1/4"SAE female, NH3
- USB-charging (cable supplied)

- R717 (NH3 - Ammonia), HFC, HFO and CO2 Sub. & Transcr.
- Suitable for measuring oil pressure
- Precision: Class 0,5 (0,5% FS)
- Overpressure (100/200 bar) : 200 bar / 400 bar
- Burst overpressure (100/200 bar) : 250 bar / 450 bar

- Autonomy
  - Battery : 7 days → +7 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- Product code:
  LP: Pb0100i14S-C
  HP: Pb0200i14S-C

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Metreco Temperature Sensors

PT1000 Sensor

- Range: -50+150°C
- Precision: 0,5°C
- USB-charging (cable supplied)

- Autonomy
  - Battery : 5 days → +6 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- With Velcro strap for pipe mount
- With clamp for ventilator air flow
- With Stick-in probe for product core temperature & water cooling curtains

- Product code:
  Tc0150PV-C (Velcro)
  Tc0150PK-C (Clamp)
  Tc0150PP-C (Probe)

Metreco Absolute Vacuum Sensor

Absolute vacuum, does not need calibration before use

- Absolute vacuum sensor,
  does not need calibration before use
- USB-charging (cable supplied)

- Range: +1000mBar - 0mBar
- Precision: Class 0,5 (0,5% FS)
- Overpressure: 5 bar
- Standard Version
- Premium Version (with overpressure valve +60Bar and ball valve)

- Autonomy
  - Battery : 7 days → +7 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- Product code:
  Standard : Vm1000M14S-C
  Premium : Vm1000M14S-28-C (Ball valve)

Metreco Amperage Sensor

With easy to apply Rogowski coil

- Electrical intensity
- 2 Amperage ranges in 1 device: 0-25A & 0-500A
- Flexible Rogowski Coil
- USB-charging (cable supplied)
- Precision: +-100mA (0-25A) & +- 250mA (0-500A)

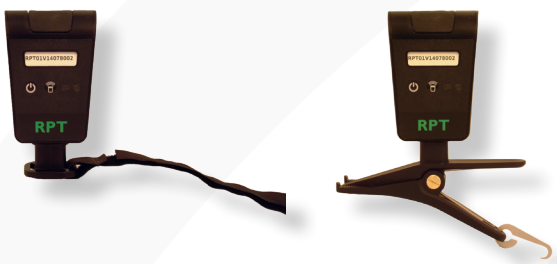
- Autonomy
  - Battery : 4 days → +3 months (depending on transmission frequency : 1s / 15s / 30s / 1min)
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Wireless range: min. 200m (open air)
- Protection: IP64 with cap closed

- Measure 1-phase or 3-phase
- Measure 3-phase with 1 sensor or more accurate with 3 sensors

- Product code: Ca0600RG-C

Metreco Radio-Signal Repeater

Range extender +150m - repeats all Metreco radio signals



- Radio frequency repeater
- Range extension: +150m
- USB-charging (cable supplied)

- Repeats all Metreco radio signals
- Combine multiple repeaters if necessary
- Autonomy
  - Battery : 3 days
  - USB-grid : unlimited
- Battery: LiPo (Lithium Ion Polymer)
- Protection: IP64 with cap closed
- Available with Velcro strap and clamp

- Product code: RPT01V-C (Velcro) - RPT01K-C (Clamp)

Metreco Cloud Connect Gateway

Connect to the Metreco Cloud using the Smart Gateway

GW01ST

GW01ET

- Expand your measuring options using the Smart Gateway
- 4G & Ethernet
- Up to 20 sensors per gateway
- Use of multiple gateways on multiple sites possible

- Metreco Cloud Connect Subscription necessary
- Smartphone & Tablet App - Android & IOS
- Desktop Webbrowser interface
- Also available in a economical only Ethernet version
- SIM card not included

- Product code:
  GW01ST (4G/Ethernet)
  GW01ET (Ethernet)

Metreco - Standard Case 2.0

smart mobile measuring - digital wireless system analyzer

Metreco Handheld

- Dynamic measuring with METRECO, Smart Mobile Measuring, instead of static measuring with traditional manifold with hoses and temperature probes.
- Up to 20 sensors transmit their measurements simultaneously to the Handheld: no hoses - no lines.
- The user positions himself where he wants/walks around and can read out the measurements in real time.
- Intuitive/natural easy-to-use interface is operated with a capacitive touchscreen.

- Define your measurement/value targets - get a warning when they are off.
- Measurement - Diagnosis - Suggestions / Solutions.
- Database of serviced ACR systems available on Handheld & PC.
- Measurement reports on Handheld & PC.

- Charge your handheld and sensor batteries via USB and wall charger.
- Extra hoses and connectors for handling refrigerant.

Metreco Sensors

Metreco is supplied with:

- 1 Carrying case, place for 10 sensors
- 1 Low Pressure Sensor 20 Bar
- 1 High Pressure Sensor 50 Bar
- 2 Temperature sensors -50+150°C
- Metreco Handheld with its 230V adaptor
- 4 USB cables for sensor charging
- Manual
- Set of hoses & connectors

- Product code: MT02ST

- Digital Wireless System Analyzer
- Measure and log all critical system data in real time, also COP

- Improve on-site efficiency - Be more professional
- No more running around- Speed up measurements
- Gain time substantially on each job

- Certified reporting and PED protocols
- Pressure and Vacuum Decay Tests
- All data such as Superheat, Subcool, Delta T&P and COP

- Optimize system efficiency with Metreco Smart-COP®
- Calculate Cooling Power with Ampclamp and Smart-COP®

Metreco NH3 Kit

Specially designed sensors and hoses for Ammonia applications

- 20 Bar Low pressure sensor
- 50 Bar High pressure sensor
- Stainless steel 1/4” SAE female connectors
- 2 USB charging cables
- 3 hoses
- Connectors: 1/4”SAE-1/4”GAS & 1/4”GAS-1/2”GAS & T-connector
- NH3 - R717 - Ammonia

- Product code: KN02ST

Metreco CO2 Transcritical Kit

Specially designed sensors and hoses for CO2 Transcritical applications

- 100 Bar Low pressure sensor
- 200 Bar High pressure sensor
- 2 USB charging cables
- 3 hoses
- CO2 Transcritical - R744

- Product code: KC02ST

Metreco Absolute Vacuum Kit

Absolute vacuum sensor & Valve core remover

- Absolute vacuum sensor (Class 0,5) Premium
- with safety valve (+60Bar)
- with ball valve
- Range: +1000mBar - 0mBar
- Valve core remover
- USB charging cable

- Product code: KV02ST

Metreco Product References

Panimpex Code	Description
Complete Product	
MT02ST	Metreco HVAC MK2: standard complete Metreco Set
MT02AA	Metreco complete set 2.0, without sensors - carrying case, handheld & accessories
Kits	
KV02ST	Kit Vacuum: Vacuum sensor (Overpressure- & Ball Valve) + shraeder remover
KC02ST	Kit CO2 Transcritical: 100Bar & 200Bar pressure sensors + hoses
KN02ST	Kit NH3: 20bar & 50Bar pressure sensors with Stainlessteel couplers + hoses
Gateways & Cloud	
GW01ST	Smart Gateway - 4G & Ethernet
GW01ET	Smart Gateway - Ethernet
MTO1CC-Cloud-Fee	Metreco Cloud Connect Subscription - 1 year
MTO1CC-Cloud-AddGWFee	Metreco Cloud Connect Additional Gateway Subscription - 1 year
Handheld	
HH02ST	Metreco handheld standard 2.0, supplied with 230V wall charger
Sensors	*(USB cable charging only - cable supplied with each sensor)*
Pb0020M14S-C	-1+20 bar pressure sensor, brass 1/4"SAE female with schraeder depressor
Pb0050M14S-C	-1+50 bar pressure sensor, brass 1/4"SAE female with schraeder depressor
Pb0100M14S-C	-1+100 bar pressure sensor, brass 1/4"SAE female with schraeder depressor
Pb0200M14S-C	-1+200 bar pressure sensor, brass 1/4"SAE female with schraeder depressor
Pb0020I14S-C	-1+20 bar pressure sensor, stainless steel 1/4"SAE female (NH3)
Pb0050I14S-C	-1+50 bar pressure sensor, stainless steel 1/4"SAE female (NH3)
Pb0100I14S-C	-1+100 bar pressure sensor, stainless steel 1/4"SAE female (NH3)
Pb0200I14S-C	-1+200 bar pressure sensor, stainless steel 1/4"SAE female (NH3)
Tc0150PV-C	-50+150°C temperature sensor, Velcro
Tc0150PK-C	-50+150°C temperature sensor, Clamp
Tc0150PP-C	-50+150°C temperature sensor, Stick-sensor
Vm1000M14S-C	Absolute vacuum Sensor Standard
Vm1000M14S-28-C	Absolute vacuum Sensor Premium : Overpressure valve + Ball valve
RPT01V-C	Repeater: range extender +150m with Velcro
RPT01K-C	Repeater: range extender +150m with Clamp
Ca0600RG-C	Electrical intensity sensor: Amperage sensor with Rogowski coil - 0-600A
Accessories	
DS02ST	Standard Metreco 2.0 carrying case, 10 sensor placements
MA02ST	Standard accessories for Metreco 2.0 : hoses, couplers, adaptors
MA02ST contains :	
S41B12-150	Red hose, 1/4"SAE-1/4"SAE with ball-valve; 1,5m; teflon; 55 Bar
S41B13-150	Blue hose, 1/4"SAE-1/4"SAE with ball-valve; 1,5m; teflon; 55 Bar
S41B14-150	Yellow hose, 1/4"SAE-1/4"SAE with ball-valve; 1,5m; teflon; 55 Bar (2pcs in MA02ST)
AC0107-8101	T-connector 1/4"SAE female with swivel and 2x 1/4"SAE male with schraeder
AC0107-8102	X-connector 4x 1/4"SAE male
AC0107-7410	Adaptor 1/4"SAE – 5/16"SAE (2pcs in MA02ST)
Others	
CERTIF-ETAL	Sensor Calibration Certificat – individual Sensor ISO17025

Metreco Accessories & Spares

- Check our website: www.metreco.com
- Contact us: info@metreco.com

We strongly advise you to have your sensors calibrated yearly in accordance with European and local legislation!