



PI 500

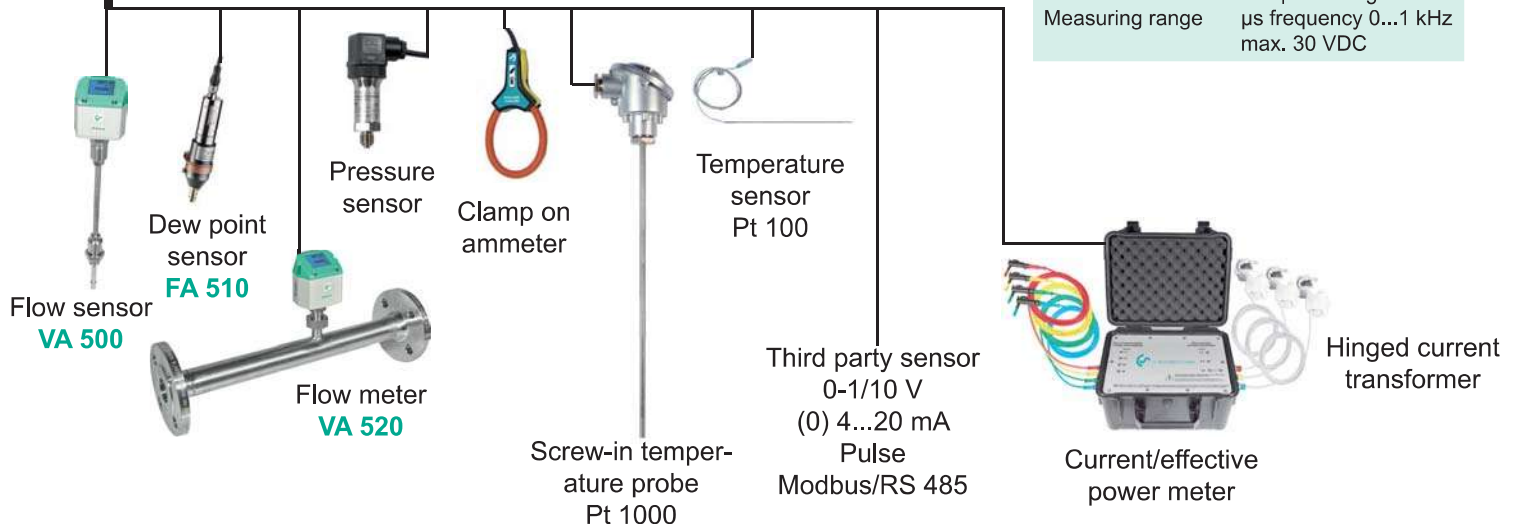
Hand-held instrument with large range of sensors



Description	Order No.
PI500 portable measuring instrument with integrated data logger, incl. power supply	0560 0511
Option for PI 500: "mathematics calculation function" for 4 freely selectable „virtual“ channels	Z500 5107
Option for PI 500: „Totalizer function for analogue signals“	Z500 5106
CS Soft Basic - data evaluation in graphic and table form - reading out of the measured data via USB	0554 7040
Transportation case	0554 6510

Technical data PI 500:	
Colour screen:	3.5"-Touchpanel TFT transmissive, graphics, curves, statistics
Interfaces:	USB
Power supply for sensors:	Output voltage: 24 VDC \pm 10% Output current: 120 mA continuous operation
Current supply:	Internal rechargeable Li-Ion batteries charging time approx. 4 h PI 500 operation: > 4h depending on current consumption of external sensors
Power supply unit:	100 - 240 VAC/50 - 60 Hz, 12 VDC - 1A Safety class 2, only for application in dry rooms
Dimensions:	82 x 96 x 245 mm
Material:	Plastic PC/ABS
Weight:	450 g
Operating temperature:	-20...70°C measuring gas temperature 0...50°C ambient temperature
Storage temperature:	-20 to +70°C
EMC:	DIN EN 61326
Sensor inputs:	for connection of pressure sensors, temperature sensors, clamp-on ammeters, third party sensors with 4...20mA, 0-10 V, Pt 100, Pt 1000
Memory size:	4 GB - SD memory card standard

Input signals	
Current signal	(0...20mA/4...20mA) internal or external power supply
Measuring range	0...20 mA
Resolution	0,0001 mA
Accuracy	\pm 0.003 mA \pm 0.05 %
Input resistance	50 Ω
Voltage signal	(0...1 V)
Measuring range	0...1 V
Resolution	0.05 mV
Accuracy	\pm 0.2 mV \pm 0.05 %
Input resistance	1 M Ω
Voltage signal	(0...10 V / 30 V)
Measuring range	0...10 V
Resolution	0.5 mV
Accuracy	\pm 2 mV \pm 0.05 %
Input resistance	1 M Ω
RTD Pt 100	
Measuring range	-200...850°C
Resolution	0.1°C
Accuracy	\pm 0.2°C (-100...400°C) \pm 0.3°C (further range)
RTD Pt 1000	
Measuring range	-200...850°C
Resolution	0.1°C
Accuracy	\pm 0.2°C (-100...400°C)
Pulse	min pulse length 500 μ s frequency 0...1 kHz max. 30 VDC





Suitable sensors for PI 500

Flow sensors VA 500:	Order No.		
Flow sensor VA 500 Max. Version (185 m/s) sensor length 220 mm, incl. 5 m cable to mobile instruments	0695 1124		
Flow sensor VA 500 High-Speed Version (224 m/s), sensor length 220 mm, 5 m cable to mobile instruments	0695 1125		
Option for VA 500:			
sensor length 120 mm	ZSL 0120		
sensor length 160 mm	ZSL 0160		
sensor length 300 mm	ZSL 0300		
sensor length 400 mm	ZSL 0400		
Flow measuring range VA 520 for compressed air:(ISO 1217: 1000 mbar, 20°C)			
Flow meter VA 520, 0,8... 90 l/min, (R 1/4" DN 8)	0695 0520		
Flow meter VA 520, 0,2... 90 m³/h, (R 1/2" DN 15)	0695 0521		
Flow meter VA 520, 0,3... 170 m³/h, (R 3/4" DN 20)	0695 0522		
Flow meter VA 520, 0,5... 290 m³/h, (R 1" DN 25)	0695 0523		
Flow meter VA 520, 0,7... 530 m³/h, (R 1 1/4" DN 32)	0695 0526		
Flow meter VA 520, 1,0... 730 m³/h, (R 1 1/2" DN 40)	0695 0524		
Flow meter VA 520, 2,0... 1195 m³/h, (R 2" DN 50)	0695 0525		
Dew point sensors:			
FA 510 dew point sensor for mobile instruments, -80...+20°Ctd, incl. mobile measuring chamber, 5 m cable and perforated cap	0699 1510		
FA 510 dew point sensor for mobile instruments, -20...+50°Ctd, incl. mobile measuring chamber, 5 m cable and perforated cap	0699 1512		
Connection cable for VA/FA sensors:			
Connection cable for VA/FA series on mobile instruments, ODU / M12, 5m	0553 1503		
Extension cable for mobile instruments ODU/ODU, 10m	0553 0504		
Calibration certificate for flow / dew point sensors:			
5 point precision calibration with ISO certificate	3200 0001		
Precision calibration at -40 °Ctd incl. ISO certificate	0699 3396		
Pressure sensors:	± 1 % accuracy of full scale	± 0,5 % accuracy of full scale	
Standard pressure sensor CS 16 from 0...16 bar	0694 1886	0694 3555	
Standard pressure sensor CS 40 from 0...40 bar	0694 0356	0694 3930	
Standard pressure sensor CS 1.6 from 0...1.6 bar abs.	0694 3551	0694 3550	
Standard pressure sensor CS 10 from 0...10 bar, ± 1 % accuracy of full scale	0694 3556		
Standard pressure sensor CS 100 from 0...100 bar, ± 1 % accuracy of full scale	0694 3557		
Standard pressure sensor CS 250 from 0...250 bar, ± 1 % accuracy of full scale	0694 3558		
Standard pressure sensor CS 400 from 0...400 bar, ± 1 % accuracy of full scale	0694 3559		
Precision pressure sensor CS -1...+15 bar, ±0,5 % accuracy of full scale	0694 3553		
Precision differential pressure sensor CS 400, 0...400 mbar differential pressure, 0,075% accuracy of full scale, static pressure max. 40 bar	0694 3560		
Calibration of pressure sensor 5 points between 0 and 10/16 bar	3200 0004		
Temperature sensors:			
Bendable temperature probe Pt 100 Class B, length 300 mm Ø 3 mm, -70...+500°C, 2 m probe connection cable glass fibre/stainless steel with ODU plug 8 pole for mobile instruments	0604 0106		
Screw-in temperature probe Pt 100 Class A, length: 300 mm with measuring transducer 4 to 20 mA = -50 to +500 °C (2-wire technology) (Please order additional the connection cable 0553 0501)	0693 0002		
Temperature probe cable Pt 100 Class A, length: 300 mm Ø 6 mm with 5 m connection cable with open ends (Please order additional the ODU plug Z604 0104)	0604 0102		
Temperature probe cable Pt 100 Class A, length: 150 mm Ø 6 mm with 5 m connection cable with open ends (Please order additional the ODU plug Z604 0104)	0604 0100		
Mini temperature probe cable Pt 100 Class A, length 25 mm, Ø 4 mm 50°C to +180°C, 5 m probe connection cable with open ends (Please order additional the ODU plug Z604 0104)	0604 0105		
Compression fitting 6mm, G1/2", VA clamp ring	0554 6004		
Temperature calibration certificate 2 measuring points	0520 0180		



Suitable sensors for PI 500

Connection cables for pressure sensors / temperature sensors:	Order No.
Connection cable for pressure, temperature or external sensors on mobile instruments, ODU / open ends, 5 m	0553 0501
Connection cable for pressure, temperature or external sensors on mobile instruments, ODU / open ends, 10 m	0553 0502
Extension cable for mobile instruments, ODU / ODU, 10 m	0553 0504
Mounted Odu plug for connection on mobile instruments	Z604 0104
Clamp-on ammeters:	
Clamp-on ammeter 0...400 A TRMS incl. 5 m connection cable	0554 0511
Clamp-on ammeter 0...1000 A TRMS incl. 5 m connection cable	0554 0519
Calibration certificate for clamp-on ammeter	0554 3333
CS PM 600 Current/effective power meter up to 100 A	0554 5341
CS PM 600 Current/effective power meter up to 600 A	0554 5342
Mobile current/effective power meter with 3 external current transducers for big machines and plants External current transformers for clamping on cables (100 or 600 A) External magnetic measuring tips for measuring the voltage Measures kW, kWh, cos phi, kVar, kVA Data transfer to PI 500 via Modbus Incl. connection cable for mobile current/effective power meter to mobile instruments, 5 m	
Current transformer 100A/1A consisting of 3 transformers for mobile instruments	Z554 0001
Current transformer 600A/1A consisting of 3 transformers for mobile instruments	Z554 0002
Current transformer 1000A/1A consisting of 3 transformers for mobile instruments	Z554 0003
Optional third-party sensors connectable:	
e.g. heat meters, current meters, gas meters, water meters and so on. To the freely assignable sensor input all sensors of CS Instruments can be connected as well as optional third-party sensors and counters with the following signal outputs: 4-20 mA, 0-20 mA, 0-1 V, 0-10 V, 0-30 V, Pt100 (2- or 3-wire), Pt 1000 (2- or 3-wire), KTY I pulse outputs (e.g. of gas counters) Frequency output Modbus protocol	




Application: Portable flow measurement in production in front of machines and plants





Set for dryer monitoring

	°Ctd
	bar
	°C
1 PI 500 portable measuring instrument with integrated data logger, incl. power supply	0560 0511
2 FA 510 dew point sensor for mobile instruments, -80...+20°Ctd incl. mobile measuring chamber, 5 m cable	0699 1510
3 Standard Pressure sensor CS 16 from 0...16 bar, ± 1 % accuracy of full scale	0694 1886
4 Connection cable for pressure, temperature or external sensors to portable instruments, ODU / open ends, 5 m	0553 0501
5 Bendable temperature probe Pt100 Class B, length 300 mm, ø 3 mm, -70...+500°C, 2 m probe connection cable glass fibre/stainless steel with ODU plug 8 pole for portable instruments	0604 0106
6 CS Soft Basic - data evaluation in graphic and table form - reading out of the measured data via USB	0554 7040
7 Transportation case	0554 6510

Set for portable flow measurement


	m ³ /h
1 PI 500 portable measuring instrument with integrated data logger, incl. power supply	0560 0511
2 Flow meter VA 520, 0,3... 170 m ³ /h, (R3/4" DN 20)	0695 0522
3 Connection cable for VA/FA Series on mobile instruments, ODU / M12, 5 m	0553 1503
4 CS Soft Basic - data evaluation in graphic and table form - reading out of the measured data via USB	0554 7040
5 Transportation case	0554 6510



Chart recorder

Standard set compressed air



m³/h

°Ctd

bar

°C

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4	Standard Pressure sensor CS 16 from 0...16 bar, ± 1 % accuracy of full scale	0694 1886
5	Connection cable for pressure, temperature or external sensors to portable instruments, ODU / open ends, 5 m	0553 0501
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7	CS Soft Basic - data evaluation in graphic and table form - reading out of the measured data via USB	0554 7040
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Professional set compressed air



m³/h

°Ctd

bar

°C

A

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3	FA 510 dew point sensor for mobile instruments, -80...+20°Ctd incl. mobile measuring chamber, 5 m cable	0699 1510
4	Standard Pressure sensor CS 16 from 0...16 bar, ± 1 % accuracy of full scale	0694 1886
5	Connection cable for pressure, temperature or external sensors to portable instruments, ODU / open ends, 5 m	0553 0501
6	Bendable temperature probe Pt100 Class B, length 300 mm, ø 3 mm, -70...+500°C, 2 m probe connection cable glass fibre/stainless steel with ODU plug 8 pole for portable instruments	0604 0106
7	Clamp-on ammeter 0...400 A RMS 10-30 VDC for portable instruments, 3 m cable, ODU 8 pol.	0554 0511
8	CS Soft Basic - data evaluation in graphic and table form - reading out of the measured data via USB	0554 7040
9	Transportation case	0554 6510