DORGEAN
Beijing Dorgean Electronic Technology Co.,Ltd

Instrument Expert
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Humidity probes

PC-Series

PCMini52

PC62 & PC62V
PC33 & PC52

Advantages

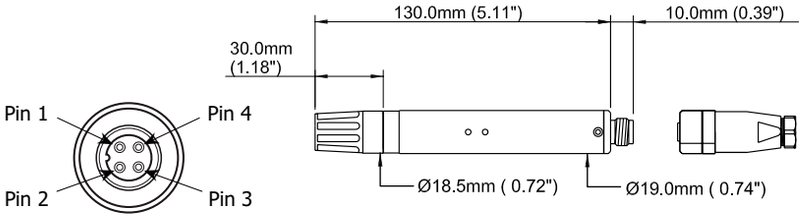
- High accurate measurements in precision manufacturing applications
- Built in interchangeable Hygrosmart module
- Different probe types; analog or digital
- Available in different materials Polymer or stainless steel

Applications

- Production environment
- Industrial Manufacturing
- Meteorological applications
- Climate chambers

PC62 & PC62V

- Application range: 0...100 %rh, -20...80 °C
- Accuracy: ‹±2 %rh (10...90 %rh), ±0.2 K @ 23°C
- Stability: ±1 %rh/year
- Materials: Molded polymer or stainless steel



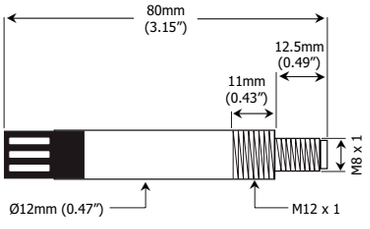
Electrical Connections

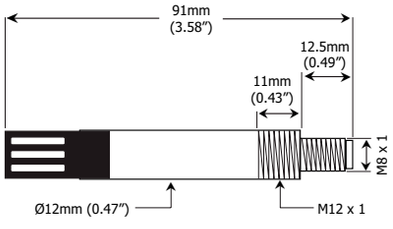
Voltage output		
Cable	**Connector**	
White	Pin 1	Power supply V +
Green	Pin 4	Output rh +
Yellow	Pin 2	Output temperature +
Brown	Pin 3	Common ground

Cable	**Connector**	**RS232**	**RS485**
White	Pin 1	Power supply V +	Power supply V +
Green	Pin 4	TX	TX/RX +
Yellow	Pin 2	RX	RX/TX -
Brown	Pin 3	Ground	Ground

PCMini52

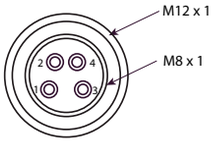
- Application range: 0...100 %rh, -20...80 °C
- Accuracy: ‹±2 %rh (10...90 %rh), ±0.2 K @ 23 °C
- Stability: ±1 %rh/year
- Output: RS485 Modbus RTU
- Materials: Molded polymer or stainless steel





Electrical Connections

Mating Cable		Pin
Brown	Supply voltage V +	1
White	Modbus	2
Blue	V -	3
Black	Modbus	4



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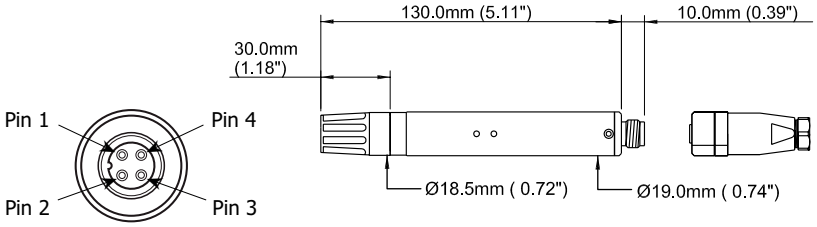
A PST BRAND

PC33 & PC52

- Application range: 0...100 %rh, -20...80 °C
- Accuracy PC52: ±2 %rh (10...90 %rh), ±0.2 K @ 23 °C
- Accuracy PC33: ±3 %rh (30...80 %rh), ±0.3 K @ 23 °C
- Stability: ±1 %rh/year
- Materials: Molded polymer or stainless steel



Electrical Connections

Voltage output		
Mating Cable		**Pin**
White	Supply voltage V +	1
Yellow	Output temperature +	2
Brown	Common ground	3
Green	Output rh +	4

4-20 mA Output 2-wire		
Mating Cable		**Pin**
White	Output rh +	1
Yellow	Output temperature -	2
Brown	Output rh -	3
Green	Output temperature +	4

Technical Information

	PC33 & PC52	PC62 & PC62V	PCMini52
Probe type	Analog relative humidity and temperature	Digital relative humidity and temperature	Digital relative humidity and temperature
Measuring range	-20...80 °C / 0...100 %rh		
Accuracy at 23 °C	PC33: ±3 %rh (30...80 %rh) / ±0.3 K PC52: ±2 %rh (10...90 %rh) / ±0.2 K	±2 %rh (10...90 %rh) / ±0.2 K	±2 %rh (10...90 %rh) / ±0.2 K
Long-term stability	‹1 %rh / year		
Probe housing	Molded polymer or stainless steel		Molded polymer or stainless steel
IP Protection rating	IP65		
Power supply	14...30 VDC (0...5 V/ 0...10 V output) 5...30 VDC (0...1 V & mA output)	14...30 VDC (0...5 V/ 0...10 V output) 5...30 VDC (0...1 V)	14...35 VDC (0...5 V/0...10 V output) 6...35 VDC (0...1 V output)
Output signal	4–20 mA, 0 to 1, 0 to 5, 0 to 10 V	0–1, 0–5, 0–10 V, RS232, RS485	Modbus RTU 0 to 1, 0 to 5, 0 to 10 V
Response time rh sensor	‹10 sec typical (for 90% of the step change)		
Electrical connections	M12		4 pin, M8 connector 4 pin, M12 connector
Weight	30 g (1.06 oz) without cable (molded polymer version)		10 g (0.35 oz)

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PC-Series Accessories and Spare Parts

Order Code	Compatibility	Product / Description
Protection cap		
A000002	PC62 & 62V, PC33 & PC52	19mm (0.75") Slotted protection cap black
A000003	PCMini52	12mm (0.47") Slotted protection cap black
A000046	PCMini52	13mm HDPE Protection cap
A000120	PC62 & 62V, PCMini52, PC33 & PC52	ø90mm (3.54") WM weather protection cap (for ø19mm (0.75") probes)
A000125	PC62 & 62V, PCMini52, PC33 & PC52	ø120mm (4.72") WM weather protection cap (for ø19mm (0.75") probes)
Filter		
A000014	PC62 & 62V, PC33 & PC52	19mm (0.75") PVDF filter
A000015	PC62 & 62V, PC33 & PC52	19mm (0.75") PVDF filter w/ protection cap black
A000017	PCMini52	12mm (0.47") PVDF filter
A000018	PCMini52	12mm (0.47") PVDF filter w/ protection cap black
A000021	PC62 & 62V, PC33 & PC52	19mm (0.75") Mesh filter w/ protection cap black
A000022	PCMini52	12mm (0.47") Mesh filter w/ protection cap black
A000023	PCMini52	12mm (0.47") Flat SS sintered dust filter
A000025	PC62 & 62V, PC33 & PC52	19mm (0.75") Arrow 5µm SS sintered filter
A000027	PC62 & 62V, PC33 & PC52	19mm (0.75") connector, no cable, w/screw terminal
A000028	PCMini52	12mm (0.47") Arrow 20µm SS sintered filter
A000040	PC62 & 62V, PC33 & PC52	19mm (0.75") Foil filter 2µm w/protection cap black
A000042	PC62 & 62V, PC33 & PC52	19mm (0.75") Oleophobic foil filter 0.7µm (w/protection cap black)
Cable		
A000030-xx xx = total length i.e. A000030-20	PC62 & 62V, PC33 & PC52	19mm (0.75”) Connector - Connector - Cable (price per meter)
A000031	PC62 & 62V, PC33 & PC52	19mm (0.75") connector with 2m (6.5') cable
A000032	PC62 & 62V, PC33 & PC52	19mm (0.75") connector with 5m (16') cable
A000033	PCMini52	12mm (0.47") connector with 2m (6.5') cable
A000036	PCMini52	12mm (0.47") connector with 5m (16') cable
A000037	PCMini52	12mm (0.47") connector with 10m (32.8') cable
A000321	PCMini52	12mm (0.47") connector without cable (with solder terminal)
A000321-xx xx = total length i.e. A000321-20	PCMini52	12mm (0.47”) connector - Connector - Cable (price per meter)
A000322	PCMini52	12mm (0.47") Connector with 20m (25.6') cable
Mounting		
A000100	PC62 & 62V, PC33 & PC52	3/4" NPT SS adj. fitting for SS probes
A000101	PCMini52	1/2" NPT SS adj. fitting for SS probes
A000110	PC62 & 62V, PC33 & PC52	Al mounting flange for ø19mm (0.75") SS probes (outside ø80mm (3.15"))
A000111	PCMini52	Al mounting flange for ø12mm (0.47") SS probes (outside ø40mm (1.57"))
A000150	PC62 & 62V, PC33 & PC52	Mini flange for ø19mm (0.75") polymer probe

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Compatibility

- PC-Series are standalone probes which are not compatible with Rotronic transmitters and Rotronic handhelds.
- The only compatible accessories and spare parts like filters, protection caps, mounting clips etc. are listed here.
- In case of insecurity, please contact your local Rotronic partner.

HC2A-S

HCA-SM

HC2A-S

Modbus Register (PCMini52)

Register	Content	Format
0	T ambient	235 = 23.5 °C
1	rh	457 = 45.7 %
2	Model type	64480 (fixed)
3	Trade mark	5000 (fixed)
4	Software release	xx.xx
5/6	Future purposes (don't use)	-
7	Modbus Device Address	Default 1
8	Baud rate	2 = 9600, 3=19200
9...13	Factory purposes	-
14	Flash protect	Default 0
15...254	Factory purposes (calibration registers)	-

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