

Temperature sensors

PLC 4L

Applications

Precision paired temperature sensors with head, for use with cooling applications like chillers, HVAC, etc. Suitable for systems with water or glycol mixtures and pipe diameters DN 25...1000 mm, depending on insulation thickness and sensor angle. To be installed via the 4-wire cable and sensor pockets type SP-E.



Features

- High pairing accuracy, important for energy calculation (dT)
- High absolute accuracy, important for DDC and AHU's
- High precision as standard (IEC 60571, Class AA)
- 4-wire connection
- Installation in sensor pocket

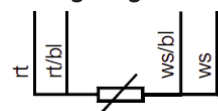
Your benefits

- High cost saving through most accurate energy billing and energy optimisation
- Most accurate control lead in better chiller plant efficiency
- Optional premium absolute accuracy available: 0.03 Deg C at 0 Deg C, calibrated and certified by certified body
- Free choice of cable length
- Easier wiring with separate cable
- Once the sensor pockets are installed, the sensors can be mounted without depressurising the hydraulic circuit.

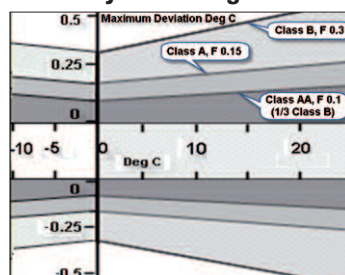
Technical data

Temperature range (function)	-70 to 260 Deg C
Temperature differential range	3 - 180 Deg C
Pairing accuracy	+/- 0.05 Deg C at 0 Deg C and 80 Deg C, (important for energy calculation)
Absolute accuracy tolerance	+/- (0.1 DegC + 0.0017DegC t), important for DDC and AHU's
Sensor type	Pt100, IEC60751, class AA (class 1/3 B)
Optional calibration tolerance	+/- 0.03 Deg C at 0 Deg C, incl. certificate of accredited calibration service
Material of protective sheath	Stainless steel 1.4571 (SS316)
Connections	4-wire, 2.5 m cable

Wiring diagram



Accuracy according to EN 60751



Type designation and lengths

Sensors d = 6 mm and Sensor pockets d = 8 mm

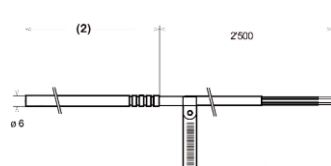
Sensor pair Pt 100	Art. No.	Sensor length (2) in mm	Sensor pocket type	Art. No.	Max. flow rate m/s	Depth of insertion (2) in mm + w.sleeve = DN in mm		
PLC 4L 100/135	80768	135	SP-E 85/105	80059	10	60	25	max.80
PLC 4L 100/170	80769	170	SP-E 120/140	80060	6.7	95	25	max.150
PLC 4L 100/205	80770	205	SP-E 155/175	80062	4.9	120	35	max.200
PLC 4L 100/260	80771	260	230 SP-E 210/230	80064	3.1	170	35	max.300

Sensors d = 6 mm and Sensor pockets d = 12 mm

Sensor pair Pt 100	Art. No.	Sensor length (2) in mm	Sensor pocket type	Art. No.	Max. flow rate m/s	Depth of insertion (2) in mm + w.sleeve = DN in mm		
PLC 4L 100/300	80772	300	SP-E 250/270	80646	4.0	225	25	max. 450
PLC 4L 100/350	80773	350	SP-E 300/320	80647	3.6	275	25	max. 550
PLC 4L 100/400	80774	400	SP-E 350/370	80648	2.3	350	20	max. 700
PLC 4L 100/450	80775	450	SP-E 400/420	80649	2.0	400	20	max.1000

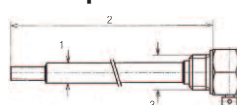
Dimensions

Sensors



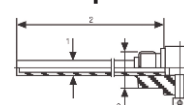
- (1) Diameter of protective sheath 6 mm
- (2) Length of protective sheath see above
- (3) Height of sensor head 51 mm
- (4) Distance to inlet cable 33 mm

Sensor pockets d = 12 mm



- (1) Diameter of protective sheath 12 mm
- (2) Length of protective sheath see above
- (3) Process connection G 1/2

Sensor pockets d = 8 mm



- (1) Diameter of protective sheath 8 mm
- (2) Length of protective sheath see above
- (3) Process connection G 1/2

For other possibilities, regarding length, maximum flow rate and insertion depth, please contact Aquametro.

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