



PROFIPAQ-L

Universal High-performance Profibus-PA Transmitter



Thanks to the digital output PROFIPAQ-L offers very accurate measurements as well as sensor and process information. With five input terminals new features such as two redundant Pt100 in 3-wire connection, are included. Configuration from a PC with Inor software, ProfiSoft, or over the Profibus network.

- Up to 125 transmitters in one Profibus network
- Profile version 3.0, Class A & B
- Fully universal, linearized and isolated
- \bullet Accepts RTD, T/C, mV and Ω
- Double Pt100, 3-wire, and T/C input
- Multiple outputs: Input value of Ch1 and Ch2, a scaled process value, redundancy with double sensor elements, aritmetic functions (difference, average, minimum and maximum)
- Easy wiring, plug-in screw terminals
- Sensor matching corrects for sensor errors
- 50 point linearization any sensor can be matched
- Excellent sensor monitoring functions such as: sensor break, sensor short circuit, low sensor isolation and sensor aging
- Up to 8 Masters Class 2
- Integrated in Siemens PDM system

Specifications:

Pet X 10 ≤ X ≤ 1000 ^{11, 41} -200 to +850 °C / -328 to +1562 °F Pet 10 ²¹ , Pet 50 ²¹ , Pet 100 ²¹ -200 to +850 °C / -328 to +1562 °F Pet 10 ²¹ , Pet 50 ²¹ , Pet 100 ²¹ -200 to +850 °C / -328 to +1562 °F Pet 10 ²¹ , Ni 100 ³¹ , Ni 120 ³¹ , Ni 1000 ³¹ -200 to +850 °C / -328 to +1562 °F Pet 10 ²¹ , Pet 50 ²¹ , Pet 100 ²¹ -200 to +850 °C / -328 to +1562 °F Pet 10 ²¹ , Pet 50 ²¹ , Pet 100 °C Pet 1000 Ω Pet 1000 Ω Pet 1000 mV Pe	Input RTD and Resistance	2-, 3- and 4-wire connection
Pt10²¹, Pt50²¹, Pt100²¹ -200 to +850 °C / -328 to +1562 °F Ni50³¹, Ni100³¹, Ni120³¹, Ni1000³¹ -200 to +850 °C / -328 to +1562 °F Input Potentiometer / Resistance 0 to 4000 Ω Input Thermocouples B, C, D, E, J, K, L, N, R, S, T, U Input Voltage -10 to +1000 mV Double channels for redundancy and arithmetic functions Differential Ch1 - Ch2 or Ch2 - Ch1 Average value 0.5 x (Ch1 + Ch2) Average value with redundancy 0.5 x (Ch1 + Ch2), Ch1 or Ch2 if the other one is broken Minimum value Min (Ch1, Ch2) Maximum value Max (Ch1, Ch2) Operating temperature -20 to +70 °C / -4 to +158 °F Galvanic isolation 1500 VAC, 1 min Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ^S	Pt10 ¹⁾ , Pt50 ¹⁾ , Pt100 ¹⁾ , Pt200 ¹⁾ , Pt500 ¹⁾ , Pt1000 ¹⁾	-200 to +850 °C / -328 to +1562 °F
Average value Average val	PtX 10 ≤ X ≤ 1000 ^{1], 4]}	-200 to +850 °C / -328 to +1562 °F
Input Potentiometer / Resistance 0 to 4000 Ω Input Thermocouples B, C, D, E, J, K, L, N, R, S, T, U Input Voltage -10 to +1000 mV Double channels for redundancy and arithmetic functions Differential Ch1 - Ch2 or Ch2 - Ch1 Average value 0.5 x (Ch1 + Ch2) Average value with redundancy 0.5 x (Ch1 + Ch2), Ch1 or Ch2 if the other one is broken Minimum value Min (Ch1, Ch2) Maximum value Max (Ch1, Ch2) Operating temperature -20 to +70 °C / -4 to +158 °F Galvanic isolation 1500 VAC, 1 min Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ^S	Pt10 ² , Pt50 ² , Pt100 ²	-200 to +850 °C / -328 to +1562 °F
New Computation Section Sectio	Ni50 ^{3]} , Ni100 ^{3]} , Ni120 ^{3]} , Ni1000 ^{3]}	-200 to +850 °C /-328 to +1562 °F
The state of the	Input Potentiometer / Resistance	0 to 4000 Ω
Double channels for redundancy and arithmetic functions Differential Ch1 - Ch2 or Ch2 - Ch1 Average value 0.5 x (Ch1 + Ch2) Average value with redundancy 0.5 x (Ch1 + Ch2), Ch1 or Ch2 if the other one is broken Minimum value Min (Ch1, Ch2) Maximum value Max (Ch1, Ch2) Operating temperature -20 to +70 °C / -4 to +158 °F Galvanic isolation 1500 VAC, 1 min Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ⁵	Input Thermocouples	B, C, D, E, J, K, L, N, R, S, T, U
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Average value with redundancy O.5 x (Ch1 + Ch2), Ch1 or Ch2 if the other one is broken Minimum value Maximum value Max (Ch1, Ch2) Operating temperature Over supply Power supply Operating temperature Power supply Powe	Differential	Ch1 - Ch2 or Ch2 - Ch1
other one is broken Minimum value Min [Ch1, Ch2] Maximum value Max [Ch1, Ch2] Operating temperature -20 to +70 °C / -4 to +158 °F Galvanic isolation 1500 VAC, 1 min Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ⁵	Average value	0.5 x (Ch1 + Ch2)
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Operating temperature -20 to +70 °C / -4 to +158 °F Galvanic isolation 1500 VAC, 1 min Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ⁵	Minimum value	Min (Ch1, Ch2)
Galvanic isolation 1500 VAC, 1 min Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ⁵	Maximum value	Max (Ch1, Ch2)
Power supply 9 to 32 VDC Typical accuracy Pt100: 0.10 °C / 0.18 °F ⁵	Operating temperature	-20 to +70 °C / -4 to +158 °F
Fypical accuracy Pt100: 0.10 °C / 0.18 °F5	Galvanic isolation	1500 VAC, 1 min
**	Power supply	9 to 32 VDC
Mounting Rail acc. to DIN EN50022, 35 mm	Typical accuracy	Pt100: 0.10 °C / 0.18 °F ⁵⁾
	Mounting	Rail acc. to DIN EN50022, 35 mm

 10 IEC 60751, α =0.00385 21 JIS 1604, α =0.003916 31 DIN 43760, α =0.006180 41 With Inor PC software ProfiSoft

Input connections 2-wire connection Low isolation detection lead 3-wire connection Low isolation detection lead 4-wire connection Low isolation detection lead Double RTD 3-wire connection Potentiometer 2-wire connection Potentiometer 3-wire connection Potentiometer 4-wire connection Thermocouple Low isolation detection lead 4 Double thermocouple I ow isolation detection lead Thermocouple with remote CJC Voltage Double voltage **Output connections** Bus connection (polarity independent) **Dimensions** 115/4.53 100/3.93

Ordering information

mm/inches

22,5/0,88

PROFIPAQ-L	70PPL00001
PC Configuration kit	70CFG00092
Configuration	70CAL00001



5) For other inputs, see datasheet