

# Analog Signal Conditioners

**picoPak F/I**  
Frequency Input / 1...2 kHz  
Terminal Block



**picoPak F/V**  
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Ordering Data	picoPak F/I		picoPak F/V		picoPak F/V	
	Type	Part No.	Type	Part No.	Type	Part No.
Screw clamp for TS 35 rail						
Screw clamp for TS 32 rail						
Screw clamp for combi-foot, TS 35 or TS 32 rail	picoPak F/I	998420	picoPak F/V	998424	picoPak F/V	998429
Tension clamp for TS 35 rail						
Technical Data	Input signal type	Frequency	Frequency	Frequency	Frequency	Frequency
Material or excitation						
<b>Input range (min...max.)</b>	<b>1...2 kHz*</b>	<b>1...2 kHz*</b>	<b>1...2 kHz*</b>	<b>1...2 kHz*</b>	<b>1...2 kHz*</b>	<b>1...2 kHz*</b>
Input impedance	≥ 100 Ω	≥ 100 Ω	≥ 100 Ω	≥ 100 Ω	≥ 100 Ω	≥ 100 Ω
Line resistance						
Input maximum						
Supply voltage (min./max.)	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC
Supply current (min./max.)	25...45 mA	25...30 mA	25...30 mA	25...30 mA	25...30 mA	25...30 mA
Current/power consumption						
<b>Power requirements</b>	<b>External</b>	<b>External</b>	<b>External</b>	<b>External</b>	<b>External</b>	<b>External</b>
Continuous current rating						
Response or switching freq. max.						
Supply current to PT 100 sensor						
Zero setting (4.0 mA) adjustment						
Span adjustment (20 mA)						
<b>Output signal type</b>	<b>Current</b>	<b>Voltage</b>	<b>Voltage</b>	<b>Voltage</b>	<b>Voltage</b>	<b>Voltage</b>
<b>Output range</b>	<b>4...20 mA*</b>	<b>0...5 V*</b>	<b>0...5 V*</b>	<b>0...10 V*</b>	<b>0...10 V*</b>	<b>0...10 V*</b>
Output load/loop resistance	600 Ω max.	2 kΩ min., 4 kΩ min.	2 kΩ min., 4 kΩ min.	2 kΩ min., 4 kΩ min.	2 kΩ min., 4 kΩ min.	2 kΩ min., 4 kΩ min.
Output supply voltage (min./max.)						
Output supply current (max.)						
Cold junction comp error						
Common mode rejection						
Accuracy input/output	0.05% of full scale nominal, 0.2% max. for voltage output	0.05% of full scale nominal, 0.2% max. for voltage output	0.05% of full scale nominal, 0.2% max. for voltage output	0.05% of full scale nominal, 0.2% max. for voltage output	0.05% of full scale nominal, 0.2% max. for voltage output	0.05% of full scale nominal, 0.2% max. for voltage output
Linearity input/output						
Temperature coefficient						
Transmission frequency	10 Hz	10 Hz	10 Hz	10 Hz	10 Hz	10 Hz
<b>Coupling method</b>	<b>Optically Isolated</b>	<b>Optically Isolated</b>	<b>Optically Isolated</b>	<b>Optically Isolated</b>	<b>Optically Isolated</b>	<b>Optically Isolated</b>
Cross-connections on pin						
Operating Specifications						
Dielectric isolation input to output	1500 VAC RMS, 2 port	1500 VAC RMS, 2 port	1500 VAC RMS, 2 port	1500 VAC RMS, 2 port	1500 VAC RMS, 2 port	1500 VAC RMS, 2 port
Dielectric isolation I/O to power supply						
Dielectric isolation I/O to DIN-rail						
Storage temperature range	-40°C...+85°C	-40°C...+85°C	-40°C...+85°C	-40°C...+85°C	-40°C...+85°C	-40°C...+85°C
Operating temperature range	-40°C...+75°C	-40°C...+75°C	-40°C...+75°C	-40°C...+75°C	-40°C...+75°C	-40°C...+75°C
Relative humidity (non-condensing)						
Wire size	#26...12 AWG / 0.5...2.5 mm <sup>2</sup>	#26...12 AWG / 0.5...2.5 mm <sup>2</sup>	#26...12 AWG / 0.5...2.5 mm <sup>2</sup>	#26...12 AWG / 0.5...2.5 mm <sup>2</sup>	#26...12 AWG / 0.5...2.5 mm <sup>2</sup>	#26...12 AWG / 0.5...2.5 mm <sup>2</sup>
Clamp screw tightening torque Nm (lb.in.)	0.6 (5.31)	0.6 (5.31)	0.6 (5.31)	0.6 (5.31)	0.6 (5.31)	0.6 (5.31)
Mechanical dimensions (WxLxH) mm (in.)	12x88x68 (.47x3.46x2.68)	12x88x68 (.47x3.46x2.68)	12x88x68 (.47x3.46x2.68)	12x88x68 (.47x3.46x2.68)	12x88x68 (.47x3.46x2.68)	12x88x68 (.47x3.46x2.68)
Dimensional diagram	Page 404 Fig. 4	Page 404 Fig. 4	Page 404 Fig. 4	Page 404 Fig. 4	Page 404 Fig. 4	Page 404 Fig. 4
Insulation stripping length mm (in.)						
Certification standards	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE
Accessories	Type	Part No.	Type	Part No.	Type	Part No.
End plate side cover	-	-	-	-	-	-
PC software kit†	-	998471	-	998471	-	998471
Cross-connection, black						
Cross-connection, red						
Cross-connection, blue						
Cross-connection, yellow						

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Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.
picoPak F/I	998421	picoPak F/V	998425	picoPak F/V	998430	picoPak F/I	998422	picoPak F/V	998426
<b>Frequency</b>		<b>Frequency</b>		<b>Frequency</b>		<b>Frequency</b>		<b>Frequency</b>	
1...10 kHz*		1...10 kHz*		1...10 kHz*		1...20 kHz*		1...20 kHz*	
≥ 100 Ω		≥ 100 Ω		≥ 100 Ω		≥ 100 Ω		≥ 100 Ω	
15...30 VDC		15...30 VDC		15...30 VDC		15...30 VDC		15...30 VDC	
25...45 mA		25...30 mA		25...30 mA		25...45 mA		25...30 mA	
<b>External</b>		<b>External</b>		<b>External</b>		<b>External</b>		<b>External</b>	
<b>Current</b>		<b>Voltage</b>		<b>Voltage</b>		<b>Current</b>		<b>Voltage</b>	
4...20 mA*		0...5 V*		0...10 V*		4...20 mA*		0...5 V*	
600 Ω max.		2 kΩ min., 4 kΩ min.		2 kΩ min., 4 kΩ min.		600 Ω max.		2 kΩ min., 4 kΩ min.	
0.05% of full scale nominal, 0.2% max. for voltage output		0.05% of full scale nominal, 0.2% max. for voltage output		0.05% of full scale nominal, 0.2% max. for voltage output		0.05% of full scale nominal, 0.2% max. for voltage output		0.05% of full scale nominal, 0.2% max. for voltage output	
10 Hz		10 Hz		10 Hz		10 Hz		10 Hz	
<b>Optically Isolated</b>		<b>Optically Isolated</b>		<b>Optically Isolated</b>		<b>Optically Isolated</b>		<b>Optically Isolated</b>	
1500 VAC RMS, 2 port		1500 VAC RMS, 2 port		1500 VAC RMS, 2 port		1500 VAC RMS, 2 port		1500 VAC RMS, 2 port	
-40°C...+85°C		-40°C...+85°C		-40°C...+85°C		-40°C...+85°C		-40°C...+85°C	
-40°C...+75°C		-40°C...+75°C		-40°C...+75°C		-40°C...+75°C		-40°C...+75°C	
#26...12 AWG / 0.5...2.5 mm <sup>2</sup> 0.6 (5.31)		#26...12 AWG / 0.5...2.5 mm <sup>2</sup> 0.6 (5.31)		#26...12 AWG / 0.5...2.5 mm <sup>2</sup> 0.6 (5.31)		#26...12 AWG / 0.5...2.5 mm <sup>2</sup> 0.6 (5.31)		#26...12 AWG / 0.5...2.5 mm <sup>2</sup> 0.6 (5.31)	
12x88x68 (.47x3.46x2.68)		12x88x68 (.47x3.46x2.68)		12x88x68 (.47x3.46x2.68)		12x88x68 (.47x3.46x2.68)		12x88x68 (.47x3.46x2.68)	
Page 404 Fig. 4		Page 404 Fig. 4		Page 404 Fig. 4		Page 404 Fig. 4		Page 404 Fig. 4	
UL, CSA, CE		UL, CSA, CE		UL, CSA, CE		UL, CSA, CE		UL, CSA, CE	
<b>Type</b>	<b>Part No.</b>	<b>Type</b>	<b>Part No.</b>	<b>Type</b>	<b>Part No.</b>	<b>Type</b>	<b>Part No.</b>	<b>Type</b>	<b>Part No.</b>
-	-	-	-	-	-	-	-	-	-
-	998471	-	998471	-	998471	-	998471	-	998471

\*Consult factory for custom configurations.