

# Analog Signal Conditioners

## picoPak RTD/V

RTD Input / 10 Ω Copper,  
α = 0.0047, 0...100°C  
Terminal Block



## picoPak RTD/I

RTD Input / 10 Ω Nickel,  
α = 0.00672, 0...100°C  
Terminal Block



## picoPak RTD/V

RTD Input / 120 Ω Nickel,  
α = 0.00672, 0...100°C  
Terminal Block



Ordering Data	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 RTD/V	998328	picoPak RTD/I	998320	picoPak RTD/V	998329
Tension clamp for TS 35 rail						
Technical Data						
<b>Input signal type</b>	<b>RTD</b>		<b>RTD</b>		<b>RTD</b>	
Material or excitation	Cu10 Ω		Ni120 Ω		Ni120 Ω	
<b>Input range (min...max.)</b>	<b>10 Ω Copper, α = 0.0047, 0...100°C*</b>		<b>10 Ω Nickel, α = 0.00672, 0...100°C*</b>		<b>120 Ω Nickel, α = 0.00672, 0...100°C*</b>	
Input impedance						
Line resistance						
Input maximum						
Supply voltage (min./max.)	15...30 VDC		15...30 VDC		15...30 VDC	
Supply current (min./max.)	25...30 mA		25...45 mA		25...30 mA	
Current/power consumption						
<b>Power requirements</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>Voltage</b>		<b>Current</b>		<b>Voltage</b>	
<b>Output range</b>	<b>0...10 V*</b>		<b>4...20 mA*</b>		<b>0...10 V*</b>	
Output load/loop resistance	2 kΩ min., 4 kΩ min.		600 Ω max.		2 kΩ min., 4 kΩ min.	
Output supply voltage (min./max.)						
Output supply current (max.)						
Cold junction comp error	150 μA / 0.1°C		150 μA / 0.1°C		150 μA / 0.1°C	
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	
Linearity input/output						
Temperature coefficient						
Transmission frequency	10 Hz		10 Hz		10 Hz	
<b>Coupling method</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	
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	
Operating temperature range	-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>	
Clamp screw tightening torque Nm (lb.in.)	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)	
Dimensional diagram	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	
Accessories	<b>Type</b>	<b>Part No.</b>	<b>Type</b>	<b>Part No.</b>	<b>Type</b>	<b>Part No.</b>
End plate side cover	-	-	-	-	-	-
PC software kit†	-	998471	-	998471	-	998471
Cross-connection, black						
Cross-connection, red						
Cross-connection, blue						
Cross-connection, yellow						

**picoPak TC/I**

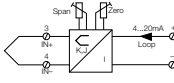
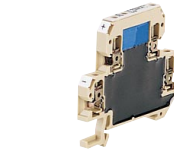
Thermocouple Type E  
0°C...+1000°C  
Terminal Block

**picoPak TC/V**

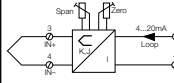
Thermocouple Type E  
0°C...+1000°C  
Terminal Block

**DKT / TC/I**

Thermocouple Type J  
0°C...+200°C  
Terminal Block

**DKT / TC/I**

Thermocouple Type J  
0°C...+400°C  
Terminal Block

**picoPak TC/I**

Thermocouple Type J  
-200°C...+760°C  
Terminal Block



Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.
picoPak TC/I	998337	picoPak TC/V	998347	DKT / J-I	980265	DKT / J-I / 35	980267	DKT / J-I / 32	980266
<b>Thermocouple Type E</b>		<b>Thermocouple Type E</b>		<b>Thermocouple Type J</b>		<b>Thermocouple Type J</b>		<b>Thermocouple Type J</b>	
Ni-Cr / Cu-Ni		Ni-Cr / Cu-Ni		Fe / CV-Ni		Fe / CV-Ni		Fe / CV-Ni	
<b>0°C...+1000°C*</b>		<b>0°C...+1000°C*</b>		<b>0°C...+200°C</b>		<b>0°C...+400°C</b>		<b>-200°C...+760°C*</b>	
				25 mA DC		25 mA DC			
15...30 VDC		15...30 VDC						15...30 VDC	
25...45 mA		25...30 mA						25...45 mA	
<b>External</b>		<b>External</b>		<b>External</b>		<b>External</b>		<b>External</b>	
				-10°C...+260°C		-10°C...+260°C			
				360°C...490°C		360°C...490°C			
<b>Current</b>		<b>Voltage</b>		<b>Current</b>		<b>Current</b>		<b>Current</b>	
<b>4...20 mA*</b>		<b>0...10 V*</b>		<b>4...20 mA</b>		<b>4...20 mA</b>		<b>4...20 mA*</b>	
600 Ω max.		2 kΩ min., 4 kΩ min.		0...1 kΩ		0...1 kΩ		600 Ω max.	
				18...32 VDC		18...32 VDC			
0.6°C / 0.1°C		0.6°C / 0.1°C		±1°C (for amb change of 0-40 °C)				0.6°C / 0.1°C	
0.05% of full scale nominal, 0.2% max. for voltage output		0.05% of full scale nominal, 0.2% max. for voltage output		±0.5% of FS		±0.5% of FS		0.05% of full scale nominal, 0.2% max. for voltage output	
				0.05% max.		0.05% max.			
				0.012%/°C max.		0.012%/°C max.			
10 Hz		10 Hz						10 Hz	
<b>Optically Isolated</b>		<b>Optically Isolated</b>		<b>Direct</b>		<b>Direct</b>		<b>Optically Isolated</b>	
1500 VAC RMS, 3 port		1500 VAC RMS, 3 port						1500 VAC RMS, 3 port	
-40°C...+85°C		-40°C...+85°C		-20°C...+70°C		-20°C...+70°C		-40°C...+85°C	
-40°C...+75°C		-40°C...+75°C		-10°C...+55°C		-10°C...+55°C		-40°C...+75°C	
				Up to 95%		Up to 95%			
#26...12 AWG / 0.5...2.5 mm²		#26...12 AWG / 0.5...2.5 mm²		#20...12 AWG / 0.5...2.5 mm²		#20...12 AWG / 0.5...2.5 mm²		#26...12 AWG / 0.5...2.5 mm²	
0.6 (5.31)		0.6 (5.31)		0.5 (4.38)		0.5 (4.38)		0.6 (5.31)	
12x88x68 (.47x3.46x2.68)		12x88x68 (.47x3.46x2.68)		6x65x57 (.24x2.56x2.24)		6x65x57 (.24x2.56x2.24)		12x88x68 (.47x3.46x2.68)	
Page 404 Fig. 4		Page 404 Fig. 4		Page 404 Fig. 2		Page 404 Fig. 2		Page 404 Fig. 4	
				9 (.35)		9 (.35)			
UL, CSA, CE		UL, CSA, CE		CE		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>
-	-	-	-	AP (1.5)	68756	AP (1.5)	68756	-	-
-	998471	-	998471					-	998471

\*Consult factory for custom configurations.