NEW

WAVEANALOG PRO Thermo

- 3-way-isolation
- Thermocouples
  K, J, T, E, N, R, S, B configurable
- Temperature range
  -200°C…+1820°C
- No adjustment necessary
- Cold junction compensation
- Configurable output signal
- Cross-connectable voltage supply via cross-connectors

Approvals:

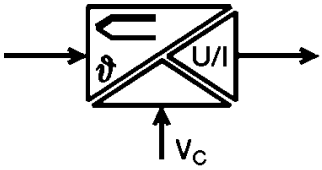
CE cULus GL

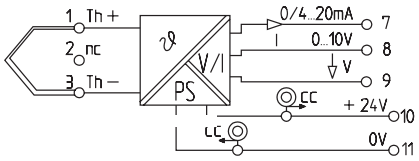
PRO Thermo

Adjustment help WAVETOOL

This service tool enables quick and uncomplicated configuration of WAVEANALOG PRO. Download from the Internet: http://www.weidmuller.com ⇨ Products ⇨ Downloads (see page 257)

Block diagram





Ordering data	Type	Part No.
Screw connection	WAS5 PRO Thermo	**8560720000**
Tension clamp connection	WAZ5 PRO Thermo	**8560730000**
Input/output	configurable	

Technical data*	
Input (adjustable)	
	Thermocouples acc. to EN 60584-1
	Type K, J, E, N, R, S, B via DIP switch selectable
Accuracy at Tu = 23°C	Type K -200°C…-150°C ± (5K + 0.1% of set range)
	-150°C…+1200°C ± (3K + 0.1% of set range)
	+1200°C…+1372°C ± (4K + 0.1% of set range)
	Type J -200°C…-150°C ± (4K + 0.1% of set range)
	-150°C…+1200°C ± (3K + 0.1% of set range)
	Type T -200°C…-150°C ± (5K + 0.1% of set range)
	-150°C…+400°C ± (3K + 0.1% of set range)
	Type E -200°C…-150°C ± (4K + 0.1% of set range)
	-150°C…+1000°C ± (3K + 0.1% of set range)
	Type N -200°C…-150°C ± (6K + 0.1% of set range)
	-150°C…+1300°C ± (3K + 0.1% of set range)
	Type R -50°C…+200°C ± (10K + 0.1% of set range)
	+200°C…+1760°C ± (6K + 0.1% of set range)
	Type S -50°C…+200°C ± (10K + 0.1% of set range)
	+200°C…+1760°C ± (6K + 0.1% of set range)
	Type B +50°C…+250°C ± (25K + 0.1% of set range)
	+250°C…+500°C ± (10K + 0.1% of set range)
	+500°C…+1820°C ± (6K + 0.1% of set range)
Output (adjustable)	
Output voltage	0…10 V
Offset voltage	Max. 0.05 V
Load resistance	≥ 1 KΩ
Output current	0/4…20 mA
Offset current	max. 100 µA
Load resistance	≤ 600 Ω
Step response	max. 1.4 s
at connected filter function	max. 7.5 s
Max. wire resistance	50 Ω for 3- and 4-wire
Open circuit recognition	Output signal > 10 V or > 20 mA, LED blinks
Range of man. fine adjustment	≥ ±5%
Status LED:	Module active: LED lights up/open circuit: LED blinks
	Error: LED off
General	
Supply voltage:	18 VDC…24 VDC…30 VDC
Power consumption:	800 mV…850 mW…950 mW @ I output = 20 mA
Current carrying capacity of cross-connection	≤ 2 A
Operating temperature	0°C…+55°C
Storage temperature	-20°C…+85°C
Standards/specifications	EN 50178, IEC751
EMC standards	EN 50081, EN50082, EN55011
Factory setting	Type K 0…1000°C/4…20 mA; no filter;
	No manual fine adjustment
Dimensions W/L/H mm (in.)	17.5/92.4/112.5 (.69/3.64/4.43)
Weight	100 g
Approvals	CE, UL, GL
Dimensions and accessories see	Page 356 + 366

* T_U = 23°C single module

Selection the thermocoupler

Type	SW1 1	2	3
K	■	■	■
J		■	■
T	■		■
E			■
N	■	■	
R		■	
S	■		
B			

Selection of minimum temperature

q_{min}	SW1 4	5	6	7
0°C	■	■	■	■
-10°C	■	■	■	
-20°C	■	■		■
-30°C	■	■		
-40°C	■		■	■
-50°C	■		■	
-100°C	■			■
-150°C	■			
-200°C		■	■	■
+50°C		■	■	
+100°C		■		■
+150°C		■		
+200°C			■	■
+250°C			■	
+500°C				■
Special range				

Selection of temperature span

Span	SW2 1	2	3	4	5
+100°C	■	■	■	■	■
+150°C	■	■	■	■	
+200°C	■	■	■		■
+250°C	■	■	■		
+300°C	■	■		■	■
+350°C	■	■		■	
+400°C	■	■			■
+450°C	■	■			
+500°C	■		■	■	■
+550°C	■		■	■	
+600°C	■		■		■
+650°C	■		■		
+700°C	■			■	■
+750°C	■			■	
+800°C	■				■
+850°C	■				
+900°C		■	■	■	■
+950°C		■	■	■	
+1000°C		■	■		■
+1050°C		■	■		
+1100°C		■		■	■
+1150°C		■		■	
+1200°C		■			■
+1250°C		■			
+1300°C			■	■	■
+1350°C			■	■	
+1400°C			■		■
+1450°C			■		
+1500°C				■	■
+1600°C				■	
+1700°C					■
+1800°C					

■ = on
= off

Selection of output

Output	SW2 6	7
0…10V	■	
0…20mA		
4…20mA		■

Switching on the manual fine adjustment

man. adjust.	SW1 8
off	
on	■

Switching on the filter function

Filter	SW2 8
off	
on	■

Coordination of insulation acc. to DIN EN 50178, 04/98

Rated voltage	300 V
Surge voltage	4 kV
Overvoltage category	III
Contamination class	2
Clearance & creep. distance	3 mm (.12 in.)
Test voltage	2 kV_{eff}