

PT100 TEMPERATURE TRANSMITTER

Type: TAMA & TAMB

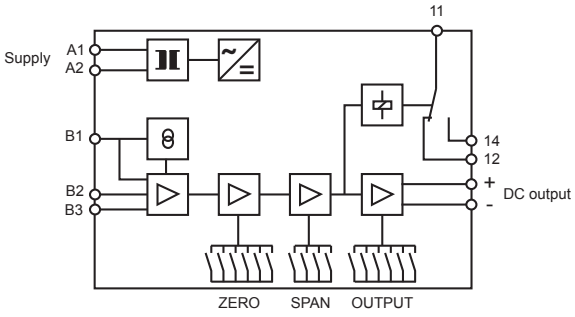
FEATURES:

- **74 programmable input ranges**
- **6 programmable output ranges**
- **Excellent linearity < 0.2%**
- **Build-in relay with adjustable limit (only in type TAMB)**
- **LED indicates the state of the relay (only in type TAMB)**
- **Small outlines**

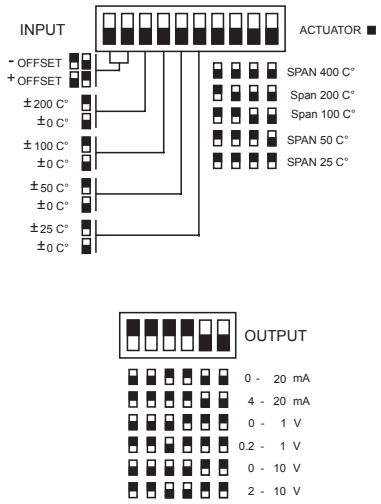
Description:
The measuring transducers type TAMA and TAMB are used for measuring the temperature with a PT100 sensor according to DIN IEC 751.

Application:
Monitoring temperatures in: motors, generators, heaters, air-condition systems, chemical processes and machine parts. The transducer is especially well suited for pre-amplification and range setting in front of instrumentation, PLCs, PC and microprocessor control systems.

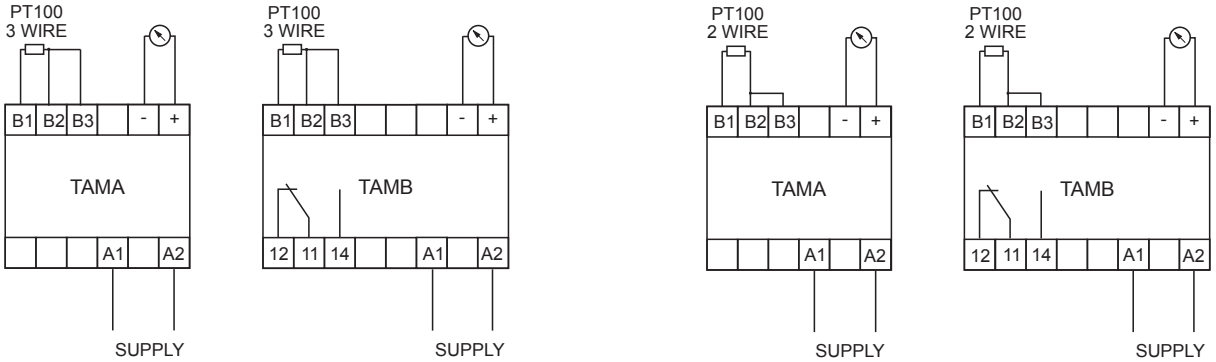
FUNCTION DIAGRAM



PROGRAMMABLE FEATURES



CONNECTION DIAGRAM



Thiim A/S
Transformervej 31
2730 Herlev - Denmark
Tel.: +45 4485 8000
Fax: +45 4485 8005
Web: www.thiim.com
Webshop: shop.thiim.com

SPECIFICATIONS

INPUT PT100 sensor

Sensor current	0.75 mA
Input range	- 100 to + 400 °C
Zero offset	dipswitch programmable from - 100 to + 375 °C in steps off 25 °C
Zero offset adjustment	offset ± 5% (no function at 0 °C offset)
Span	5 dipswitch programmable ranges 400 °C, 200 °C, 100 °C, 50 °C, 25 °C
Span adjustment	span range adjustable ± 5%

PERFORMANCE PARAMETERS

TIMING	
Response time	< 200 msec.
ELECTRICAL	
Precision	<± (Span °C x 0,003) + 0.5 °C
Linearity	< 0.2 %
Ripple	< 1 % pp
Supply dependence	< fs.± 0.01 % / % ΔU supply
Temp. dependence	< fs.± 0.02 % / °C
Type TAMB	
Limit	Adjustable from zero to span setting
Differential	Adjustable from limit to zero

OUTPUT

The output amplifier is protected against open- and short - circuit

Range	Programmable with dipswitch			
	0 -20	mA	Max. 0.5	kΩ
	4 -20	mA	Max. 0.5	kΩ
	0 - 1	V	Min. 0.1	kΩ
	0.2 - 1	V	Min. 0.1	kΩ
	0 -10	V	Min. 0.5	kΩ
	2 -10	V	Min. 0.5	kΩ
Relay	1C/O, AgCdO			
Contact rating	6 A, 250 VAC, 1250 W			
Mechanical life	30 million operations			

SUPPLY

DC supply range with internal switchmode supply	24V (From 20 to 32V)
AC supply range	24V (From 20 to 28V)
Transformer supply	110V (From 99 to 140V)
	230V (From 198 to 264V)
	400V (From 342 to 484V)
AC frequency	45 to 440 Hz
Power consumption	4 VA, 2W

GENERAL

Temperature range	- 25 °C to + 55 °C	
Humidity	Up to 90 % RH non-condensing	
Dielectric test voltage	Input to AC supply	4000 VAC
	Coil to relay contacts (TAMB)	4000 VAC
Weight	0.16 kg	

CE

International Standards

EMC directive 89/336: EN50081 - Emission

EN50082 - Immunity

Low voltage directive 73/23: EN60255 - Electrical Relays

EN60688 - Measuring transducers

ORDERING INFORMATION

EXAMPLE: TAMA B 230 D A 3 C

TYPE

Temp. transmitter	TAMA
Temp. transmitter with 1 C/O limit contact	TAMB

SUPPLY

AC with transformer	B
DC with switchmode	E

SUPPLY VOLTAGE

From	20 to 32 VDC	024
From	20 to 28 VAC	024
From	99 to 140 VAC	110
From	198 to 264 VAC	230
From	342 to 484 VAC	400

ADJUSTMENT

Input zero & span adjustable + dipswitch programmable Output dipswitch programmable	D

HOUSING

rail mounting	A

SIZE

Type TAMA	35mm	3
Type TAMB	45mm	4

CODE END C

We reserve the right to make changes for product improvement.