



**TEMCO CONTROLS LTD.**

4416 South Parkside Court, Spokane, Washington, USA 99223

Tel: (214) 306-6069 Fax: (206) 350 0330



## **CE - DECLARATION OF CONFORMITY**

**According to ISO 17025 and EN 45001**

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Manufacturer's Name: Temco Controls

Manufacturer's Address: 4416 South Parkside Court  
Spokane, Washington, USA, 99223



Declares that the product (s):

Product Name: Single Phase Power Meter, With Internal CT

Model Numbers: Power Meter

Product Options: All

Conforms to the following Product Specifications:

Emission			
Performed Test Item	Normative References	Test Performed	Deviation
Conducted disturbance at mains terminals and telecommunication ports	EN 60730-1:2011 CISPR 22: 2008 Class B	Yes	No
Radiated disturbance	EN 60730-1:2011 CISPR 22: 2008 Class B	Yes	No
Harmonic current emissions	EN 61000-3-2:2006+A1:2009+A2:2009	Yes	No
Voltage fluctuations and flicker	EN 61000-3-3:2008	Yes	No

Immunity			
Performed Test Item	Normative References	Test Performed	Deviation
Electrostatic discharge	EN 61000-4-2:2009	Yes	No
Radio-frequency electromagnetic field	EN 61000-4-3:2006+A1:2009	Yes	No
Electrical fast transients	EN 61000-4-4:2012	Yes	No
Surges	EN 61000-4-5:2006	Yes	No
Radio-frequency continuous conducted	EN 61000-4-6:2009	Yes	No
Power frequency magnetic field	EN 61000-4-8:2010	Yes	No
Voltage dips and interruptions	EN 61000-4-11:2004	Yes	No

- Electrostatic discharge:

Test Specification according to EMC Standard EN 61000-4-2

Test Site	TR3	Date of Test	2013.12.03
EUT	CO2 Sensor with Humidity/Temp sensor	Test Voltage	AC 230V / 50Hz
Temperature	23°C	Humidity	44%RH
Barometric Pressure	101kPa	Test Engineer	Make
Test Mode	Mode 1: Normal operation		

Air Discharge								
Test Location	Test Level						Observation	Result
	+2kV	-2kV	+4kV	-4kV	+8kV	-8kV		
1	A	A	A	A	A	A	Note	Pass
2	A	A	A	A	A	A	Note	Pass
3	A	A	A	A	A	A	Note	Pass
4	A	A	A	A	A	A	Note	Pass
5	A	A	A	A	A	A	Note	Pass
6	A	A	A	A	A	A	Note	Pass
7	A	A	A	A	A	A	Note	Pass
10	A	A	A	A	A	A	Note	Pass
11	A	A	A	A	A	A	Note	Pass
12	A	A	A	A	A	A	Note	Pass
13	A	A	A	A	A	A	Note	Pass
14	A	A	A	A	A	A	Note	Pass
15	A	A	A	A	A	A	Note	Pass
16	A	A	A	A	A	A	Note	Pass
17	A	A	A	A	A	A	Note	Pass
18	A	A	A	A	A	A	Note	Pass
19	A	A	A	A	A	A	Note	Pass
20	A	A	A	A	A	A	Note	Pass

Contact Discharge				
Test Location	Test Level		Observation	Result
	+4kV	-4kV		
8	A	A	Note	Pass
9	A	A	Note	Pass

Horizontal Coupling				
Test Location	Test Level		Observation	Result
	+4kV	-4kV		
Front	A	A	Note	Pass
Rear	A	A	Note	Pass
Left	A	A	Note	Pass
Right	A	A	Note	Pass

Vertical Coupling				
Test Location	Test Level		Observation	Result
	+4kV	-4kV		
Front	A	A	Note	Pass
Rear	A	A	Note	Pass
Left	A	A	Note	Pass
Right	A	A	Note	Pass

NOTE: There was no change compared with initial operation during the test.

- Radio-frequency electromagnetic field

Test Specification according to EMC Standard EN 61000-4-3

Test Site	AC4	Date of Test	2013.12.03
EUT	CO2 Sensor with Humidity/Temp sensor	Test Voltage	AC 230V / 50Hz
Temperature	23°C	Humidity	43%RH
Barometric Pressure	101kPa	Test Engineer	Jane
Test Mode	Mode 1: Normal operation		

Frequency (MHz)	Polarity	Position	Field Strength (V/m)	Test Result Criterion	Observation	Result
80-1000	Horizontal	Front	3	A	Note	Pass
80-1000	Vertical	Front	3	A	Note	Pass
80-1000	Horizontal	Rear	3	A	Note	Pass
80-1000	Vertical	Rear	3	A	Note	Pass
80-1000	Horizontal	Left	3	A	Note	Pass
80-1000	Vertical	Left	3	A	Note	Pass
80-1000	Horizontal	Right	3	A	Note	Pass
80-1000	Vertical	Right	3	A	Note	Pass
1400-2000	Horizontal	Front	3	A	Note	Pass
1400-2000	Vertical	Front	3	A	Note	Pass
1400-2000	Horizontal	Rear	3	A	Note	Pass
1400-2000	Vertical	Rear	3	A	Note	Pass
1400-2000	Horizontal	Left	3	A	Note	Pass
1400-2000	Vertical	Left	3	A	Note	Pass
1400-2000	Horizontal	Right	3	A	Note	Pass
1400-2000	Vertical	Right	3	A	Note	Pass
2000-2700	Horizontal	Front	1	A	Note	Pass
2000-2700	Vertical	Front	1	A	Note	Pass
2000-2700	Horizontal	Rear	1	A	Note	Pass
2000-2700	Vertical	Rear	1	A	Note	Pass
2000-2700	Horizontal	Left	1	A	Note	Pass
2000-2700	Vertical	Left	1	A	Note	Pass
2000-2700	Horizontal	Right	1	A	Note	Pass
2000-2700	Vertical	Right	1	A	Note	Pass

NOTE: There was no change compared with initial operation during the test.

- Electrostatic fast transients

Test Specification according to EMC Standard EN 61000-4-4

Test Site	TR2	Date of Test	2013.12.03
EUT	CO2 Sensor with Humidity/Temp sensor	Test Voltage	AC 230V / 50Hz
Temperature	24°C	Humidity	43%RH
Barometric Pressure	101kPa	Test Engineer	Jane
Test Mode	Mode 1: Normal operation		

Input a.c. power ports (Tr/Th: 5/50ns, Repetition Frequency: 5kHz)							
Inject Line	Polarity	Test Level (kV)	Test Duration (second)	Inject Method	Test Result Criterion	Observation	Result
L	+	1	60	Direct	A	Note	Pass
L	-	1	60	Direct	A	Note	Pass
N	+	1	60	Direct	A	Note	Pass
N	-	1	60	Direct	A	Note	Pass
L+N	+	1	60	Direct	A	Note	Pass
L+N	-	1	60	Direct	A	Note	Pass
Signal ports and telecommunication ports (Tr/Th: 5/50ns, Repetition Frequency: 5kHz)							
Inject Line	Polarity	Test Level (kV)	Test Duration (second)	Inject Method	Test Result Criterion	Observation	Result
LAN	+	0.5	60	Clamp	A	Note	Pass
LAN	-	0.5	60	Clamp	A	Note	Pass

NOTE: There was no change compared with initial operation during the test.

- Surges

Test Specification according to EMC Standard EN 61000-4-5

Test Site	TR2	Date of Test	2013.12.03
EUT	CO2 Sensor with Humidity/Temp sensor	Test Voltage	AC 230V / 50Hz
Temperature	24°C	Humidity	44%RH
Barometric Pressure	101kPa	Test Engineer	Jane
Test Mode	Mode 1: Normal operation		

Inject Line	Polarity	Angle (degree)	Test Level (kV)	Test Interval (second)	Test Result Criterion	Observation	Result
L+N	+	0	0.5	60	A	Note	Pass
L+N	-	0	0.5	60	A	Note	Pass
L+N	+	90	0.5	60	A	Note	Pass
L+N	-	90	0.5	60	A	Note	Pass
L+N	+	180	0.5	60	A	Note	Pass
L+N	-	180	0.5	60	A	Note	Pass
L+N	+	270	0.5	60	A	Note	Pass
L+N	-	270	0.5	60	A	Note	Pass

NOTE: There was no change compared with initial operation during the test.

- Radio frequency continuous conducted

Test Specification according to EMC Standard EN 61000-4-6

Test Site	TR2	Date of Test	2013.12.03
EUT	CO2 Sensor with Humidity/Temp sensor	Test Voltage	AC 230V / 50Hz
Temperature	22°C	Humidity	44%RH
Barometric Pressure	101kPa	Test Engineer	Jane
Test Mode	Mode 1: Normal operation		

Frequency (MHz)	Inject Voltage (V)	Inject Ports	Inject Method	Test Result Criterion	Observation	Result
0.15-80	3	AC Mains	CDN	A	Note	Pass
0.15-80	3	LAN	CDN	A	Note	Pass

NOTE: There was no change compared with initial operation during the test.

## Supplementary Information

The product(s) here with comply with the requirements of the EMC Directive 89/336/EEC. The product(s) were tested in a typical configuration.

**Note:** The product is tested, but not officially certified, to be compliant with FCC CFR47 Part 15 and ETSI EN 300 328 rev. 1.8.1.



## FCC Compliance Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Canada

## Industry Canada Compliance Statement

ICES-003 This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations Cet appareil numérique de la Classe A Respecte toutes les exigences du Règlement sur le matériel brouiller du Canada

Maurice Duteau  
General Manager

A handwritten signature in black ink, appearing to read 'm. duteau', written over a horizontal line.