

First version: A1, 2006-01-19

EMC specification of product TE2

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1. Introduction**1.1 Aim:**

To set up minimum requirements to meet the protection requirements in the EMC directive EEC 89/336 according to article 10.2.

2. The product**2.1 The product:**

Temperature amplifier with 4...20 mA current loop

2.2 Type:

Product type no. TE2xx xx(2/5)x xxxx(x)

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2.3 Environmental use:

Industry.

2.4 Description of the product:

Construction:

The product contain a circuit board. The module contain analogue circuits and low power CPU circuits.

The module has the following ports:

- Current loop input, 4...20 mA (two terminals).
- Sensor connections (two terminals).

Adjustments:

The product has been adjusted from factory.

Measuring range and sensor type to be configured by means of a standard PC, programming kit and SW.

Accuracy:

According to the data sheet the inaccuracy of the module is $\pm 0.25^{\circ}\text{C}$ (PT100) $\pm 0.1\%$ of actual span. At continuous noise exposure, error criterion A is valid.

3. Relevant standards

3.1 Emission: EN 61326.

3.2 Immunity: En 61326.

The following tests are estimated to be relevant:

- CISPR 16 and 16-1: Emission.
- EN 61000-4-3: HF field, 80 - 1000 MHz, 80% AM, 10 V/m. Criterion A.
- EN 61000-4-6: Conducted HF, 0.15 - 80 MHz, 80% AM, 10 VRMS. Criterion A.
- EN 61000-4-2: ESD discharge 8/6 kV. Criterion A.
- EN 61000-4-4: Burst transients 2 kV CM. Criterion A.
- EN 61000-4-5: Surge transients 1 kV CM. Criterion B.

All ports are considered signal ports.

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4. Test plan

- 4.1** The unit is programmed for 2-wire Pt 100, 0...100°C. The current in the loop will be observed during the test.
- 4.2** Regarding emission, ESD and Surge, no test has been made. TE2 is considered to be comparable to previous tested products with same or comparable circuits (FlexTop 2201). The very low power consumption also indicates, that the device does not radiate any considerable noise.

5. Error criterions**5.1 Criterion A:**

Max. accepted deviation from nominal is $\pm 2\%$ of programmed span.

5.2 Criterion B:

No requirements during the test run.

After the test run, the module shall operate normally.

5.3 Criterion C:

Not relevant.

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DECLARATION OF CONFORMITY

We,

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declare under our sole responsibility that the product

Product Name: TE2

Product Description: Temperature amplifier with 4...20 mA output.

Product Type: TE2x x xx2x xxxx (x) and TE2x x xx5x xxxx (x)

to which this declaration relates is in conformity with
the following European Directives:

89 / 336 EMC Directive
92 / 31 Amendment
93 / 68 Amendment

And related European Standards.

EN 61 326 Issue 1. 1997 incl. A1:1998 & A2:2001

Date: 1/2 2007 Sign.: Kurt Møller Jensen
Technology manager
Kurt Møller Jensen

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