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## **EMC specification of product FlexTop 2201**

### **1. Introduction**

### **2. The product**

### **3. Relevant standards**

### **4. Test plan**

### **5. Definition of error criterions**

### **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 for a RTD sensor, and with 4...20 mA current loop.  
FlexTop 2201 is mounted in a DIN-housing form B, and fitting into the Baumer CombiTemp system.

#### **2.2 Type:**

Product type no. FlexTop 2201-xxxx.

#### **2.3 Environmental use:**

Industry.

## 2.4 Description of the product:

### Construction:

The product contains a circuit board, built into a round plastic cabinet for mounting in a DIN-housing form B. The module contains analogue circuits and a low power CPU circuits.

The module has the following ports:

- Current loop input, 4...20 mA (two terminals).
- Sensor connections (four 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  $\pm 0.25^{\circ}\text{C} \pm 0.1\%$  of actual span. At continuous noise exposure, error criterion A is valid.

## 3. Relevant standards

### 3.1 Emission: EN 61326 and Namur NE21.

### 3.2 Immunity: EN 61326 and Namur NE21.

The following tests are estimated to be relevant:

- CISPR 16 and 16-1: Emission.
- EN 61000-4-3: HF field, 80 - 1000 MHz and 1,4 - 2GHz, 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 1 kV CM. Criterion A.
- EN 61000-4-5: Surge transients 1 kV CM. Criterion B.

All ports are considered signal ports.

## 4. Test plan

- 4.1** The unit is programmed for 2-wire Pt 100, 0...100°C, and mounted in a DIN-housing form B with 30 cm sensor tube and a Pt 100. The current in the loop will be observed during the test.
- 5. Error criterions**
- 5.1 Criterion A:**  
Max. accepted deviation from nominal is  $\pm 1\%$  of programmed span (Except, EN61000-4-6 is  $\pm 2\%$ ).
- 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.

**DECLARATION OF CONFORMITY**

We,

**Baumer A/S**  
**Jacob Knudsens Vej 14**  
**8230 Aabyhoj**  
**Denmark**

Tel: +45 89 31 76 11

declare under our sole responsibility that the product

**Product Name: FlexTop 2201****Product Description: Temperature transmitter RTD to 4...20 mA.****Product Type: FlexTop 2201 xxxx**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. Amendment 1 1998-05 and Amendment 2 May 2001****NAMUR NE 21 Issue 1. 8 Feb. 1998**

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