

First version: A1, 2003-11-03

EMC specification of product FlexBar 3431

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:

Pressure transmitter with Profibus PA interface, display is an option.

2.2 Type:

Product type no. FlexBar 343x-xxxx-xxxx

Sidste side: 4	Dato for sidste rev.: 2007-02-01		Rev.: B1
File name: 5506075 B1.doc	QA: OBL	Dok. Nr.: 5506-075	Side: 1

2.3 Environmental use:

Industry.

2.4 Description of the product:

Construction:

The product is built up on circuit boards with wire connection to the measuring cell.

The electronic is embedded in "Hot Melt" and mounted in a stainless steel house.

The product contains analogue circuits and MCPU circuits

The type of measuring cell is conditioned by the pressure measuring range.

The module has the following ports:

- 2 terminals for Profibus PA, at same time supplying the circuit.
(All indicated tests).
- 2 communication terminals for configuring via PC. (ESD test only).
- 1 port for display.

Accuracy:

According to the data sheet the inaccuracy of the module is $\pm 0.2\%$ of the pressure sensor full range.

At continuous noise exposure an inaccuracy up to $\pm 0.2\%$ of the pressure sensor full range can be accepted.

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 8/4 kV. Criterion A (B, test at terminals).
- EN 61000-4-4: Burst transients 1 kV CM. Criterion A.
- EN 61000-4-5: Surge transients 1 kV CM. Criterion A.

All ports are considered signal ports.

Sidste side: 4	Dato for sidste rev.: 2007-02-01		Rev.: B1
File name: 5506075 B1.doc	QA: OBL	Dok. Nr.: 5506-075	Side: 2

4. Test plan

- 4.1** The unit is programmed for full range, and mounted in a Ø80 steel house with measuring cell. The output is controlled via Profibus PA during the test, and according to Profibus PA standards, a shielded PA-cable has been used and correct terminated, for connecting the bus.
- 4.2** Regarding emission. No test has been made. Product type no. FlexBar 3431 is considered to be comparable to previous tested products, and the very low power consumption also indicates, that the device does not radiate any considerable noise.
- 4.3** Product type no. 3431-1211-1x1x, (with display) is estimated to be worst case scenario.

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

Max. accepted deviation from nominal is $\pm 0.2\%$ of the pressure sensor full range.

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.

Sidste side: 4	Dato for sidste rev.: 2007-02-01		Rev.: B1
File name: 5506075 B1.doc	QA: OBL	Dok. Nr.: 5506-075	Side: 3

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: FlexBar 3431

Product Description: Pressure transmitter with Profibus PA interface.

Product Type: FlexBar 343x-xxxx-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. A1:1998 & A2:2001

Date: 12 2007 Sign.: Kurt Møller Jensen
Technology manager
Kurt Møller Jensen

Sidste side: 4	Dato for sidste rev.: 2007-02-01		Rev.: B1
File name: 5506075 B1.doc	QA: OBL	Dok. Nr.: 5506-075	Side: 4