ABB i-bus® EIB / KNX **Software-Information**

Product: **Analogue Input**

Type: **AE/S 4.2**

Current application program: **Threshold value measurement 1.4b**

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Software-Information to: Threshold value measurement 1.4b

from: 04/2015

With Microsoft Update NET Framework 4.5 it could happen in ETS4 (product language) that parameter window frozen. ETS4 is shut down and have to start again.
You only have to load the new application Threshold value measurement 1.4b in the ETS4 and insert one device. With opening the parameter window the ETS4 data is updated.

Changed: - Suitable loc-file for conversion has been changed.

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Software-Information to: Threshold value measurement 1.4a

from: 05/2013

1. General

The application is now available in 8 languages.

(German, English, French, Spanish, Italian, Russian, Dutch, Polish)

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Software-Information to: Threshold value measurement 1.4

from: 02/2013

1. Output values:

Under certain circumstances, the output value (byte value) is not transmitted properly. This has been fixed. The application is available in the language German and English)

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Software-Information to: Threshold value measurement 1.3a

from: 03/2013

1. General

The application is now available in 8 languages.
(German, English, French, Spanish, Italian, Russian, Dutch, Polish)

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Software-Information to: Threshold value measurement 1.3

from: 03/2007

1. 0…1000 ohm sensor:

The function “measured value out of range” with the 0... 1000 ohm sensor was adapted.

In addition an explanation:

When is the communication object measured value out of range sent?

Measured value out of range is sent if the measured value exceeds the lower threshold by about 5 %. This only applies if the lower limit is not equal to 0. If the lower value is 0 it is not possible to determine an undershoot.

Measured value out of range is sent if the measured value upper limit is exceeded by 5 % or if the physical input variable of the analogue input can no longer be detected (overflow).

Is sent if exceed or undershot by 10 %?

The measured value is kept down if the measured value exceeds the lower threshold by about 10 %. This only applies if the lower limit is not equal to 0. If the lower value is 0 it is not possible to determine an undershoot.

The measured value is kept up if the measured value upper limit is exceeded by 10 % or if the physical input variable of the analogue input can no longer be detected (overflow).

Which exception applies for the PT100 sensor input?

With the calculation of the maximum and minimum output values the PT100 sensor input is an exception. Here the lower limit of – 10 % or upper limit + 10 % applies.

The smallest measurable resistance is about 88 ohms and corresponds to about – 30°C. The largest measurable resistance is about 130 ohms and corresponds to about 78°C. The measured resistance is subtracted from the programmable line resistance. Then any possible programmable temperature offset is added. The following differences result depending on the parameterization of the line resistance‘s and the temperature offset Minimum and maximum values.

If the measurement limits are achieved, the communication object “measured value out of range” is set to “1” without further tolerance.

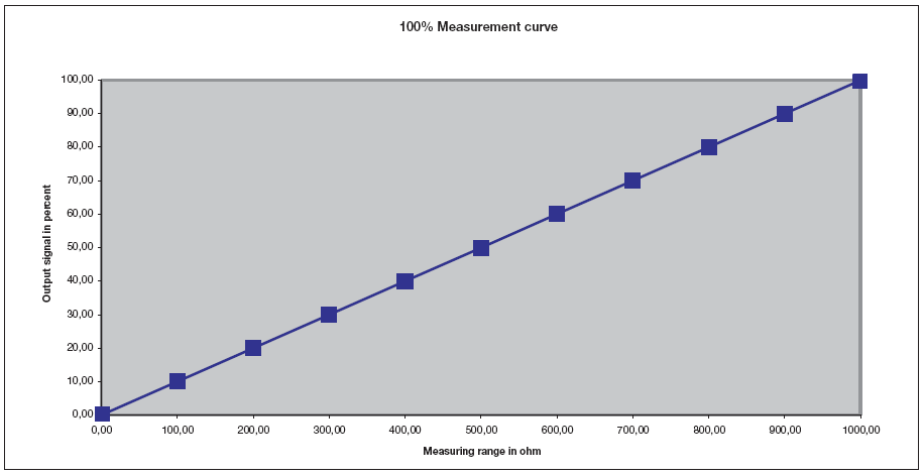
The table shows the maximum limits, see 100 % usage of the measurement range.

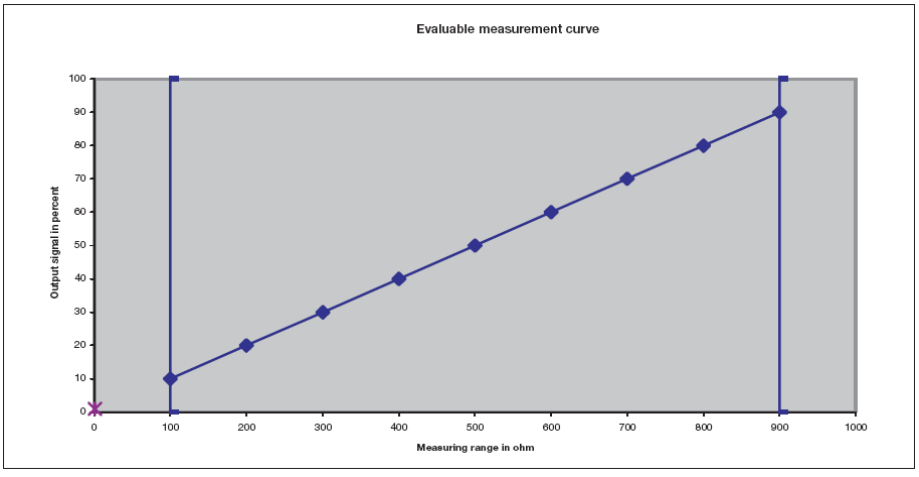
Sensor Signal	0-1V	0-5V	0-10V	1-10V	0-20mA	4-20mA	0-1000Ohm	PT100 (-30...+70°C)	PT100 (-200...+800°C)
Undershot Out of range (5%)	nein	nein	nein	<0,95V	0mA	<3,8mA	nein	-31°C	<-202°C
10% and higher	0V	0V	0V	0,9V	0mA	3,6mA	0Ohm	-31°C	-205°C
Overshot Out of range (ca. 5%)	>1,05V	>5,25V	>10,5V	>10,5V	20,28mA	20,28mA	1050Ohm	+79°C	>+816°C
About 10% and higher	1,06V	5,3V	10,6V	10,6V	20,28mA	20,28mA	1100Ohm	+79°C	+878°C

An example:

If the measurement range is not fully used, the conditions for the measured value out of range communication object change. A sensor with the following properties should be connected to the analogue input.

Signal output:	0 - 1000 ohms
Measurement range:	0…100 %
Measurement curve:	linear
Defined measurement range:	less than 10 % and over 90 % should not be evaluated, i.e. upper measurement limit is about 90 % (900 ohms).





Upper measurement limit:

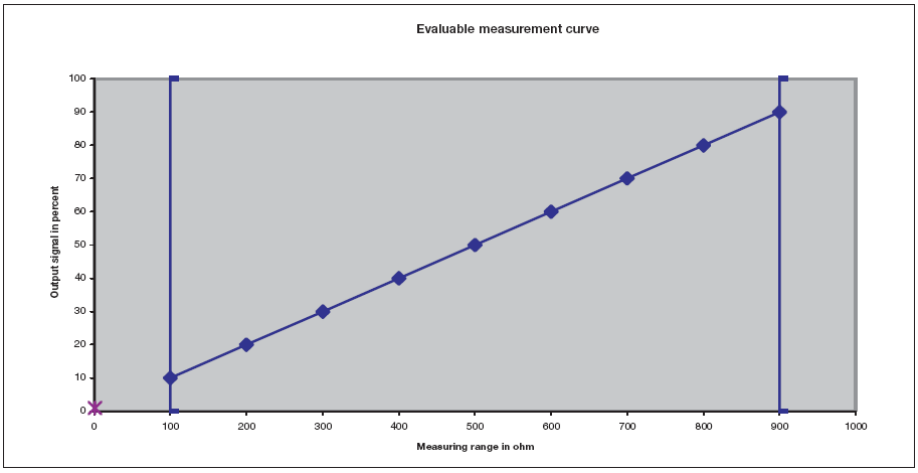
At more than 5 %, i.e. 5 % of 90 % => 4.5 % = 94.5 % => 945 ohms. If 94.5 % is exceeded, the measured value out of range communication object sends.

Up to the measured limit of 10 % the respective value is sent. At more than 10 %, i.e. 10 % of 90 % => 9 % = 99 % => 990 ohms. If 99 % is exceeded, 99 % is still sent.

Lower measurement limit:

At less than 5 %, i.e. 5 % of 10 % => 0.5 % = 9.5 % => 95 ohms. If 9.5 % is undershot, the measured value out of range communication object sends.

Up to the measured limit of 10 % the respective value is sent. At less than 10 %, i.e. 10 % of 10 % => 1 % = 9 % => 90 ohms. If 9 % is undershot, 9 % is still sent.



2. PT100 -200…800°C:

The rider names of the parameter windows for channel D had a "C" instead of "D".

The threshold value functions of the channels B, C and D function now.

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Software-Information to: Threshold value measurement 1.2

from: 09/2005

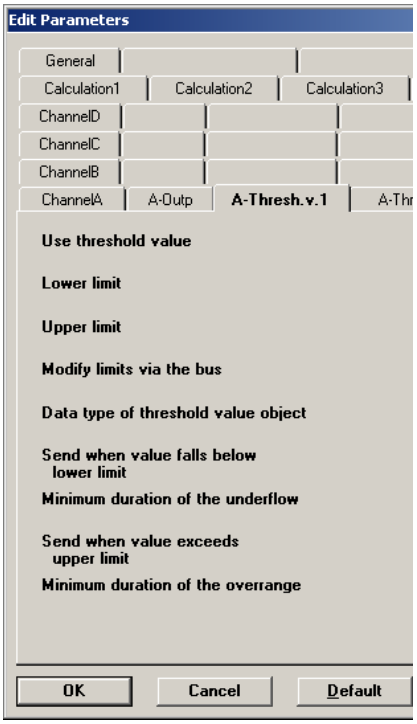
1. Threshold value objects:

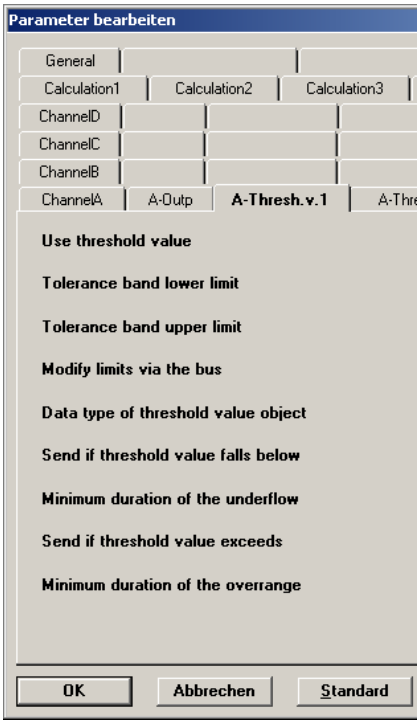
If on parameter page "X-Threshold value 1" has been set, that "no telegram shall be sent" if threshold value 1 is exceeded or undergone and if further on the next parameter page "X-Threshold value output 1" has been set, that the threshold value sends "cyclically", then the threshold value object will send permanently on the bus as soon as the cyclus time is expired.

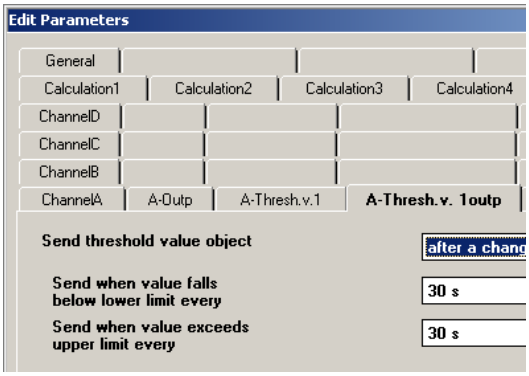
This has been corrected in the new application program.

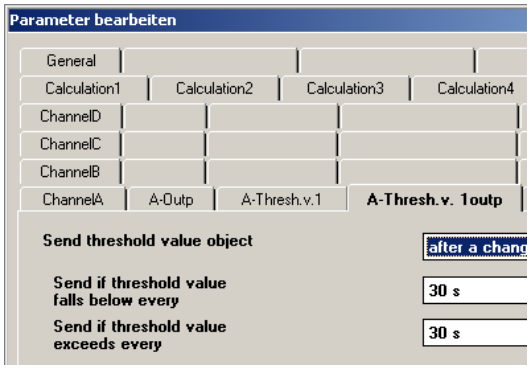
2. The following parameter texts were adapted in the new application program:

Old => **New**









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Software-Information to: Threshold value Measurement 1.1

from: 06/2005

1. 0…1000 ohm sensor:

If the 0...1000 Ohm-sensor is selected, the output value corresponds directly to the measured ohm-value and not to the scaled value like e.g. output value = 0 for 0 Ohm, output value = 255 for 1000 Ohm

This has been corrected in the new application program.

2. PT100 -30…70°C sensor:

The output value is firm on -30.0°C

This has been corrected in the new application program.

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Software-Information to: Threshold value measurement 1.0

from: 05/2005

1. Now with English application program: