Advantech AE Technical Share Document

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Category	■FAQ □SOP	Related OS	N/A
Abstract	WISE-40XX, The function of scaling value		
Keyword	WISE-40XX, Low Scaling Value, High Scaling Value, Web-Service utility		
Related Product	WISE-4012E, WISE-4050, WISE-4060		

■ **Problem Description**:

   In AI's configuration, there are "Low Scaling Value" and "High Scaling Value", May I know how to use these scaling? From what I tried out with "Low Scaling Value = 0", it seems to be: (engineeringValue/scalingRange)*modbusRange

   But when I change "Low Scaling Value", the scaled value became 0. May I know how to calculate scaled value exactly?

■ **Brief Solution - Step by Step:**

For AI of WISE-4012E, the input range is 0~10V, and the corresponding Modbus raw data from 0 to 10000

If low scaling is set at 3.00 and high scaling is set at 9.00 for CH0, the Modbus value of 40191 will be 0 when measuring the 3V and 10000 when measuring 9V.
(For 3+9/2=6V, the raw data will be 5000)

40191	0	AI Value After Scaling	Read
40192	1		Read
40193	Average Channel 0~1		Read

For the data format of "Low Scaling Value" and "High Scaling Value", please see the following table.

AI Min Scaling Value.	LoS.	String.	RW.	Set/get the scaling min value. Data format is "±xxxx.yyy". For example, "+0004.350" or "4.35".
AI Max Scaling Value.	HiS.	String.	RW.	Set/get the scaling max value. Data format is "±xxxx.yyy". For example, "+0016.720" or "16.72".