Section 7.54
[Input/Output] - [Analog I/O]

What Is in This Section?

This section contains the following topics:

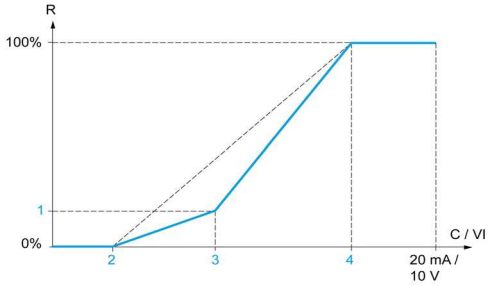
[AI1 configuration] A I 1 - Menu

Access

[Complete settings] ➡ [Input/Output] ➡ [AI/AQ] ➡ [AI1 configuration]

About This Menu

The input can be delinearized by configuring an intermediate point on the input/output curve of this input:



R Reference
C / VI Current or Voltage Input
1 **[Y Interm. point]**
2 **[Min value]** (0%)
3 **[X Interm. point]**
4 **[Max value]** (100%)

NOTE: For **[X Interm. point]**, 0% corresponds to **[Min value]** and 100% to **[Max value]**.

[AI1 Assignment] A I 1 A

Analog input AI1 functions assignment.

Read-only parameter, cannot be configured. It displays all the functions associated with input AI1 in order to verify, for example, for compatibility problems.

If no functions have been assigned, **[No]** n o is displayed.

Setting	Code / Value	Description
[No]	n o	Not assigned
[AQ1 assignment]	A o 1	Analog output AQ1
[AQ2 assignment]	A o 2	Analog output AQ2
[Ref Freq Channel 1]	F r 1	Reference frequency channel 1 **Factory Setting**
[Ref Freq Channel 2]	F r 2	Reference frequency channel 2
[Ref Frequency 2 Summing]	S A 2	Reference frequency 2 summing
[PID Feedback]	P I F	PI controller feedback
[Subtract Ref Freq 2]	d A 2	Subtract reference frequency 2
[Manual PID Ref.]	P I M	Manual speed reference of the PID controller (auto-man)
[PID Ref Frequency]	F P I	PID reference frequency
[Ref Frequency 3 Summing]	S A 3	Reference frequency 3 summing
[Ref Frequency 1B]	F r 1b	Reference frequency 1B
[Subtract Ref Freq 3]	d A 3	Subtract reference frequency 3
[Forced local]	F L o C	Forced local reference source1
[Ref Frequency 2 multiplier]	M A 2	Reference frequency 2 multiplier
[Ref Frequency 3 multiplier]	M A 3	Reference frequency 3 multiplier
[Virtual AI1 Channel]	A I C 1	Virtual AI1 channel selector function
[InletPres Assign]	P S 1A	Select the source of inlet pressure sensor
[OutletPres Assign]	P S 2A	Select the source of outlet pressure sensor
[Inst Flow Assign]	F S 1A	Select the source of installation flow sensor
[Pump Flow Assign]	F S 2A	Select the source of pump flow sensor
[LevelCtrl Sensor]	L C S A	Level control analog sensor

[AI1 Type] A I 1E

Configuration of analog input AI1.

Setting	Code / Value	Description
[Voltage]	10U	0-10 Vdc **Factory setting**
[Current]	0A	0-20 mA
[PTC Management]	PTC	1 to 6 PTC (in serial)
[KTY]	KTY	1 KTY84
[PT100]	1PT2	1 PT100 connected with 2 wires
[PT1000]	1PT3	1 PT1000 connected with 2 wires

[AI1 min value] U I1L ★

AI1 voltage scaling parameter of 0%.

This parameter can be accessed if **[AI1 Type]** A I 1E is set to **[Voltage]** 10U.

Setting	Description
0.0...10.0 Vdc	Setting range **Factory setting**: 0.0 Vdc

[AI1 max value] U I1H ★

AI1 voltage scaling parameter of 100%.

This parameter can be accessed if **[AI1 Type]** A I 1E is set to **[Voltage]** 10U.

Setting	Description
0.0...10.0 Vdc	Setting range **Factory setting**: 10.0 Vdc

[AI1 min. value] CrL1 ★

AI1 current scaling parameter of 0%.

This parameter can be accessed if **[AI1 Type]** A I 1E is set to **[Current]** 0A.

Setting	Description
0.0...20.0 mA	Setting range **Factory setting**: 0.0 mA

[AI1 max. value] CrH1 ★

AI1 current scaling parameter of 100%.

This parameter can be accessed if **[AI1 Type]** A I 1E is set to **[Current]** 0A.

Setting	Description
0.0...20.0 mA	Setting range **Factory setting**: 20.0 mA

[AI1 filter] A I 1F

AI1 cutoff time of the low filter.

Setting	Description
0.00...10.00 s	Setting range **Factory setting**: 0.00 s

[AI1 X Interm. point] A 1 I E

Input delinearization point coordinate. Percentage of the physical input signal.

0% corresponds to **[AI1 min value]** (u I L 1)

100% corresponds to **[AI1 max value]** (u I H 1)

Setting	Description
0...100%	Setting range **Factory setting**: 0%

[AI1 Y Interm. point] A 1 I 5

Input delinearization point coordinate (frequency reference).

Percentage of the internal frequency reference corresponding to the **[AI1 X Interm. point]** (A 1 I E) percentage of physical input signal.

Setting	Description
0...100%	Setting range **Factory setting**: 0%

[AI2 configuration] AI2- Menu

Access

[Complete settings] ➡ **[Input/Output]** ➡ **[AI/AQ]** ➡ **[AI2 configuration]**

[AI2 Assignment] AI2A

AI2 functions assignment.

Identical to **[AI1 Assignment]** AI1A *(see page 503)*.

[AI2 Type] AI2t

Configuration of analog input AI2.

Setting	Code / Value	Description
[Voltage]	10U	0-10 Vdc **Factory setting**
[Current]	0A	0-20 mA
[PTC Management]	PTC	1 to 6 PTC (in serial)
[KTY]	KTY	1 KTY84
[PT1000]	1PT3	1 PT1000 connected with 2 wires
[PT100]	1PT2	1 PT100 connected with 2 wires
[Water Prob]	LEVEL	Water level
[3PT1000]	3PT3	3 PT1000 connected with 2 wires
[3PT100]	3PT2	3 PT100 connected with 2 wires

[AI2 min value] U1L2★

AI2 voltage scaling parameter of 0%.

This parameter can be accessed if **[AI2 Type]** AI2t is set to **[Voltage]** 10U.

Identical to **[AI1 min value]** U1L1 *(see page 504)*.

[AI2 max value] U1H2★

AI2 voltage scaling parameter of 100%.

This parameter can be accessed if **[AI2 Type]** AI2t is set to **[Voltage]** 10U.

Identical to **[AI1 max value]** U1H1 *(see page 504)*.

[AI2 min. value] CrL2★

AI2 current scaling parameter of 0%.

This parameter can be accessed if **[AI2 Type]** AI2t is set to **[Current]** 0A.

Identical to **[AI1 min. value]** CrL1 *(see page 504)*.

[AI2 max. value] CrH2★

AI2 current scaling parameter of 100%.

This parameter can be accessed if **[AI2 Type]** AI2t is set to **[Current]** 0A.

Identical to **[AI1 max. value]** CrH1 *(see page 504)*.

[AI2 filter] AI2F

AI2 filter.

Identical to **[AI1 filter]** AI1F *(see page 504)*.

[AI2 X Interm. point] A I 2 E

AI2 delinearization input level.

Identical to **[AI1 X Interm. point]** A I 1 E *(see page 505)*.

[AI2 Y Interm. point] A I 2 S

AI2 delinearization output level.

Identical to **[AI1 Y Interm. point]** A I 1 S *(see page 505)*.

[AI3 configuration] AI3- Menu

Access

[Complete settings] ➡ **[Input/Output]** ➡ **[AI/AQ]** ➡ **[AI3 configuration]**

[AI3 Assignment] AI3A

AI3 functions assignment.

Identical to **[AI1 Assignment]** AI1A *(see page 503)*.

[AI3 Type] AI3t

Configuration of analog input AI3.

Identical to **[AI2 Type]** AI2t *(see page 506)* with factory setting: **[Current]** 0A.

[AI3 min value] uIL3★

AI3 voltage scaling parameter of 0%.

Identical to **[AI1 min value]** uIL1 *(see page 504)*.

This parameter can be accessed if **[AI3 Type]** AI3t is set to **[Voltage]** 10u.

[AI3 max value] uIH3★

AI3 voltage scaling parameter of 100%.

Identical to **[AI1 max value]** uIH1 *(see page 504)*.

This parameter can be accessed if **[AI3 Type]** AI3t is set to **[Voltage]** 10u.

[AI3 min. value] CrL3★

AI3 current scaling parameter of 0%.

Identical to **[AI1 min. value]** CrL1 *(see page 504)*.

This parameter can be accessed if **[AI3 Type]** AI3t is set to **[Current]** 0A.

[AI3 max. value] CrH3★

AI3 current scaling parameter of 100%.

Identical to **[AI1 max. value]** CrH1 *(see page 504)*.

This parameter can be accessed if **[AI3 Type]** AI3t is set to **[Current]** 0A.

[AI3 filter] AI3F

AI3 cutoff time of the low filter.

Identical to **[AI1 filter]** AI1F *(see page 504)*.

[AI3 X Interm. point] AI3E

AI3 delinearization input level.

Identical to **[AI1 X Interm. point]** AI1E *(see page 505)*.

[AI3 Y Interm. point] AI3S

AI3 delinearization output level.

Identical to **[AI1 Y Interm. point]** AI1S *(see page 505)*.

[AI4 configuration] AI4 - Menu

Access

[Complete settings] ➡ [Input/Output] ➡ [AI/AQ] ➡ [AI4 configuration]

[AI4 Assignment] AI4A ★

AI4 functions assignment.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 Assignment]** AI1A *(see page 503)*.

[AI4 Type] AI4t ★

Configuration of analog input AI4.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Setting	Code / Value	Description
[Voltage]	10U	0-10 Vdc
[Current]	0A	0-20 mA
[Voltage +/-]	n10U	-10/+10 Vdc **Factory setting**

[AI4 min value] UIL4 ★

AI4 voltage scaling parameter of 0%.

Identical to **[AI1 min value]** UIL1 *(see page 504)*.

[AI4 max value] UIH4 ★

AI4 voltage scaling parameter of 100%.

Identical to **[AI1 max value]** UIH1 *(see page 504)*.

[AI4 min. value] CrL4 ★

AI4 current scaling parameter of 0%.

Identical to **[AI1 min. value]** CrL1 *(see page 504)*.

[AI4 max. value] CrH4 ★

AI4 current scaling parameter of 100%.

Identical to **[AI1 max. value]** CrH1 *(see page 504)*.

[AI4 filter] AI4F ★

AI4 cutoff time of the low filter.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 filter]** AI1F *(see page 504)*.

[AI4 X Interm. point] AI4E ★

AI4 delinearization input level.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 X Interm. point]** AI1E *(see page 505)*.

[AI4 Y Interm. point] *A I 4 5* ★

AI4 delinearization output level.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 Y Interm. point]** *A I 1 5* *(see page 505)*.

[AI5 configuration] AI5 - Menu

Access

[Complete settings] ➡ [Input/Output] ➡ [AI/AQ] ➡ [AI5 configuration]

[AI5 Assignment] AI5A ★

AI5 functions assignment.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 Assignment]** AI1A *(see page 503)*.

[AI5 Type] AI5t ★

Configuration of analog input AI5.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI4 Type]** AI4t. *(see page 509)*

[AI5 min value] uIL5 ★

AI5 voltage scaling parameter of 0%.

Identical to **[AI1 min value]** uIL1 *(see page 504)*.

[AI5 max value] uIH5 ★

AI5 voltage scaling parameter of 100%.

Identical to **[AI1 max value]** uIH1 *(see page 504)*.

[AI5 min. value] CrL5 ★

AI5 current scaling parameter of 0%.

Identical to **[AI1 min. value]** CrL1 *(see page 504)*.

[AI5 max. value] CrH5 ★

AI5 current scaling parameter of 100%.

Identical to **[AI1 max. value]** CrH1 *(see page 504)*.

[AI5 filter] AI5F ★

AI5 cutoff time of the low filter.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 filter]** AI1F *(see page 504)*.

[AI5 X Interm. point] AI5E ★

AI5 delinearization input level.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 X Interm. point]** AI1E *(see page 505)*.

[AI5 Y Interm. point] AI5S ★

AI5 delinearization output level.

This parameter can be accessed if VW3A3203 I/O extension module has been inserted.

Identical to **[AI1 Y Interm. point]** AI1S *(see page 505)*.