

ACx580 DI5 Frequency Input Specifications

This document discusses the accuracy of the pulse train input detection on DI5 of the ACx580 drive.

The ACx580 drive can detect a pulse train input down to 2 Hz. Anything below that, the drive cannot detect the signal accurately. The accuracy of the input is +/-1 Hz. The signal is measured and detected as pulses over time.

See below for setup information frequency input:

11 Standard DIO, FI, FO	Configuration of the frequency input.	
11.21 <i>DI5 configuration</i>	Selects how digital input 5 is used.	<i>Digital input</i>
Digital input	DI5 is used as a digital input.	0
Frequency input	DI5 is used as a frequency input.	1
11.38 <i>Freq in 1 actual value</i>	Displays the value of frequency input 1 (via DI5 when it is used as a frequency input) before scaling. See parameter 11.42 <i>Freq in 1 min</i> . This parameter is read-only.	-
0 ... 16000 Hz	Unscaled value of frequency input 1.	1 = 1 Hz
11.39 <i>Freq in 1 scaled value</i>	Displays the value of frequency input 1 (via DI5 when it is used as a frequency input) after scaling. See parameter 11.42 <i>Freq in 1 min</i> . This parameter is read-only.	-
-32768.000... 32767.000	Scaled value of frequency input 1 (DI5).	1 = 1

No.	Name/Value	Description	Def/FbEq16
11.42	<i>Freq in 1 min</i>	<p>Defines the minimum for the frequency actually arriving at frequency input 1 (DI5 when it is used as a frequency input). The incoming frequency signal (11.38 <i>Freq in 1 actual value</i>) is scaled into an internal signal (11.39 <i>Freq in 1 scaled value</i>) by parameters 11.42...11.45 as follows:</p>	0 Hz
	0 ... 16000 Hz	Minimum frequency of frequency input 1 (DI5).	1 = 1 Hz
11.43	<i>Freq in 1 max</i>	<p>Defines the maximum for the frequency actually arriving at frequency input 1 (DI5 when it is used as a frequency input). See parameter 11.42 <i>Freq in 1 min.v</i></p>	16000 Hz
	0 ... 16000 Hz	Maximum frequency for frequency input 1 (DI5).	1 = 1 Hz
11.44	<i>Freq in 1 at scaled min</i>	<p>Defines the value that is required to correspond internally to the minimum input frequency defined by parameter 11.42 <i>Freq in 1 min</i>. See diagram at parameter 11.42 <i>Freq in 1 min</i>.</p>	0.000
	-32768.000... 32767.000	Value corresponding to minimum of frequency input 1.	1 = 1
11.45	<i>Freq in 1 at scaled max</i>	<p>Defines the value that is required to correspond internally to the maximum input frequency defined by parameter 11.43 <i>Freq in 1 max</i>. See diagram at parameter 11.42 <i>Freq in 1 min</i>.</p>	1500.000; 1800.000 (95.20 b0)
	-32768.000... 32767.000	Value corresponding to maximum of frequency input 1.	1 = 1

For more information see the manuals below.

- 3AXD0000016097 ACS580 Firmware Manual
- 3AXD50000027600 ACH580 Firmware Manual
- 3AXD50000611058 ACQ580 Firmware Manual