Acromag, Incorporated
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Known Difference Statement for IP230/235/236 and PMC230

Due to the end of life of the DAC714HL DAC IC used on the IP230/235/236 and PMC230, Acromag has been forced to substitute with the DAC714P. Although designed to be a drop-in replacement for the DAC714HL the characteristics the DAC714P are different. The known differences include change to monotonicity, linearity errors, overall calibration, and un-calibrated errors.

Model effected:

IP230-4, IP230-4E, IP230-8, IP230-8E, IP235-4, IP235-4E, IP235-8, IP235-8E	Revisions G or higher.
IP236-4, IP236-4E, IP236-8, IP236-8E	Revision D or higher
PMC230-8, PMC230-8E	Revision E or higher

Monotonicity

The monotonicity over temperature changes are summarized in the table below.

Monotonicity	**0 to 70C Modules**	**-40 to 85C Modules**
DAC714HL	16-bits	15-bits
DAC714P	14-bits	13-bits

Integral Linearity Error

The integral linearity error changes are summarized in the table below.

Integral Linearity	**Maximum at 25C**
DAC714HL	+/-2 LSB
DAC714P	+/-4 LSB

Differential Linearity Error

The differential linearity error changes are summarized in the table below.

Differential Linearity	**Maximum at 25C**
DAC714HL	+/-1 LSB
DAC714P	+/-4 LSB

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Maximum Overall Calibration Error

The maximum overall calibration error changes at 25C are summarized in the table below.

Maximum Overall Calibration Error	**Maximum LSB (%)**
DAC714HL	+/-4 LSB (0.0061%)
DAC714P	+/-6 LSB (0.0091%)

Maximum Overall Un-calibrated Error

The maximum overall un-calibrated error combining the linearity, offset, and gain errors over temperature are summarized in the table below.

Maximum Overall Uncalibration Error	**Maximum LSB (%)**
DAC714HL	+/- 296.87 LSB (0.453%)
DAC714P	+/- 302.12 LSB (0.461%)

Other Features

➢ Warn-Up Time

The module requires a minimum of 10 minutes of warm-up time immediately after power-up.