HOW TO TRIM A SPEED REFERENCE ON A DCS800

Description:

Below is an example of trimming the speed reference coming to the drive via an analog input with a secondary analog input.

Solution:

Parameter 2.30: Used to monitor the speed reference coming on AI1

Parameter 2.31: Used to monitor the trimmed speed reference AI1*AI2

Parameter 5.03: Used to monitor the AI1 value in voltage

Parameter 5.04: Used to monitor the AI2 value in voltage

Parameter 11.02: Set to OPEN

Parameter 11.03: Set to AI1 (Speed Reference)

Parameter 11.06: Set to AI1*AI2 ; this will trim the speed reference on AI1 by the percent value of AI2 reference. Example: If the speed reference on AI1 runs the drive at 1000 rpm and AI2 is 5 volts, the trim will be 50 %. The trimmed speed reference will be 500 rpm (1000 rpm * 50% = 500 rpm). Confirm the trimmed speed reference by looking at parameter 2.31.

Parameter 11.12: Set to CLOSE; this assigns REF 2 as the speed reference for the drive.

Parameter 13.01: Set to 10000 mV = 10 volts

Parameter 13.02: Set to 0 mV = 0 volts

Parameter 13.03: Set to 0-10V Uni

Parameter 13.05: Set to 10000 mV = 10 volts

Parameter 13.06: Set to 0 mV = 0 volts

Parameter 13.07: Set to 0-10V Uni

To adjust the range of the trim scale adjust parameters 13.05 and 13.06. If the desired trim scale range is 20% to 70%, set 13.05 to 7000 mV (7 volts) and 13.06 to 2000 mV (2 volts).

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Documents or other reference material:

DCS800 Firmware Manual Doc 3ADW000193 R0701` Rev G

Corrective Actions:

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