Optidrive Applications Support Library

Application Note	AN-IDL-011
Title	Using a maximum of two analogue inputs as the speed reference
Related Products	Optidrive E3

Overview

In some applications the Optidrive E3 is required to use a maximum of two analogue input values on the speed reference. This means that the drive will use the maximum value of either analogue input signals as the speed reference.

Please note that the setting of the motor parameters is not included in this application note but are required as part of the basic commissioning of the drive.

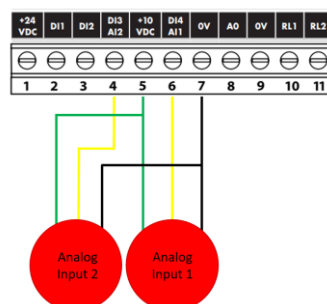This application note is based on a drive that has a defaulted parameter set.

Key Motor Parameters Required for Operation

Parameter	Function	Settings	Explanation
P-12	Primary Command Source	5	Setting the drive to PI Control
P-14	Extended Menu Access code	201	Extending your Parameter access
P-41	PI Controller Proportional Gain	1	PI Controller Integral Time
P-42	PI Controller Integral Time	0	Direct Operation. Use this mode if when the feedback signal drops, the motor speed should increase
P-43	PI Controller Operating Mode	1	Inverse Operation. Use this mode if when the feedback signal drops, the motor speed should decrease
P-45	User PI Digital Reference Set Point	0	When P-44 = 0, this parameter sets the preset digital reference (setpoint) used for the PI Controller as a % of the feedback signal
P-46	PI Feedback Source Select	5	Largest (Analog 1, Analog 2) The larger of the two analogue input values is always used for PI feedback

How to connect your Analog signals to the drive

Analog input 1 connected to Terminals 5, 6 and 7
Analog input 2 connected to Terminals 4, 5 and 7

Appendix:

Revision History			
Version	Comments	Author	Date
1.00	New Application Note Created for E3	RG	03/09/2020