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Product	Optidrive E2 IP20 & IP66 non-switched. Optidrive IP66 switched can be configured if the on-board switch connections are removed.

Title	E2 Parameter P-15 = 7 Set-up Guide

Summary	This document gives set-up information on the Optidrive E2 parameter P-15 = 7

NOTE: Please read in conjunction with the Optidrive E2 User Guide.

This set-up guide gives information on the easiest way to set up the E2 for basic motor control. This set up is from default settings - as the drive comes out of the box from the factory.
This assumes a standard 50Hz AC induction motor.

This set up uses 2 switches and a potentiometer to:
Enable / run the drive, control motor direction and control motor speed.

A motor thermistor, Klixon or a normally closed switch can be connected between +24V and terminal 4 to trip the drive when the motor thermistor resistance goes above 3kΩ or the Klixon or normally closed contact opens.

Parameter settings
In most cases, the default maximum and minimum frequencies and motor rated voltage do not need adjusting because the default settings are OK for the majority of applications and motors.

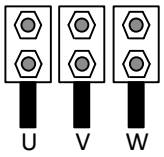
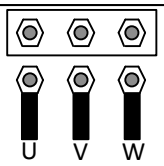
The acceleration and deceleration times may need some adjustment depending on the application and load type.

The motor rated current (P-08) must be set to the motor nameplate current to provide motor protection in case of motor overload.

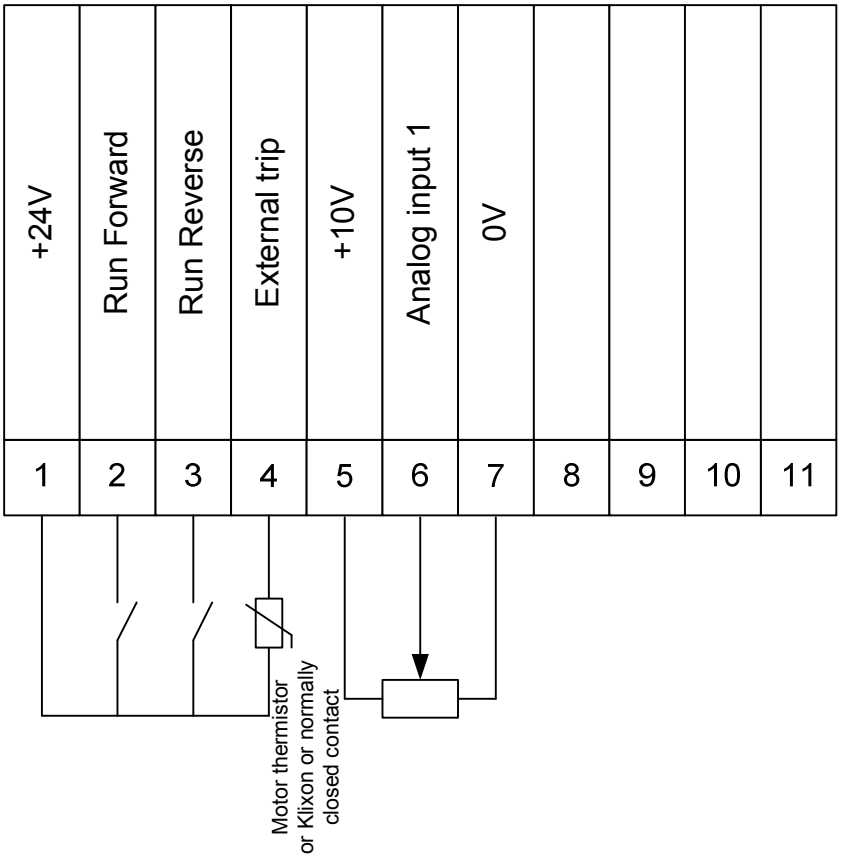
In the majority of applications, the motor rated speed (P-10) does not need setting.

Parameter	Description	Default setting	Description
P-01	Maximum frequency	50Hz	Maximum frequency/speed the motor will run at: 2 pole motor: 3000rpm 4 pole motor: 1500rpm 6 pole motor: 1000rpm 8 pole motor 750rpm
P-02	Minimum frequency	0Hz	Minimum frequency/speed the motor will run at (0 rpm)
P-03	Acceleration time	5 seconds	Acceleration time from 0Hz to 50Hz
P-04	Deceleration time	5 seconds	Deceleration time from 50Hz to 0Hz
P-07	Motor rated voltage	230V/400V	Set to the motor nameplate voltage
P-08	Motor rated current	Drive dependant	Set to the motor nameplate current
P-14	Extended parameter access	0	Set to 101 to allow extended parameter access
P-15	Digital input function select	0	Set to 7

NOTE: Please check that the motor terminal box connections are correct for the voltage you are applying to the motor:

Incoming Supply Voltage	Motor Nameplate Voltages	Connections	
230V	230V / 400V	Delta △	
400V	400V / 690V		
400V	230V / 400V	Star ⅄	

Basic control terminal connections



Terminal 1
+24VDC User supply

Terminal 2: Run Forward
Switch Open: Drive stopped / Disabled
Switch Closed: Drive running in the forward direction

Terminal 3: Run Reverse
Switch Open: Drive stopped / Disabled
Switch Closed: Drive running in the reverse direction

Terminal 4: External trip/motor thermistor input
Terminal Open or motor thermistor greater than 3kΩ: E-trip (Drive fault)
Terminal closed or motor thermistor less than 3kΩ: Drive healthy/running

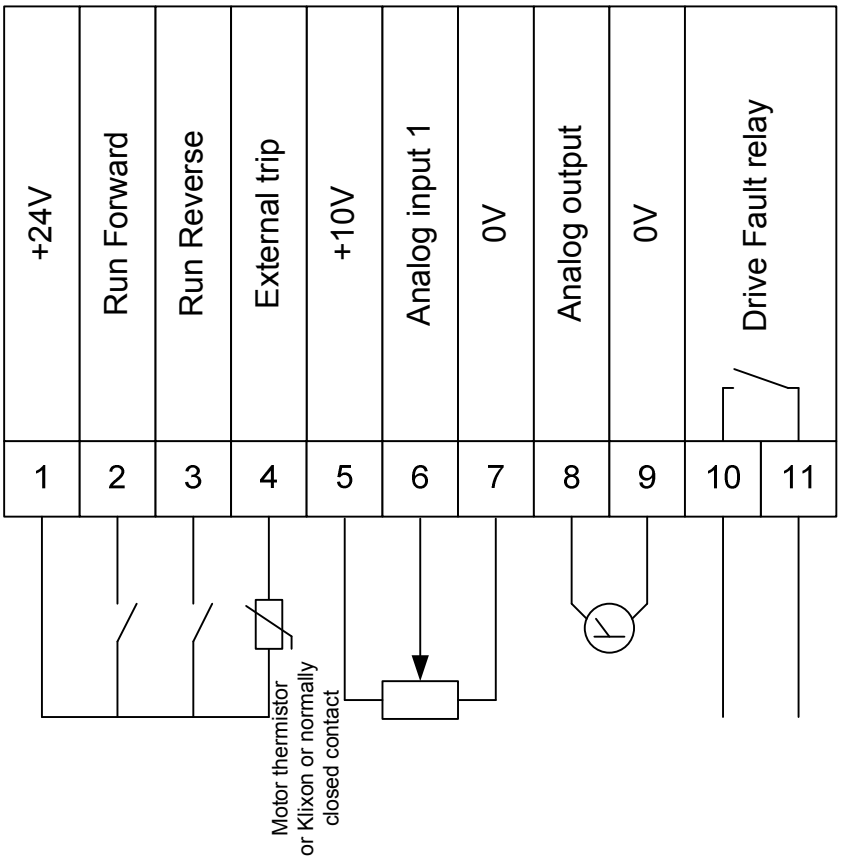
Terminal 5: +10V
Speed potentiometer +10V reference

Terminal 6: Analog input
Speed potentiometer wiper: 0 to +10V

Terminal 7: 0V
Speed potentiometer 0V reference

Note: Closing terminal 2 & 3 together carries out a fast stop (parameter P-24)

Full control terminal connections



Terminal 1
+24VDC User supply

Terminal 2: Run Forward
Switch Open: Drive stopped / Disabled
Switch Closed: Drive running in the forward direction

Terminal 3: Run Reverse
Switch Open: Drive stopped / Disabled
Switch Closed: Drive running in the reverse direction

Terminal 4: External trip/motor thermistor input
Terminal Open or motor thermistor greater than 3kΩ: E-trip (Drive fault)
Terminal closed or motor thermistor less than 3kΩ: Drive healthy/running

Terminal 5: +10V
Speed potentiometer +10V reference

Terminal 6: Analog input
Speed potentiometer wiper: 0 to +10V

Terminal 7: 0V
Speed potentiometer 0V reference

Terminal 8: Analog output - speed
0 to +10VDC output proportional to motor speed (0 to 50Hz = 0 to +10V)

Terminals 10 & 11: Drive Healthy relay
Relay Open: Drive fault
Relay closed: Drive healthy

Note: Closing terminal 2 & 3 together carries out a fast stop (parameter P-24)