

Application Note

AN-ODP-20

## ***Configuring the drive for 3 digital output signals***

**Author:** Ning Xu, Invertek Drives Ltd

**Revision:** 2.21      **6 September 2006**

- **General:**

Optidrive Plus has the ability to provide a 2<sup>nd</sup> digital output signal through one of the digital input channels. When combined with the relay output and analog output, it is possible for the user to have 3 independent digital outputs.

This document describes how to set up and use this 2<sup>nd</sup> digital output function.

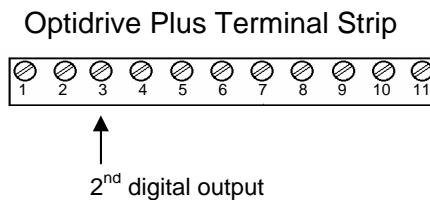
- **Procedure:**

***Note that this digital output is not a dedicated relay output. High voltage signals must not be connected into this output channel if damage is to be avoided.***

The 3<sup>rd</sup> digital output function is available in all control modes (keypad mode / terminal mode / PID / Modbus) and is enabled when P2-01 = 20, 21 or 22.

The digital output signal is available on terminal 3, normally used as digital input 2. The output signal format is 0V (Logic Zero) or 24V (Logic One). The output will drive up to 10mA.

The logical function of this digital output is fixed to "Drive Healthy". In a drive healthy condition, a 24V output signal is present on digital input 2. If the drive is tripped (not healthy), 0V is present on this terminal.



Typical examples for 3 digital outputs would be:

Output 1	(relay out on terminal 10 and 11):	Motor at target speed
Output 2*	(analog output on terminal 8):	Motor at zero speed
Output 3*	(3 <sup>rd</sup> digital output on terminal 3):	Drive healthy

\* Output 1 is the relay output (normally open or normally closed). Output 2 and 3 are logic outputs (0V or 24V).

A dedicated relay output card (ODP-3ROUT-XX) can be used to convert the analog output and 2<sup>nd</sup> digital output signals into relay output signals. For more information about the 3ROUT interface card, please contact Invertek Drives Ltd or your local distributor.

--- End ---