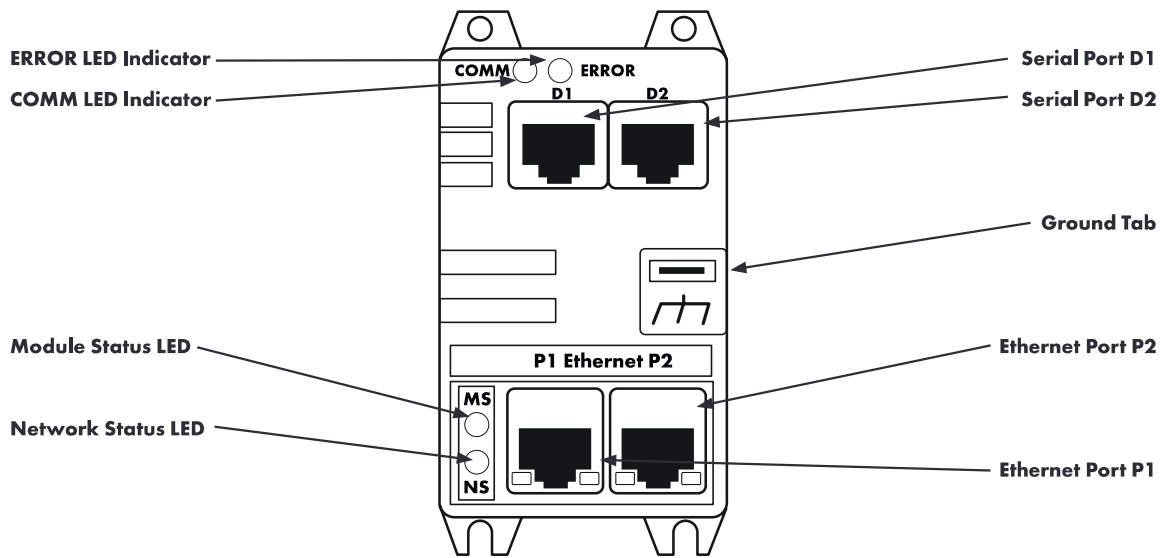# 6. Ethernet Connection

6.1. Available Interface Options

Ethernet interfaces are optionally available for Optidrive E3 and Optidrive Compact 2 products which support either Ethernet/IP protocol or Modbus TCP protocol. Part numbers for these interfaces are shown in the table below. The correct interface should be selected according to the drive type.

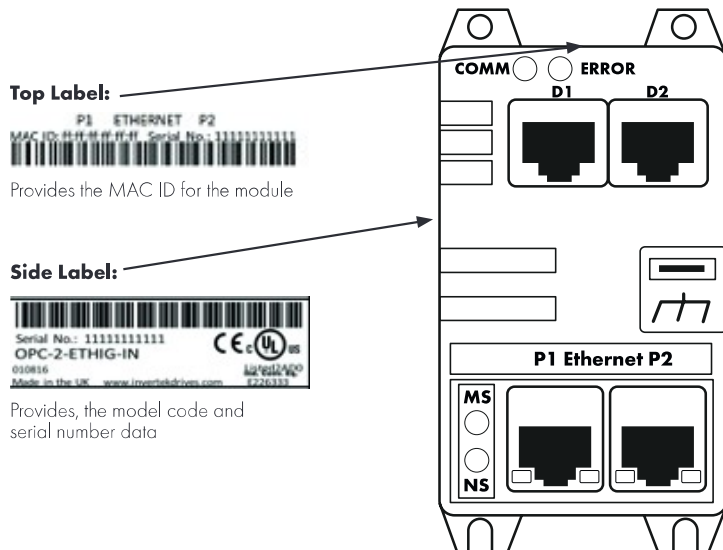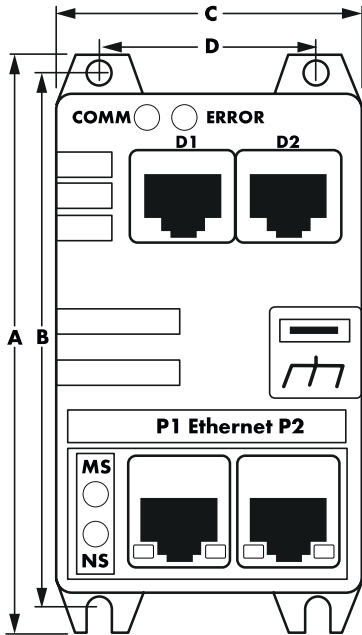| Drive Family	Interface Type	Ethernet/IP Interface Model Code	Modbus TCP Interface Model Code
Optidrive E3 IP20	External Option	OPT-2-ETHEG-IN	OPT-3-MTPEG-IN
Optidrive E3 IP66	Internal Option	Drive Model Code + "-EIP"	Drive Model Code + "-MTP"
Optidrive Compact 2	Plug in Option	OPT-2-ETHIG-IN	OPT-2-MTPEG-IN

6.2. External Interface

6.2.1. Layout

6.2.2. Labelling

There are two labels:

Top Label:

Provides the MAC ID for the module

Side Label:

Provides, the model code and serial number data

6.2.3. Mechanical Installation

- The Ethernet IP interface is intended for mounting inside a control cabinet adjacent to the drive.
- The unit should be mounted in a vertical position only, on a flat, flame resistant, vibration free mounting.
- The unit must be installed in a pollution degree 1 or 2 environment only.
- Use the module as a template to mark the locations for drilling the mounting screws.
- Drill and tap the holes as required.
- Secure the unit to the backplate using suitable screws, 1Nm.

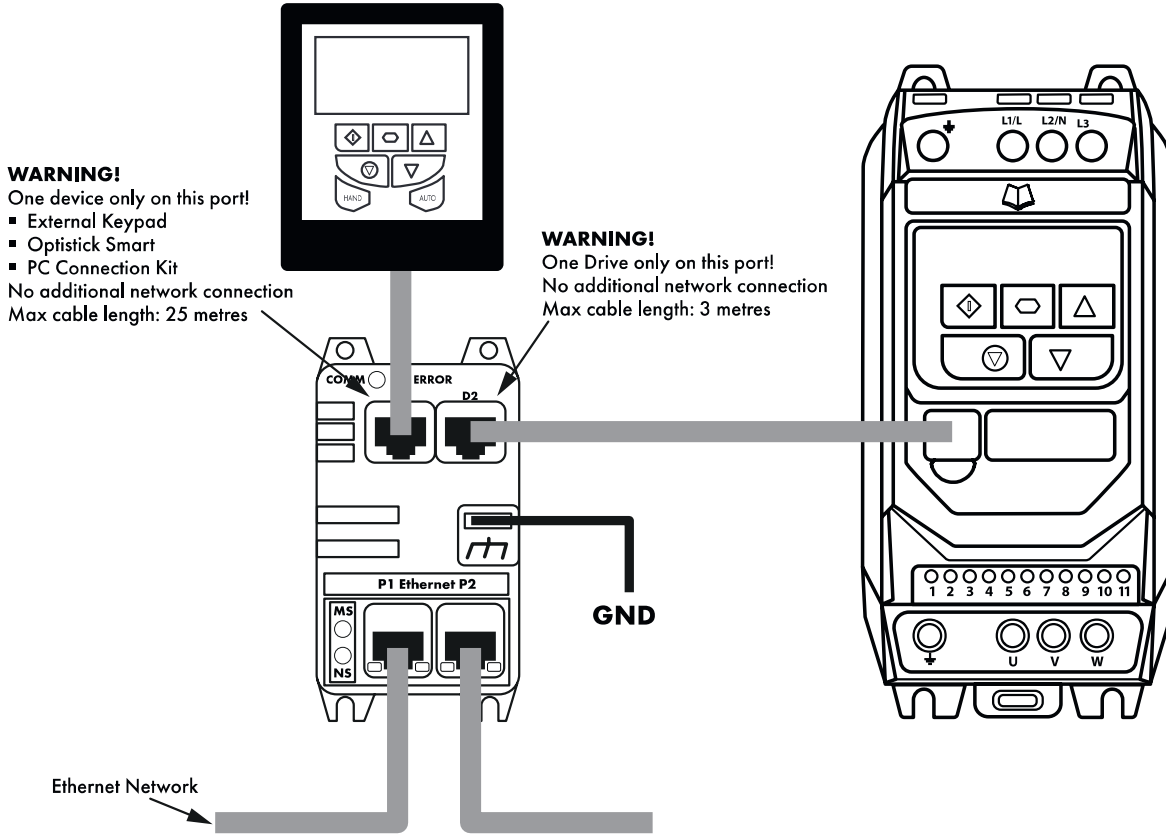| A		B		C		D		Weight	
mm	in	mm	in	mm	in	mm	in	g	oz
89	3.50	76	2.99	47	1.85	31	1.22	65	2.29

Mounting Bolts	
Metric	UNF
M4	#8

6.2.4. Electrical Installation

WARNING! Do not connect Ethernet devices to ports D1 or D2. They may be damaged!

Power supply to the module is provided from the connected drive via the RJ45 connection.
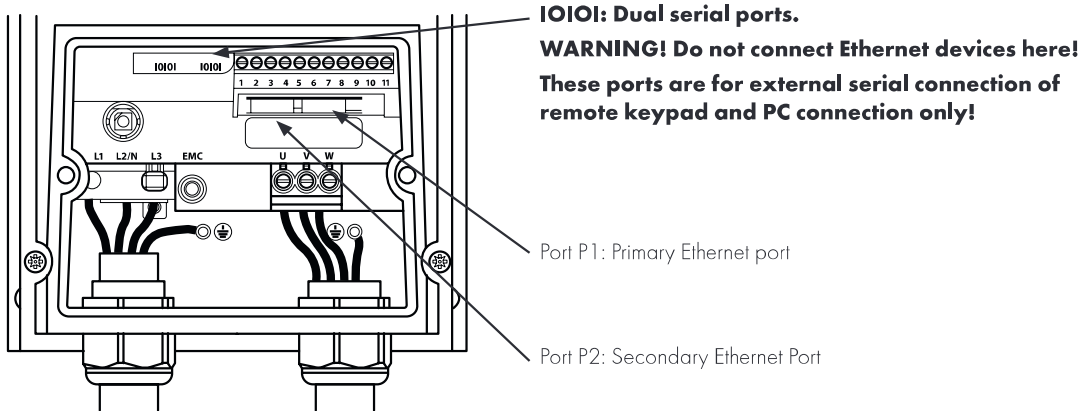
WARNING! Do not use cross over cables! Cables must be pin to pin connected!

WARNING!
One device only on this port!
- External Keypad
- Optistick Smart
- PC Connection Kit
No additional network connection
Max cable length: 25 metres

WARNING!
One Drive only on this port!
No additional network connection
Max cable length: 3 metres

GND

Ethernet Network

Ground tab – Observe the recommended grounding procedure for the fieldbus network and if necessary, connect this tab to ground where required.

6.3. Internal Interface for IP66 Drives

6.3.1. Layout – Internal Interface

IOIOI: Dual serial ports.

WARNING! Do not connect Ethernet devices here!

These ports are for external serial connection of remote keypad and PC connection only!

Port P1: Primary Ethernet port

Port P2: Secondary Ethernet Port

6.3.2. Labelling – Internal Interface

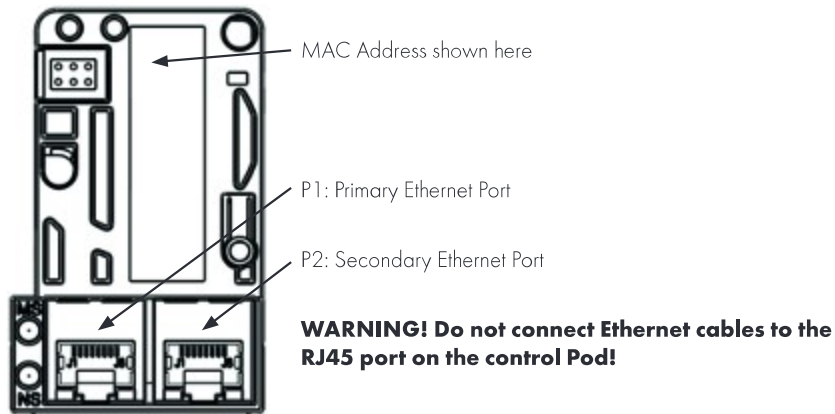The MAC address of the device is shown below the ports.

6.4. Optional Interface for Compact 2 Basic Drives

6.4.1. Installation

The Ethernet/IP interface is mounted underneath the control pod.

- Remove the control pod as described in the Compact 2 installation guide.
- Locate the Ethernet/IP interface in the slot below the control pod.
- Refit the control pod.

6.4.2. Layout

MAC Address shown here

P1: Primary Ethernet Port

P2: Secondary Ethernet Port

WARNING! Do not connect Ethernet cables to the RJ45 port on the control Pod!

6.5. Drive Parameter Settings

6.5.1. Overview

The following parameter settings are required in the drive. For further description of the drive parameters, refer to the drive user guide.

Drive Type	Optidrive E3 (ODE-3-...)	Setting
Parameter		
Drive Address	P-36 Index 1	1
Modbus RTU Baud Rate	P-36 Index 2	115.2kbps
Modbus RTU Data Format	N/A	N-1
Communication Loss Reaction	P-36 Index 3	As required
Command Source Selection	P-12	Select for Fieldbus Control if control of the drive operation is required

Ethernet Connection

6