

SPCON 1.5A, 3.5A, 7.5A & 10A

Auto Transformer Speed Control for Single Phase Motors

Installation and Maintenance

1.0 Introduction

The installation must be carried out by qualified personnel in accordance with the appropriate authority and conforming to all statutory and governing regulations e.g. IEE, CIBSE etc.

1.1 Electrical information

Voltage: 230Vac 1ph 50Hz

Unit	Current	Fuse
SPCON10	1.5A	2.5A
SPCON3.5	3.5A	5A
SPCON7.5	7.5A	10A
SPCON10	10A	14A

2.0 Installation

IMPORTANT

Isolation - Before commencing work ensure the electrical supply is disconnected.

NOTE: A fused spur isolator (not included) must be provided in the supply fitted with a suitably rated fuse.

The unit must be mounted on a secure, vibration free vertical surface away from direct heat sources or water spray. The maximum permissible ambient temperature is 40°C.

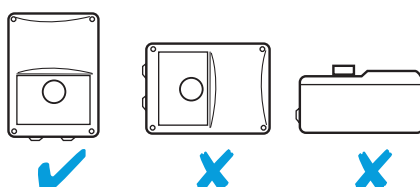
Turn the front knob to the OFF position. Remove the front cover (4 screws).

Select a suitable flat surface. Note the unit must be mounted vertically with the cable entry at the bottom (see figure 1).

Mark through the casing rear fixing holes (cable access at bottom). Drill and plug the mounting surface as necessary. Mount the case using suitable fixing screws (not supplied).

Bring the motor and mains cables (these must be of a correct diameter size for the purpose) through the case glands or grommets and connect to the controls terminal block as shown. Restore mains supply and switch control on.

Figure 1. Mounting Orientation

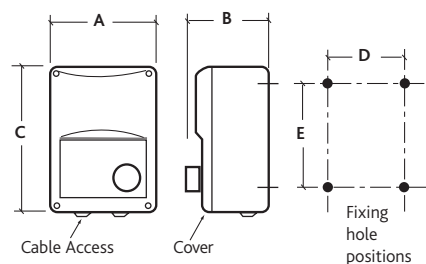


3.0 Control Application

This control is only for use with single phase fans that are suitable for speed control. The fan motor used should be internally protected from overheating.

4.0 Dimensions (mm)

Figure 2. Dimensions



Unit	Dimensions (mm)					Weight (Kg)
	A	B	C	D	E	
SPCON10	115	85	180	98	182	1.7
SPCON3.5	200	140	280	139	233	3.6
SPCON7.5	200	140	280	139	233	6.0
SPCON10	300	300	170	250	250	9.5

5.0 Wiring

Figure 3. Wiring



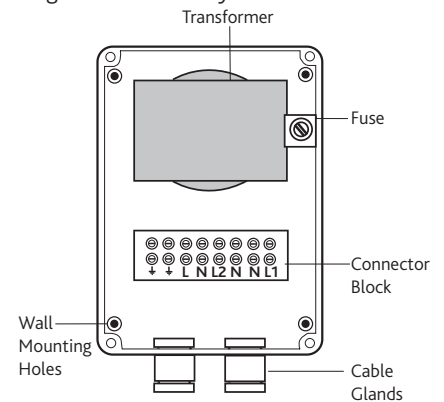
- ⊕ EARTH
- ⊖ EARTH
- L Mains LIVE supply connection
- N Mains NEUTRAL supply connection
- L2 Unregulated 230V output (or switch live e.g. to damper)
- N Neutral
- N Motor Neutral
- L1 Regulated Output to Motor

5.1 Changing the Fuse

The fuse is located near the internal transformer (see figure 4). Remove cover, lift out the fuse holder with a screwdriver. Use only the correct value fuse, fast ceramic with a high breaking capacity. Use of incorrect fuse will void warranty.

Note that the fuse is designed for short circuit protection only.

Figure 4. Internal Layout



6.0 Maintenance

The control requires no maintenance other than cleaning. Disconnect supply and clean with a damp cloth. Do not spray any cleaning fluids onto the control.

7.0 Troubleshooting

Check that the correct voltage is applied and that all connections are correct. Check the fan to be regulated is functional. Check the fuse at the fuse box. Check the fuse in the control.

NOTE: A fused spur isolator (not included) must be provided in the supply fitted with a suitably rated fuse.

8.0 Warranty

The 3 year warranty starts from the date of delivery and includes parts and labour for the first year. The remaining 2 years covers replacement parts only. This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice. The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuaire International Sales office for further details.

