

EXPERT SWITCH

EXPERT SWITCH INSTALLATION

The four-port Expert Switch is designed to be permanently installed in a central control room/cupboard or DIN consumer unit for remote deployment.

The unit is 100% solid state and has been qualified to operate in a dry environment:

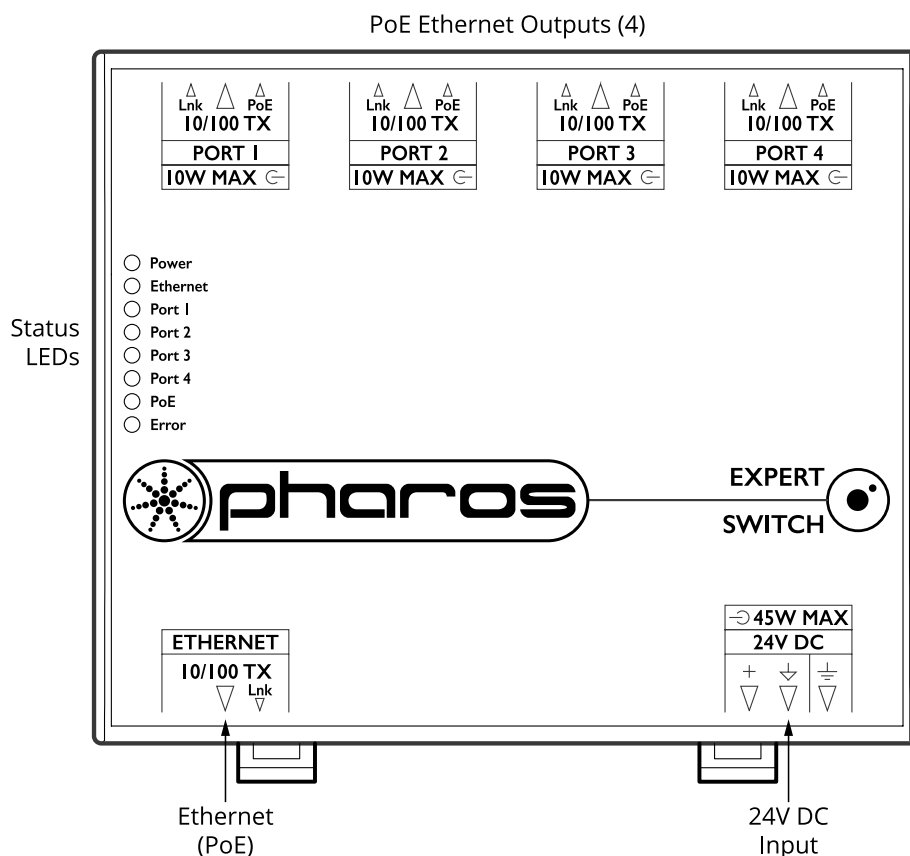
- Temperature range 0°C to 50°C (32°F to 122°F)
- Humidity 10-90% relative, non-condensing
- Ingress IP40

Sealed IP65 rated consumer units are available for outdoor use, please consult your Pharos distributor or representative.

NOTE: This equipment is not suitable for use in locations where children are likely to be present.

EXPERT SWITCH LAYOUT

The following drawing illustrates the layout of the switch, refer to the following sections for details:



POWER SUPPLY

- DC power (24V)

A limited power source approved to UL60950-1 2 Edition, CAN/CSA C22.2 No. 60950nd1.07 2 Edition MUST be used, with an output voltage of 24V DC.

Such a power supply can be connected directly to Expert Switch using the DC Input connector. The pins on this connector are marked:

- + Positive input (24V DC)
- ⚡ Signal ground (0V)
- ⊕ Earth

The power supply should be connected to the Positive and Signal ground inputs, ensuring the polarity is correct.

POWER SUPPLY CHOICE & EXPERT SWITCH LOADING

The choice of power supply, in terms of its power rating, depends on the intended loading of the four Expert Switch ports.

If the intention is to supply four devices up to 7W (for example the XPT 5) then a 28W (24V @ 1.5A) supply will suffice.

The power supply must provide 24V, with an appropriate current and power rating for the devices.

The Expert Switch is capable of powering up to four IEEE 802.3af Class 1, 2 and 0 (up to 10W),s, the power supply required can be calculated using the table below:

Example Pharos Devices	Maximum PSU Power Consumption
XPT 5	7W
XPC	5W

For example, to power 1 XPC and 3 XPT 5s, the minimum required power would be:

$$5W + 3 \times 7 = 26W$$

Expert Switch ports include overcurrent protection for the detected PoE class.

More than one Expert Switch may be powered by a single power supply provided its rating is increased accordingly.

GROUNDING

A dedicated earth terminal is provided which should be connected to a suitable earth.

STATUS LEDS

The red LEDs on the top of the Expert Switch indicate the unit's status:

Power:	Illuminates when power is applied.
Active:	Indicates that the unit is functional.
Ethernet:	Illuminates when the link has been established and toggles off to indicate data.
Port 1-4:	Illuminates when the link has been established and toggles off to indicate data.
PoE:	Indicates any activity on PoE Ports.
Error:	Illuminates when error is detected.

PORTS

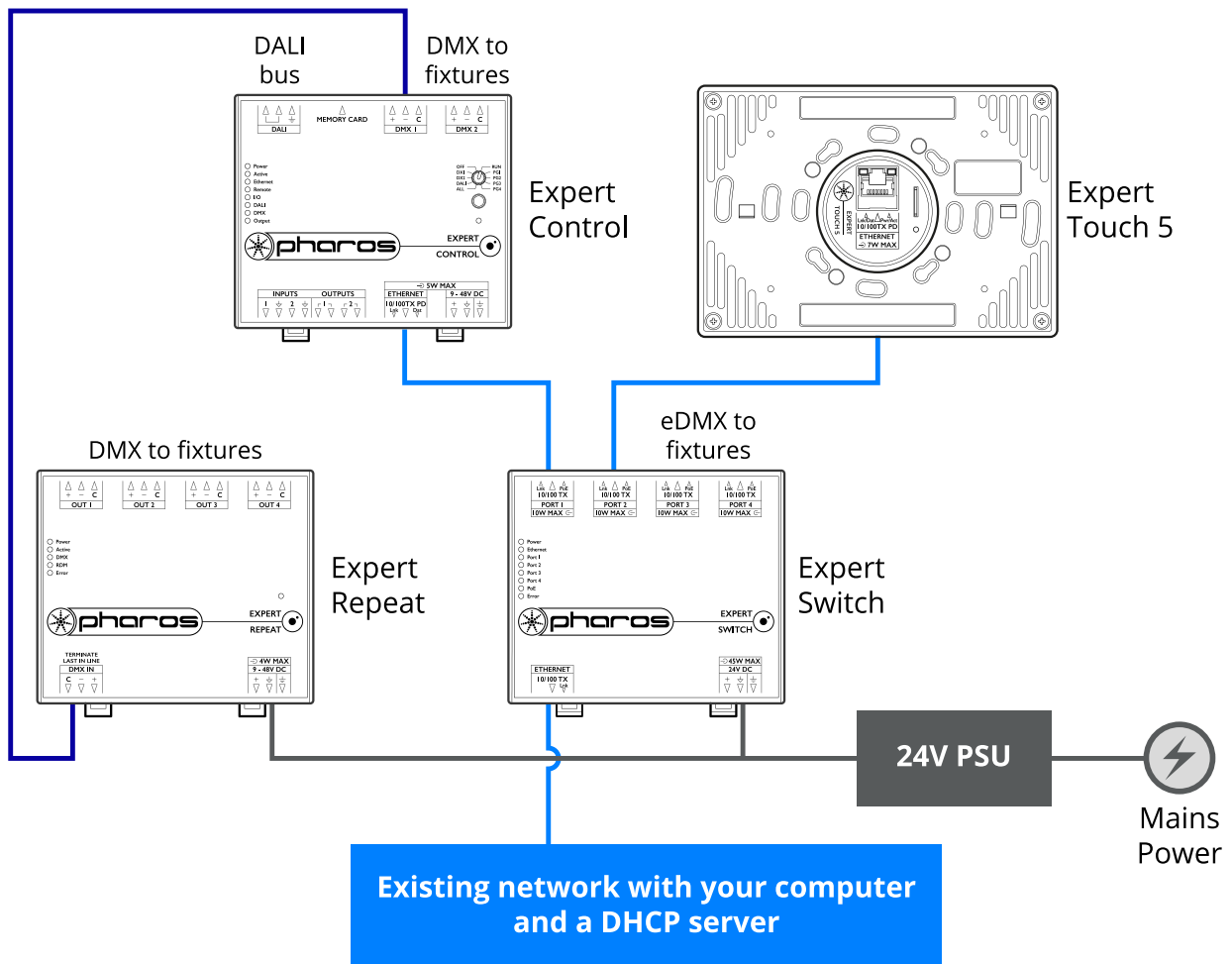
- Ethernet and PoE Ports

The Expert Switch includes 1 standard 10/100TX port for communication with non-PoE devices, and 4 PoE capable 10/100TX ports to provide power and communication to PoE powered devices. The LEDs on the RJ45 port itself are useful for debugging the Ethernet installation:

- Green (solid for link, flash for data).
- Yellow (solid for PoE, slow flash for PoE detect error, fast flash for current error).

WIRING DIAGRAM

Illustrative example of possible wiring for an Expert control system, including all Expert accessory devices.



WARRANTY

This Pharos Architectural Controls Limited ("Pharos") product is warranted for the period of five (5) years from the original date of purchase against defective materials and workmanship.

In the event that warranty service is required, you should contact your dealer or Pharos technical support at the following email address: support@pharoscontrols.com.

CONDITIONS

1. The warranty is only valid if the Pharos software registration is fully and properly completed, Pharos is presented with the original invoice or sales confirmation, Pharos has received payment in full and the serial number on the product has not been defaced.
2. Pharos' obligations are limited to the repair or, at its discretion, replacement of the product or the defective part.
3. It is the consumer's obligation to notify Pharos within one week of any suspected defect, and to return the goods prepaid to Pharos' authorised service address. Goods will only be received under warranty when they are returned with a recognised RMA number that has been issued by Pharos.
4. Warranty repairs must be carried out by a nominated Pharos employee or Pharos approved service technician. No reimbursement will be made for repairs carried out by non-Pharos personnel or dealers, and any such repair work or damage to the product caused by such repair work will not be covered by this warranty.
5. This product is not considered to be defective in materials or workmanship by reason that it requires adaptation in order to conform to national or local technical or safety standards in force in any country other than the one for which the product was originally designed or manufactured. This warranty will not cover, and no reimbursement will be made for such adaptation or any damage which may result.
6. This warranty covers none of the following:
 - a. Maintenance and repair or replacement of parts due to normal wear and tear.
 - b. Cost relating to transport, removal or installation of the product.
 - c. Misuse, including the failure to use this product for its normal purposes or incorrect installation.
 - d. Damage caused by lightning, water, fire, acts of God, war, public disturbances, incorrect supply voltage, improper ventilation or any other cause beyond the control of Pharos.
7. This warranty is valid for any person who legally acquired possession of the product during the warranty period.
8. The consumer's statutory rights in any applicable national legislation arising from the purchase are not affected by this warranty. The rights under this warranty are the consumer's sole rights and Pharos, its subsidiaries or distributors shall not be liable for any indirect or consequential loss, damages for any loss of use, time, profits or income, or any damage to related equipment, materials or consumable parts.