Engineering Note

Hydronix Limited, 70 Smithbrook Kilns, Cranleigh, Surrey GU6 8JJ
England
☎ +44 (0)1483 271769 🖹 +44 (0)1483 276219

Title:	Lightning Risk Assessment and Protection Measures
Document reference (DRC):	EN0024 issue 1
Last updated:	13 Aug 1998
Products affected:	Various
Author:	Ian Lindsay
Search keywords:	Lightning, Protection, Transients, ESD
Summary:	Lightning and other electrical transients have the potential to cause damage to electronic equipment. This document helps to raise awareness of the problem and suggests possible precautions which may be taken to reduce risks.

Introduction

A number of units have been returned which have been damaged by lightning or transient over-voltages. This problem is not restricted to a particular product line and is due to inadequate or non-existent assessment of the risk.

The damage is caused when lightning strikes directly onto, or close by, any electronic equipment that is connected by a long length of cable to equipment with a different ground. Damage might also be caused during welding, if this is performed without correctly grounding the welding equipment.

The very nature of the installation of Hydronix equipment renders it susceptible to such damage, as the sensor is situated in a large metal structure and connected by a long length of cable to a different large metal structure.

An assessment of the risk of damage is strongly recommended whenever Hydronix equipment is fitted. Local specialists should perform this assessment, as they will be able to make appropriate recommendations with due regard to local regulations and conditions.

Hydronix have available on request, a small number of guides to protecting electronic equipment from lightning and transient overvoltages from the company Furse. This document is only a guide and it is stressed that local regulations and specialists should be consulted.

Lightning and transient overvoltages protection equipment has now been included in the Hydronix price list and may be ordered through your local dealer. Please consult them for further details.

The equipment available is

EPS 06E	suitable for protecting RS485/RS232 data lines.
EPS 15E	suitable for protecting 0-10V/0-20mA signal lines.
EPS 30E	suitable for protecting 0-30V DC@1.25 A power lines.

******