

## Essential Health and Safety Requirement 1.0.6

### Instructions specific to hazardous area installations

(reference European ATEX Directive 94/9/EC, Annex II, 1.0.6.)

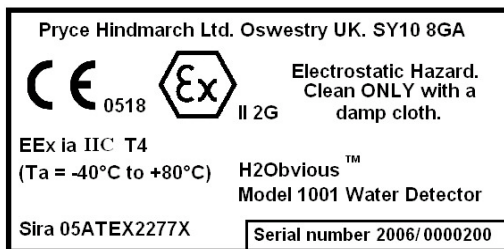
The following instructions apply to this equipment, covered by certificate number Sira 05ATEX2277X :

- 1) The equipment may be located where flammable gases and vapours of groups IIA, IIB and IIC may be present. The equipment is only certified for use in ambient temperatures in the range  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$  and should not be used outside this range.
- 2) The equipment has not been assessed as a safety-related device (as referred to by Directive 94/9/EC Annex II, clause 1.5).
- 3) Installation of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice (EN 60079-14 within Europe).
- 4) Repair of this equipment is not permitted. If faulty in any way, it must be replaced in its entirety. If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

**Aggressive substances** - e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.

**Suitable precautions** - e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.

### Certification Details



### Specification

Application	Water Detector for thermally insulated pipes
Power source	Lithium Thionyl Chloride Battery
Maximum operational life	5 Years
Max. operation time after activation	7 days at $20^{\circ}\text{C}$
Operating Temperature Range	$-40^{\circ}\text{C}$ to $+80^{\circ}\text{C}$
Max Pipe Temperature	$+180^{\circ}\text{C}$
Certification details	See Certification section
Water resistance - Index of Protection	IP66
Minimum Pipe Outside Diameter	17mm combined with a minimum 15mm thickness of insulation
Insulation Thickness Range	10mm to 80mm
Max and Min protrusion from pipe surface	Max - 157mm Min - 125.4mm
Diameter	35.8mm (approx)
Weight	60 gm approx depending on funnel specification

### Warranty

From the date of purchase and for five consecutive years H2Obvious® module is warranted to activate via led and visual float, where there is the presence of sufficient ingress of water or moisture in the device. This warranty is only valid if the module has been installed and maintained in accordance with these instructions.

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## User Instructions



*Indication device for  
Water Detection and Moisture Monitoring  
on a Pipe Surface  
Under Thermal Insulation.*



## INSTALLATION

### 1) Siting of Unit

H<sub>2</sub>Obvious is designed to function correctly only when fitted at every joint of the thermal insulation on an insulated pipe. This can be done by fitting the unit tight up to the last section of thermal insulation prior to fitting the next section.

### 2) Fixing to the pipe

Take funnel and fit a flexible fixing strap guide, smooth side up with its slot co-incident with the slot in the strut. Thread a suitable fixing strap through the slot and loosely fix it round the pipe (Fig 1), ensuring that the strap lies between the raised features on the strap guide. Slide the assembly up to the edge of the insulation. The funnel must hang vertically with the threaded end facing down.

### 3) Final Adjustment of Funnel

The length of the assembly can be adjusted by pushing or pulling the funnel up and down relative to the strut. Friction has been designed in to allow fine adjustment of the funnel's position. Ensure that the threaded section and the 'o' ring seal are below and clear of the outer cladding (Fig 2). Do NOT remove the protective cap at this stage. Cut the thermal insulation away around the funnel to ensure a snug fit. Tighten the fixing strap to secure the assembly onto the pipe. Install the next piece of insulation tight onto the funnel. Cut it away around the funnel as before.

### 4) Seal Funnel exit from Outer Cladding

Different thermal insulation systems use different methods to provide environmental and mechanical protection. Whatever system is used, make sure that the point at which the funnel exits the outer cladding is fully sealed with silicon adhesive sealant (not supplied) after all protective layers and treatments have been applied to the thermal insulation (Fig 3).

## COMMISSIONING

### 1) Conditions

Installation of the Electronic Modules and final commissioning can only take place in dry conditions. Ingress of rain or water spray into the uninstalled Electronic Modules may lead to false alarms.

### 2) Installation

After ensuring that all paints, adhesives and sealants are fully dry, remove each protective cap in turn and screw an Electronic Module onto the exposed thread. The module must be tightened sufficiently to engage the 'o' ring seal. Hand tightening is sufficient. Do NOT over-tighten. It may be necessary to support the funnel whilst tightening to prevent it from turning. A spanner can be fitted to flats found immediately above the 'o' ring.

#### NOTE:

Testing of the Electronic Module prior to Installation is not recommended. However if water is poured into the float chamber for that or any other purpose, it must be thoroughly dried out before final fixing.

## IN USE

### 1) Regular Checks

The unit should be checked at regular intervals to see if either the bright red led is flashing, or if the float is visible. In either case, the cause is water under the insulation. Once triggered the unit will flash for 7 days before the battery is exhausted. In the case of either alarm condition, it is essential that the insulation in the vicinity of the unit is stripped back to the source of the leak and the pipe examined for corrosion, taking corrective action where necessary. On re-instating the insulation, the unit MUST be replaced.

### 2) Service Life

H<sub>2</sub>Obvious has a service life of 5 years after which it must be replaced. If the installation is still generally sound, it is possible to screw a new Electronics Module onto the original funnel.

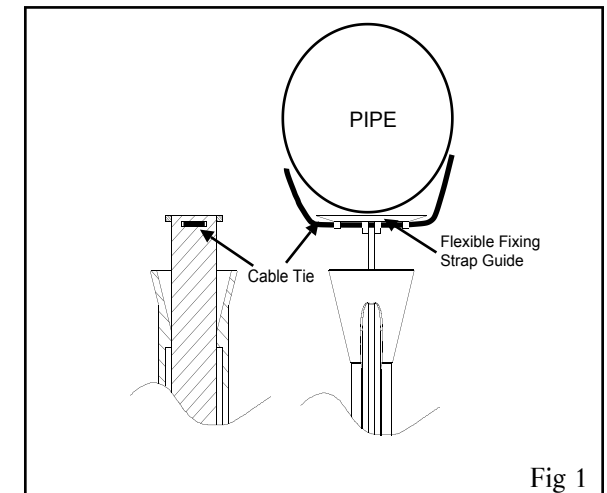


Fig 1

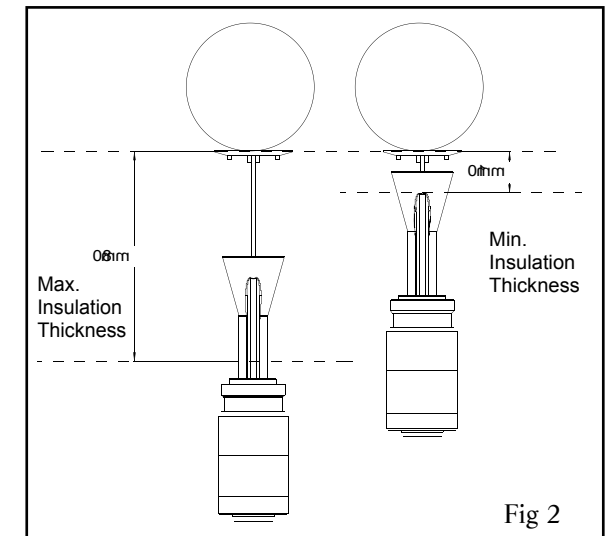


Fig 2



Fig 3