

# Gemini Sonar Interface Units

## Ethernet and VDSL Interface Options



### Applications

- ROV Gemini sonar installation
- Over-the-side Gemini sonar installation
- Mass Flow Excavation (MFE) installation

The Gemini Multibeam imaging sonar from Tritech is available with Ethernet or VDSL communication protocols. To support these protocols, Tritech has a range of optional interface units for topside connection of the Gemini sonar. Where a fibre-optic multiplexer is present the Gemini will most likely be operated in Ethernet mode. In this situation an interface unit is not required. However, to bench test the sonar the basic Ethernet interface unit simplifies the process and it is supplied with a suitable test cable.

### Benefits

- Simplify installation of Gemini imaging sonar
- Bench test of Gemini imaging sonars
- Power Gemini over longer cable length (max 300m)

### Features

- AC to DC Power adaptor
- Deck / test cable supplied
- Connector tails for system installation
- Robust aluminium sealed box
- Sealed thermoplastic connectors

In the event that the Gemini sonar is part of an installation where the communication conductors are copper, the recommended solution is to utilise the VDSL protocol. The VDSL configuration has two interface options and the user should select the one most suited to the installation.

The basic VDSL interface unit is for use on an installation which can directly supply the DC power required to operate the Gemini sonar (this is a typical ROV installation, where the power is supplied from the ROV). The basic VDSL interface can also be used to bench test the Gemini sonar using the short length of test cable, as supplied with the unit.

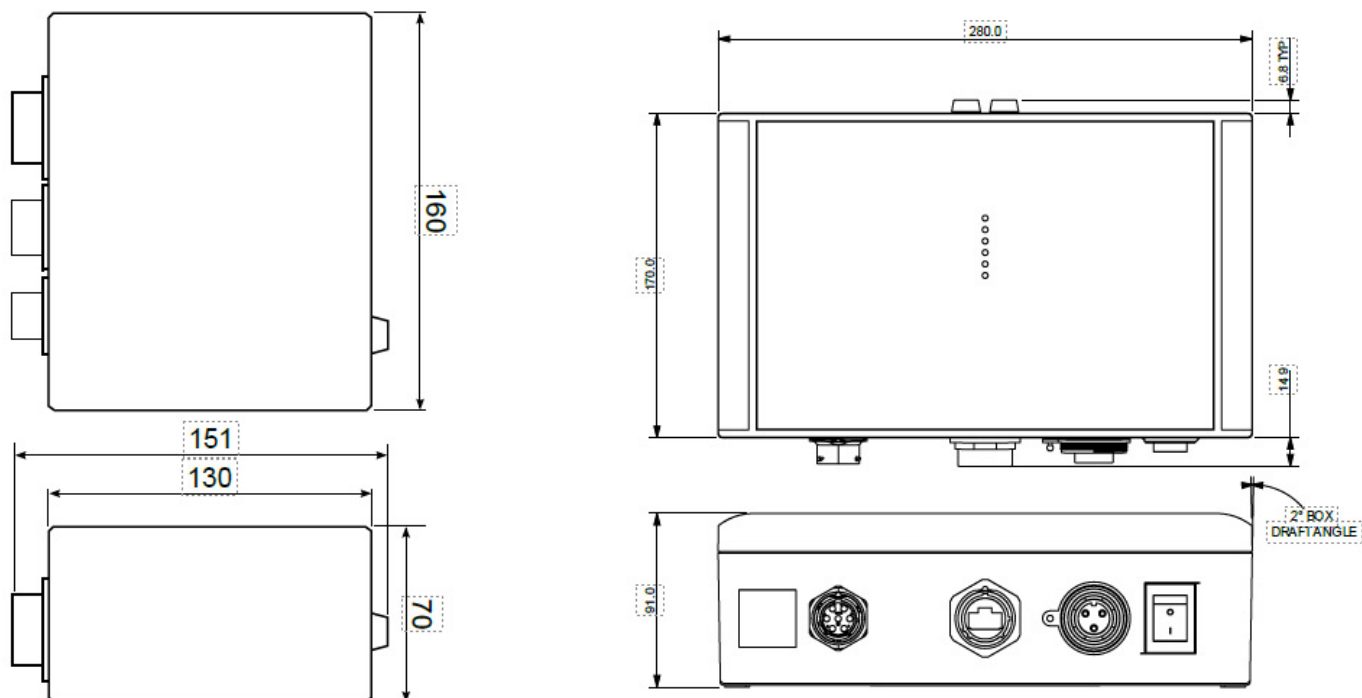
Where DC power cannot be locally supplied to the Gemini sonar the Tritech 72V VDSL interface unit is typically used, providing a power source suitable to run over a cable up to 300m in length.

| Key Specification |                    |
|-------------------|--------------------|
| IP rating         | IP64               |
| Power Consumption | 80W maximum        |
| Communications    | Dependent on setup |

| Electrical & Communications    | Basic Ethernet                                                                                                                  | Basic VDSL                                                                                                                     | 72V VDSL                                                                                                                      |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Power Requirement              | 22 - 75V DC<br>(supplied via external AC PSU)                                                                                   | 22 - 75V DC<br>(supplied via external AC PSU)                                                                                  | 100-240V AC (50-60Hz)                                                                                                         |
| Power Consumption (with sonar) | N/A<br>(40W)                                                                                                                    | 3.8W<br>(40W)                                                                                                                  | 40W<br>(80W maximum)                                                                                                          |
| Communications                 | Ethernet (10/100) Base-T<br>(80m)                                                                                               | Ethernet (10/100) Base-T<br>(80m)<br>VDSL (up to 500m,<br>locally powered)                                                     | Ethernet (PC interface)<br>VDSL (Gemini interface)                                                                            |
| Connectors                     | <ul style="list-style-type: none"> <li>• Souriau UTS7124P</li> <li>• Souriau UTS71412S</li> <li>• Souriau UTS718RJFN</li> </ul> | <ul style="list-style-type: none"> <li>• Souriau UTS7124P</li> <li>• Souriau UTS7147S</li> <li>• Souriau UTS718RJFN</li> </ul> | <ul style="list-style-type: none"> <li>• Bulgin PX0730/P</li> <li>• Souriau UTS7147S</li> <li>• Souriau UTS718RJFN</li> </ul> |

| Physical specification | Basic Ethernet                                                                  | Basic VDSL | 72V VDSL                    |
|------------------------|---------------------------------------------------------------------------------|------------|-----------------------------|
| Weight                 | 1.1kg / 2.43lbs                                                                 |            | 2.93kg / 6.46lbs            |
| Materials              | Enclosure: Aluminium alloy (AC-44300), Connectors: thermoplastic                |            |                             |
| IP rating              | The Interface Box is sealed against dust and moisture ingress to IP64 standard* |            |                             |
| Operating temperature  | 5°C to 35°C / 41°F to 95°F                                                      |            | 5°C to 40°C / 41°F to 104°F |
| Storage temperature    | -20°C to 50°C / -4°F to 122°F                                                   |            |                             |

\*: Note that the IP rating applies when all connectors are correctly fitted with the appropriate mating connector or blanks  
Specification subject to change in line with Trittech's policy of continual product development



Not to scale. Measurements in mm.