



Typhoon VMS Video Measuring System

Features

- High quality camera and laser combination
- Millimetric accuracies
- 470 line resolution, 0.1 lux sensitivity
- Water corrected view port
- Distance and scaling measurements
- User friendly PC software
- 3000m depth rating
- PAL or NTSC options

Applications

- Damage surveys
- Environmental research
- Oceanographic studies



The Typhoon Video Measuring System (VMS) is a new state of the art Tritech product. It is designed to give measurements to millimetric accuracies of any target in the camera's field of view.

At the heart of the VMS is Tritech's Typhoon high resolution colour zoom camera. Five red laser diodes surround the camera and up to the maximum range of the camera are clearly visible on the operators monitor. The system software is calibrated by selecting each laser image on the display after which the software allows measurement within a few minutes of any object in the field of view.

The Typhoon VMS encompasses a 22:1 auto focus zoom lens within a 3000m housing. Manual focus and zoom may be controlled using conventional signals or via the integrated RS232 interface.

The importance of a high quality view port is commonly overlooked in underwater cameras. The acrylic view port used on Tritech cameras has similar refractive properties to water enabling the use of a plano-concave view port, which is the preferred type of lens for deep water applications.

This view port design reduces the effects of refraction and also removes chromatic aberrations, resulting in a camera that provides a clear and sharp picture during close proximity viewing. This is absolutely essential for accurate subsea metrology.



Specifications

Optics

Pick-up element Sensor 1/4inch Interline Transfer CCD Image
Number of pixels 795H x 596V
Number of sensing Pixels 752H x 582V
Scanning 2:1 Interlace PAL CCIR 50hz 625 lines
Lens F1.6 F=4-88mm; High durability
x 22 Zoom lens (x14 usable). Auto Focus option.

Angular view in air 47° (Wide); 2.2° (Tele)
Horizontal resolution More than 470 TV lines
Minimum illumination 0.1Lux (1/2s), 0.2Lux (1/4s)

Laser Array

Quantity 5
Class 3R
Wavelength 635nm

Electrical

Connector Burton 1508
Power Nominal 12 -28VDC @ 10W
Video line drive 3 stage amplifier (max 1500m 75Ω low loss coax)
Focus & zoom control Analog and RS232 serial controls available

Pressure housing

Mechanical Aluminium
View port Acrylic, water corrected
Max Diameter 165mm
Length 190mm (excluding connector)
Weight (Air) 3.9Kg
Weight (Water) 1.4Kg

Environmental

Depth rating 3000m
Operating temperature -5 to +40°C
Storage temperature -10 to +50°C
Video frame grabbing Customer PC or Laptop and grabber card

VMS software features

File functions File recall and save of processed image
Picture calibration manual computer aided marking, auto calibration
Measurement Linear to better than 1mm resolution
Area measurement
Plan view mode

Picture annotation Measurements overlaid and saved to file
Image enhancement Spot enhancement, edge detection, colour balance, contrast

All specifications are subject to change in line with Tritech's policy of continual product development.

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