

# DU 403.2™

## Underwater STRIDE Detection Units

*The covert movement of special nuclear material or weapons into populated areas represents possibly the greatest threat to the security of our world. Radionuclide identification systems are required to effectively detect and / or deter this threat. They must recognize the presence or movement of radioactive material across borders, into government buildings, at large public gatherings or events and much more plus identify the radionuclide(s) present. STRIDE Detection Units and Systems were designed for this very purpose. Additionally several STRIDE systems are designed to discover environmental threats on land, sea and air.*

### STRIDE Waterproof Gamma Detector with Nuclide Identification

The STRIDE DU 403.2 is supplied in a cylinder shaped stainless steel housing sealed to be waterproof to depths down to 50 meters. This detection unit is ideal for short term monitoring of radiation levels in seawater at the output of nuclear power plants, in nuclear power fuel water storage tanks, or any other location that requires a measurement and identification of radiation under water. It consists of a 2" diameter by 3" long NaI(Tl) scintillation detector with <sup>40</sup>K (KCl) for calibration verification and a DSP based electronic with LED stabilization. The STRIDE DU is a gamma only unit and does not support neutron detection. A 60 m reinforced and waterproof Ethernet data and power cable is provided to use the detection unit at the appropriate depth. Operating power is provided via PoE (Power over Ethernet).

### Stride Monitor Network

The STRIDE Server software (sold separately) automatically detects any DU 403.2 connected to the network. Depending on the STRIDE Server configuration the DU 403.2 can be combined with other STRIDE detection units, resulting in a higher sensitivity and source tracking abilities.



### FEATURES

- For freshwater and seawater
- Waterproof down to as deep as 50 meters
- Detects the presence of radioactivity or radioactive material.
- Performs rapid and accurate radionuclide identification
- Alarms on dose rate changes above background
- Continually stabilizes for temperature and background changes
- Comes with a waterproof data cable
- Works with all versions of STRIDE Server
- Can be combined with other STRIDE Detection Units

## SPECIFICATIONS

### INPUT/OUTPUT

Power	DC 9 V – 24 V; 1 W
Ethernet	SubConn Underwater Connector to RJ-45

### PHYSICAL

Dimensions (H; dia. at top; dia. at bottom)	640 mm (25.197"); 140 mm (5.512"); 90 mm (3.543")
Weight w/o Cable	6.2 kg (13.67 lb)
Cable Weight	8.2 kg (18.08 lb)
Housing Material	Stainless steel

### ENVIRONMENTAL

Ambient/Operating Temperature	-15 °C – +50 °C (5 °F – 122 °F)
Storage Temperature	-30 °C – +70 °C (-22 °F – 158 °F)
Humidity	≤ 100 %
Protection Rating	IP 68
Max. Water Depth	50 m (164'0.5")

### PERFORMANCE

Energy Range (Gamma)	20 keV – 3 MeV
Efficiency	See reference sheet
Corrections	Spectrum linearization
Spectrum Data	1024 channels; 24 Bits/channel
Dose Rate Range	0 $\mu$ Sv/h – 100 $\mu$ Sv/h
Dose Rate Resolution	10 nSv/h
Dose Rate Accuracy	±30 % (50 keV – 1500 keV)
Energy Range (Dose Rate)	50 keV – 1500 keV
Measuring Modes	PHA
Stabilization	LED and <sup>40</sup> K

### DETECTORS

Gamma	Nal; 2 " × 3 "
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### ACCESSORIES

PC Connection Cable	5 m (16'4.9")
Reinforced Data and Power Cable	60 m (196'10.2")

### SOFTWARE

Embedded Software *1	Linux Operating System
Interface	STRIDE XML protocol

Complete specifications available on request.



## VARIANTS

Following variations of this device are available. Specifications differing for the variants are marked in the table.

- \*1 DU 403.2-N Underwater STRIDE Detection Unit, waterproof up to 50 m (164'0.5") depth, NaI Detector

*For situations not covered by these variants please contact our Marketing and Sales Department at the email address or phone number listed below.*

### Sales Europe, Asia, Africa and Oceania

FLIR Radiation GmbH  
Piepersberg 12  
42653 Solingen, Germany  
T + 49 212 222090  
F + 49 212 201045

### Sales North and South America

ICx Radiation Inc.  
100 Midland Road  
Oak Ridge, TN 37830, USA  
T + 1.865.220.8700  
F + 1.865.220.7181

[www.flir-radiation.com](http://www.flir-radiation.com)

