

TWIDS

TECHTROL WATER INGRESS DETECTION SYSTEM FOR BULK CARRIERS

IN ACCORDANCE WITH

SOLAS CHAPTER XII REGULATION 12 AND
IMO PERFORMANCE STANDARD ANNEX 5, RESOLUTION MSC 145(77)
IACS-UR E-10 / UR-M-46 / UR-SC-180

Techtrol™

SINCE 1984

ISO 9001 : 2000



RWTVV



TWIDS consists of a control panel and a set of two water detectors in each hold. An audio / visual alarm is annunciated in case of water ingress in any hold / dry space. The control panel provides individual indication for status, fault & alarm for each cargo hold with distinct signals for pre & main alarm levels.

FEATURES

- Suitable for all types of bulk cargoes.
- Robust, corrosion proof, dust protected & highly reliable detectors.
- Outer protection sleeve in SS to isolate and protect detector from damage during cargo handling operations.
- Simple installation, easy to operate & trouble free system.
- Functional testing of all detectors in-situ.
- Spare input channels can be used for water ballast, dry spaces & fore peak tanks.
- Over-ride facility available for using the hold for water ballast.
- User friendly, menu driven, 5 button operation with functional checks available at any time (holds empty or filled).
- Detectors are certified for use in hazardous area for intrinsic safety through built-in zener barrier in the control panel.



Certificate No. 04 / 10031
Dt. 20th April 2004



Certificate No. W-25
Dt. 19th April 2004



Certificate No. 2004TAC001
Dt. 1st March 2004



Certificate No. A-9304
Dt. 14th October 2004



Certificate No. 13872/AO BV
Dt. 7th October 2004



SPECIFICATIONS

TWIDS CONTROL PANEL

TWIDS-CP



Mounting	:	Wall
Ingress Protection	:	Weather proof to IP 56
MOC	:	CRCA with epoxy powder coating
Power Supply	:	110 or 230 V AC, 50-60 Hz
Power Failure	:	24 V DC emergency supply from ship with auto-change over
Conduit Connections	:	¾" ET brass cable glands
Terminals	:	Suitable for 1.5 mm ² conductor size
System Status	:	<ul style="list-style-type: none"> ● Green LED-"Detector active" ● Red LED-"Detector alarm" ● Amber LED-"Detector fault" for each channel ● Green LED-CPU (Watch Dog) ● Amber LED-Sensor test
Alarm Override	:	"LAMP TEST" push button for audio & visual alarm test LED's flashing on new alarm, steady on accept by Mute / Reset push button Through programme, indicated through flashing Green LED (ON time 0.1 sec., OFF time 1.9 sec.)
Display	:	Auto change over on emptying of cargo / water ballast tank 16 characters x 2 line, large font - LCD, Dot matrix, back-lit to display channel and alarm status
Intrinsic Safety (cat."ia")	:	Through certified zener barriers for each channel (CMRI Certificate No. CMRI/TC/P/H19 dated 09.01.2004)
Service Environment	:	5 to 55°C, 0-99% Rh
Output Relays	:	One no. each for pre and main alarm per hold SPDT rated 5A @ 230 V AC
Alarm Time Delay	:	0 to 99 sec. (programmable)
Power Status	:	<ul style="list-style-type: none"> ● Green LED-Mains power ● Red LED-Mains fail ● Red LED-24 V DC emergency supply
Cable Check	:	Fault alarm generated for short or open circuit
Power Consumption	:	20 W
Options	:	1. Remote common audio alarm with Mute / Reset push button 2. 24 nos. relay contacts assigned either for alarm or control or auto sensor test
Dimensions	:	400 mm (W) x 500 mm (H) x 210 mm (D)
Weight	:	20 kg.

HOOTERS

- Audio Alarms : 3 hooters, 8-tone mutable sounder, operating on pre alarm, main alarm & system alarm
- Ingress Protection : Weather proof to IP 65
- Dimensions : 101 mm Ø x 81 mm length
- Weight : 0.325 kg. each



TWIDS WATER DETECTOR TWIDS-WD TYPE B & C

- Detector Type : Magnetically operated
- Switching Mechanism : Glass encapsulated hermetically sealed reed switch
- Contact Rating : 15 VA, 0.5A / 230 V AC
- Detector Action : Normally closed, Open on 'Alarm'
- Termination : 2 core, 0.75 mm² silicon cable 25 mtrs. long
- Ingress Protection : IP 68 in accordance with IEC 60529
- Intrinsic Safety : Through zener safety barriers
- Service Environment : -25 to 80°C, 0-99% Rh
- Dust Protection : Integral, inert, hydrophobic filter with manual / auto cleaning
- MOC : Detector in glass filled nylon, chamber in delrin
- Mounting : PP flange (65 NB BS - 10 T 'D')
- Air Hoses : 2 nos. P U flexible pipes x 25 mtrs. long
- In-situ Testing : Manual or auto
- Test / Cleaning Ports : 2 nos. with quick release fittings (for Type 'B' only)
- Cable Check : Alarm for short / open circuit
- Dimensions : 73 mm Ø x 230 mm ht. Type 'B' with protection sleeve
55 mm Ø x 127 mm ht. Type 'B'
55 mm Ø x 102 mm ht. Type 'C'
- Weight : Type 'B' with protection sleeve : 5.75 kg.
Type 'B' : 0.75 kg.
Type 'C' : 0.60 kg.
- Service / Application : Type 'B' - for Cargo Hold (to suit all types of cargoes), Ballast & Fore Peak Tank
Type 'C' - for Bilge Well & Dry Space
- Installation Accessories : 1 - Sensor protection sleeve in SS 304 (must for Type 'B' only)
2 - Outer filter in SS 304 for sensor protection sleeve / separate mounting with socket (must for Type 'B' only)



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Sailing with awareness

