



#### 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



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.

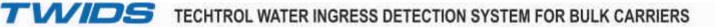












### SPECIFICATIONS

# 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 : 3/4" ET brass cable glands

Terminals : Suitable for 1.5 mm<sup>2</sup> conductor size

System Status : • Green LED-"Detector active"

Red LED-"Detector alarm"

Amber LED-"Detector fault" for each channel

Green LED-CPU (Watch Dog)

Amber LED-Sensor test

"LAMP TEST" push button for audio & visual alarm test LED's flashing on new alarm, steady on accept by Mute /

Reset push button

Alarm Override : Through programme,

(ON time 0.1 sec. OFF time 1.9 sec.)

(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 : • 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)



### PUNE TECHTROL PVT LTD

Regd. Head Office:

S-18, MIDC, Bhosari, Pune - 411026 India

①:+91-20-66342900, 27121052 A:+91-20-66342998

Works:

J-52/7, MIDC Bhosari, Pune - 411026.

: +91-20-67313600

: ho@punetechtrol.com : www.punetechtrol.com



