



## WATER LEVEL DETECTORS

ITMLS, ITMLM, IM-EPM, IM-ATM

INELTEH's **Water Level Detectors** include several different types of level detectors and measurement sensors, which are specially designed to be used as a part of **Flooding detection system on passenger ships, according to SOLAS 74 Regulation II-1/22-1 and IMO MSC.1/Circ.1291.**

**Water Level Detectors** are developed from INELTEH and INEL-MAR standard products used for level detecting and measurement, which have been in production for more than 25 years. Most of them are type approved by different Marine Classification Societies – BV, CRS, LR, DNV-GL, RMRS, RRR, RINA, CCS...

The last edition of **Marine Equipment Directive (MED) 2014/90/EU** and **Commission Implementing Regulation (EU) 2018/773** has included Water Level Detectors, with relevant regulations and testing standards, as obligatory equipment for Flooding detection system on passenger ships (MED 8.1) and **INELTEH is the first company in the World, whose Water Level Detectors received MED certificates** for such an application.

INELTEH's MED approved Water Level Detectors include following types of the equipment:

- Magnetic level switches type ITMLS-02A, ITMLS-02, ITMLS-06B
- Magnetic level measurement type ITMLM-02A, ITMLM-02
- Electro-pneumatic modules type IM-EPM
- Pressure transmitters type IM-ATM
- Connection boxes type ITJB-SS

All sensors and connection boxes meet *fail-to-safe principle*. All flooded parts of the equipment and connection boxes are designed and tested for ingress protection IP 68, 3 bar to insure operability of the system in flooded conditions.

### • MAGNETIC LEVEL SWITCHES TYPE ITMLS-02A, ITMLS-02, ITMLS-06B

- Single point level detection
- Up to 3 switching points, depending on type
- Submersible version, IP 68, 3 bar
- Top or side mounting
- Material: Stainless steel AISI 316L
- Cable: PUR or teflon cable, 3, 5, 7m (more on request)
- Output: voltage-free contacts and/or resistor network ("fail-to-safe" principle)
- Test mechanism available on request
- Mounting/fixing: flange 92x92 or thread M24x1.5, depending on type
- MED approved version for flooding detection applications
- Suitable for Hazardous (Ex) area by using Intrinsically Safe Isolators (please contact INELTEH for possible solutions)
- For further details please check separate leaflet



ITMLS-06...-MED



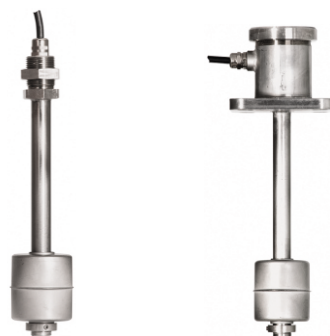
ITMLS-02A...-MED



ITMLS-02...-MED

## MAGNETIC LEVEL MEASUREMENT TYPE ITMLM-02A, ITMLM-02

- Continuous level measurement up to 2.5m
- Submersible version, IP 68, 3 bar (sensor without amplifier)
- Top mounting
- Material: Stainless steel AISI 316L
- Cable: PUR or teflon cable, 3, 5, 7m (more on request)
- Output: continuous resistor network or 4-20mA (with amplifier mounted outside flooded area)
- Mounting: flange 92x92 or thread M24x1.5, depending on type
- MED approved version for flooding detection applications
- For further details please check separate leaflet


*ITMLM-02A-00-MED*
*ITMLM-02-92-MED*

## ELECTRO-PNEUMATIC LEVEL MEASUREMENT SYSTEM TYPE IM-EPS WITH ELECTRO-PNEUMATIC MODULES TYPE IM-EPM

- Continuous level measurement with range 0-16 or 0-25 mH<sub>2</sub>O (more on request)
- Modules IM-EPM mounted in void area, only sounding pipe in contact with liquid
- Outputs: 4-20mA for each channel separately or RS 485 communication, RTU slave MODBUS protocol
- Power supply 24VDC or 230VAC
- Dry and clean instrumental air supply 4-8 bar
- For further details please check separate leaflet and/or contact INELTEH / INELMAR for possible solutions


*IM-EPM-02*

## PRESSURE TRANSMITTERS TYPE IM-ATM

- Continuous level measurement
- Different ranges can be ordered
- Submersible version, IP 68, 3 bar
- Material: Stainless steel AISI 316L (titanium as option)
- Cable: PUR or teflon cable
- Output: 4-20mA
- Power supply 24VDC
- MED approved version for flooding detection applications
- Version for Hazardous (Ex) area available


*IM-ATM-.../N*

## CONNECTION BOXES TYPE ITJB-SS

- Specially designed and tested for submersible applications IP 68, 3 bar
- Cable glands included and already mounted at the connection box
- Number and type of cable glands depending on cable outside diameter
- Material: Stainless steel AISI 316L


*ITJB-SS-IP68*

*ITJB-SS-1-3-IP68*

## IMPORTANT NOTE

MED approved Water Level Detectors come with proper marking and all required documents - certificates, Declaration of Conformity etc. If MED approved version (flooding detection system in passenger ships) is required, this have to be mentioned during ordering, otherwise standard version will be delivered.

For any further technical clarification and ordering details, don't hesitate to contact us.