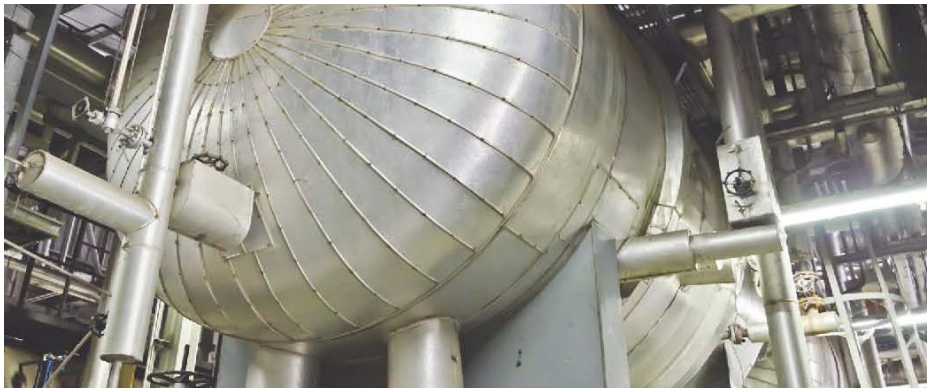
2462 Hydratect™
Steam and Water Detection System



SAFETY MATTERS.
SIL 3 Certified to
IEC61508

● **SIL 3(Safety Intergrity Level) : SIL 인증은 발전,화학등 산업분야 장비의 안전성과 신뢰성 등급을 측정하는 것으로 안전시스템의 무결성을 정량화 한 안전등급 지표이다. 4등급으로 분류되며 SIL 등급이 높을수록 시스템의 신뢰성과 안전성이 높다.**

INSTRODUCTION

The American Society of Mechanical Engineers (ASME) issued its first standard for Induction protection, TDP-1, in 1972, and has since revised it numerous times, with the lastst in 2013

Turbine Water Induction Protection (TWIP) Requirments

The ASME's TDP-1, Preventin of Water Damage to Steam Turbines used for Electric Power Generation : Fossil-Fuel Plants, issued in 2013 states that if a steam plant equipment malfunction should occur, the TWIP system should :

- Detect the presence of water before water has caused damage.
- Isolate the water by manual or, preferably, automatic means.
- Dispose of the water by manual or, preferably, automatic means after it has mean detected.

Steam / water detection for the most demanding conditions

The electronic alternative to onventional water level switches, 2462 Hydratect will detect the unwanted presence of team or water in safety critical applications. 2462 Hydratect is suitable for process conditions of up to 300 bar and 560 ℃ (Max.) far Hogher than most other technologies.

Certified to IEC 61508 with SIL 3 capability

2462 Hydratect is certified IEC 61508 (as required by IEC 61511). It is a two(2) channel device and achieves SIL 3 when the two(2) status output are wired for 1oo2 trip validation.
or SIL 2 if each channel is used independently.

Highest reliability and fail safe operation

2462 Hydratect provides signal processing for two(2) electrodes installed in the process.
Each channel monitors the state of its associated electrode and has a status LED and output relay to indicate steam (RED) or water (GREEN).
The two channels are completely independent with separate power supplies, signal processing and fault detection. The patented design uses phase detection and triple redundance to ensure any failure will result in a safe condition.

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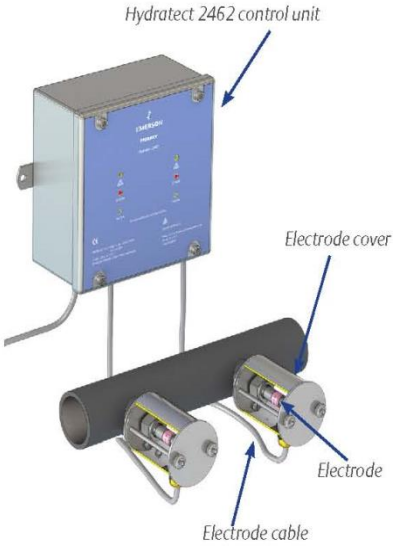
SPECIFICATION 2462 Hydratect System

Model : 2462 Hydratect



2462 Hydratect System Comprises :

① 2462 Hydratect Control Unit

2462A : AC Mains supply, Single pole single throw relay output

2462E : AC Mains supply, Two pole single throw relay output

② Electrode

246781A ZTA Insulator, 300bar, 560℃, 3/4" UNEF 60º

③ Electrode 246781AB

Pressure : up to 300 Bar

Process Temp : up to 560℃

Insulation : ZTA

④ Electrode Cable

Standard : 5m, 10m, Other Length (Option) : 3m, 15m, 30m



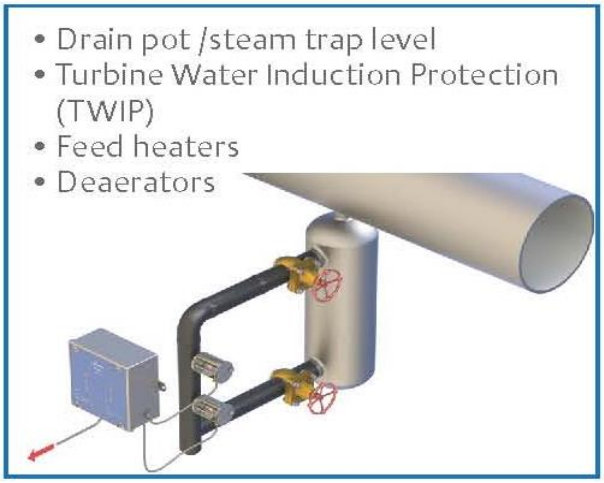
Electrode

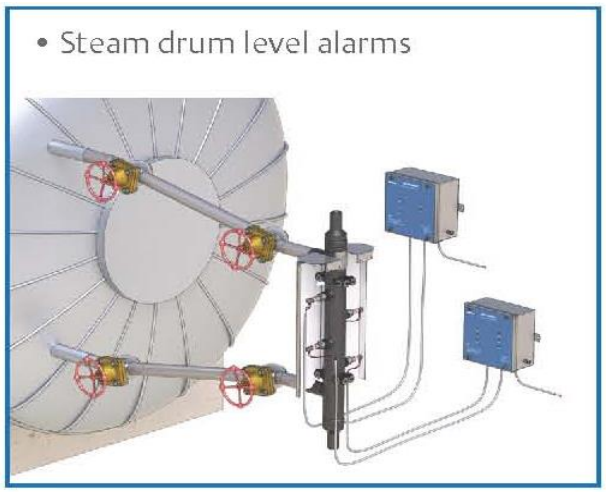
2462 Hydratect Control Unit Specification

Enclosure Material	Standard : A240-F304
Enclosure Rating	IP65
Dimension	190mm(W) x 190mm(H) x 90mm(D)
Measurement Type	Steam and Water Detection
Input	2 (Electrode channels from manifold or pipework to control unit)
Output	Relays to indicate the presence of steam or water (One per channel) Relays for fault Indication(One per channel)
Power Supply	94 to 130VAC or 187 to 256VAC, 48Hz to 65Hz, 2 x 10VA Maximum
Display	RED (Steam), GREEN (Water), Amber (Fault)

장점 : Float Type 의 오동작으로 인한 문제점(Turbin or Heater Over Flow) 보완
설치 공간 협소한 경우에도 적용 가능

Typical Applications :





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