

## Safety Instructions

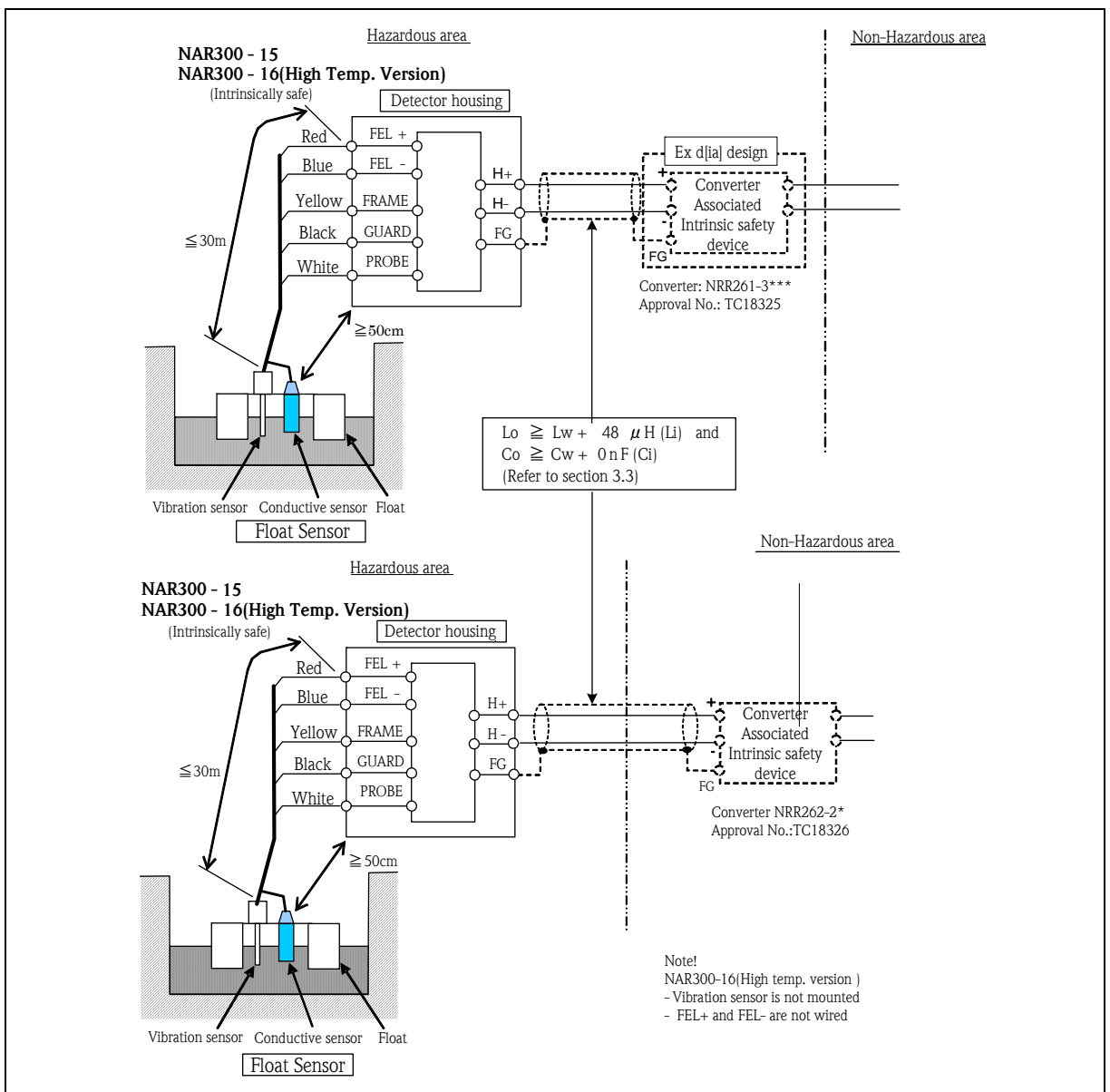
# Oil Leak Detector NAR300

TIIS TC18324

### Safety instructions for electrical apparatus certified for use in explosion-hazardous areas.

This safety instruction manual describes precautionary items related to the certified instrument. The User should read and understand these safety instructions to ensure safe use.

1. Oil Leak Detector NAR300 is described in the architecture schematic below.



2. The detector housing is rated for -20 to +60°C. The liquid measuring sensor parts are rated for -20 to +60°C. (exist in the ambient of the Vibration sensor, which is attached to the float sensor).
3. Converter (Associated Intrinsic safety device) which connect to the Oil Leak Detector must be satisfied following conditions.
- Only TIIS-approved, Intrinsically Safe devices may be used in non-hazardous areas
  - Only TIIS-approved devices in Explosion-proof enclosures may be used in hazardous areas
- 3.1 Intrinsic safety ratings
- Maximum I.S. circuit voltage:  $\leq 28V$
  - Maximum I.S. circuit current:  $\leq 93mA$
  - Maximum I.S. circuit energy:  $\leq 0.65W$
- 3.2 Type of protection / Gas group
- Type of protection: ia
  - Gas Group: IIB or IIC
- 3.3 Relationships between the Intrinsic safety circuit permissible Inductance (Lo) and Capacitance (Co), and the connected external wiring permissible Inductance (Lw) and Capacitance (Cw) are as shown below.
- $Lo \geq Lw + 48 \mu H (Li)$  AND
  - $Co \geq Cw + 0 nF (Ci)$

The converters listed in the table below satisfy the conditions of sections 3.1 and 3.2 above.

Converter	Approval No.	Safety Instructions	Note
NRR261-3***	TC18325	Ex581-832XJ	Hazardous area setting : Ex d[ia] IIB T4
NRR262-2*	TC18326	Ex582-838XJ	Non- hazardous area setting : Ex ia IIB

Refer to the precautionary items in related device's Safety Instructions.

4. Use cable for connecting the Oil Leak Detector and converter that is rated at  $\geq 70^\circ C$ .
5. Mount the float sensor at least 50cm away from the Detector housing (Electric unit) and connection cable between the Float Sensor and the Detector housing must be use the cable (less than 30m) which assembled with the Float Sensor.
6. The measuring sensor that is attached to the float sensor is Ex-certified individually (TC18327). However, the measuring sensor alone cannot be exchanged individually, nor repaired separately. In case of breakage/malfunction, please replace the entire float sensor.
7. Cable entries should be sealed with cable gland or conduit rated at least IP65. If thread size of the cable gland or conduit is other than PF(G)1/2" a reducer shall be used.
8. Place the Oil leak detector (Intrinsically Safe device), Converter (Associated Intrinsic safety device) and connecting wiring such as to prevent electrical interference from current or voltage induction.
9. Do not modify the internal parts or wiring of the devices.
10. Install in conformance with local laws and regulations.

This document should be stored together with Installation Instructions BA01027G

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