

Safety Instruction

NAR300

Oil Leak Detector

IECEX FMG 14.0024X
FM 14 ATEX 0048X

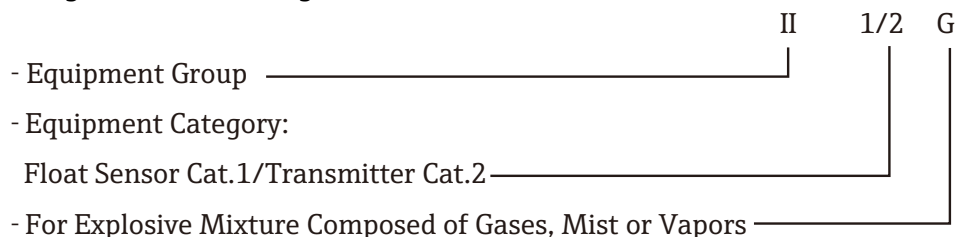


Safety Instructions for Electrical Apparatus Certified for Use in Explosion-hazardous Areas

Designation according to IECEX 02

Equipment Protection Level (EPL): Ga/Gb

Designation according to Directive 94/9/EC:



Hazardous Zone at Mounting Point		Category to Directive 94/9/EC	Ignition Protection Provided		
			Ga	Gb	Gc
Hazard due to explosive gas-air mixture	Zone 0	1G	○	×	×
Hazard due to explosive gas-air mixture	Zone 1	2G	○	○	×
Hazard due to explosive gas-air mixture	Zone 2	3G	○	○	○

○ : Applicable ×: Not Applicable

Designation of Explosion Protection

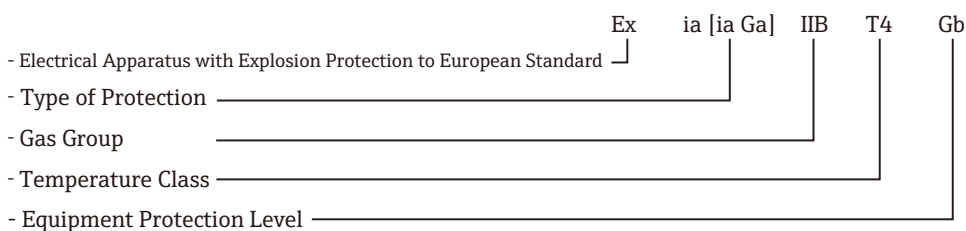


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1 Wiring of NAR300

Oil leak detector NAR300 wiring is shown as follows.

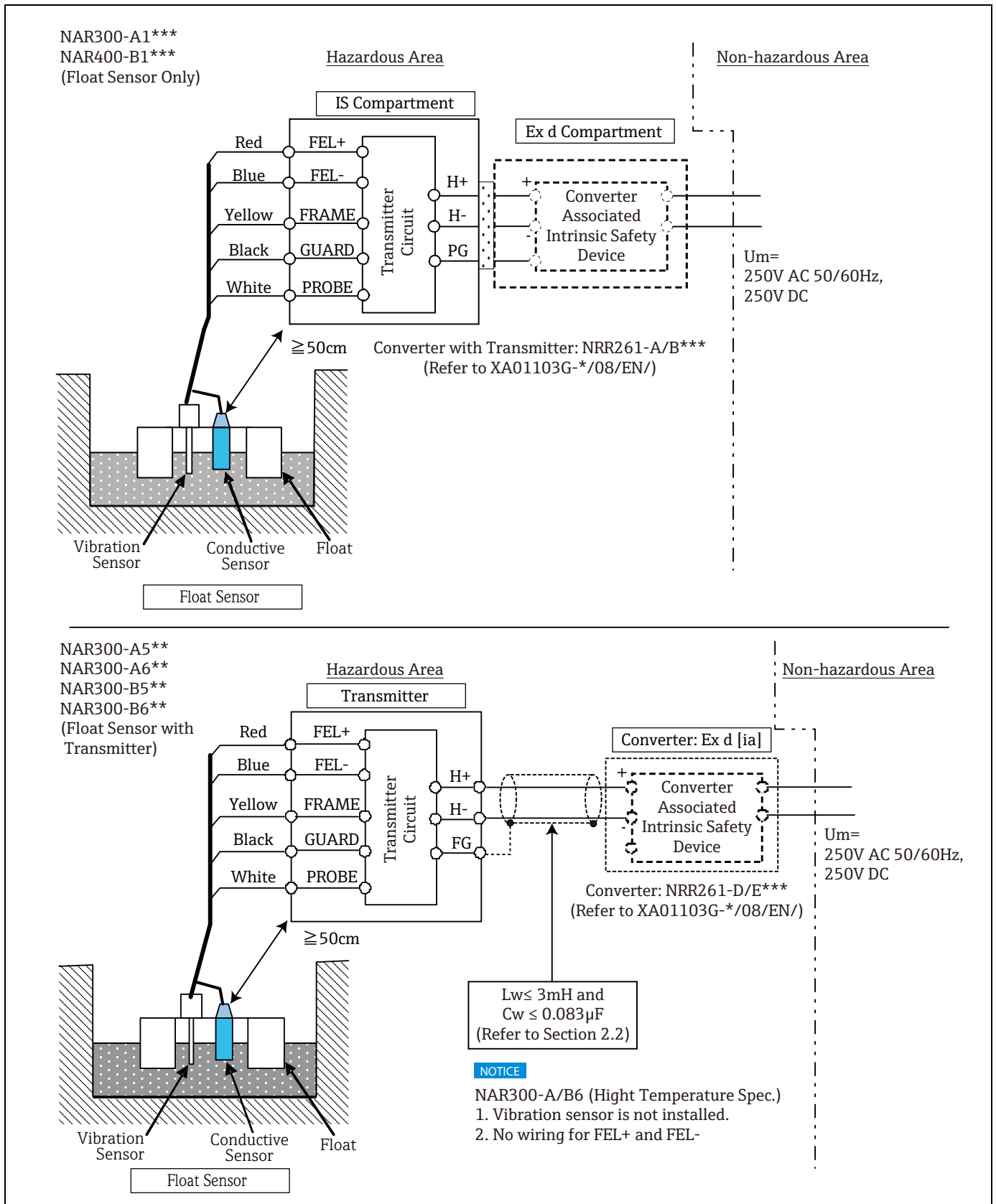


Figure 1: Wiring of NAR300-1

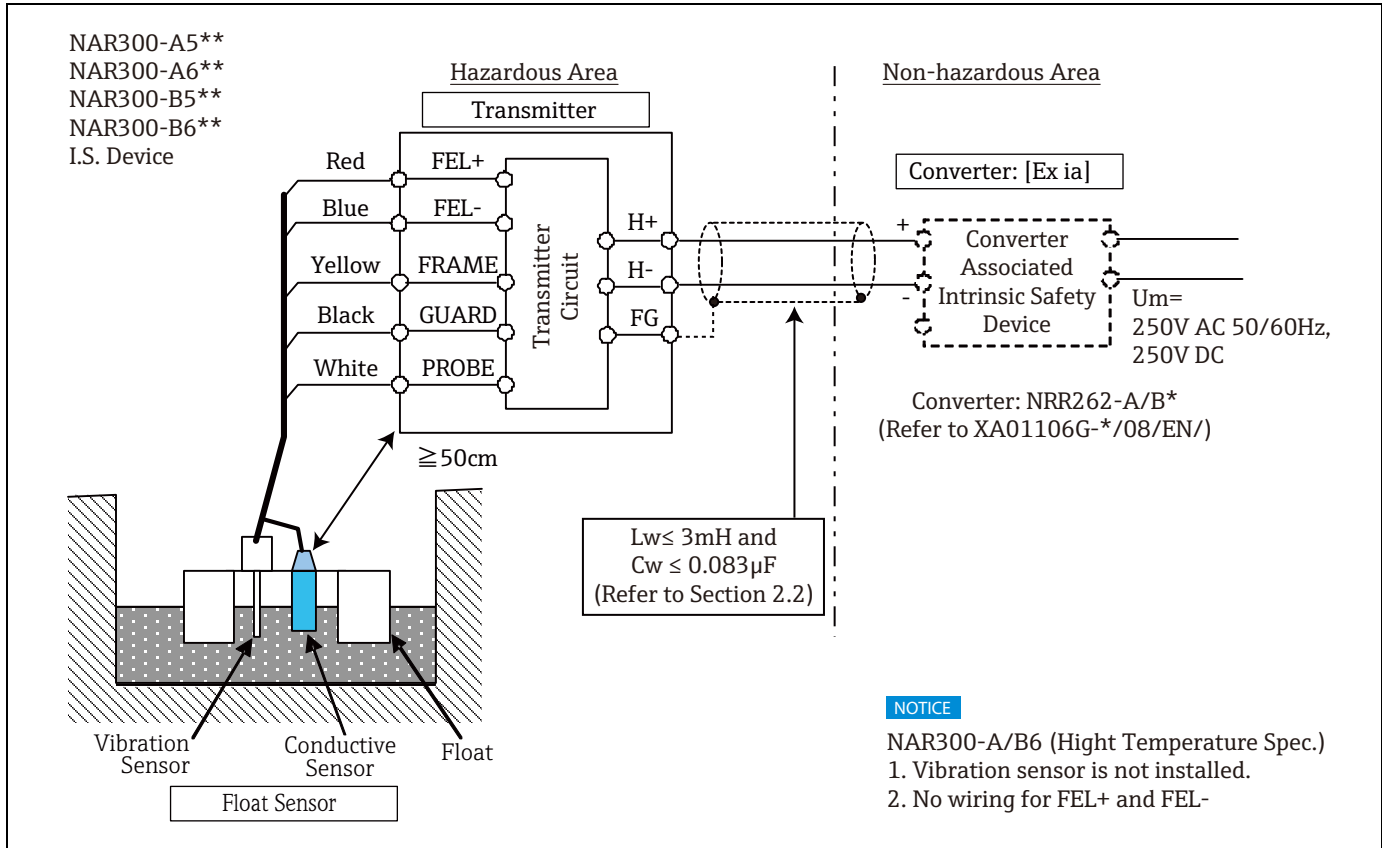


Figure 2: Wiring of NAR300-2

NOTICE

Detail of wiring are shown in Operating Instructions (BA00402G or BA00403G).

- between NAR300 system and associated equipment (NRR261 and NRR262).
- between NAR300 electronics and the sensor(s) with float.

2 Guideline for Safety Use

1. The Transmitter is rated for -20 to + 60°C. The liquid measuring sensor parts are rated for -20 to + 60 °C (exist in the ambient of vibration sensor, which is attached to the float sensor)
2. Converter (Associated Intrinsic Safety Device) which connect to oil leak detector NAR300 system must be satisfied the following conditions.

2-1. Combination of NAR300 and NRR261 or NRR262 are shown below.

Converter Transmitter	NRR261-				NRR262-		Remarks
	A**	B**	D**	E**	A*	B*	
NAR300-A1****	○	×	×	×	×	×	ATEX version
NAR300-A5****	×	×	○	×	○	×	
NAR300-A6****	×	×	○	×	○	×	
NAR300-B1****	×	○	×	×	×	×	IECEx version
NAR300-B5****	×	×	×	○	×	○	
NAR300-B6****	×	×	×	○	×	○	

NOTICE

○ : Applicable × : Not applicable

2-2. 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.

$$C_w < C_o - 0 \text{ nF (Ci)} = 0.083\mu\text{F} \quad \text{AND} \quad L_w < L_o - 48\mu\text{H (Li)} = 3.0\text{mH}$$

2-3. The converters listed in the table below satisfy the conditions of sections 2.1 and 2.2 above.

Converter	Approval No.	Safety Instructions	Remarks
NRR261-A** NRR261-D**	FM 14 ATEX 0048X	XA01103G-*/08/EN	Hazardous area setting: NAR261-A/B; Ex d ia[ia Ga] IIB T4 Ga NAR261-D/E; Ex d[ia] IIB T4 Gb
NRR261-B** NRR261-E**	IECEx FMG 14.0024X		
NRR262-A* NRR262-B*	FM 14 ATEX 0048X IECEx FMG 14.0024X	XA01106G-*/08/EN/	Non- Hazardous area setting: [Ex ia] IIB Gb

3. Use cable for connecting the Oil Leak Detector and converter that is rated at > 70°C.
4. Mount the float sensor 50cm or more away from the transmitter (electric unit) and connection cable between the float sensor and the transmitter must use the cable which assembled with the float sensor.
5. The measuring sensor which is attached to the float sensor is Ex-certified individually. However, the measuring sensor alone cannot be exchanged individually, nor repaired separately. In case of breakage/malfunction, replace the entire float sensor.
6. Cable entry between transmitter and converter should be sealed with cable gland or conduit rated at least IP65. Selection criteria as per EN/IEC 60079-14 must be observed.
7. 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.
8. Do not modify the internal parts or wiring of devices.
9. Install in conformance with local laws and regulations.

NOTICE

This document should be stored with operating instructions (BA00402G or BA00403G).

IECEx	ATEX
IEC60079-0 IEC60079-11	EN 60079-0 EN 60079-11

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