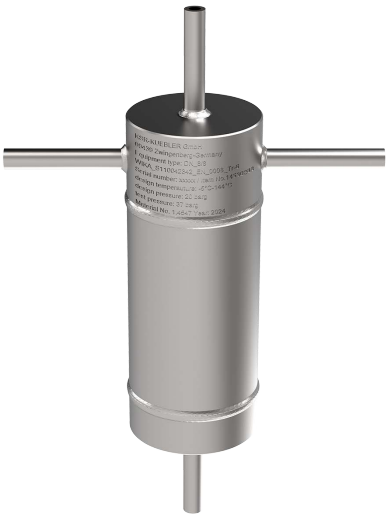
Stainless steel trap
For nuclear power plant applications
Model N-IA TR

Applications

- Condensation
- Degassing
- Reference applications
- Draining media, e.g. condensate removal

Special features

- WIKA safety class up to SC1
- Passive, fully welded stainless steel design
- Compact internal volume (< 1 litre)
- High material quality for demanding process media



Stainless steel trap, model N-IA TR

Description

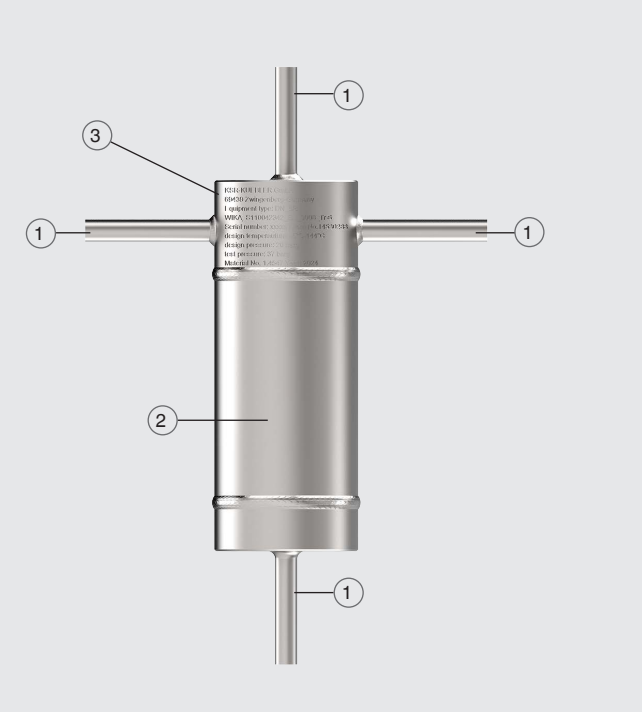
The N-IA TR is a passive, fully welded stainless-steel trap specifically designed for use in nuclear power plants. It is used for the reliable separation, drainage, degassing and conditioning of liquids and gases within nuclear process, instrumentation and auxiliary systems.

The product was developed to meet the high demands encountered in nuclear installations, such as long plant lifetimes, strict quality control, full material traceability and robust mechanical design.

The N-IA TR is intended exclusively for nuclear applications and is therefore designed, manufactured and documented in accordance with nuclear industry requirements and project-specific nuclear technology requirements.

Specifications

Design



1. Connection depending on the design
   - Inlet
   - Outlet
   - Vent
   - Drain
2. Body
3. Product label

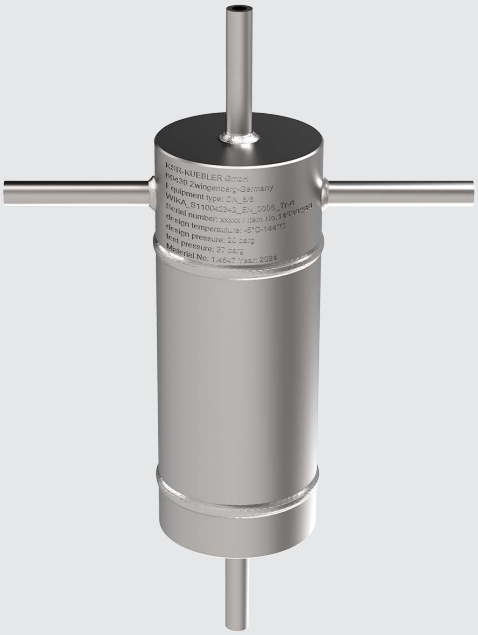
The N-IA TR consists of a welded cylindrical body with several process connections depending on its intended function (e.g. inlet, outlet, vent, drain). The exact number, size and location of the connections depend on the specific nuclear application. This allows one basic design concept to be adapted to different nuclear power plant functions while maintaining a compact footprint.

The mechanical design can be adapted with respect to:
- Number of process connections
- Connection location (upper, lower, side mount)
- Nominal diameter
- Material

All pressure accessories are manufactured from stainless steel and joined using qualified welding procedures in accordance with applicable nuclear requirements.

Functional variants and customisation

Four connections



Two connections

Depending on the configuration and connection design the N-IA TR is available in different functional variants, such as:
- Condensate trap: separation and drainage of condensation from steam or hot-water systems
- Reference trap: stabilised reference column for differential pressure measurements
- Degassing / drain trap: separation and controlled drainage of gases or liquids

The function is defined by the internal geometry and is aligned with the respective nuclear power plant system requirements.

The N-IA TR is a customer-specific product; the final design and documentation are adapted to the requirements for use in nuclear applications, particularly with regard to:
- Function and internal design
- Dimensions and connection design
- Material and cleanliness requirements
- Applicable nuclear standards and regulations

Basic information	
Design code	RCC-M Subsection E (small components)
	→ Other design codes on request
Internal volume	< 1 litre
Risk category	Up to 0 per NPE (Nuclear Power Engineering)
Weight	In accordance with design requirements
Cleanliness	→ See technical information IN 00.68

Process connection	
Standard	ASTM A 999
Design	■ DN 8, schedule 10 ■ DN 8, schedule 40 ■ DN 8, schedule 80 ■ DN 25, schedule 10 ■ DN 25, schedule 40 ■ DN 25, schedule 80
Type of process connection	Butt weld
Connection location	■ Upper mount ■ Lower mount ■ Left mount ■ Right mount

Material	
Material standard	■ EN 10272 ■ EN 10216-5
	→ Other standards on request
Material	■ Stainless steel 1.4404 ■ Seawater-resistant stainless steel 1.4547
	→ Further materials on request

Storage conditions	
Temperature range	-40 ... +70 °C [-40 ... +158 °F]
Humidity	85 % at 35 °C [95 °F] relative humidity
Condensation	Non-condensing

Certificates

Description	
Certificates	■ 3.1 inspection certificate per EN 10204 - material proof with subsupplier certificate including chemical analysis ■ 3.1 inspection certificate per EN 10204 - hydrostatic internal pressure test ■ Dye penetration testing: 10 % of weld seams per ISO 3452-1 ■ X-ray: 10 % of weld seams suitable for X-ray inspection per ISO 17636-2 ■ Radiographic testing (RT): 10 % of radiopaque weld seams per ISO 17636-2 ■ Visual inspection: 100 % of weld seams per ISO 17637

Ordering configuration

Field no.		Code	Version
			WIKA product category acc. IN 00.69
		1	Safety Class 1: Safety function
		2	Safety Class 2: Key function
		3	Safety Class 3: Operating power function
1		4	Safety Class 4: Other requirements (not significant)
			Design code
2		1	RCC-M Subsec. E
			Material standard
3		1	EN 10272 and EN 10216-5
			Material
		1	Stainless steel 1.4404
4		2	Stainless steel 1.4547
			Design pressure
5		***	barg
			Temperature, fluid, min.
6		****	°C
			Temperature, fluid, max.
7		****	°C
			Process connection left
		1	DN 8 schedule 10
		2	DN 8 schedule 40
		3	DN 8 schedule 80
		4	DN 25 schedule 10
		5	DN 25 schedule 40
		6	DN 25 schedule 80
8		Z	Without
			Process connection closing left
		1	Closed
		2	Open
9		Z	Without
			Process connection top
		1	DN 8 schedule 10
		2	DN 8 schedule 40
		3	DN 8 schedule 80
		4	DN 25 schedule 10
		5	DN 25 schedule 40
		6	DN 25 schedule 80
10		Z	Without
			Process connection closing top
		1	Closed
		2	Open
11		Z	Without
			Process connection right
		1	DN 8 schedule 10
		2	DN 8 schedule 40
		3	DN 8 schedule 80
		4	DN 25 schedule 10
		5	DN 25 schedule 40
		6	DN 25 schedule 80
12		Z	Without
			Process connection closing right
		1	Closed
		2	Open
13		Z	Without

Field no.	Code	Version
		Process connection bottom
	1	DN 8 schedule 10
	2	DN 8 schedule 40
	3	DN 8 schedule 80
	4	DN 25 schedule 10
	5	DN 25 schedule 40
	6	DN 25 schedule 80
14	Z	Without
		Process connection closing bottom
	1	Closed
	2	Open
15	Z	Without
		Risk category
16	A	Category 0 acc. NPE
		WIKA cleanliness category acc. IN 00.68
	1	Class A
	2	Class B
	3	Class C
17	Z	Without
		Inspection certificate (Material proof)
	1	Wetted pressure retaining parts with subsupplier certificate incl. chemical analysis acc. EN 10204 3.1
18	Z	Without
		Inspection certificate (Hydrostatic pressure test)
	1	Internal pressure test acc. EN 10204 3.1
19	Z	Without
		Dye penetration testing
	1	10 % of the welds acc. ISO 3452-1
	2	100 % of the welds acc. ISO 3452-1
20	Z	Without
		Radiography (X-Ray)
	1	10 % of radiopaque welds acc. ISO 17636-2
	2	100 % of radiopaque welds acc. ISO 17636-2
21	Z	Without
		Visual testing
	1	100 % of the welds acc. ISO 17637
22	Z	Without

Legend

**** Submit values according to the ordering configuration

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Order code:	N-IA TR-																							Z

Ordering information

To order the described product, the order code is sufficient.

History AC 60.01 (DE, EN)

Page	Modifications	Editor	Checked	Version
1 - 7	New data sheet	TAEL	JAQG	07/2026

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