

# **Table Of Contents**

Understanding the INOX Fluid Level Indicator		
The Modular System: A Fusion of Versatility and Cost		
<u>Efficiency</u>	<u>3</u>	
Features:	4	
Mounting Style	4	
<u>Banjo bolt for liquid level gauges</u>	7	
Material Indicator	8	
Cap types for Liquid Level Gauge	8	
Adaptor Connection Thread	9	
Thread Type Connection Adaptor	9	
Nominal Size	9	
Gasket Indicator Type	9	
<u>Gasket Body</u>	9	
<u>Type Code</u>	<u>10</u>	
Applications in Different Industries	<u>11</u>	
Advantages of the INOX Level Indicator	<u>11</u>	
Economic Efficiency	<u>11</u>	

In various industrial settings, the precise monitoring of liquid levels is crucial for maintaining operational efficiency and <u>safety</u> standards. One of the revolutionary tools contributing to this aspect is the INOX Fluid Level Indicator. Liquid level gauges facilitate quick and easily readable visual inspections. These gauges offer convenient viewing across various industrial settings, proving particularly suitable for bearings, transformers, and numerous other non-pressure applications. Constructed with Stainless Steel and glass tubes, they ensure prolonged durability and service life.

#### **Understanding the INOX Fluid Level Indicator**

The INOX Level Indicator is a precision technology crafted to accurately measure liquid levels in tanks or vessels. Constructed using top-tier stainless steel and durable materials, it is specifically engineered to endure severe environmental conditions and a wide range of chemical compositions. Its versatility extends its applicability to a broad spectrum of industries, encompassing the medical and food sectors, chemical and petrochemical industries (both onshore and offshore), mining, water treatment (including desalination), and numerous other fields.

## **INOX - Where Accuracy Meets Reliability**

#### **The Modular System:**

#### A Fusion of Versatility and Cost Efficiency

Liquid level gauges are constructed based on a modular system, combining a diverse array of options and cost-efficiency. These gauges excel in meeting the most stringent demands for corrosion resistance and stability due to the use of stainless steel (316L) as the base material.

**INOX** equipment boasts remarkable resistance to acids and caustics, proving itself seawater-resistant and widely embraced across a vast spectrum of industrial applications.

In contrast, non-ferrous metals such as Al, Zn, Sn, Cu, and their alloys lack these exceptional characteristics.

INOX devices are engineered to meet the highest standards in functionality and safety. They can be safeguarded in accordance with <u>ATEX</u> directives. Additionally, special sealings made of Kalrez®, capable of enduring temperatures up to +360°C, are available upon request.

#### **Features:**

- INOX Liquid Level Gauge
- Dust and water proofed ventilation acc. to IP44
- Sight glass made of borsilicate glass
- All metal parts are made of stainless steel AISI 316L (1.4404)
- Acid- und seawater resistant
- Max. temp. +360 °C, depending on the seal material
- Other size, threads, sight markings on request (metric, BSPP, BSPT, NPT)
- Optional acc. to ATEX



Socket connection

3 different socket systems

Frame sizes

## **Mounting Style**

A = Vertical

- R = Horizontal rotatable (adjustable)
- F = Horizontal, Banjo Bolt with Port

Table type A (vertical)



Nominal Size	A (mm) ca. 0,5 visible window	B (mm) +2/-0 G 1/2 total height	B (mm) +2/-0 G 3/8 total height	B (mm) +2/-0 G 1/4 total height			
80	60	88	86	86			
100	80	108	106	106			
125	105	138	136	136			
150	130	158	156	156			
175	155	183	181	181			
200	180	208	206	206			
250	230	258	256	256			
300	280	308	306	306			

For ordering refer to table A

Table type R (horizontal)



Nominal Size	A (mm) ca. 0,5 visible window	B (mm) +2/-0 G 1/2 total height				
80	60	113				
100	80	133				
125	105	158				
150	130	183				
175	155	208				
200	180	233				
250	230	283				
300	280	323				

For ordering refer to table R

#### **Banjo bolt for liquid level gauges**

The INOX liquid level gauges are affixed to your equipment using a banjo bolt, offered in two distinct versions. One variant features a banjo bolt with a straightforward hole, facilitating the connection of the indicator to the fluid system, allowing observation of the liquid level.



The device does not need to be rotated for assembly. It is simply placed onto the pre-mounted adaptor and secured with the hollow screw.

Conversely, the opposite side remains closed. An alternative banjo bolt boasts a through bore, strategically designed to grant convenient access to your system, facilitating the installation of sensor technology, such as our optical sensor for low-level detection.

This additional port not only allows for easy installation of a sampling port to assess oil cleanliness but also offers the option to install a thermometer for added functionality.

#### **Material Indicator**

- G = Glass (Borsilicate)
- P = Acrylic Glass (PMMA)
- X = ATEX-Version Glass + Steel Cover + Protection pipe PMMA



#### **Cap types for Liquid Level Gauge**

The cap types (**remote, vent, refill, closed system)** can be frequently adjusted in accordance with the requirements; an ATEX-protective tube can be added anytime.



Labyrinth seal acc. to IP44.

Special labyrinth seal acc. to IP44 including funnel (lossless)



Medium isolated from atmosphere

#### **Adaptor Connection Thread**

0 = Banjo Bolt only (G1/4") 1 = 1/8" 2 = 1/4"

3 = 3/8"

- 4 = 1/2"
- 5 = 3/4''

#### **Thread Type Connection Adaptor**

- R = BSPT tapered (EN10226) G = BSW parallel (DIN 259)
- N = NPT (US-Norm ANSI)

#### **Nominal Size**

Available nominal sizes: 80, 100, 125, 150, 175, 200, 250, 300 For installation dimensions see dimensions table for form A or R.

# **Gasket Indicator Type**

V = FKM (e.g. Viton®) N = NBR

#### **Gasket Body**

F = Aramid fiber

T = Glass fiber reinforced PTFE

# **Type Code**

#### INOX Liquid Level Gauges Type Ranger

Part Number	L	A	G	5	2	R	150	v	T
Nodel									
L = Level Indicator - stainless steel - AlSi 310	1L	1							
Mounting Position									
A = Vertical									
R = Horizontal rotable (adjustable)		_							
F = Horizontal, Banjo, Bolt with Port	1	1							
Sauge Material									
G = Glas (Borsilicate) - max, temp. 360°C,	1	1							
continuous load, peak upp to 500°C									
P = Acrylic Glass (PMMA), max. temp. 80°C									
X = ATEX-version Glass + steel cover +		I .							
protection pipe PMMA	_	1							
an Shda									
S = Standard C = Closed R = Refill can									
(wented) System	1.5			5	2				
(G1/8)									
$\frown$									
Adapter connection thread									
0 = only hollow screw G 1/4"	1	1							
1 = 1/8" (on request)		I .							
$Z = 1/4^{"}$									
3 = 3/8"									
4 = 1/2"		I .							
5 = 3/4"	2	1							
bread type adapter									
N = NPT (US-Norm ANSI)	-	1							
R = 85PT tapered (EN10226)									
G = BSW parallel (DIN 259)							52		
Vominal size (mm)	-	1							
(80, 100, 125, 150, 175, 200, 250, 300 mm).		1					3	l,	
For installation dimensions see									
umensionstable form A of R.	-	1							
Sauge gasked material	_	-							
N = NBR, max. temp. 120°C	1								
V = FRM (Viton), max. temp. 180°C									
T = PTFE (Teflon, max. Temp. 270°C	_	1							
ody gasked material									
K = Klingersil C 4400, max, temp, 160°C	1	1							
in a competant of wood most temps too to									
THE REPORT OF A PARTY		10							

#### **Applications in Different Industries**

**1. Chemical Industry:** In the chemical sector, precise measurement of various liquids is crucial to ensure the quality of products and safety. The INOX Level Indicator assists in accurately gauging chemical levels, preventing spillage and ensuring controlled handling.

**2. Pharmaceutical Sector:** Maintaining exact levels of pharmaceutical compounds is vital for product consistency and regulatory compliance. The INOX Level Indicator aids in achieving this precision, contributing to the production of high-quality pharmaceuticals.

**3. Food and Beverage:** From storage tanks for ingredients to monitoring levels in beverage production, this device plays a pivotal role in maintaining consistency, ensuring efficient operations and quality control in the food and beverage industry.

## **Advantages of the INOX Level Indicator**

**1. Increased Efficiency:** By providing accurate measurements, this indicator optimizes inventory management and reduces downtime caused by inaccurate readings.

**2. Cost-Effectiveness:** Its durability and low maintenance requirements lead to cost savings over time, making it a cost-effective solution for industries.

**3. Safety Enhancement:** The ability to prevent potential hazards such as overflows or leaks contributes significantly to a safer working environment.

## **Economic Efficiency**

The well-thought-out modular system ensures high economic efficiency. The level indicator can be connected to all types of threads using commercially available adaptors (threaded fittings). The captypes (ventilated IP34 (4), refill (5), "Closed System" (6)) can be adjusted according to requirements, and an ATEX protective tube (12+13) can be retrofitted at any time. Sources of errors due to incorrect material selection are eliminated, ensuring a high turnover speed. With a very clear range of parts, **over 360 different indicators can be assembled**, practically covering every application.

As industries continue to evolve, tools like the INOX Level Indicator will remain at the forefront, empowering businesses to streamline their processes and meet the demands of a dynamic market.