

# The Smart Generation Lubrication Equipment

## State of the Art

*Made in Germany*



As a mechanical engineer (Dipl.-Ing.) Rolf Mertens (RM) started his career in process engineering, where he was a project engineer in the field of vacuum technology. During that time he recognized the importance of sealings and focussed on that area at Burgmann, a leading German sealing company and later in leading position at Durametall (USA), which is a subsidiary of the Flowserve group nowadays. For this kind of sealings pumps are the most significant application. Eventually, that led to an extremely close co-operation with all manufacturers of process pumps globally. After the takeover of Durametall by Flowserve, everything was restructured. RM chose to continue working in the area of pumps. Thus, he started his business, Ingenieurbüro R. Mertens, consulting the appliers of sealings (chemical industry, petrochemistry, oil industry, conventional and nuclear power plant technology).

The business developed well. In 1982 RM got the offer of Adams, UK, to take over their distribution in Germany and Austria. Adams is a leading company for the lubrication of pumps in Europe. Consequently, the company was extended through the distribution of trading goods and the transfer to a limited liability company became necessary. The R. Mertens GmbH was registered in 1984.

The intensifying globalization influenced the formerly purely German business to orient more internationally. This resulted in the offer of Trico, the leading manufacturer from the US, to take over their distribution for Central Europe. Consequently, our company became market leader in Europe.

Since an increasing number of customers started to convey special requirements, which could not be covered by existing devices, RM has started developing own lubrication equipment for the process industry. Operational conditions at offshore or deep sea environments, water desalination etc. required different materials. Stainless steel is favored instead of non-ferrous metal.

Our product range is continually being expanded and supplemented. Please address us directly, if you don't find the product you are looking for on our home page. Make use of our wealth of experience for your own benefit.

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# Constant Level Oiler

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Constant-level oilers are used to regulate the lubricant quantity (e. g. in transmission bearings). They are designed to maintain a predetermined oil level in a sump, which is necessary for proper lubrication. If the oil level drops below a certain point, the depleted oil automatically self levels based on the lubricators volume.

As long as the reservoir of the lubricator contains oil, the oil level in the bearing housing is sufficient to ensure reliable lubrication.

Widely used in the chemical and process industries, constant level oilers maintain a constant fluid level at all times. Available with BSP or NPT thread. Plastic or glass reservoirs with capacities of 85 cc to 500 cc.





# „Oil-Watch Type F“ glass reservoir

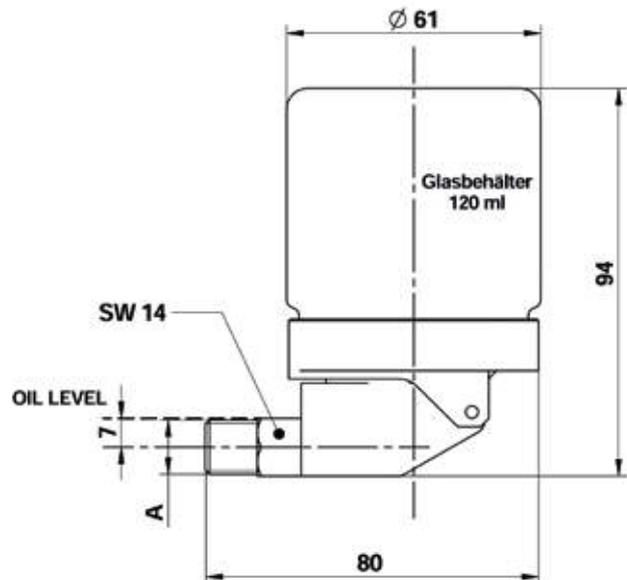
## Application:

Wherever a fluid is to be kept at a certain level, this oiler is employed. This version is often used as a reservoir for quenching mechanical seals and other applications. The combination of stainless steel with PTFE gaskets allows the use of aggressive fluids. Please note: The glass reservoir is interchangeable with a plastic one. Details “Oil Watch Type FP”



## Features :

- Available in stainless steel 316L (1.4404) or zinc-plated steel
- Wire guard (stainless steel) available
- Solid steel design, no die-cast zinc or other non ferrous metals
- 2-piece design, weld- and solderless
- Covered venting (IP 44) resists spray water and dust
- Wide opening (170°) for easy refill
- **Reservoir made of glass**
- Reservoir replaceable
- Wide range of gasket materials



## Gaskets:

Standard is NBR (max. temp. 120 °C)  
 For other choices add appropriate suffix to the Model-No.:  
 V = FKM (i.e. Viton®), max temp. 180°C  
 T = PTFE (i.e. Teflon®), max. temp. 270°C  
 X = SBR (Neoprene) max. Temp. 100 °C

## Order example:

Model-No **F23120 – T**  
 Oil-Watch Stainless Steel 316L with wire guard,  
 with a 1/4" NPT thread,  
 120 ml glass reservoir and PTFE gaskets

Model-No.		Wire Guard SS	„A“ Connection thread		Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)		BSP G 1/4"	1/4" NPT	ml
F13000	F23000	-	x	-	120
F13100	F23100	x	x	-	120
F13020	F23020	-	-	x	120
F13120	F23120	x	-	x	120

## „Oil-Watch Type FP“ plastic reservoir

### Application:

Wherever a fluid is to be kept at a certain level, this oiler is employed.

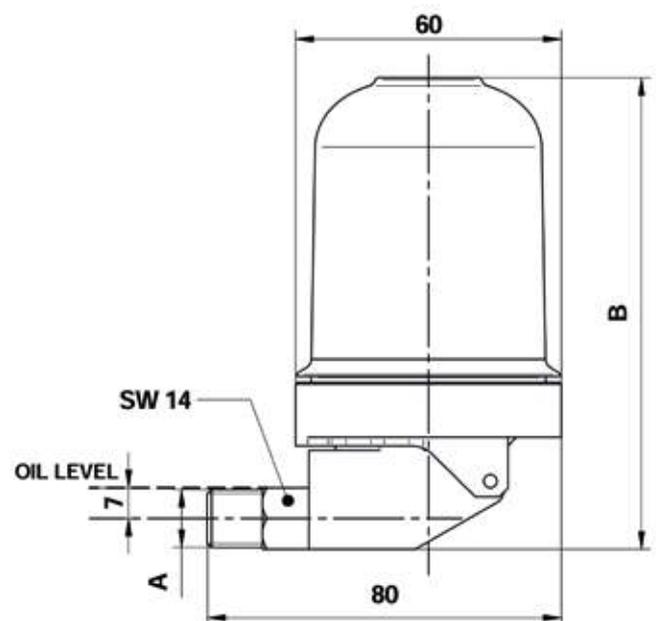
This version is often used as a reservoir for quenching mechanical seals and other applications.

The combination of stainless steel with PTFE gaskets allows the use of aggressive fluids.

Please note: The plastic reservoir is interchangeable with a glass one. Details „Oil-Watch Type F“.

### Features :

- Available in stainless steel 316L (1.4404) or zinc-plated steel
- Solid steel design, no die-cast zinc or other non ferrous metals
- 2-piece design, weld- and solderless
- Covered venting (IP 44) resists spray water and dust
- Wide opening (170°) for easy refill
- Reservoir replaceable
- **Reservoir made of PA6T (Tmax 80°C)**
- Wide range of gasket materials



### Gaskets:

Standard is NBR

If other materials are needed add appropriate suffix to the Model No :

V = FKM (i.e. Viton®)

T = PTFE (i.e. Teflon®)

X = SBR (Neoprene)

### Order example:

Model-No **FP23020 – T**

Oil-Watch Stainless Steel 316L

with a 1/4" NPT thread,

120 ml plastic reservoir and PTFE gaskets

Model-No.		„A“ Connection thread		B	Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)	BSP G 1/4"	1/4" NPT	mm	ml
FP13000	FP23000	x	-	108	120
FP13020	FP23020	-	x	108	120
FP15000	FP25000	x	-	138	160
FP15020	FP25020	-	x	138	160

# „Oil-Watch Type V“ Glass Reservoir



**Application:**

Wherever a fluid is to be kept at a certain level, this oiler is employed. This version is often used as a reservoir for quenching mechanical seals and other applications. The combination of stainless steel and PTFE gaskets give a high degree of chemical resistance.

Adjustable level setting, with a range of 24 mm, horizontal and vertical connection. The „Oil-Watch V“ oiler is the only universal device, that can replace all existing competitor devices.

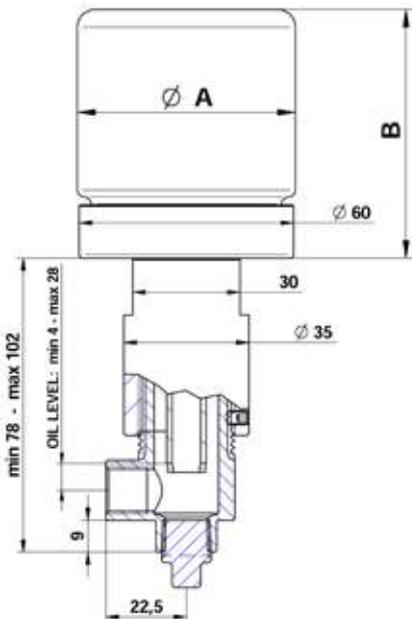
This provides minimal warehousing and simplifies maintenance.

The very robust design meets all requirements of the internationally recognized guideline API 610 as well as protection class IP44. All metal parts are made of zinc-plated steel or stainless steel 316L (1.4404) – no zinc die-cast or other non-ferrous metals. Interchangeable glass or plastic reservoir. Details type VP.

Easy and clean setting, oil level adjustment without removing the reservoir.

**Features:**

- Available in stainless steel 316L (1.4404) or zinc-plated steel
- Easy and clean setting, oil level adjustment without removing the reservoir
- Level adjustment, positive-locking
- **Reservoir made of glass**
- Reservoir replaceable
- Also available with a plastic reservoir (Type VP)
- Adjusting range 24mm
- Wide range of gasket materials



**Optional Accessories:**

- Wire guard for glass reservoir, Model-No. see page 19

**Gaskets:**

Standard is NBR (max. temp. 120 °C)  
 For other choices add appropriate suffix to the Model-No.:  
 V = FKM (i.e. Viton®), max temp. 180°C  
 T = PTFE (i.e. Teflon®), max. temp. 270°C  
 X = SBR (Neoprene) max. Temp. 100 °C

**Order example:**

Model-No **V28110 – V**  
 Oil-Watch stainless Steel 316L oiler with wire guard, 1/4" NPT Connection, 500 ml glass reservoir and FKM gaskets

Model-No.		Wire Guard SS 316L	Connection thread		Dimensions		Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)		G 1/4"	1/4" NPT	A mm	B mm	ml
V13000	V23000	-	x	-	60	71	120
V13100	V23100	x	x	-	60	71	120
V13010	V23010	-	-	x	60	71	120
V13110	V23110	x	-	x	60	71	120
V15000	V25000	-	x	-	64	126	250
V15100	V25100	x	x	-	104	165	250
V15010	V25010	-	-	x	64	126	250
V15110	V25110	x	-	x	104	165	250
V18000	V28000	-	x	-	82	157	500
V18100	V28100	x	x	-	82	157	500
V18010	V28010	-	-	x	82	157	500
V18110	V28110	x	-	x	82	157	500

## „Oil-Watch Type VP“ plastic reservoir

### Application:

Wherever a fluid is to be kept at a certain level, this oiler is employed. This version is often used as a reservoir for quenching mechanical seals and other applications. The combination of stainless steel and PTFE gaskets give a high degree of chemical resistance.

Adjustable level setting, with a range of 24 mm, horizontal and vertical connection.

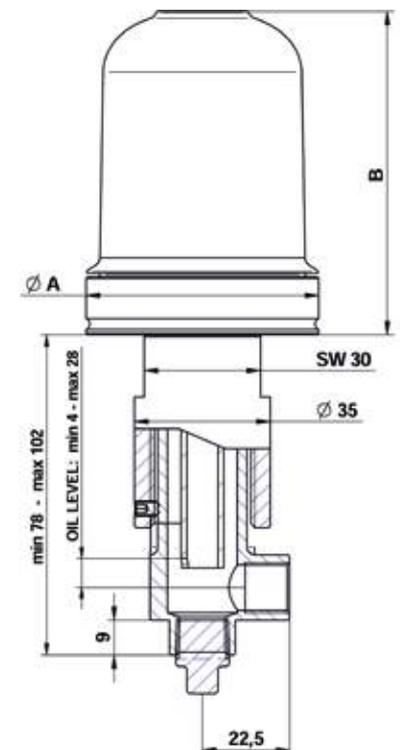
The „Oil-Watch VP“ oiler is the only universal device, that can replace all existing competitor devices.

This provides minimal warehousing and simplifies maintenance.

The very robust design meets all requirements of the internationally recognized guideline API 610 as well as protection class IP44. All metal parts are made from zinc plated steel or stainless steel 1.4404 (316L) – no zinc die cast or other non-ferrous metals, interchangeable glass or plastic reservoir. Details see type V.  
Clean setting, oil level adjustment without removing the reservoir.

### Features:

- Available in stainless steel 1.4404 (316L) or mild steel zinc plated steel
- Easy and clean setting, oil level adjustment without removing the reservoir
- Level adjustment positively secured
- **Reservoir made of PA6T (Tmax 80°C)**
- Reservoir replaceable
- Adjusting range 24mm
- Wide range of gasket materials



### Gaskets:

Standard is NBR

If other materials are needed add appropriate suffix to the Model No :

V = FKM (i.e. Viton®)

T = PTFE (i.e. Teflon®)

X = SBR (Neoprene)

### Order example:

Model-No VP23010 – V

Oil-Watch Stainless Steel 1.4404 oiler,

1/4" NPT Connection,

120 ml plastic reservoir and FKM gaskets

Model-No.		Connection thread		Dimensions		Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)	G 1/4"	1/4" NPT	A mm	B mm	ml
VP13000	VP23000	x	-	60	83	120
VP13010	VP23010	-	x	60	83	120

# „Oil-Watch Typ SG“ Glass Reservoir



### Application:

The design features a reservoir which is mounted by sliding on and locking into the oiler main body. This offers a significantly larger buffer volume to overflow compared to the standard constant level oilers with tiltable reservoirs (Type F).

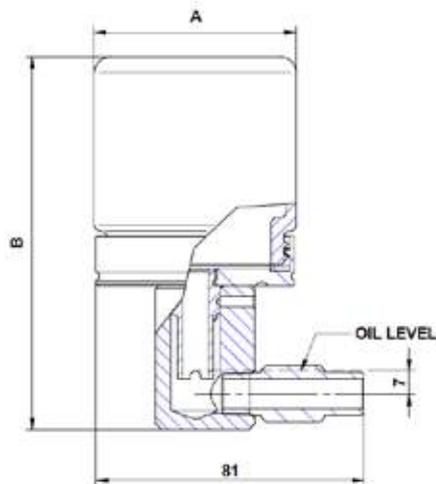
A further advantage is that the reservoir does not have to be refilled on site.

This guarantees absolute cleanliness of the machine, especially when using the „Drop-Stop“ Relief Valve (see optional accessories).

### Features:

- Available in stainless steel 1.4404 (316L) or zinc plated steel
- Solid steel, no zinc die cast or other non-ferrous metals
- 3-piece design, no failing soldering or welding spots
- **Reservoir made of glass**
- Reservoir replaceable
- Wide range of gasket materials

Wherever a fluid is to be kept at a certain level. Most popular use is for lubricating bearings. However, it is also used as a reservoir for quenching mechanical seals and further applications. The combination of stainless steel with PTFE gaskets allows even the most aggressive fluids to be used..



### Optional Accessories:

- „Drop-Stop“ Relief Valve Model-No. **RVSS-OS**
- Wire guard for glass reservoir, Model-No. see page 19

### Gaskets:

Standard is NBR (max. Temp. 120 °C)

If other gasket materials are needed add appropriate suffix to the Model-No.:

V = FKM (i.e. Viton®), max. Temp. 180 °C

T = PTFE (z.B. Teflon®), max. Temp. 270 °C

X = SBR (Neoprene), max. Temp. 100 °C

### Order example:

Model-No. **SG23110 – T**

„Oil-Watch“ oiler Type S made of Stainless Steel 316L with wire guard, connection thread 1/4“ NPT, 120 ml glass reservoir and PTFE gaskets

Model-No.		Wire Guard	Connection thread		Dimensions		Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)	SS 316L	G 1/4"	1/4" NPT	A mm	B mm	ml
SG13000	SG23000	-	x	-	60	114	120
SG13100	SG23100	x	x	-	78	121	120
SG13010	SG23010	-	-	x	60	114	120
SG13110	SG23110	x	-	x	78	121	120
SG15000	SG25000	-	x	-	64	170	250
SG15100	SG25100	x	x	-	104	209	250
SG15010	SG25010	-	-	x	64	170	250
SG15110	SG25110	x	-	x	104	209	250
SG18000	SG28000	-	x	-	82	201	500
SG18100	SG28100	x	x	-	104	209	500
SG18010	SG28010	-	-	x	82	201	500
SG18110	SG28110	x	-	x	104	209	500

## „Oil-Watch Typ SP“ plastic reservoir

### Application:

The design features a reservoir which is mounted by sliding on and locking into the oiler main body. This offers a significantly larger buffer volume to overflow compared to the standard constant level oilers with tiltable reservoirs (Type F).

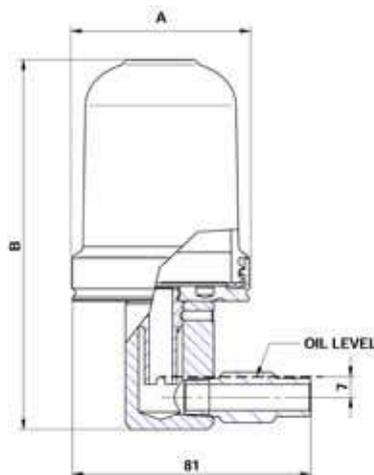
A further advantage is that the reservoir does not have to be refilled on site.

This guarantees absolute cleanliness of the machine, especially when using the „Drop-Stop“ Relief Valve (see optional accessories).

### Features:

- Available in stainless steel 1.4404 (316L) or zinc plated steel
- Solid steel, no zinc die cast or other non-ferrous metals
- 3-piece design, no failing soldering or welding spots
- **Reservoir made of PA6T (Tmax 80°C)**
- Reservoir replaceable
- Wide range of gasket materials

Wherever a fluid is to be kept at a certain level. Most popular use is for lubricating bearings. However, it is also used as a reservoir for quenching mechanical seals and further applications. The combination of stainless steel with PTFE gaskets allows even the most aggressive fluids to be used..



### Gaskets:

Standard is NBR

If other gasket materials are needed add appropriate suffix to the Model-No.: V = FKM (i.e. Viton®)

T = PTFE (z.B. Teflon®)

X = SBR (Neoprene)

### Order example:

Model-No. **SP23000**

„Oil-Watch“ oiler Type SP made of Stainless Steel 316L, connection thread

G 1/4“, 120 ml plastic reservoir and NBR gaskets



Model-No.		Connection thread		Dimensions		Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)	G 1/4"	1/4" NPT	A mm	B mm	ml
SP13000	SP23000	x	-	60	136	120
SP13010	SP23010	-	x	60	136	120

### Optional Accessories:

„Drop-Stop“ Relief Valve Model-No. **RVSS-OS**  
When handling our Constant-Level-Oilers typ SP this optional Drop Stopp avoids oil spillage and oily fingers. Easy to retrofit!



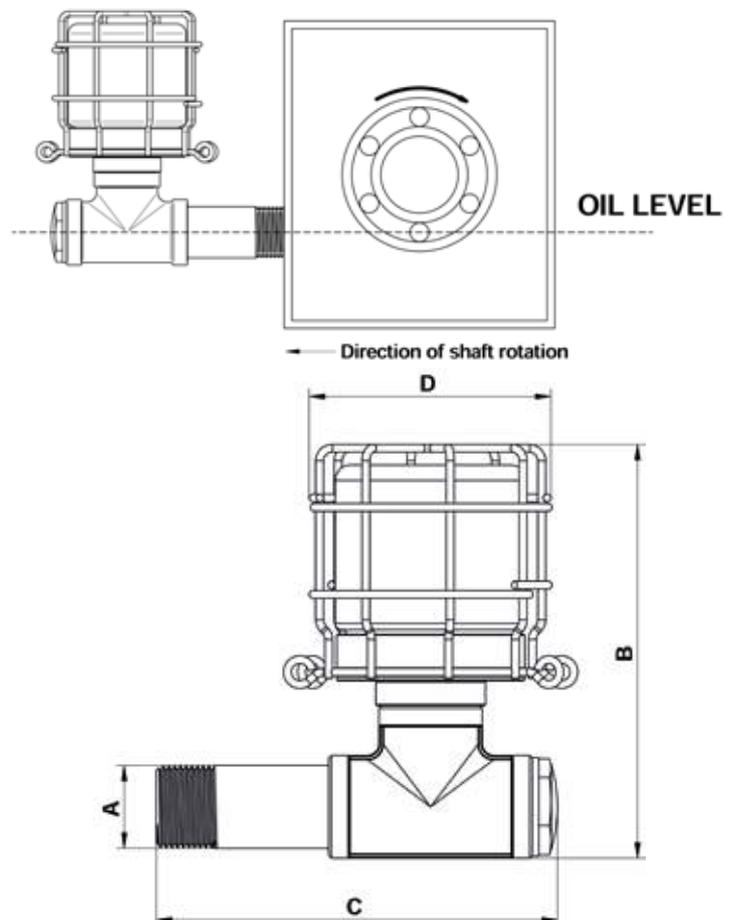
# Bull-Eye Constant Level Oiler

The "Bull-Eye" Oiler is designed for bearing housings, gear boxes, and other oil sump lubrication applications. It is ideal for use in chemical processing, power generation, pulp and paper, and supply industries. The viewport provides visual indication of lubricant level and condition. Fixed oil level at the viewport centerline.



**Features:**

- Available in Stainless Steel 316L or zinc-plated steel
- Closed system design prevents contamination and spillage
- The reservoir is mounted simply by sliding on and locking into the main body, screwing is not required
- The viewport is designed according to ATEX instructions and can be replaced with other types e.g. 3D version
- **Reservoir made of glass**
- Reservoir replaceable
- It is possible to mount an opto-electronic sensor in order to detect low level. This signal may be used for various actions e.g. switching an alarm, solenoid valve for automatic refilling, shut down a system etc.



**Gaskets:**

Standard is NBR (max. temp. 120 °C)  
 If other materials are needed add appropriate suffix to the Model No :  
 V = FKM (i.e. Viton®), max temp. 180°C  
 T = PTFE (i.e. Teflon®), max. temp. 270°C  
 X = SBR (Neoprene) max. Temp. 100 °C

**Order example:**

Model-No **B23100**  
 Bull-Eye oiler made of stainless steel  
 with wire guard,  
 G 3/4" (BSP) Connection,  
 120 ml glass reservoir  
 and NBR gaskets

Model-No.		Wire Guard SS 316L	„A“ Connection thread		Dimensions			Capacity ml
Zinc-plated steel	Stainless Steel 316L (1.4404)		G 3/4"	3/4" NPT	B mm	C mm	D mm	
B13000	B23000	-	x	-	130	126	61	120
B13100	B23100	x	x	-	134	126	79	120
B13010	B23010	-	-	x	130	119	61	120
B13110	B23110	x	-	x	134	119	79	120
B15000	B25000	-	x	-	184	126	64	250
B15100	B25100	x	x	-	188	126	84	250
B15010	B25010	-	-	x	184	119	64	250
B15110	B25110	x	-	x	188	119	84	250
B18000	B28000	-	x	-	220	126	83	500
B18100	B28100	x	x	-	224	126	92	500
B18010	B28010	-	-	x	220	119	83	500
B18110	B28110	x	-	x	224	119	92	500

# Sump Bottles

## Sump Bottles "Oil-Watch-SB" plastic reservoir

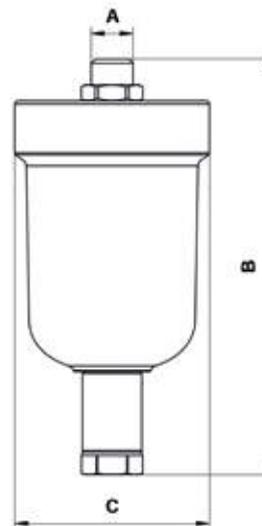
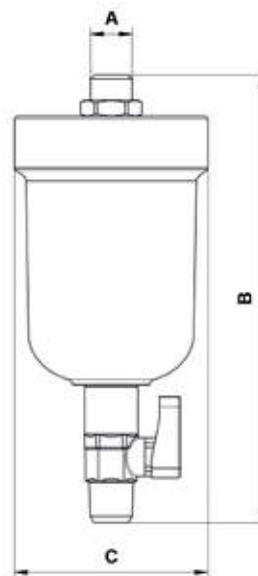
With Oil-Watch sump bottles, users have an immediate visual inspection of the oil and the ability to drain any accumulated water. The SB is mounted directly to the drain port located at the bottom of a reservoir or machine. Draining by valve (model DV) or plug screw (model DP) is utilized to drain off any water contamination. Any sediments or particles in the oil will settle to the bottom of the bottle. Due to inspection, the user can determine further actions.

**Please note:**

Oil should be clear and bright in sump bottles. If water or sediment is observed, remove immediately and investigate source. Up to 70% of equipment fails prematurely due to contamination in lubricants.

**Features :**

- Available in stainless steel 316L (1.4404) or zinc-plated steel
- Plastic reservoirs made of PA6T (T max 85° C) for long life and impact resistance
- Solid steel, no die-cast zinc or other colored non-ferrous metals
- Gaskets NBR
- Reservoir removable for easy cleaning



The required draining option is specified by adding the appropriate suffix to the Model No:  
 DV = Drain Valve  
 DP = Drain Plug

**Order example:**

Model-No **SB23100-DV**  
 Oil-Watch sump bottle made of Stainless Steel, 120 ml PA6T reservoir, Connection G 1/4", NBR gasket and a Drain Valve

Model-No.		A	B	C	Capacity
Zinc-plated steel	Stainless Steel 316L (1.4404)	Connection thread	mm	mm	ml
SB13000	SB23000	BSP 1/8"	143	60	120
SB13100	SB23100	BSP 1/4"	143	60	120
SB13200	SB23200	BSP 1/2"	146	60	120
SB13010	SB23010	1/8" NPT	143	60	120
SB13110	SB23110	1/4" NPT	143	60	120
SB13210	SB23210	1/2" NPT	146	60	120

# Universal reservoirs

## INOX UNIVERSAL reservoir for fluids, glass



Reservoir 80 und 120 ml

INOX Universal reservoirs are designed to store the widest possible range of fluids under atmospheric pressure for the following applications:

- Oil for lubrication devices and other applications
- Quenching of mechanical seals
- Metering equipment etc.

### Features :

All metallic components are made of stainless steel AISI 316 L (1.4404).

The transparent cylinder is made of borosilicate glass (RG series).

Seals are available in many different materials in order to achieve the widest range of feasibility. This makes INOX Universal Reservoirs resistant against acids, caustics, solvents, chemicals etc. as well as for food industry.

Ventilation dust and water proofed acc. to IP34

**Please Note: The max. temperature depends on the materials being used !  
With series RG (cylinder borosilicate glass) the temperature limit is given by the material of the seals being used (see table).**

Special designs with solenoid valve, level sensor etc. on request (see page number 12).

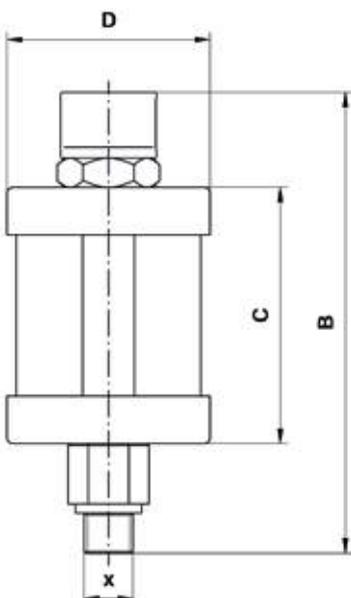


Reservoir ≥ 260 ml

### Order example:

Model-No. **RG014-2-G-N**

INOX UNIVERSAL Reservoir made of Stainless Steel 316L with glass cylinder, Volume 140 ml, Thread G 1/4" (BSP) and NBR seals



Model-No.	Material cylinder	B mm	C mm	D mm	Capacity ml
RG008 -X-Y-Z	Glass	115	57	55	80
RG014 -X-Y-Z	Glass	124	68	64	140
RG026 -X-Y-Z	Glass	146	86	76	260
RG050 -X-Y-Z	Glass	184	126	85	500
RG100 -X-Y-Z	Glass	215	156	105	1000
RG200 -X-Y-Z	Glass	260	206	125	2000
RG300 -X-Y-Z	Glass	260	206	160	3000

X= Table Thread Size
1 = 1/8"
2 = 1/4"
3 = 3/8"
4 = 1/2"
5 = 3/4"
6 = 1"

Y= Table Thread Type
G = BSP
R = BSPT
N = NPT

Z= Table Gasket Material	Tmax
N = NBR (Standart)	120 °C
V = FKM (z.B. Viton)	180 °C
S = Silikone	180 °C
X = Neopren	100 °C
T = PTFE (z.B. Teflon)	270 °C
K = Kalrez	400 °C

# INOX UNIVERSAL reservoirs for fluid, acrylic glass

INOX Universal reservoirs are designed to store the widest possible range of fluids under atmospheric pressure for the following applications:

- Oil for lubrication devices and other applications
- Quenching of mechanical seals
- Metering equipment etc.

## Features :

All metallic components are made of stainless steel AISI 316 L (1.4404). The transparent cylinder is made of acrylic glass PMMA (RP series).

Seals are available in many different materials in order to achieve the widest range of feasibility. This makes INOX Universal Reservoirs resistant against acids, caustics, solvents, chemicals etc. as well as for food industry.

Ventilation dust and water proofed acc. to IP34

**Please Note: The max. temperature depends on the materials being used ! For series RP (cylinder PMMA) the temperature limit is 80 °C.**

Special designs with solenoid valve, level sensor etc. on request (page number 12).



Reservoir 80 und 120 ml



Reservoir ≥ 260 ml

## Order example:

Model-No. **RP014-2-G-N**

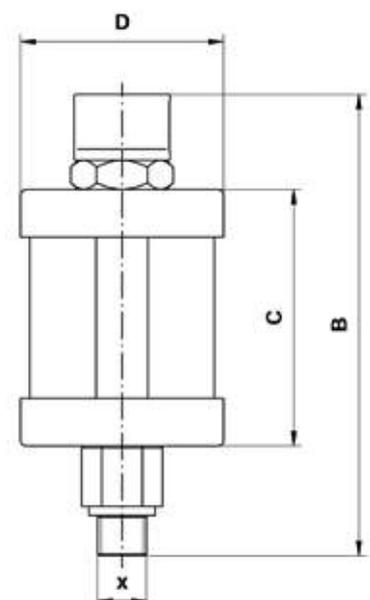
INOX UNIVERSAL Reservoir made of Stainless Steel 316L with acrylic glass cylinder, Volume 140 ml, Thread G 1/4" (BSP) and NBR seals

Model-No.	Material cylinder	B mm	C mm	D mm	Capacity ml
RP008 -X-Y-Z	Acrylic PMMA	115	57	55	80
RP014 -X-Y-Z	Acrylic PMMA	124	68	64	140
RP026 -X-Y-Z	Acrylic PMMA	146	86	76	260
RP050 -X-Y-Z	Acrylic PMMA	184	126	85	500
RP100 -X-Y-Z	Acrylic PMMA	215	156	105	1000
RP200 -X-Y-Z	Acrylic PMMA	260	206	125	2000
RP300 -X-Y-Z	Acrylic PMMA	260	206	160	3000

X= Table Thread Size
1 = 1/8"
2 = 1/4"
3 = 3/8"
4 = 1/2"
5 = 3/4"
6 = 1"

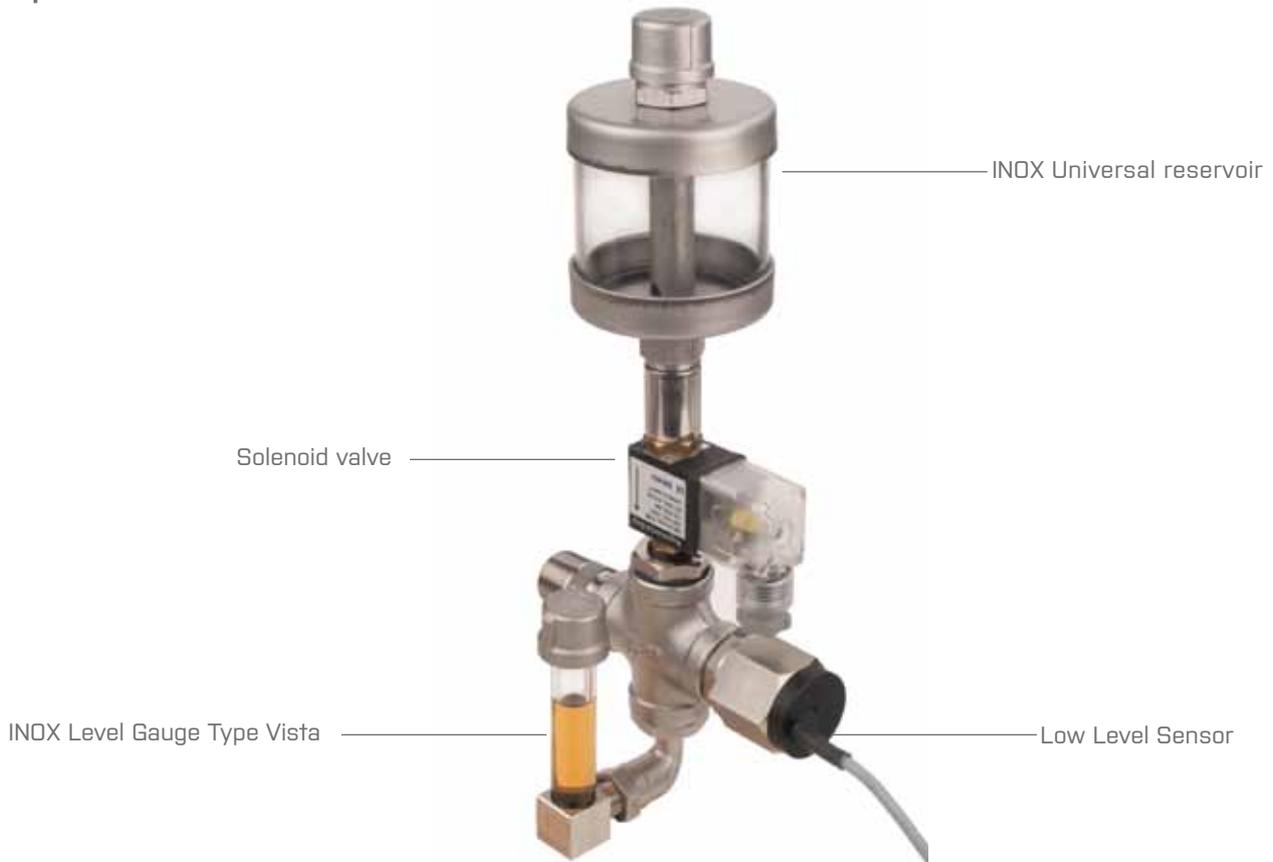
Y= Table Thread Type
G = BSP
R = BSPT
N = NPT

Z= Table Gasket Material	Tmax
N = NBR (Standart)	120 °C
V = FKM (z.B. Viton)	180 °C
S = Silikone	180 °C
X = Neopren	100 °C
T = PTFE (z.B. Teflon)	270 °C
K = Kalrez	400 °C



# Accessory parts

## Sample

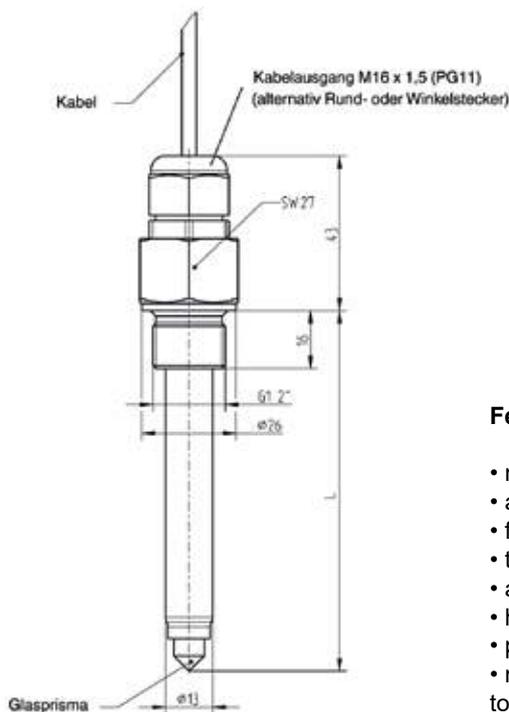


## Low Level Sensor

This optoelectronic sensor consists of an infrared LED and a photoreceiver.

The LED light is reflected by a prism at the end of the sensor. As long as the prism is not surrounded by a fluid, the light is reflected.

As soon as fluid fills into the reservoir and reaches prism-level, the light is absorbed by the fluid and the switch is triggered.



### Features:

- max. pressure 25bar
- ambient temp. -25°C to +70°C
- fluid temp. -30°C to +100°C
- temporary up to +150°C
- accuracy +0.5mm
- housing made of stainless steel 316L
- prism made of silica glass
- min. distance from any reflektive surfaces to prism >10mm

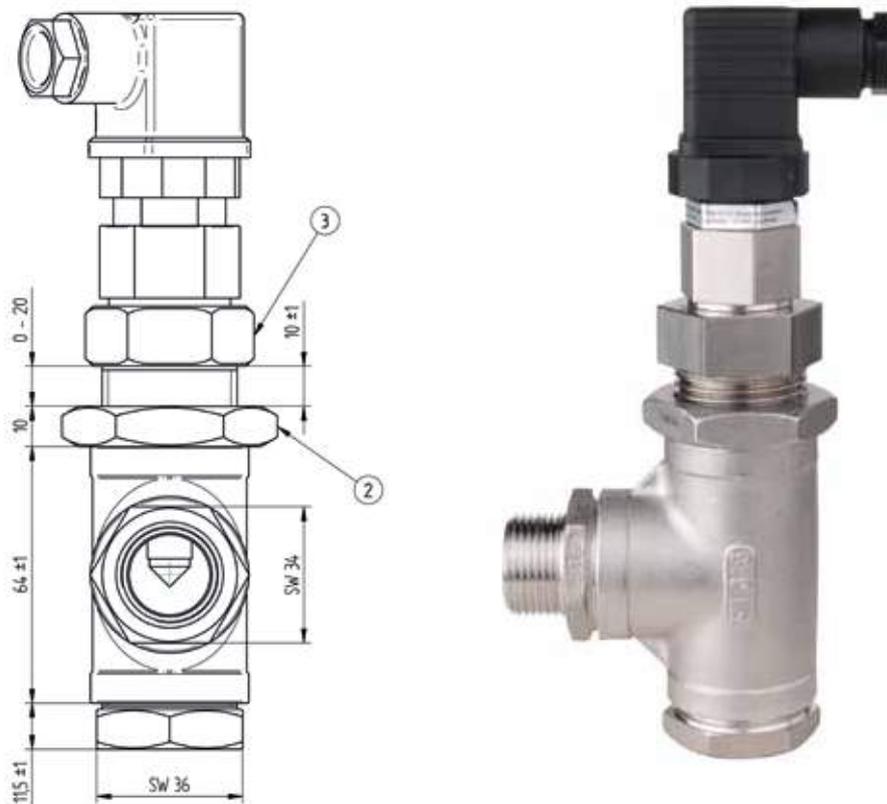
- flexible mounting position
- connection thread G1/4", G1/2"
- other connections on request
- sensor length min. 65mm  
max. 3000mm

## Level Guard

The optoelectronic sensor consists of an infrared LED and a photosensor. The LED light is guided into a prism at the tip of the probe. As long as the prism is surrounded in air the LED light is reflected. As soon as fluid level rises and immerses the prism the infrared light is absorbed by the fluid and the sensor activates the switch.

The main application for this sensor is level monitoring of fluids. The sensor is tolerant to fluids with varying densities, refraction- and conductivity indexes and dielectric constants. This enables level controls with high precision.

Fluids that are prone to foaming can be recognized and compensated. Therefore this product has a broad band of applications to record limit values.



The sensor will be shipped pre-assembled in a mount. The switching level is user adjustable and can be lowered up to 10mm from the centerline of the horizontal connector.

Max. pressure: 25bar (40psi)  
 Ambient temp.: -25°C to +70°C  
 Media temp.: -30°C to +100°C  
 Housing: stainless steel (316Ti)  
 Precision: +- 0,5mm  
 Mount conn.: G 3/4"  
 Voltage: 12...32V DC  
 El. connector: angled EN1753-803 A

El. outlet (polarity safe): pnp DC (200mA)  
 Protection class: IP65  
 Surface to prism: >10mm  
 Prism material: quartz crystal  
 Mounting pos.: randomly  
 Max. current consump.: 40mA  
 Switching lines: 1  
 Switching type: N/O

Name	Model-No.
Level Guard	OPGO2-RM337



### INOX Flow Indicator

Device made of durable stainless steel. The flow indicators of the series ID-W and ID-S visualize fluid flowing through a pipe. The medium can be observed through a sight glass.

Flow Indicator type ID-W, stainless steel 316L (1.4404), natural glass, for horizontal installation, without drip nozzle.  
 Flow Indicator type ID-S, stainless steel 316L (1.4404), natural glass, for vertical installation with drip nozzle.  
 Same size as ID-W.

Operation pressure up to 3 bar, max. temp. 120°C  
 Other sizes, threads and sealing materials on request.

**Please note:** For alternating flow directions the Flow Indicator must be equipped with even surfaces on both ports.

#### Gaskets:

Standard is NBR (max. temp. 120 °C) If other materials are needed add appropriate suffix to the Model No :  
 V = FKM (i.e. Viton®), max temp. 180°C, T = PTFE (i.e. Teflon®), max. temp. 270°C, X = SBR (Neoprene) max. Temp. 100 °C  
**Order example:** Model-No. **ID-S-3G – V**. Flow Indicator with drip nozzle, connection via G3/8" with Viton gaskets

Model-No. / Order-No.	Connection thread		Drip nozzle
	G 3/8"	G 1/2"	
ID-W-3G	x	-	-
ID-S-3G	x	-	x
ID-W-4G	-	x	-
ID-S-4G	-	x	x



### RM Level adapter

This adapter extends the level setting of a Constant Level Oiler from -15mm to +15mm to a range of 30mm. This allows e.g. to change from a Denco 38050 to a Trico Optomatic 30005 without any modifications. Connection G 1/4" other treads on request.

Model-No. / Order-No.	Material	Thread
NIV001-SV	Zinc-plated steel	G 1/4"



### Union Coupling

For easy mounting and alignment of constant level oilers and level indicators. Connection thread G 1/4"

Model-No. / Order-No.	Material	Thread
VSR-A4-G2G2	Stainless Steel 316L (1.4404)	G 1/4"

## Wire Guard

The wire guard is made of stainless steel 316L and can be mounted onto our Constant-Level-Oilers Model F, V, S and Bull-Eye with a glass reservoir..



Model-No. / Order-No.	for Capacity ml
WG-SS 120 A	120
WG-SS 120 A	250
WG-SS 500 A	500

## Non-Return-Valve (Drop Stopp)

When handling our Constant-Level-Oilers typ S and SP this optional Drop Stopp avoids oil spillage and oily fingers. Easy to retrofit!



Typ-Nr.	Material
RS-SS-OS	Stainless Steel 1.4404 (316L)

# Liquid Level Gauges

## INOX Liquid Level Gauges Type Ranger

INOX equipment is synonymous for high resistance to acids and caustics, it is seawater proof and widely accepted in a large range of industrial applications, in medical use as well as food industry, chemical and petro industry (on and off shore), mining, water treatment (desalination !) etc.

Non-ferrous metals e.g. Al, Zn, Sn, Cu and their alloys don't have these characteristics.

INOX devices are designed for highest demand in function and safety. They can be protected according to the ATEX directives.

Special sealings made of Kalrez® for temperatures up to +360°C on 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

### Frame sizes



### Socket connection:



### Three different socket systems:



## Cap types for Liquid Level Gauge model Ranger



## Examples for customization

Type Ranger, socket type D with banjo bolt and port for sample valve as an accessory



Type Ranger, socket type D with banjo bolt, port and thermometer as an accessory



## Ranger according to ATEX-Directive:

According to ATEX-Directive DIN EN 13463-1, Random tests of light transmitting parts for use in Ex-area. A protection sleeve of acrylic glass or polycarbonate over the steel hull ensures the necessary protection.

Ventilation dust and water proofed acc. to IP34.

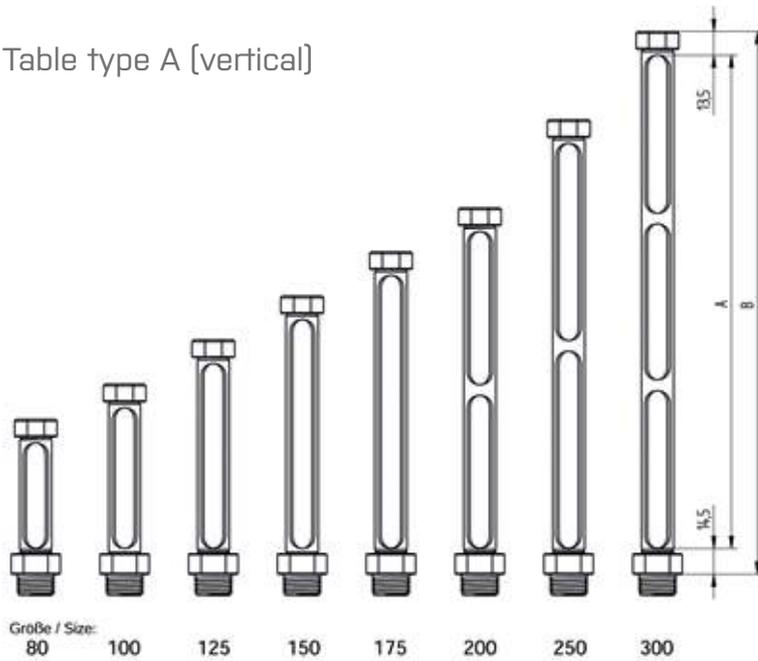
Made of glass and stainless steel AISI 316L (1.4404).

Acid and seawater resistant.

Combinable with any socket (horizontal-, vertical) or cap type.



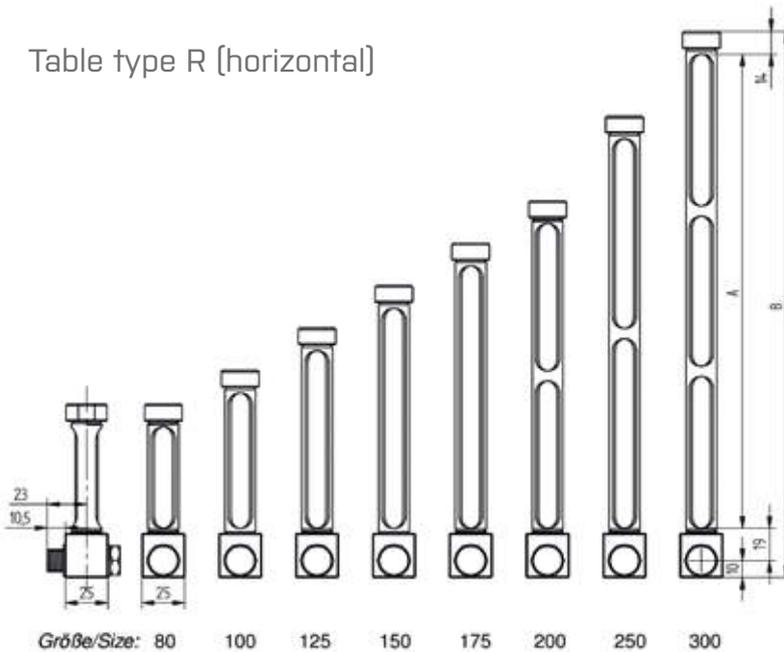
Table type A [vertical]



**Important:** For ordering refer to table!

Nominal Size [mm]	A [mm] ± 0,5 visible window	B [mm] +2 / -0 G1/2 total height	B [mm] +2 / -0 G3/8 total height	B [mm] +2 / -0 G1/4 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

Table type R [horizontal]

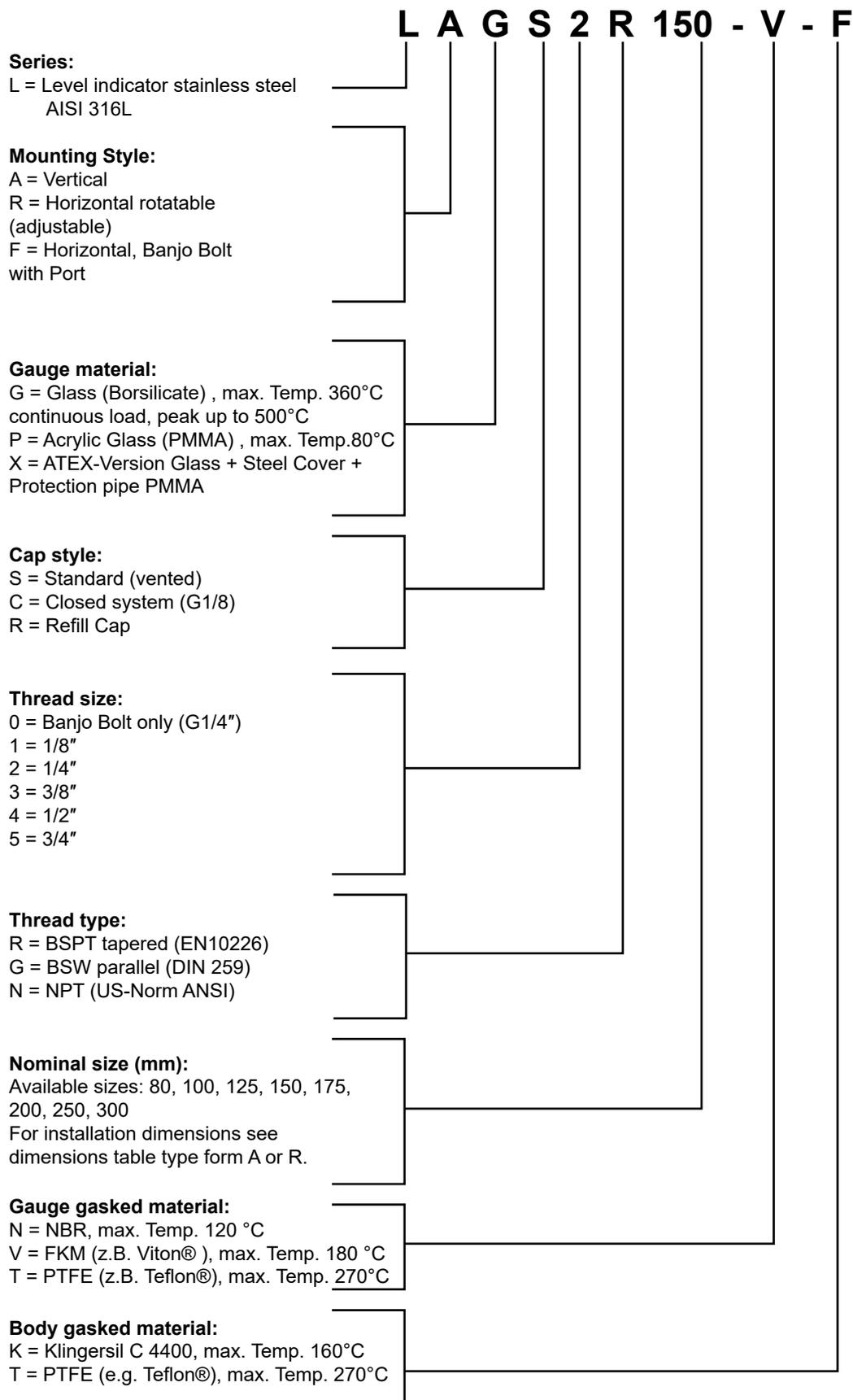


**Important:** For ordering refer to table!

Nominal Size [mm]	A [mm] ± 0,5 visible window	B [mm] +2 / -0 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

## Type Code:

## INOX Liquid Level Gauges Type Ranger



## Order example:

**LAGS2R150-V-T** is a Stainless Steel indicator with a vertical connection thread (Type A), glass indicator gauge, a standard vented cap, a 1/4" BSPT adaptor thread, 150 mm nominal size, FKM and aramid fiber gaskets.

# INOX Liquid Level Gauges Type Vista

The new generation of liquid level gauges – 3 D sight – visibility from any position



Vista is our new innovative liquid level gauge characterized by a solid design, offering all-round visibility through the plastic tube which is firmly fixed on the metal body. The length of the plastic tube and level markings can be made according to your order. Available with a cap suitable for closed system applications or a refill cap.

In comparison with the standard liquid level indicators made of brass, Vista offers significant advantages: Foreign particles or water from the environment can not enter the system, which is often the case with standard brass indicators because of their fully exposed ventilation hole. Vista indicators are vented through a unique labyrinth (IP34).

**Features:**

- Ventilation dust and water proofed acc. to IP34
- Sight glass made of PMMA, 3mm wall strength
- All metal parts are made of stainless steel AISI 316L (1.4404)
- Acid- and seawater resistant
- Max. temp. 85°C
- Other sizes, threads, sight markings on request (metric, BSPP, BSPT, NPT)

The system consists of 4 basic models

Model A  
Vertical



Model C  
Horizontal Lock Nut



The whole device must be rotated for mounting

Model D  
Horizontal Banjo Bolt



Push on design fixed with banjo bolt

Model E  
Horizontal Banjo Bolt with Port



Optional Accessories



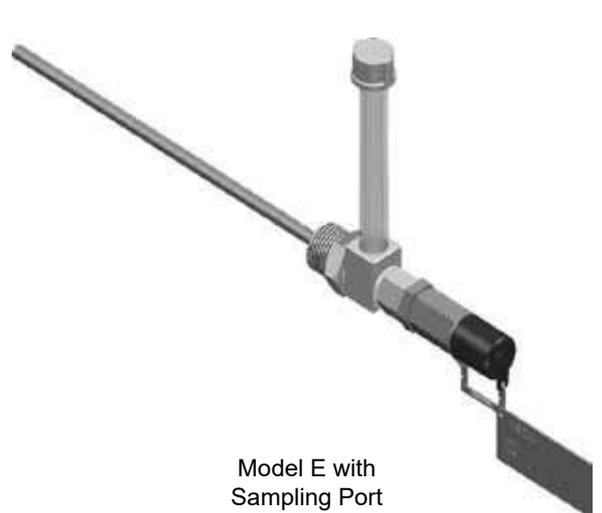
Model E with  
Drain Screw



Model E with  
Thermometer



Model E with  
Drain Valve



Model E with  
Sampling Port

## Coding Table:

## Liquid Level Gauges Type Vista

VL A 15 ST G 3 150 M 0

**Series:**

VL = Vista-Oil round Level gauge

**Mounting type:**

A = Vertical

C = Horizontal lock nut

D = Horizontal banjo bolt

E = Horizontal banjo bolt with port

**Gauge diameter (mm):**

15 mm = standard

18 mm

**Material metal parts:**

ST = Zink plated steel

SS = Stainless Steel AISI 316L (1.4404)

**Tread type:**

G = BSW parallel (DIN 259)

R = BSPT tapered (EN10226)

N = NPT (US-Norm ANSI)

① M = Metric (s. note)

**Thread size:**

0 = without / banjo screw only (style D)

1 = 1/4"

2 = 3/8"

3 = 1/2"

4 = 3/4"

① M = Metric

**Gauge length (mm):****Level marking (mm):**

0 = no marking

① M = customised marking

① **Optional accessories (available for model E only):**

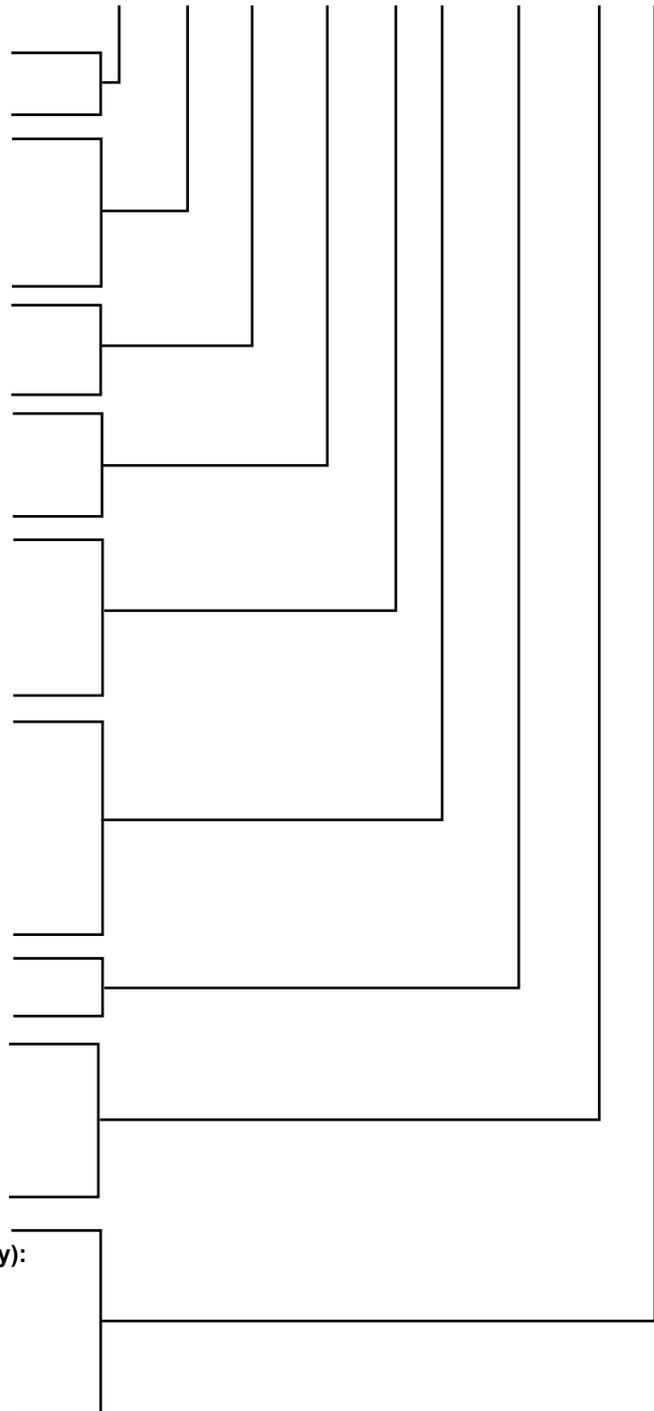
0 = Drain screw

1 = Thermometer

2 = Sampling port

3 = Sampling port with a pitot tube

4 = Drain valve



① Because of the variety of options these details are cleared with the receipt of your order.  
 Technical details are provided within the relevant contract documents.

**Dimensions**

Size [mm]	Visible range [mm]		
	Model A	Model C	Model D and E
80	60	55	48
100	80	75	68
125	105	100	93
150	130	125	118
200	180	175	168

Standard for all types: 1/4", 3/8", 1/2", 3/4", threads BSPP, BSPT or NPT. Other sizes on request. Level markings possible.

General:

Sight Pipe: PMMA Gaskets PTFE

Tmax: 85°C

## Liquid Level Gauges Type Vista Zero

The new generation of 3D liquid level gauges - 360° – visibility from any position

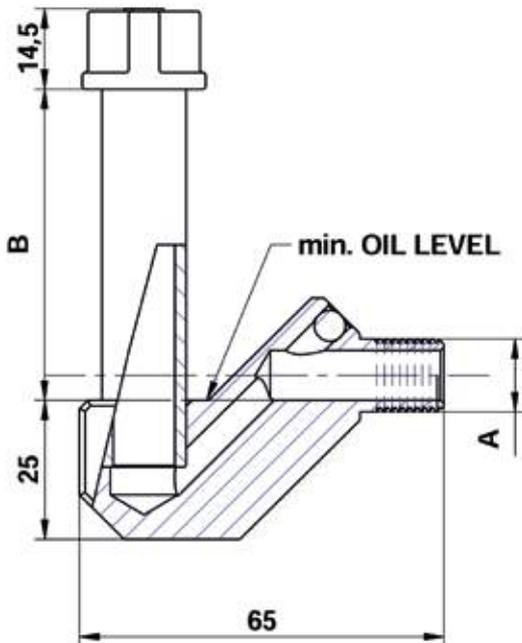


The Vista Zero offers outstanding all-round visibility and a compact design. The clever design sets the view level 12mm lower as on the normal typ level gauge type Vista. The sight glass, made of 3mm thick acrylic PMMA, is fixed tight into its metallic socket in a special process without additional bonding materials. As a result the product is more rigid than conventional products made of a brass/glass combinations with a 360° visibility. The display range is according to DIN3018.

**Note:** No danger of glass breakage. The ventilation labyrinth is splash and dust proof (IP 34)

### Features:

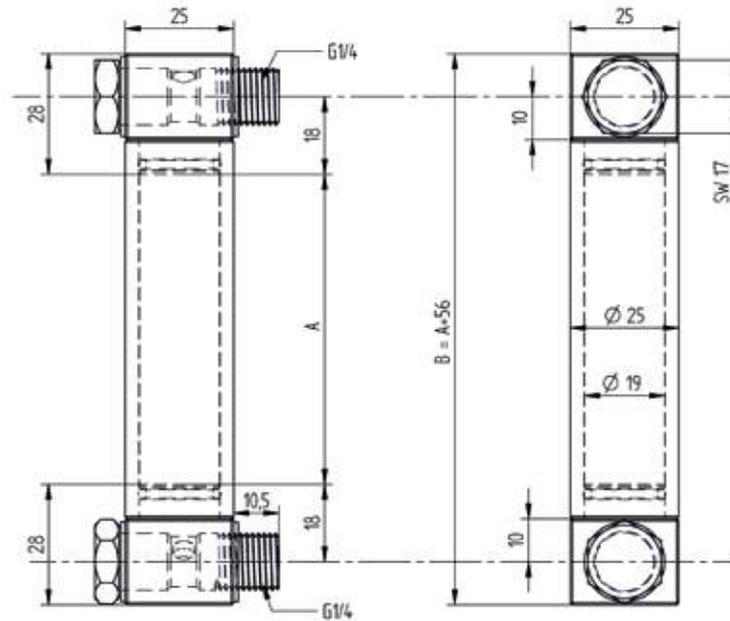
- Ventilation dust and water proofed acc. to IP34
- Sight glass made of PMMA, 3mm wall strength
- Socket made of zinc-plated steel, cap made of stainless steel 316L (1.4404)
- Max. temp. 100°C
- Other sizes, threads, sight markings on request (metric, BSPP, BSPT, NPT)



Model-No. Acrylic Cylinder	„A“ Thread Type	B mm
VZSTG1-80	G 1/4"	59
VZSTG1-100	G 1/4"	74
VZSTG1-125	G 1/4"	99
VZSTG1-150	G 1/4"	124
VZSTG1-200	G 1/4"	174
VZSTN1-80	1/4" NPT	59
VZSTN1-100	1/4" NPT	74
VZSTN1-125	1/4" NPT	99
VZSTN1-150	1/4" NPT	124
VZSTN1-200	1/4" NPT	174

# INOX Liquid Level Gauges Type Varia

Varia gauges feature a liquid level visibility from all sides. Due to their stainless steel socket they are very robust and suitable for large lengths.



## Features:

- All metal parts made of stainless steel AISI 316L (1.4404)
- Sight glass made of acrylic glass (PMMA) or polycarbonate (PC)
- Seals: FKM, fiberglass reinforced PTFE
- Max. temp.: 80°C – PMMA, 100°C – PC
- Built for pressures up to 1-2 bar
- Standard connector G 1/4", other thread types on request
- Level markings on request

## Variable length:

Visibility range A= 40...1000 mm  
Bore position tolerance: 0...+4mm

## On request:

- Thermometer included
- Sampling valve included

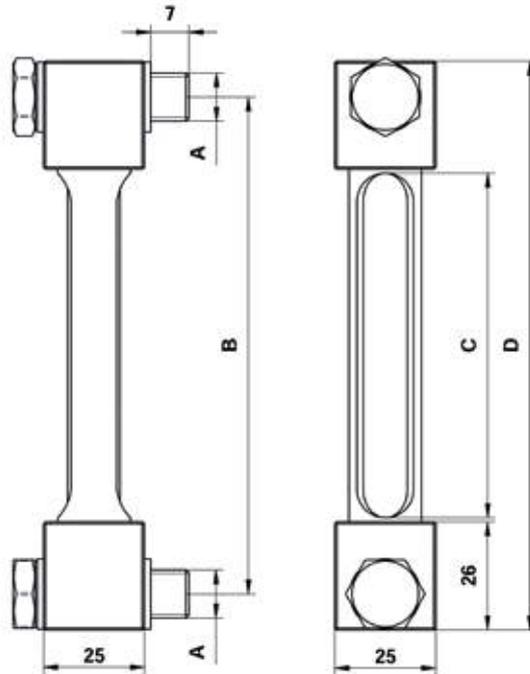
## Standard length:

Typ-Nr. Sichtrohr PMMA	Typ-Nr. Sichtrohr PC	A mm	B mm
VDA-100-V-T	VDP-100-V-T	100	156
VDA-200-V-T	VDP-200-V-T	200	256
VDA-300-V-T	VDP-300-V-T	300	356
VDA-400-V-T	VDP-400-V-T	400	456
VDA-500-V-T	VDP-500-V-T	500	556
VDA-600-V-T	VDP-600-V-T	600	656
VDA-700-V-T	VDP-700-V-T	700	756
VDA-800-V-T	VDP-800-V-T	800	856
VDA-900-V-T	VDP-900-V-T	900	956
VDA-1000-V-T	VDP-1000-V-T	1000	1056

Please contact us for special requirements concerning chemical durability, thermal resistance or high pressures.

## INOX Liquid Level Gauges Type Varia with protective cover

Industrially used devices for the optical control of the liquid level in a reservoir or also transmission housing. Varia oil level indicators with protective coating are characterized by very high mechanical strength and chemical resistance.



### Features:

- All metal parts made of stainless steel AISI 316L (1.4404)
- Sight glass made of borosilicate glass
- Seals: FKM, glass fibre reinforced PTFE
- Built for pressures up to 3bar, max. temperature: 180 °C
- Optionally available with min./max. markings
- Bore position tolerance:  $\pm 0.5$  mm

For special requirements regarding chemical resistance, as well as pressure and temperature resistance, consultation is required.

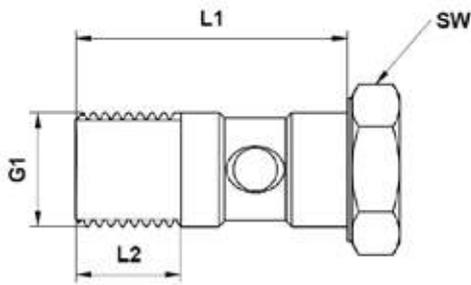
### On request:

- Other sizes
- Other thread sizes and standards
- Optional accessories: thermometer or sampling valve

Model-No.	Size	A	B	C	D
	mm	Thread	Centre hole spacing mm	Visible range mm	overall length mm
VDG-080-V-T	80	G 1/4"	102	60	122
VDG-100-V-T	100	G 1/4"	122	80	142
VDG-125-V-T	125	G 1/4"	147	105	167
VDG-150-V-T	150	G 1/4"	172	130	192
VDG-175-V-T	175	G 1/4"	197	155	217
VDG-200-V-T	200	G 1/4"	222	180	242
VDG-250-V-T	250	G 1/4"	272	230	292
VDG-300-V-T	300	G 1/4"	312	280	332

# Accessory parts for Ranger, Vista, Varia

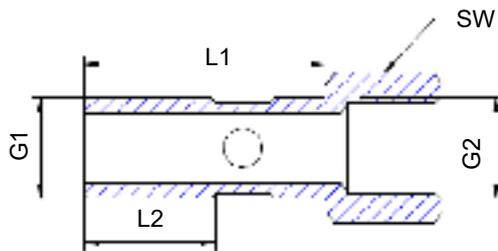
## Banjo bolt for liquid level gauges



The main body of the INOX liquid level gauges is mounted to your equipment with a banjo bolt, available in two versions. The simple banjo bolt is used to connect the indicator to the fluid system whose level is to be observed.

Material	G1	L1	L2	SW	Model-No.
1.4404 (316L)	1/4" BSP	31 mm	12 mm	17	HV-SS-01
Zinc-plated steel	1/4" BSP	31 mm	12 mm	17	HV-ST-01
1.4404 (316L)	1/4" BSP	37 mm	12 mm	17	HR-SS-01

## Banjo bolt for liquid level gauges



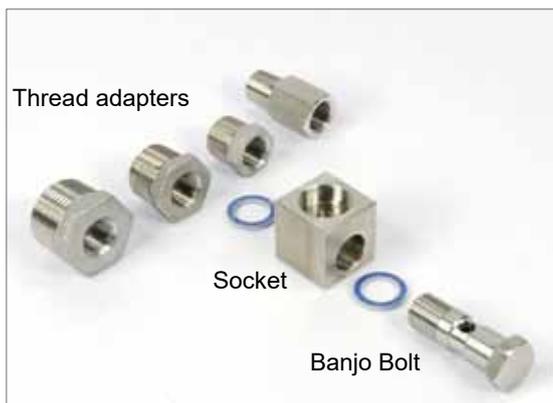
The main body of the INOX liquid level gauges is mounted to your equipment with a banjo bolt, available in two versions. Additionally a banjo bolt with a through bore is available. This design enables the installation of:

- Temperatur- or Level sensor system
- Drain screw
- Drain valve
- Thermometer
- Sampling port

Material	G1	G2	L1	L2	SW	Model-No.
1.4404 (316L)	1/4" BSP	1/4" BSP	31 mm	12 mm	17	HV-SS-02
Zinc-plated steel	1/4" BSP	1/4" BSP	31 mm	12 mm	17	HV-ST-02
1.4404 (316L)	1/4" BSP	1/4" BSP	37 mm	12 mm	17	HR-SS-02

## Applications

Different connector adapters for the socket piece



Probe sampling valve

Thermometer

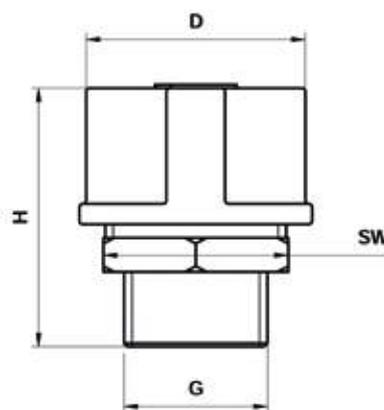


## Vent and breather-screws and plugs

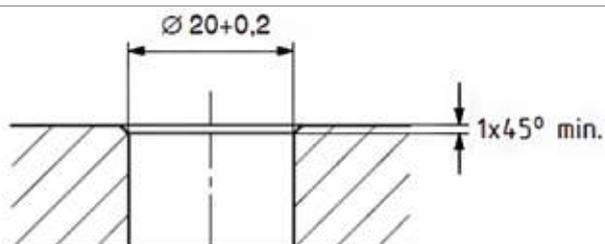
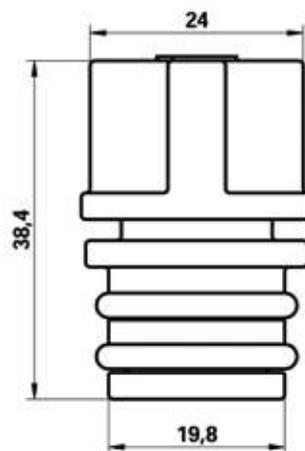
Dust and water protected vents according to IP34, stainless steel AISI 316L / 1.4404

These devices are intended to prevent the build-up of pressure / vacuums within a closed system (for example gearbox, bearing housing, tanks etc.) which may arise due to the operation (heating, dynamic, change of the oil level). The breather helps maintain a constant atmospheric pressure in the housing.

At the same time, the „ventilated“ space is protected against the penetration of unwanted media (water, dust, etc.).



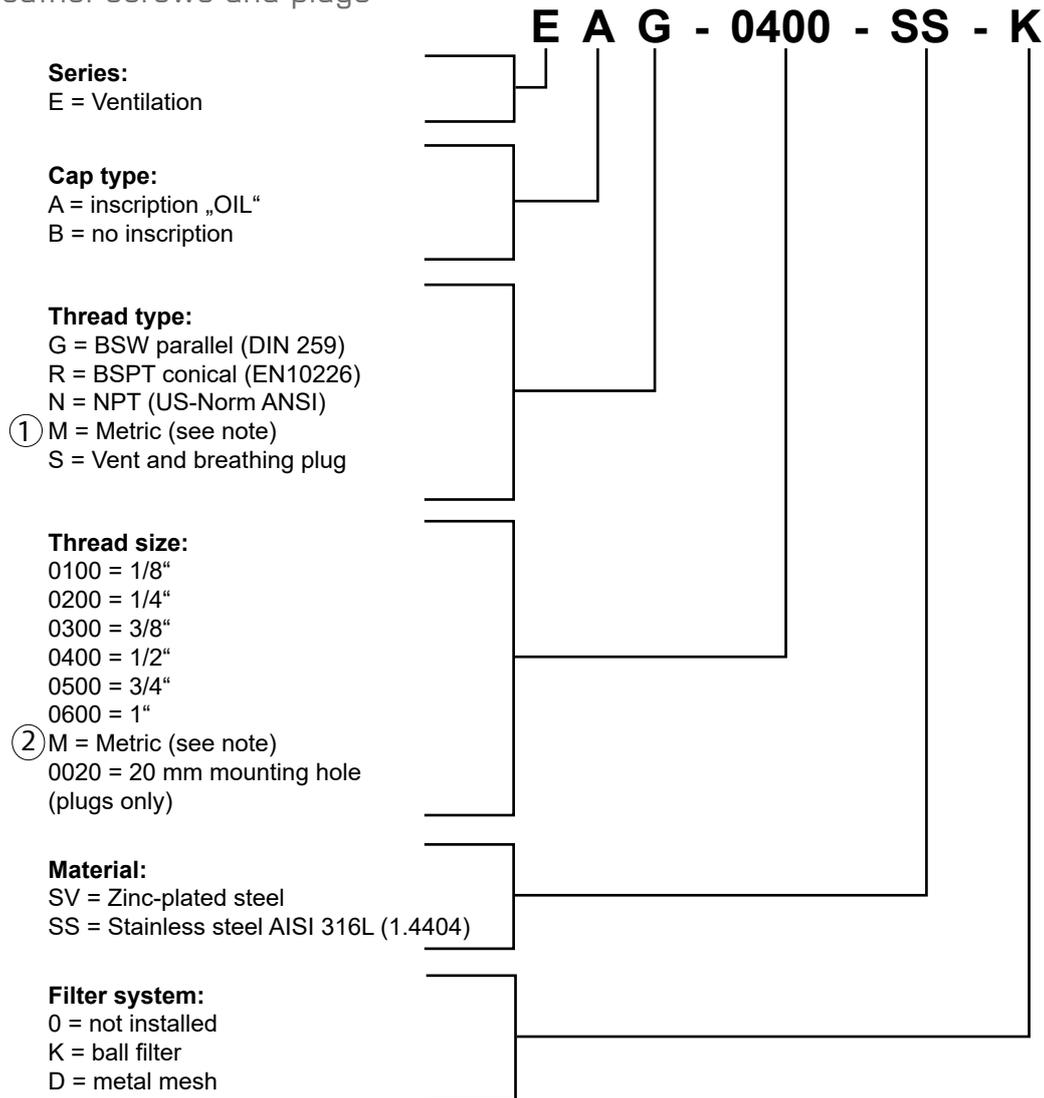
Thread G	D [mm]	H [mm]	SW
1/4" BSPP	22	18	23
3/8" BSPP	34	38	27
1/2" BSPP	32	41	27
3/4" BSPP	38	49	34
1/4" BSPT	24	38	22
3/8" BSPT	32	41	27
1/2" BSPT	32	41	27
3/4" BSPT	38	49	34
NPT 1/4"	24	38	22
NPT 3/8"	32	41	27
NPT 1/2"	32	41	27
NPT 3/4"	38	49	34



Mounting hole for the breather vent plugs

# Type Code:

Vent and breather-screws and plugs



① Due to the wide range of customerisation this product will be produced on demand.  
Technical details according to order documents.

② e.g. 1215 = M12x1,5  
2720 = M27x2  
1600 = M16

### Order example:

Type-No.: **EAG-0400-SS-K**

Ventilation with inscription „OIL“, thread type BSW 1/2“, material stainless steel 316L (1.4404), with ball filter system.

**Standardised connections:** 1/4“, 3/8“, 1/2“, 3/4“ thread types BSPP, BSPT und NPT.  
Other threads sizes and types on request.

Cap also available without inscription.

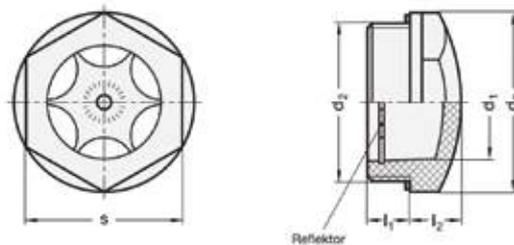


Other inscriptions on request.

# Viewports



Viewports made of polyamide



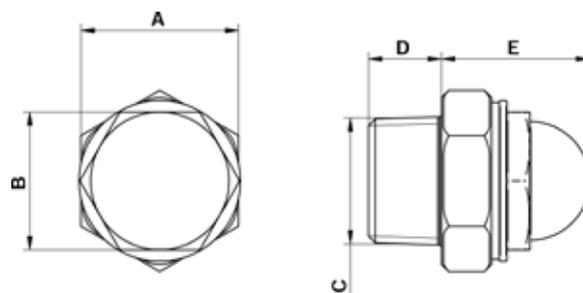
Viewports of clear polyamide (PA-T) are mechanically highly robust. Therefore they can be comparably thin-walled and have a larger view gauge. They are resistant to all solvents except alcohol. Also available without a reflector. Made of synthetic clear polyamide (PA-T), reflector made of anodized aluminium, gasket made of NBR.

Temperatur resistant up to 100°C. For order including a reflector add index „R“. e.g. PW4213 R

Material	d2 Thread	d1 mm	d3 mm	l1 mm	l2 mm	s mm	Model-No.
Polyamid (PA-T)	1/4" BSP	9	18	10	6	15	PW4210
Polyamid (PA-T)	3/8" BSP	11	22	7,5	7	19	PW4211
Polyamid (PA-T)	1/2" BSP	14	26	10,5	8	22	PW4212
Polyamid (PA-T)	3/4" BSP	20	31,5	10,5	9	27	PW4213
Polyamid (PA-T)	1" BSP	25	40	11	10	34	PW4214
Polyamid (PA-T)	1 1/4" BSP	30	47,5	11,5	13	40,5	PW4214



Viewport Typ Frog-Eye



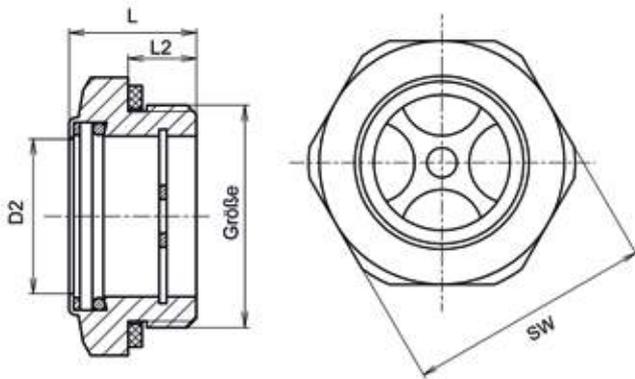
The oil sight glasses type Frog-Eye are mainly used as oil circulation indicators. These oil sight glasses made of zinc plated steel and polyamide (PA-T) have a high mechanical strength. That's why they have thin walls and a large viewing opening. Metal parts made of galvanized steel, sight glass made of crystal-clear polyamide (PA-T), seal made of NBR.

Temperature resistant up to 100 °C.

Operating pressure up to 3 bar. Other versions or special seals (e.g. Viton®) on request.

Material	C Thread	A mm	B mm	D mm	E mm	Model-No.
galvanized steel	1/2" NPT	27	22	15	30	PAN4051
galvanized steel	3/4" NPT	32	27	15	35	PAN4052
galvanized steel	1" NPT	41	36	19	42	PAN4053

## Hexagonal Viewports



Material: Stainless steel AISI 316L (1.4404), Zinc-plated steel or Aluminium. Other designs in brass and special thread on request.  
Operating pressure up to 58psi (4bar), max. temperature 120°C

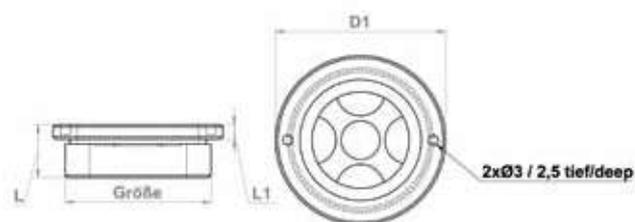
Material	Size	D1 mm	D2 mm	L mm	L2 mm	SW mm	Order-No.
Stainless steel	3/8" BSP	11.0	11.0	15.5	8.0	22	BWS 4040 VA
Stainless steel	1/2" BSP	14.0	14.0	16.0	8.5	26	BWS 4041 VA
Stainless steel	3/4" BSP	18.0	18.0	17.0	9.0	32	BWS 4042 VA
Stainless steel	1" BSP	24.0	24.0	19.5	11.0	40	BWS 4043 VA
Stainless steel	1 1/4" BSP	32.0	32.0	21.0	12.0	50	BWS 4044 VA

Material	Size	D1 mm	D2 mm	L mm	L2 mm	SW mm	Order-No.
Zinc plated steel	1/2" BSP	15.4	20.5	17.5	6.0	27	BWS 4041 ISO
Zinc plated steel	3/4" BSP	20.4	26.6	18.0	6.7	32	BWS 4042 ISO
Zinc plated steel	1" BSP	25.4	32.6	23.5	7.0	41	BWS 4043 ISO
Zinc plated steel	1 1/4" BSP	34.0	41.2	25.0	8.0	50	BWS 4044 ISO
Zinc plated steel	1 1/2" BSP	38.0	46.0	26.0	9.0	55	BWS 4045 ISO
Zinc plated steel	M60x2.0	48.0	48.0	24.0	14.0	70	BWS M60x2,0

Material	Size	D1 mm	D2 mm	L mm	L2 mm	SW mm	Order-No.
Aluminium	1/4" BSP	8.0	8.0	13.7	5.0	17	AW 1245 DIN
Aluminium	M12x1.5	8.0	8.0	13.7	5.0	17	AW M12x1.5
Aluminium	3/8" BSP	11.0	14.5	14.7	4.0	22	AW 1250 DIN
Aluminium	M16x1.5	11.0	14.5	14.7	4.0	22	AW M16x1.5
Aluminium	1/2" BSP	15.4	20.5	17.5	6.0	27	AW 1255 DIN
Aluminium	M20x1.5	15.4	20.5	17.5	6.0	27	AW M20x1.5
Aluminium	M24x1.5	15.5	20.5	18.0	6.0	30	AW M24x1.5
Aluminium	3/4" BSP	20.4	26.6	18.0	6.7	32	AW 1260 DIN
Aluminium	M26x1.5	20.4	26.6	18.0	6.5	32	AW M26x1.5
Aluminium	M27x1.5	20.0	26.5	18.0	6.0	32	AW M27x1.5
Aluminium	1" BSP	25.4	32.6	23.5	7.0	41	AW 1265 DIN
Aluminium	M30x1.5	25.4	32.6	23.7	7.0	41	AW M30x1.5
Aluminium	M33x1.5	26.0	27.0	23.0	7.0	41	AW M33x1.5
Aluminium	M35x1.5	25.4	32.6	23.0	7.0	41	AW M35x1.5
Aluminium	1 1/4" BSP	34.0	41.2	25.0	8.0	50	AW 1270 DIN
Aluminium	M42x1.5	34.0	41.2	25.0	8.0	50	AW M42x1.5
Aluminium	1 1/2" BSP	38.0	46.0	26.0	9.0	55	AW 1275 DIN
Aluminium	M48x1.5	38.0	46.0	26.0	9.0	55	AW M48x1.5



Front mounted viewports

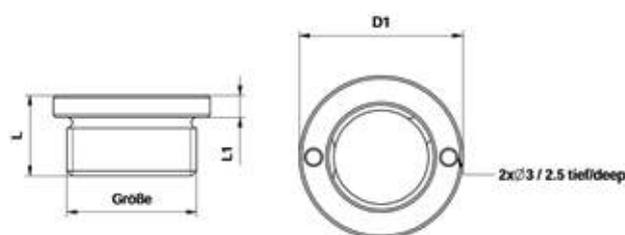


The new design allows tightening torques that are comparable hexagonal head screws. In addition, the field of view has been enlarged by 20%. The use of a 3 mm thick glass significantly increases safety. Operating pressure up to 4 bar, max. temperature 130 °C. Material: brass. Other versions or special seal (Viton®) on request.

Material	Thread	D1 Window Gauge mm	L mm	L1 mm	Model-No.
Brass	1/4" BSP	19.0	15.0	9	OAM G 0.2
Brass	3/8" BSP	22.0	12.0	4.25	OAM G 0.3
Brass	1/2" BSP	26.0	12.0	4.25	OAM G 0.5
Brass	M26x1.5	32.0	12.0	4.25	OAM M26 x 1.5
Brass	3/4" BSP	32.0	12.0	4.25	OAM G 0.7
Brass	1" BSP	38.0	14.0	4.25	OAM G 1.0
Brass	1 1/4" BSP	48.0	14.5	4.25	OAM G 1.2
Brass	1 1/2" BSP	55.0	16.0	4.25	OAM G 1.5
Brass	2" BSP	70.0	16.75	4.25	OAM G 2.0



Front mounted viewports, ATEX



The new design offers hex wrench mounting torques. Additionally the field of view is enlarged by 20%. Sight glass thickness of 3mm gives you more safety than similar products. Built for pressures up to 4 bar and temperatures up to 130°C. Design according to German ATEX-Richtlinie DIN EN 13463-1. Random test of light transmitting parts for use in Ex-area (explosive atmospheres). Material: Stainless Steel 316L (1.4404).

Other designs or special gasket materials on request.

Material	Thread	D1 mm	L mm	L1 mm	Typ-Nr.
Stainless Steel 1.4404 (316L)	1/2" BSP	26	14	4	OASSG.5ex
Stainless Steel 1.4404 (316L)	3/4" BSP	32	17	4,50	OASSG.7ex
Stainless Steel 1.4404 (316L)	1" BSP	38	16	4,50	OASSG1ex

## Sampling pump and accessories

The easiest way to get an oil probe is to use a sample draw pump. It is optimized for our probe bottles. With the help of this pump and the included 6mm hose you suck oil directly into the screw-on sample bottle.

### Sampling Pump

- Sample bottle thread: 38-400
- 6mm Ø hose
- Aluminium body
- Yellow Nylon Head

Name	Model-No.
Sampling pump	VAC-S



- Sampling bottle thread: 38-400
- 6mm Ø hose
- Aluminium body
- Clear Acrylic Head
- Vacuum Release Valves

Name	Model-No.
Robust sampling pump	VAC-FS



### Sample Bottle

- 120ml bottle made of clear PET
- 240ml & 480ml made of HDPE

Name	Capacity	Material	Typ-Nr.
Sample Bottle	120 ml (4 oz)	PET	BOT 201-04
Sample Bottle	240 ml (8 oz)	HDPE	BOT 200-08
Sample Bottle	480 ml (16 oz)	HDPE	BOT 201-16
Shipping bag für 120ml Bottle		HDPE	LM1-440

without illustration

### Probe Hose

- 6mm OD hose
- max. temperature 60°C

Name	m	Model-No.
PVC hose	10	PVC 46-10
PVC hose	100	PVC 46-100



## Grease Meter MKIII



MKIII is a high-precision measuring unit which can be connected to relubrication devices.

**On mobile duty:**

As a front-mounted device for hand lever grease guns, battery grease guns or air-operated grease guns.

**On stationary duty:**

In oil circulation or grease central lubrication systems to monitor or control individual lubrication points.

With the use of the MKIII grease meter, it is possible to lubricate exactly according to given specifications or recommendations. Therefore the MKIII avoids costs due to unnecessary high grease consumption, disturbances and damage.

- The grease meter measures the amount of grease running through the device.
- The amount of grease can be displayed in cm<sup>3</sup>, grams, oz or fl oz.
- The meter has an illuminated display, with large (9 mm) and clear numbers.
- The grease meter can be calibrated for different grease qualities and viscosities.
- The grease meter can be used for continuous grease monitoring.
- It can be attached to all standard grease guns with an adapter piece.
- It is wireless, lightweight and designed for industrial use.

**Benefits:**

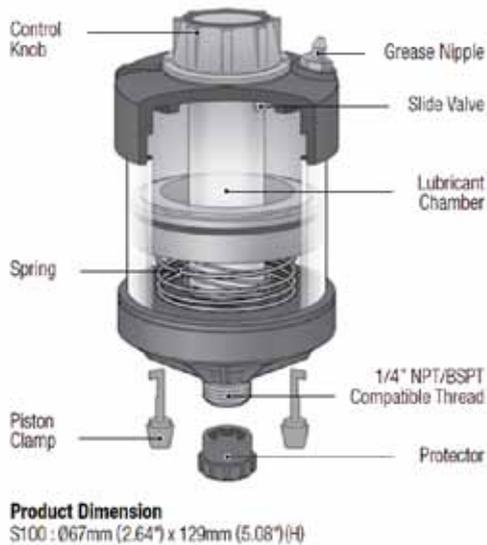
- Less soiling of the environment.
- Significant savings in consumption by approx. 30 - 50%.
- Improved awareness of the executing personnel

Material, housing:	Aluminium, anodized
Flow rate:	Max 1,000 cm <sup>3</sup> /min
Measuring accuracy:	±3% up to 300 bar (4300 psi)
Medium:	Grease up to NLGI 2
Working pressure:	Max 70 MPa/10,000 psi
Connections:	BSP 1/8", 1/8" NPT, M10x1
Weight:	300g
Units:	cm <sup>3</sup> , Gramm, oz, fl oz
Protection class:	IP67

Name	Model-No.
Grease Meter MKIII	AMK3

## "Grease Boy" Grease Dispenser Type S

Grease Boy is an advanced spring type lubricator that operates with the spring at the bottom and an upward piston movement, which dramatically reduces the effects of oil separation which is a problem with traditional spring type lubricators.



Grease Capacity	100ml (refillable)
Pressure	Max. 1bar
Operating temp range	-23°C - 121°C (-9°F - 250°F)
Outlet thread size	1/4" (NPT and BSP) ~ R1/4 konform.
Weight	Filled: 320g (10.9oz)/Emty: 200g (6.9oz)
Dimensions	Hight: 129mm x diameter: 67mm
Standard- & Sonderschmierstoffe	Standard & special lubricants greases up to NLGI 2 / oil
Indirekte Montage	Indirect installation possible up to a distance of 30 cm with a length of min = 8mm (1/4 „)

### Application:

- HVAC SYSTEMS
- FANS
- BALL BEARINGS
- SEALED BEARINGS

Name	Model-No.
Grease Boy Typ S	PS100

Oil level controllers for constant level (CLO = Constant Level Oiler) require ventilation of the reservoir. Without ventilation no oil would be allowed to escape.

In the usual „open systems“ designs (Fig. 3), ventilation takes place from the surrounding atmosphere and comes into contact with the oil. This works well in a clean environment.

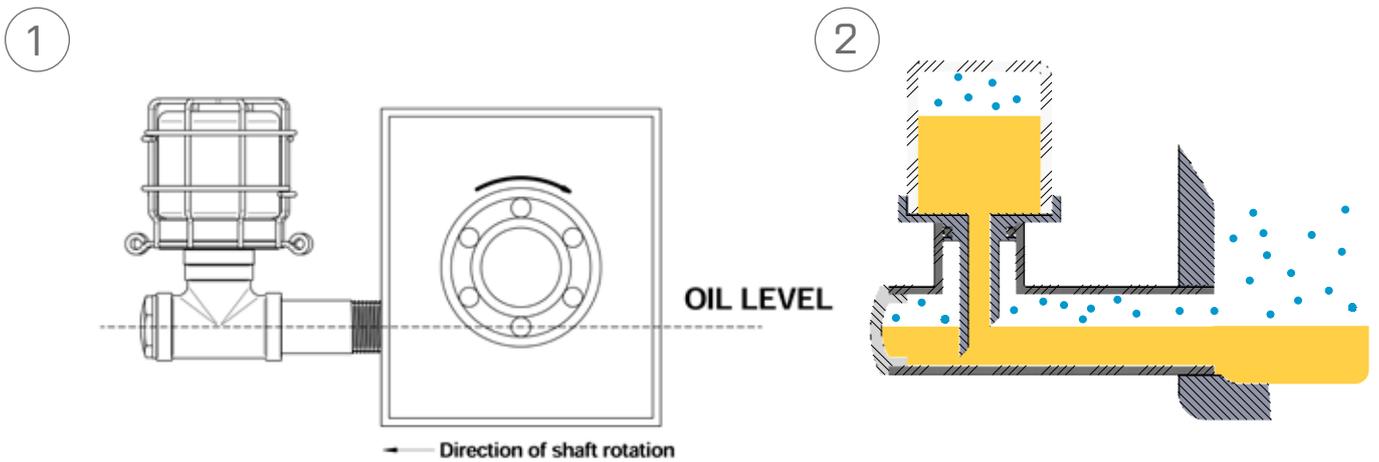
In many applications, however, the machines are not located in a clean room but in areas with harmful environmental influences, such as dust, water, steam, high humidity (offshore !) etc., i.e. substances that are not desired as additional components in a lubricant. If such impurities are to be kept away from the oil, clean ventilation must be ensured. In order to do this, the oiler must be sealed off from the atmosphere and the ventilation from the clean interior of the bearing/gearbox housing must take place as with the „Bull-Eye“ type (Fig. 1+2).

The „Bull-Eye“ principle requires that the centre of the connecting bore lies exactly at oil level. The bore must never be completely closed! The air cushion above the oil level ensures the necessary ventilation of the reservoir. The smallest diameter for the connection is therefore 3/4“ !

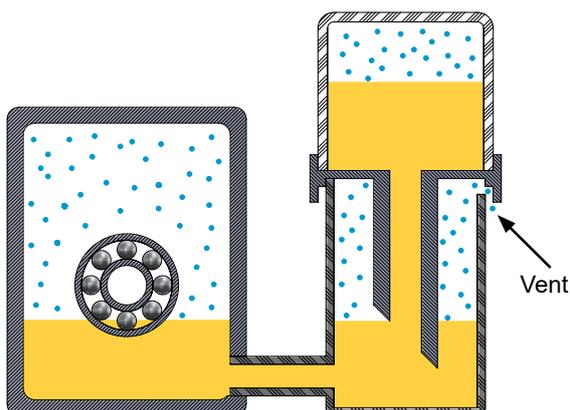
If the connection cannot be placed as required for type „Bull-Eye“, a construction like type „Oil-Watch „C“ is required. (Fig. 4) It can be mounted to the normal 1/4“ bore for the lubricator and the oil level is adjustable.

Ventilation is provided via a separate connection from the lubricator, to the gearbox/machinehousing via a hose or pipe. ( Fig. 4 )

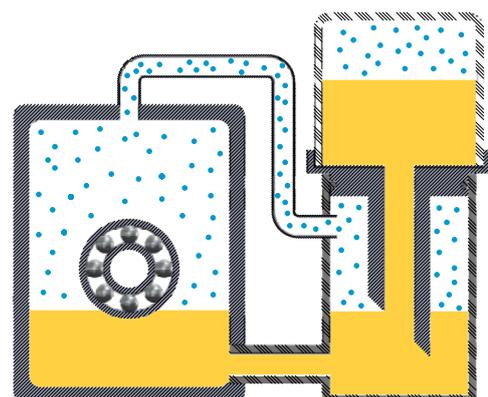
## Closed Systems Bull Eye



## 3 Open Systems



## 4 Closed Systems



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