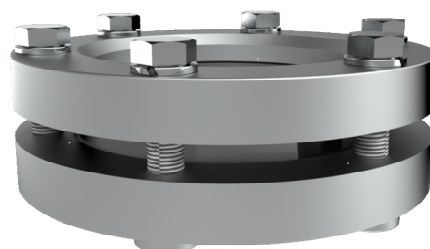


ORIGINAL INSTRUCTIONS

*GLASS BOWL LEVEL INDICATOR**PORTHOLE LEVEL INDICATOR*

TECHNICAL DATA SHEET

COD. 18690 000 00
COD. 18690 002 00
COD. 14200 000 00
COD. 14200 001 00
COD. 14200 002 00
COD. 14200 003 00
COD. 14200 004 00
COD. 14200 005 00



1. General warnings

This technical data sheet contains technical information concerning cup and porthole level indicators (sight glasses).

Complying with the instructions contained in this technical data sheet is crucial for the recognition of warranty against defective parts. Upon receiving the goods, ensure that they are intact and have not been accidentally damaged during transport. In the event parts of the accessory must be replaced, **use only genuine spare parts**.

2. Technical data

The level indicators are designed to be installed (welded) in correspondence of openings obtained in tanks to operate under variable pressure conditions. The level indicators allow visually verifying the load conditions of the tank.

The level indicators are available in two versions: the “cup” version, suitable under normal use conditions (e.g., sludge applications), and the “porthole” version for more specific applications.

Overall, the level indicators are available in the following six versions:

- **Cup level indicator** with **S235JR mild steel** support and polycarbonate glass dome, code 18690 000 00;
- **Cup level indicator** with **AISI 316L stainless steel** support and polycarbonate glass dome, code 18690 002 00;
- **Porthole level indicator** with **S355J2 mild steel** support and 15mm polycarbonate glass disc, code 14200 003 00, typically suitable for “sludge”;
- **Porthole level indicator** with **S355J2 mild steel** support and 25mm borosilicate glass disc (available upon request with certificate), code 14200 005 00, typically suitable for ADR vehicles;
- **Porthole level indicator** with **AISI 304 stainless steel** support and 15mm polycarbonate glass disc, code 14200 002 00, typically suitable for “sludge”;
- **Porthole level indicator** with **AISI 304 stainless steel** support and 25mm borosilicate glass disc (available upon request with certificate), code 14200 004 00, typically suitable for ADR vehicles;
- **Porthole level indicator** with **AISI 316 stainless steel** support and 15mm polycarbonate glass disc, code 14200 001 00, typically suitable for “sludge”;
- **Porthole level indicator** with **AISI 316 stainless steel** support and 25mm borosilicate glass disc (available upon request with certificate), code 14200 000 00, typically suitable for ADR vehicles.

Cup level indicators are equipped with NBR seals; whereas the porthole versions are equipped with a pair of PTFE seals.

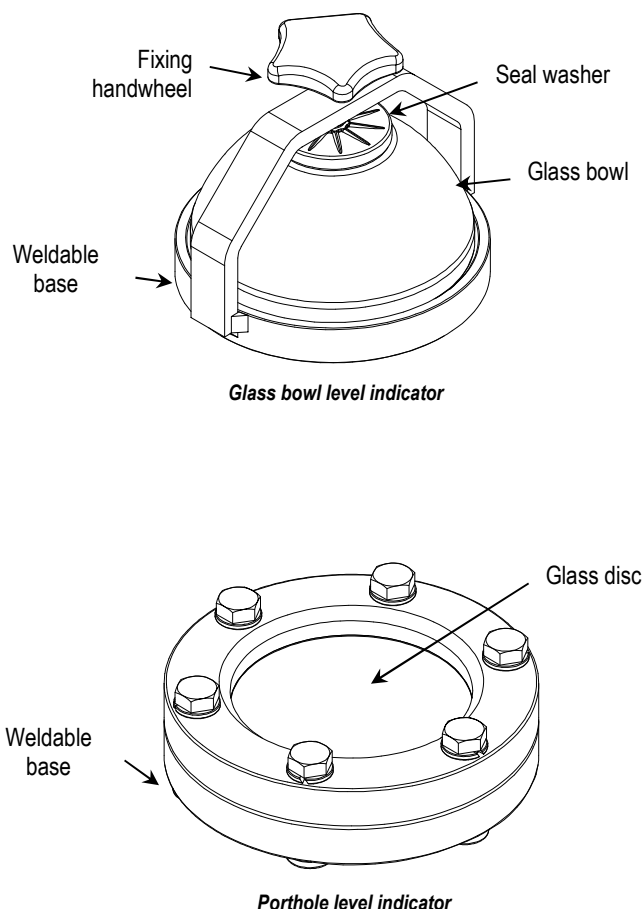
The following figures show a schematic view of the available level indicators, highlighting its main components.

The following table shows the main operating parameters concerning operating pressure (relative), operating temperature and weight.

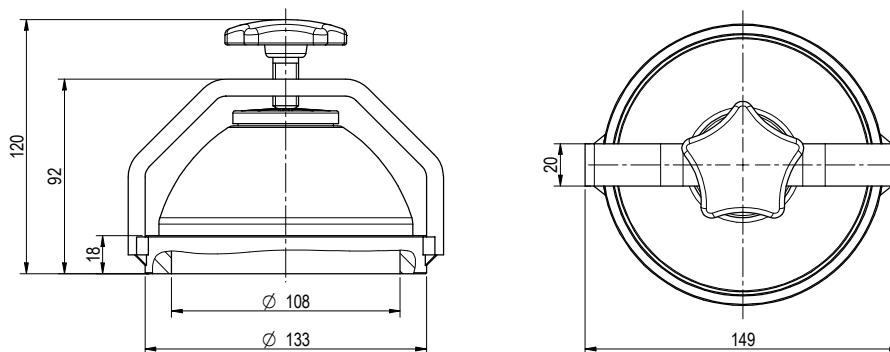
Operating parameters

Parameter	Glass bowl level indicator	Porthole level indicator	ADR porthole level indicator
	code 18690 000 00 Mild steel code 18690 002 00 AISI 316L St. steel	code 14200 003 00 Fe code 14200 002 00 AISI 304 St. steel code 14200 001 00 AISI 316 St. steel	code 14200 005 00 Fe code 14200 004 00 AISI 304 St. steel code 14200 000 00 AISI 316 St. steel
OPERATING PRESSURE	-1 / +2 bar	-1 / +2 bar	-1 / +4 bar
OPERATING TEMPERATURE	-15 / +60 °C	-15 / +60 °C	-15 / +280 °C
WEIGHT	1.1 Kg	4.8 Kg	5.1 Kg

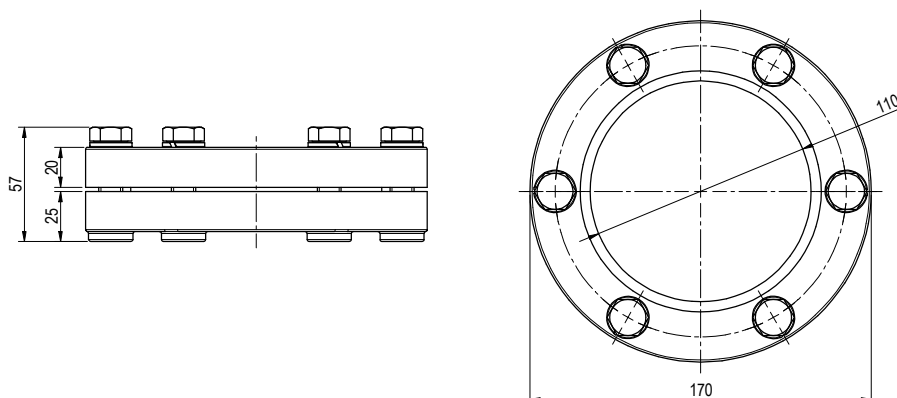
The following figures show the overall dimensions of the available level indicators.



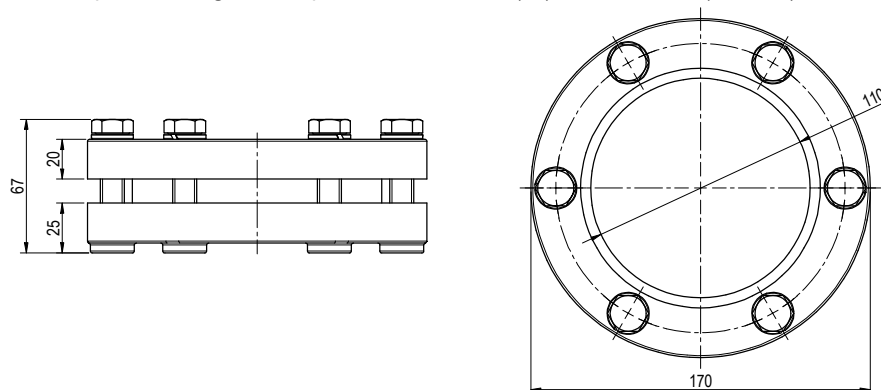
Glass bowl level indicator, code 18690 000 00 (MILD STEEL) - 18690 002 00 (AISI 316L)



Porthole level indicator (with 15mm glass disc), code 14200 003 00 (FE) - 14200 002 00 (AISI 304) - 14200 001 00 (AISI 316)

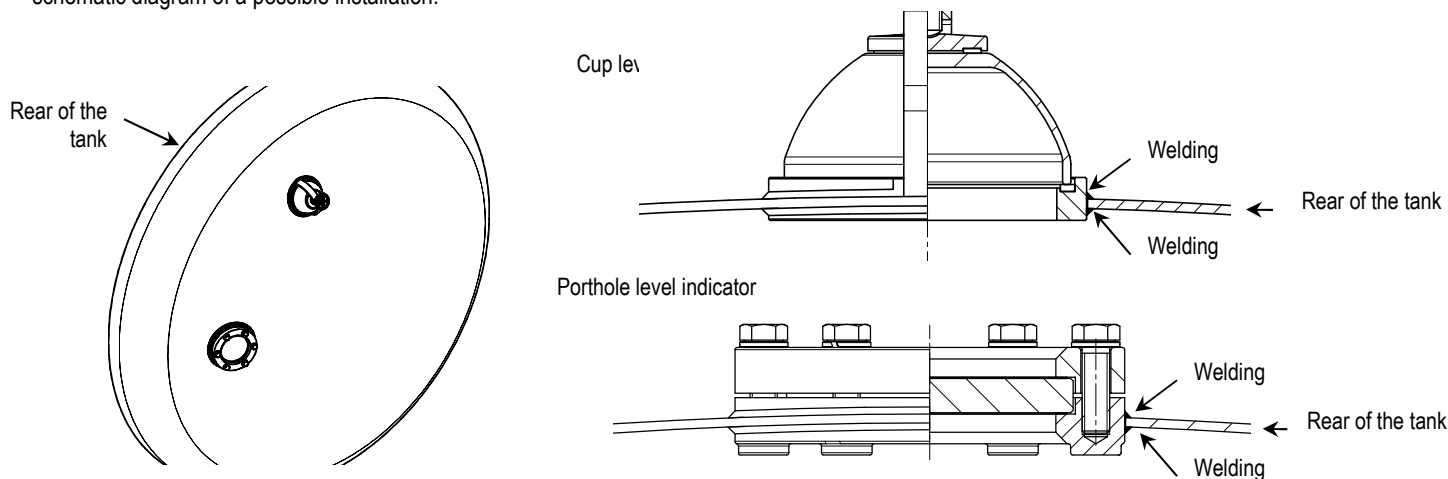


ADR porthole level indicator (with 25mm glass disc), code 14200 005 00 (FE) - 14200 004 00 (AISI 304) - 14200 000 00 (AISI 316)

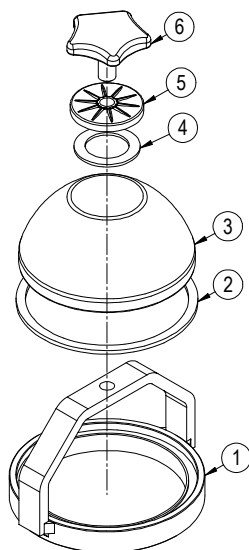


3. Installation

The level indicators are designed to be installed (welded) in correspondence of openings obtained in tanks. The following figure shows a schematic diagram of a possible installation.



LEVEL INDICATOR

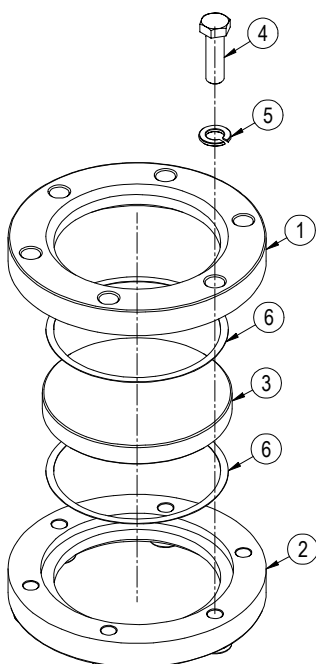


Glass bowl level indicator – code 18690 000 00

Pos.	Code	Description	Q.ty
1	1513000600	LEVEL INDICATOR SUPPORT FE	1
2	1680601900	SEAL	1
3	4022105301	GLASS	1
4	4022201550	SEAL	1
5	40263ZLB00	WASHER	1
6	4025500600	HANDWHEEL	1

AISI 316L St. steel glass bowl level ind. – code 18690 002 00

Pos.	Code	Description	Q.ty
1	1513006400	LEVEL INDICATOR SUPPORT 316	1
2	1680601900	SEAL	1
3	4022105301	GLASS	1
4	4022201550	SEAL	1
5	40263ZLB00	WASHER	1
6	4025500600	HANDWHEEL	1



AISI304 St. steel sludge porthole level ind. – code 14200 003 00

Pos.	Code	Description	Q.ty
1	16100LB2B0	UPPER FLANGE FE	1
2	16100LB3B0	LOWER FLANGE FE	1
3	4022105503	TEMPERED GLASS	1
4	4026103004	SCREW M12X40	6
5	4026350508	GROWER WAS M12	6
6	4022216101	FLAT SEAL	2

AISI304 St. steel ADR porthole level ind. – code 14200 005 00

Pos.	Code	Description	Q.ty
1	16100LB2B0	UPPER FLANGE FE	1
2	16100LB3B0	LOWER FLANGE FE	1
3	4022105600	CLASS B BOROSILICATE GLASS 125X25	1
4	4026103004	SCREW M12X40	6
5	4026350508	GROWER WAS M12	6
6	4022216101	FLAT SEAL	2

AISI304 St. steel sludge porthole level ind. – code 14200 002 00

Pos.	Code	Description	Q.ty
1	16100LB0B0	UPPER FLANGE ST.STEEL304	1
2	16100LB1B0	LOWER FLANGE ST.STEEL 304	1
3	4022105503	TEMPERED GLASS D.125X15	1
4	4026150610	SCREW M12X40	6
5	4026350807	GROWER WAS M12	6
6	4022216101	FLAT SEAL	2

AISI304 St. steel ADR porthole level ind. – code 14200 004 00

Pos.	Code	Description	Q.ty
1	16100LB0B0	UPPER FLANGE ST.STEEL 304	1
2	16100LB1B0	LOWER FLANGE ST.STEEL 304	1
3	4022105600	CLASS B BOROSILICATE GLASS 125X25	1
4	4026150614	SCREW M12X50	6
5	4026350807	GROWER WAS M12	6
6	4022216101	FLAT SEAL	2

AISI316 St. steel sludge porthole level ind. – code 14200 001 00

Pos.	Code	Description	Q.ty
1	16100LAXB0	UPPER FLANGE ST.STEEL 316	1
2	16100LAWB0	LOWER FLANGE ST.STEEL 316	1
3	4022105503	TEMPERED GLASS D.125X15	1
4	4026140511	SCREW M12X40	6
5	4026350807	GROWER WAS M12	6
6	4022216101	FLAT SEAL	2

AISI316 St. steel ADR porthole level ind. – code 14200 000 00

Pos.	Code	Description	Q.ty
1	16100LAXB0	UPPER FLANGE ST.STEEL 316	1
2	16100LAWB0	LOWER FLANGE ST.STEEL 316	1
3	4022105600	CLASS B BOROSILICATE GLASS 125X25	1
4	4026140615	SCREW M12X50	6
5	4026350807	GROWER WAS M12	6
6	4022216101	FLAT SEAL	2