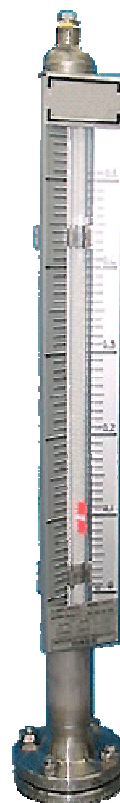
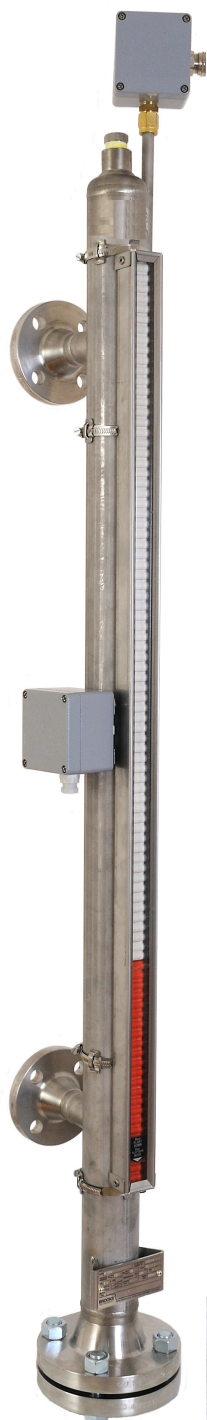


HOUDEEC®

Magnetic level gauge

Type 810



SUMMARY	Page
General description Design / Regulation	1
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Type 810

General description

The magnetic level gauge type 810 enables the direct reading of the levels of either aggressive or dangerous liquids in tanks, in the open air or under pressure. Based on its construction, this device ensures a good accuracy, excellent reliability and greater safety of use. A float fitted with a magnetic core follows the variations in the level to be measured.

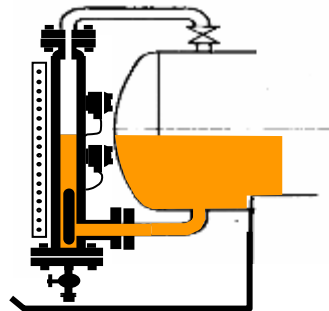
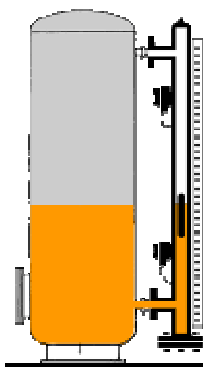
Version with slider (810S) the float causes a magnetic index which slides in a Pyrex tube located along a graduated scale.

Version with rollers (810R) the float commands on its way the swing of two-tone magnetically locked rollers (polyamide).

The red zone (continuous band) indicates the level in the tank.

Version with flaps (810VA) the float commands on its way the swing of two-tone magnetically locked flaps (aluminum).

The red zone (continuous band) indicates the level in the tank.



Example of operation type 810

Design / Regulation

Two design codes are applicable to the design of level gauges type 810:

-The French code said: CODAP

-The American code said: ASME VIII

The devices of type 810 are French manufactured and controlled in our workshops according to the ISO 9001, 2008 version

In some cases, the design of level gauges type 810 may be subject to the Pressure Equipment Directive of 2014/68/EU (PED)

Depending on the options selected, these may being subject to certain regulations (Atex, CSA, ...)



Type 810

General description of the gauge

Process connections

According to NF IN1092-1
NF EN 1759-1
ANSI B16-5
BW-NPT-SW
Other connections on requests

Chamber of float

Also known as the body. It is composed of a vertical anti-magnetic tube (stainless steel as standard)
Welded (with TIG process) to a connecting process for a side/side mounting as standard

Alarm Switch

Adjustable mounting on the chamber of the device through stainless steel brackets. Available in standard version IP65, S. I. or ADF ATEX.

Float

Equipped with magnets on 360°, it monitors the variations of the liquid inside of the chamber.
(Stainless Steel/Titanium as standard according to client specifications)
Possible interface measure

Assembling

Through airtight seam process TIG carried out by a qualified welder **EN / ASME**

Continuous measurement

4-20 mA transmitter for transmission over long distances.
Available in standard version, S. I., ADF ATEX.

Vent + plug

1/2 NPT
Allows you to perform the ventilation.
Several available options

Reading system

S= Slider
R= Rollers
VA= Aluminum Flaps
Without visualization: Continuous measurement (MC1000)

Chamber of float

Exotic materials on request

Manufacturer Plate

The manufacturer's rating plate stipulating the essential technical data according to the applicable guidelines and standards.
In stainless steel riveted French/English

Blind flange+drain

Allows you to ensure the maintenance of the appliance.
Several available options

Example:

810 – R – 25 – C30 – M1/2 – T1– S1x1 – Z4 - D12 – 500 – CATII

Type of construction	Reading System	DN	Type of construction	Type of float	Type of transmitter	Types of Switch x qty	Options	Documentation , certificates	Center to center (mm)	PED category If applicable
See page 3-16	See page 17-19		See page 20-23	See page 26-30	See page 33-37	See page 31-32	See page 24-25	See page 39		article 3§3 CATI CATII CATIII CATIV (Inspection ON)

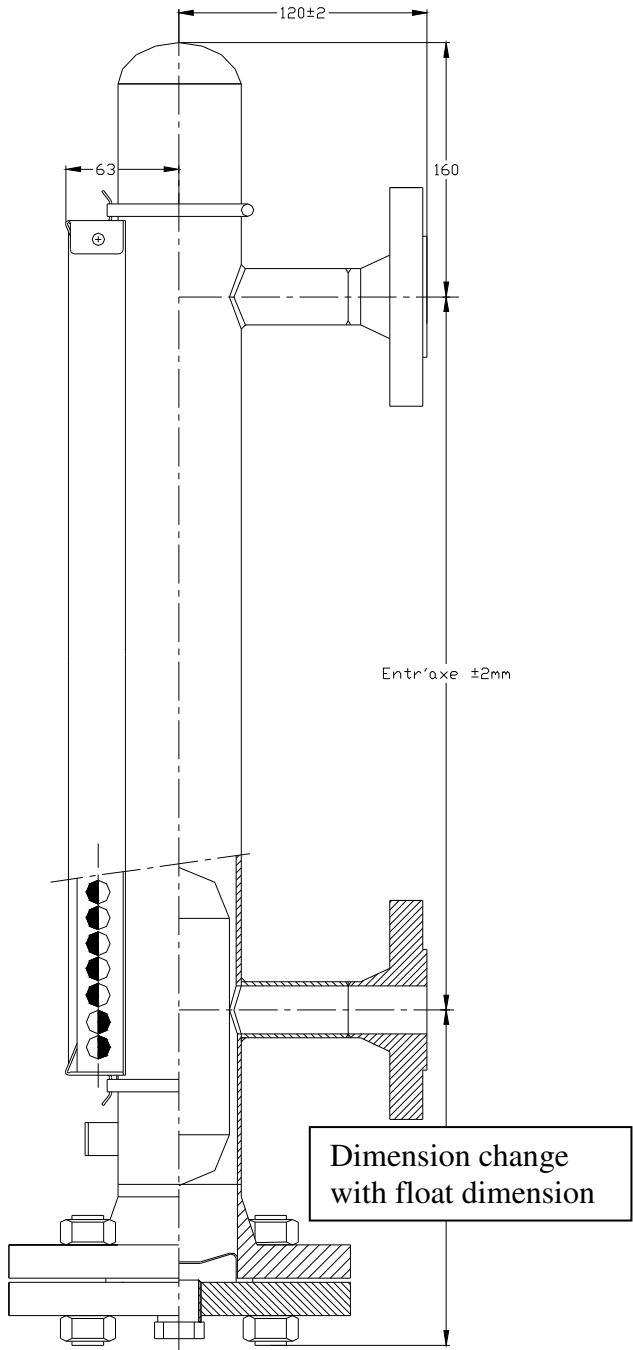
Type 810

Stainless Steel Constructions 304 L

Standard Version

Stainless steel 304 L code C3 to C5

Chamber	Material: 304 L Ø 60.3 mm x 2 mm rolled welded
Connection	Side-side DN 15 to 50 (1/2" to 2")
C3	304 L PN 10 / PN16 / PN40 Flange (to specify) according to EN 1092-1
C4	304 L PN20 Flange Type B according to EN 1759-1 (ANSI 150 Lbs)
C5	304 L PN50 Flange type B according to 1759-1 (ANSI 300 Lbs) See connections specifications page 20
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 26 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-19
Upper Part	Welded bottom 304L Other available options -see page 24
Lower Part	Flange type 11B (Welding neck) -PN according to building code Purge + plug ½" NPT Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 37
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	Atm to limit PN of the flange according to applicable Standard
Density	From 0.52 kg/m ³ Interface measurement as option



Type 810 Stainless Steel Constructions 304L

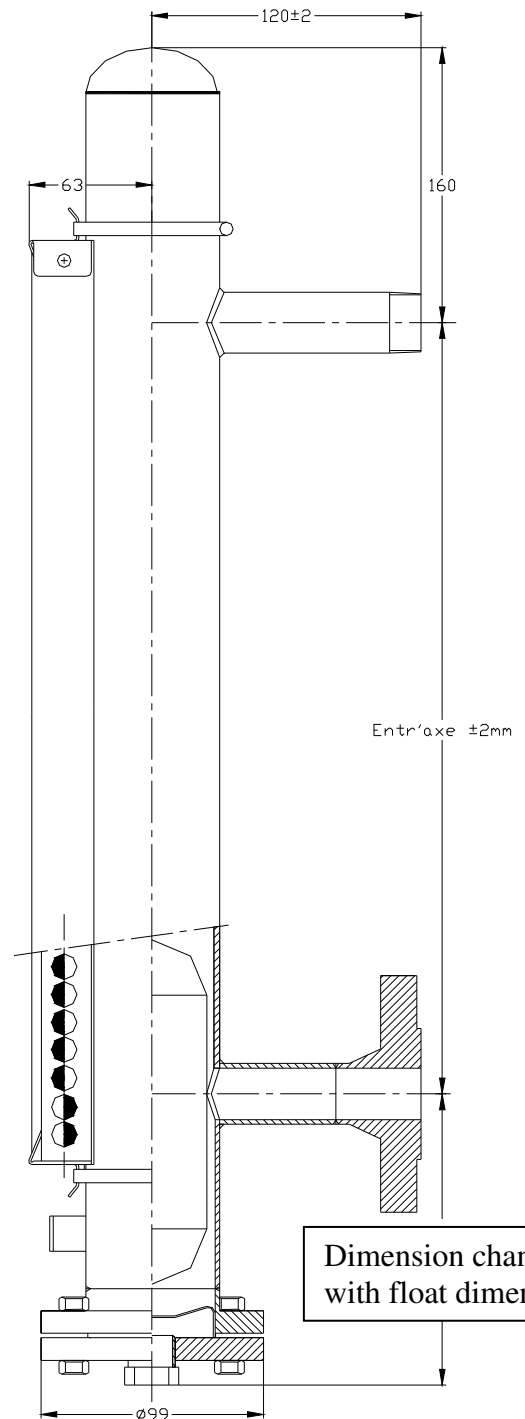
Standard Version

Stainless steel 304L code C6 to C9

Chamber	Material: 304L Ø 60.3 mm x 2 mm rolled welded
Connection	Side-side DN 15 to 50 (1/2" to 2 ")
C6	304L PN 10 / PN16 Flange (to specify) according to EN 1092-1
C7	304L PN20 Flange type B according to 1759-1 (ANSI 150 Lbs)
C8	1/2 SW 3000 sleeve
C8-1	1/2 BSP-P sleeve
C8-2	1/2 NPT-F 3000 sleeve
C9	Stainless steel tubing 304L BW
C9-1	Stainless Steel Tubing 304L BSP-P male threaded
C9-2	Stainless Steel Tubing 304L NPT male threaded
	See connections specifications page 20
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 30 to 35
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications pages 17-18
Upper Part	Welded bottom 304L Other available options -see page 24
Lower Part	Reduced flange Ø 99 Purge + plug 1/2" NPT Other available options -see page 25

Options

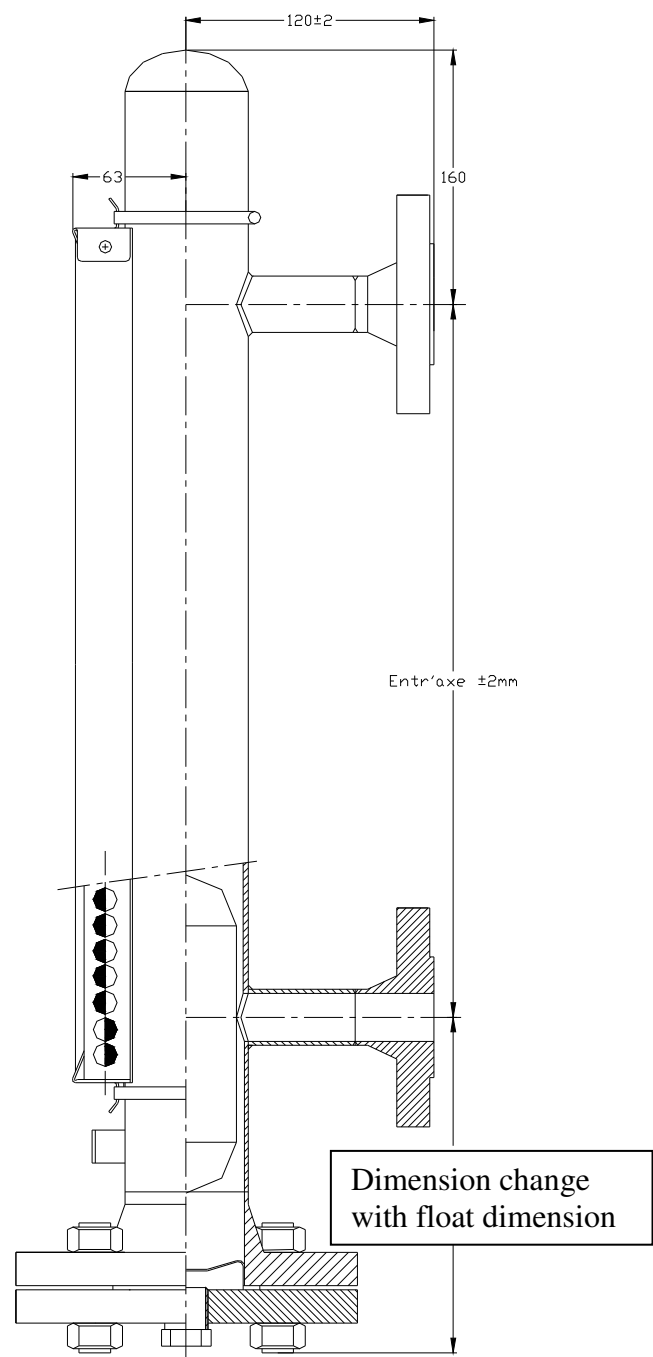
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 15.9 max @ 20°C
Density	From 0.52 kg/m ³ Interface measurement as option



Type 810

Stainless Steel Constructions 316 L

Standard Version	
Stainless steel 316 L code C13 to C15	
Chamber	Material: 316/316 L Ø 60.3 mm x 2 mm rolled welded
Connection C13 C14 C15	Side-side DN 15 to 50 (1/2" to 2 ") 316 L PN 10 / PN16 / PN40 Flange (to specify) according to EN 1092-1 316 L PN20 Flange Type B according to EN 1759-1 (ANSI 150 Lbs) 316 L PN50 Flange type B according to 1759-1 (ANSI 300 Lbs) See connections specifications page 20
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications pages 17-18
Upper Part	Welded bottom 316 L Other available options -see page 24
Lower Part	Flange type (Welding neck) PN according to building Purge + plug 1/2" NPT Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 32 max
Density	From 0.52 kg/m ³ Interface measurement as option



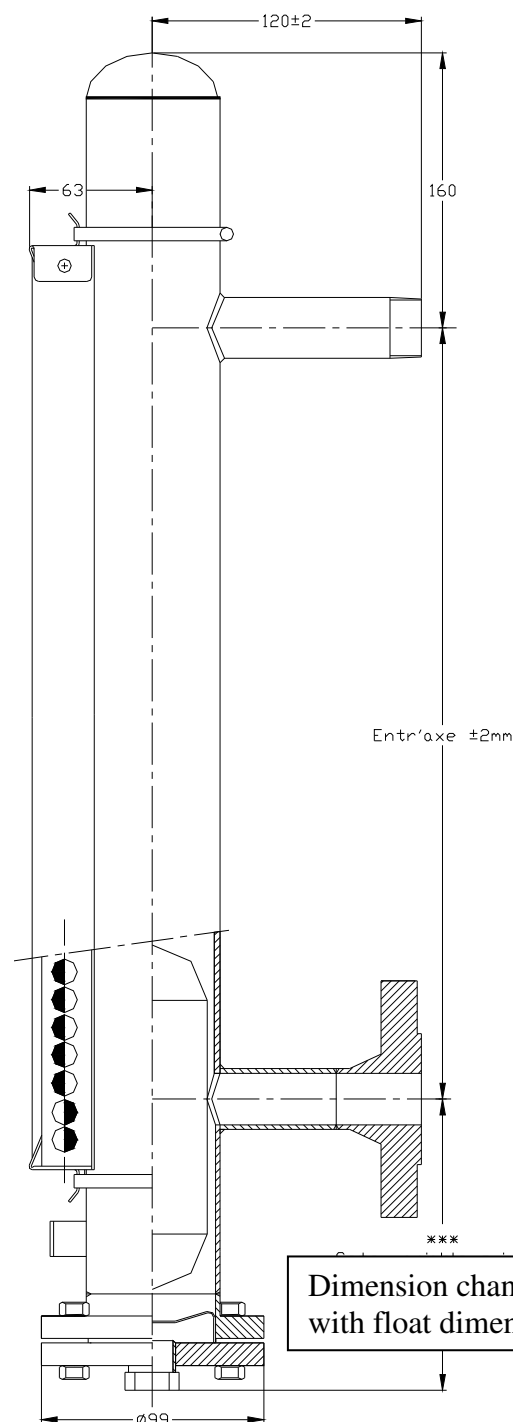
Type 810

Stainless Steel Constructions 316 L

Standard Version

Stainless steel 316 L code C16 to C19

Chamber	Material: 316/316 L Ø 60.3 mm x 2 mm rolled welded
Connection <i>C16</i> <i>C17</i> <i>C18</i> <i>C18-1</i> <i>C19</i> <i>C19-1</i> <i>C19-2</i>	Side-side DN 15 to 50 (1/2" to 2") 316 L PN 10 / PN16 / PN40 Flange (to specify) according to EN 1092-1 316 L PN20 Flange Type B according to EN 1759-1 (ANSI 150 Lbs) 1/2 SW 3000 sleeve 1/2 BSP-P sleeve 1/2 NPT 3000 sleeve Stainless Steel Tubing 316 L BSP-P male threaded Stainless Steel Tubing 316 L NPT male threaded See connections specifications page 20
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 30 to 35
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications pages 17-18
Upper Part	Welded bottom 316 L Other available options -see page 24
Lower Part	Reduced flange Ø 99 Purge + plug 1/2" NPT Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 32 max
Density	From 0.52 kg/m ³ Interface measurement as option



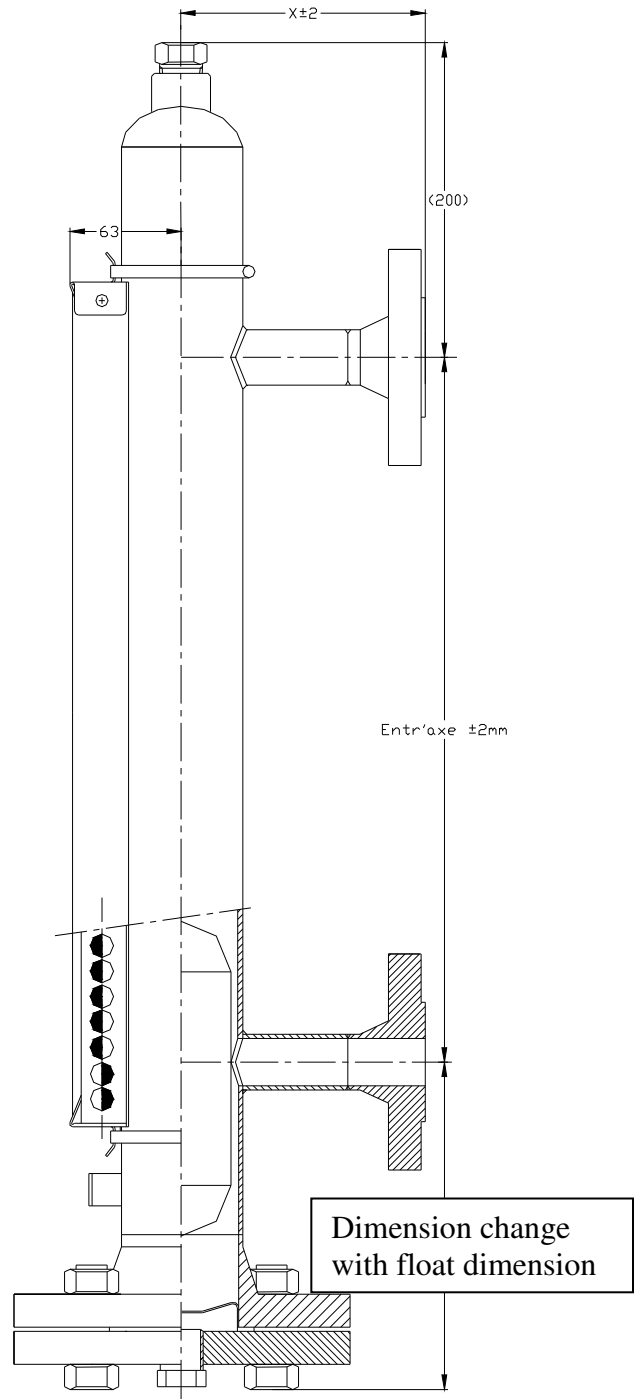
Type 810

Stainless Steel Constructions 304 L/316 L

High Pressure Version

Stainless steel 304 L/ 316 L code C20 to C22

Chamber	Material: 316/316 L Ø 60.3 mm x 2.77 mm (Sch 10)
Connection C20 C21 C22	Side-side DN 15 to 50 (1/2" to 2 ") 304L PN20 Flange according to 1759-1 (ANSI 150 Lbs) 304L PN50 Flange according to 1759-1 (ANSI 300 Lbs) 304L PN100 Flange according to 1759-1 (ANSI 600 Lbs) See connections specifications page 21
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent ½"NPT + Plug Other available options -see pages 24
Lower Part	Flange type (Welding neck) PN according to building Purge + plug ½" NPT Assembling done by stainless steel fasteners/ door gasket C4430 Other available options -see pages 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see pages 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 78 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)

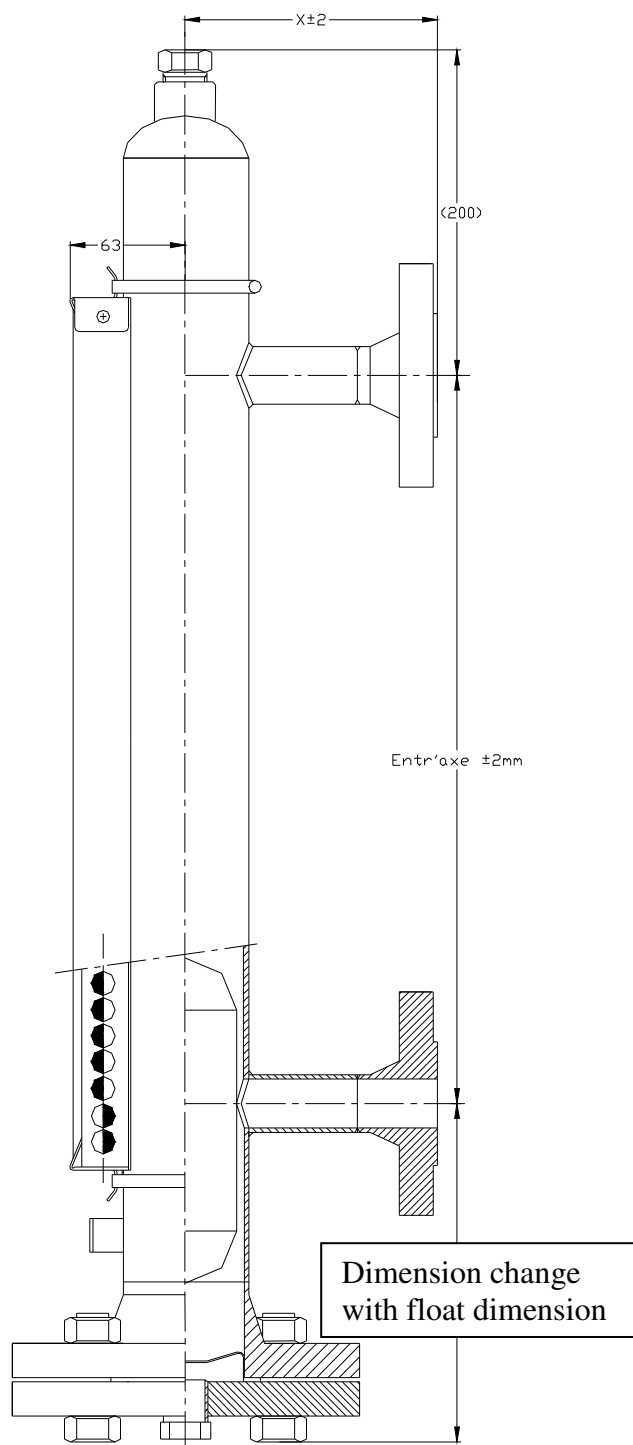


Type 810 Stainless Steel Constructions 316 L

High Pressure Version

Stainless steel 316 L code C30/--

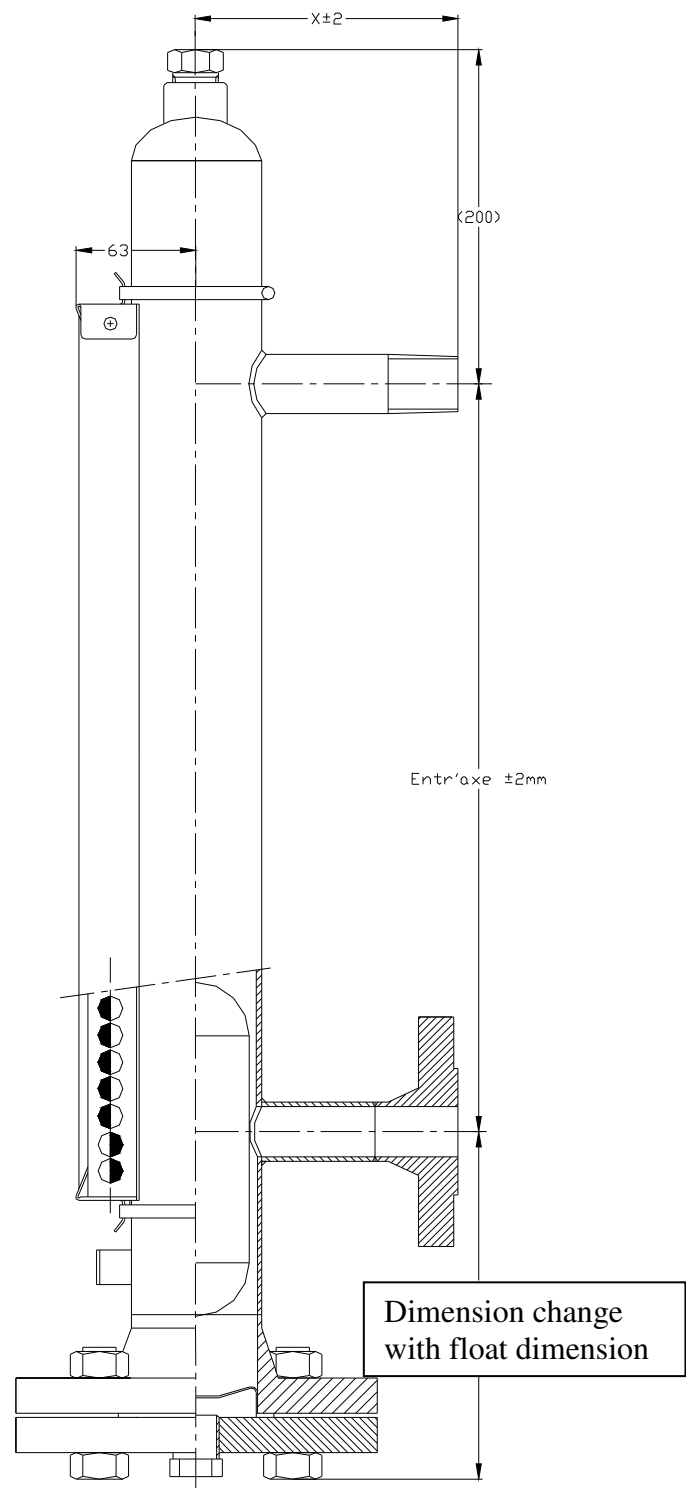
Chamber	Material: 316/316 L Ø 60.3 mm x 2.77 mm (Sch 10)
Connection <i>C30</i> <i>C30/1</i> <i>C30/2</i> <i>C30/3</i>	Side-side DN 15 to 50 (1/2" to 2") 316 L PN20 Flange according to 1759-1 (ANSI 150 Lbs) 1/2 SW 3000 sleeve 1/2 NPT-F 3000 sleeve Stainless Steel Tubing 316 L NPT-M male threaded See connections specifications page 21
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 30 to 35
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent 1/2"NPT + Plug Other available options -see page 24
Lower Part	Flange type (Welding neck) PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ door gasket C4430 Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 15.9 max
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)



Type 810

Stainless Steel Constructions 316 L

High Pressure Version	
Stainless steel 316 L code C31/--	
Chamber	Material: 316/316 L Ø 60.3 mm x 2.77 mm (Sch 10)
Connection	Side-side DN 15 to 50 (1/2" to 2 ") 316 L PN50 Flange according to 1759-1 (ANSI 300 Lbs) C31 C31/1 ½ SW 3000 sleeve C31/2 ½ NPT-F 3000 sleeve C31/3 Stainless Steel Tubing 316 L NPT-M male threaded See connections specifications page 21
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 30 to 35
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent ½"NPT + Plug Other available options -see page 24
Lower Part	Flange type (Welding neck) PN according to building Purge + plug ½" NPT Assembling done by stainless steel fasteners/ door gasket C4430 Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 40 max
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)

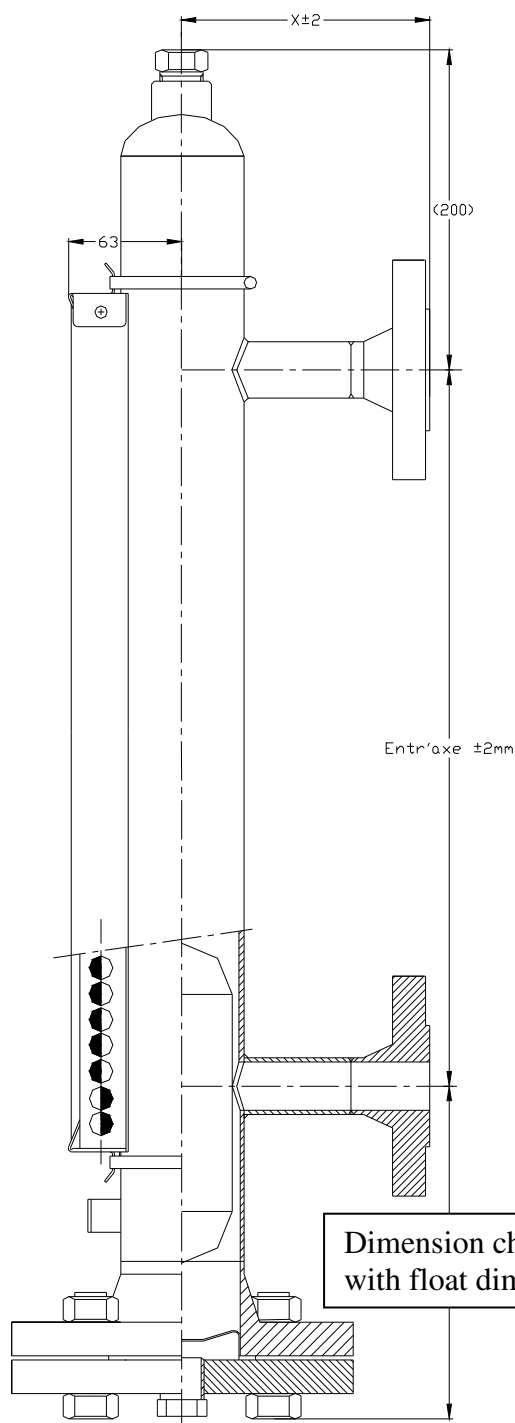


Type 810 Stainless Steel Constructions 316 L

High Pressure Version

Stainless steel 316 L code C32

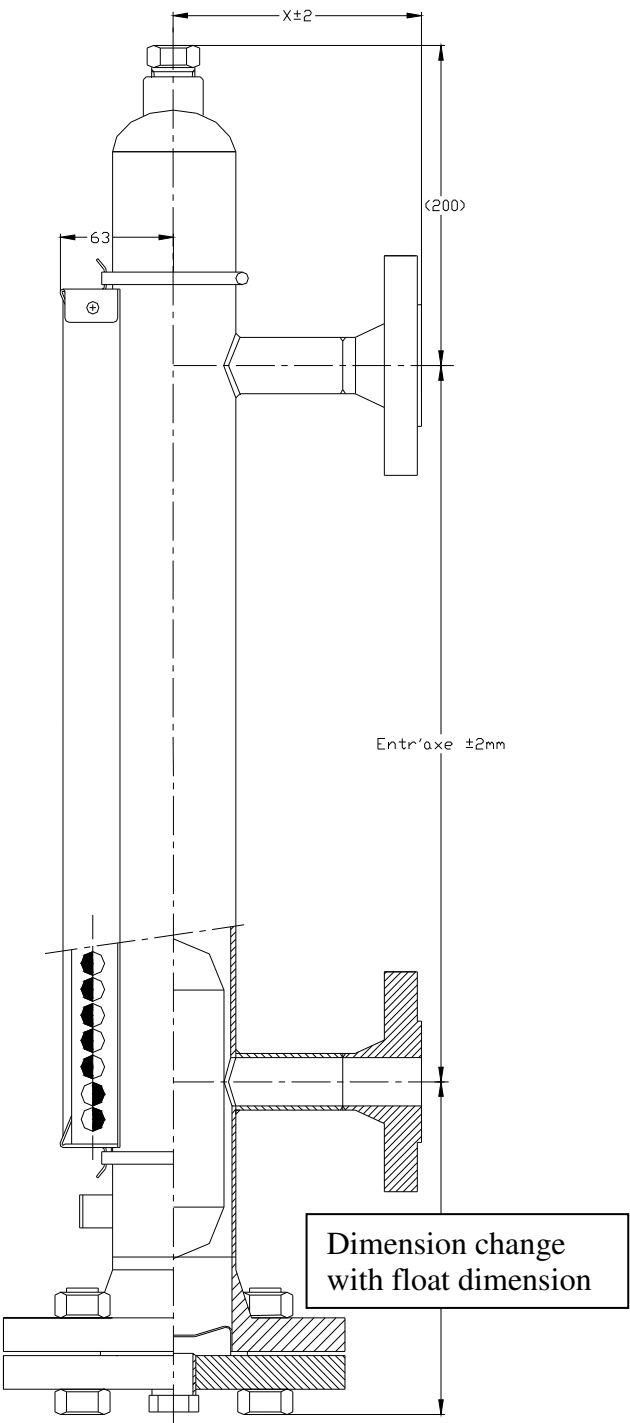
Chamber	Material: 316/316 L Ø 60.3 mm x 2.77 mm (Sch 10)
Connection C32	Side-side DN 15 to 50 (1/2" to 2") 316 L PN100 Flange according to 1759-1 (ANSI 600 Lbs) See connections specifications page 21
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 30 to 35
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent 1/2"NPT + Plug Other available options -see page 24
Lower Part	Flange type (Welding neck) PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ door gasket C4430 Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 78 max
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)



Type 810

Stainless Steel Constructions 316/316 L

High Pressure Version	
Stainless steel 316 L code C37-C39	
Chamber	Material: 316/316 L Ø 60.3 mm x 3.65 mm
Connection C37 C39	Side-side DN 15 to 50 (1/2" to 2 ") 316 PN100 Flange according to 1759-1 (ANSI 600 Lbs) 316 PN100 Flange according to 1759-1 (ANSI 900 Lbs) See connections specifications page 22
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 30 to 35
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed caps 316 L with vent 1/2"NPT + Plug Other available options -see page 24
Lower Part	Flange (type Welding neck) PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ spiral door gasket Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 36 to 39
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 137 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option Codap and ASME Not Applicable
Documentation	Technical Drawing included (D12)

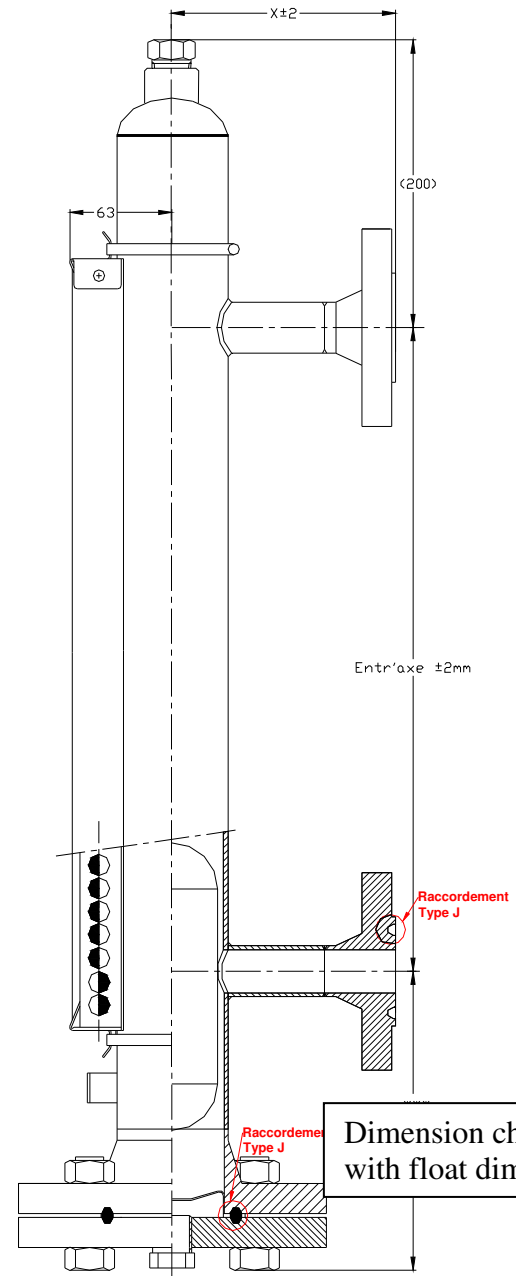


Type 810 Stainless Steel Constructions 316/316 L

High Pressure Version

Stainless steel 316 L code C38-C40

Chamber	Material: 316/316 L Ø 60.3 mm x 3.65 mm
Connection <i>C38</i> <i>C40</i>	Side-side DN 15 to 50 (1/2" to 2") 316 PN100 Flange type J according to 1759-1 (ANSI 600 Lbs) 316 PN150 Flange type J according to 1759-1 (ANSI 900 Lbs) See connections specifications page 22
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent 1/2"NPT + Plug Optional - see page 24
Lower Part	Flange (type Welding neck) type J PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ door gasket type J Other available options -see page 25
Option	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 137 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)



Type 810

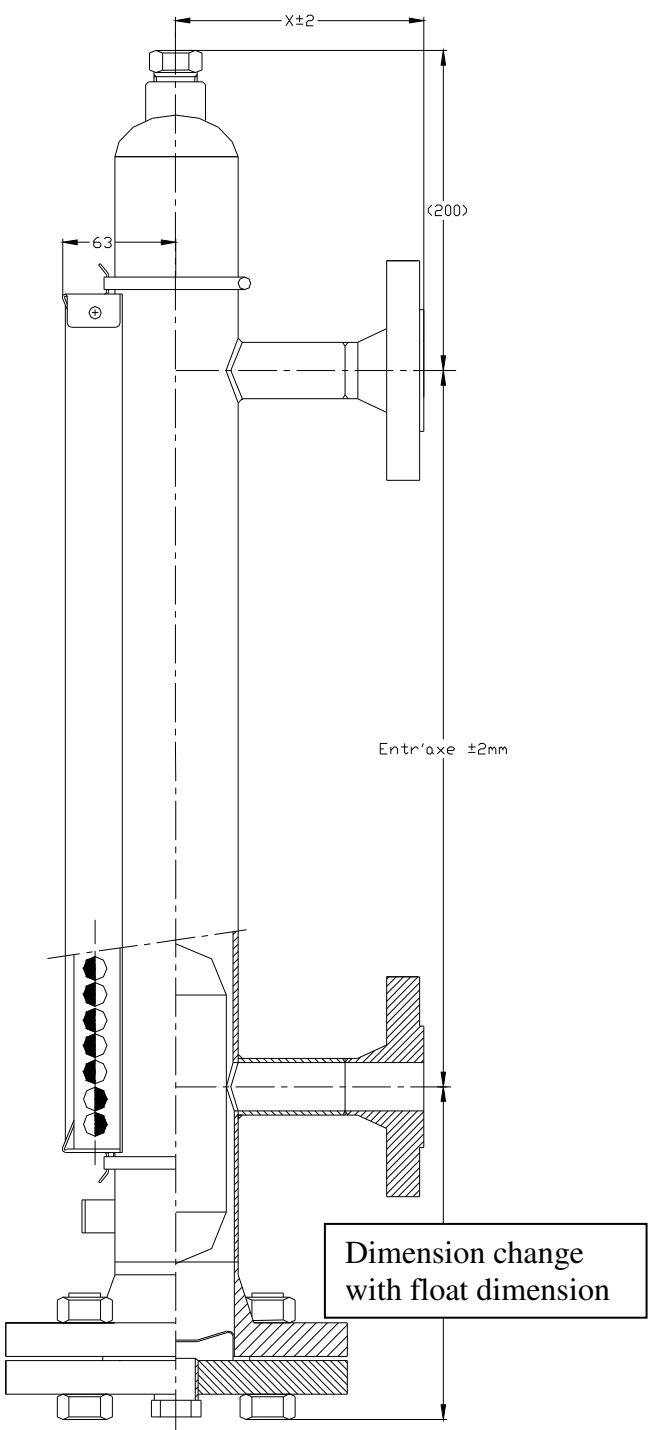
Stainless Steel Constructions 304/316 L

High Pressure Version

Stainless steel 316 L code C26-C23

Chamber	Material: 316/316 L Ø 73.03 mm x 5.16 mm
Connection C26 C23	Side-side DN 15 to 50 (1/2" to 2 ") 304L PN50 Flange according to 1759-1 (ANSI 300 Lbs) 304L PN100 Flange according to 1759-1 (ANSI 600 Lbs) See connections specifications page 23
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent ½"NPT + Plug Optional - see page 24
Lower Part	Flange type Welding neck PN according to building Purge + plug ½" NPT Assembling done by stainless steel fasteners/ door gasket C4430 Other available options -see page 24
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 137 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option

Documentation	Technical Drawing included (D12)
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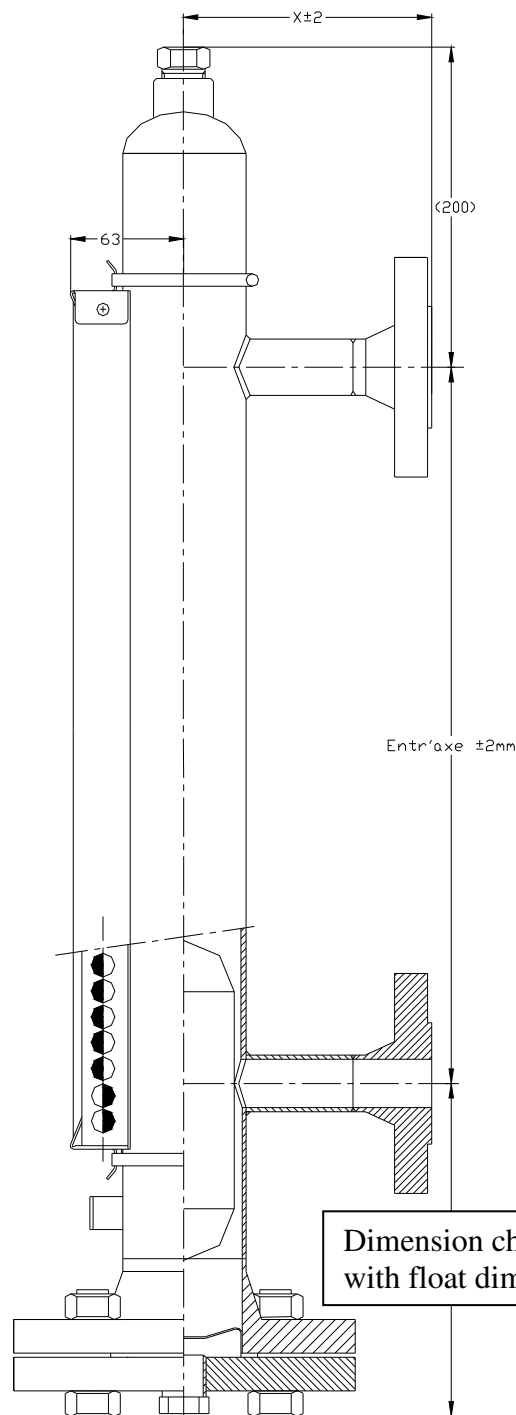


Type 810 Stainless Steel Constructions 316 L

High Pressure Version

Stainless steel 316 L code C36-C33

Chamber	Material: 316/316 L Ø 73.03 mm x 5.16 mm
Connection C36 C33	Side-side DN 15 to 50 (1/2" to 2") 316 L PN50 Flange according to 1759-1 (ANSI 300 Lbs) 316 L PN100 Flange according to 1759-1 (ANSI 600 Lbs) See connections specifications page 23
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent 1/2"NPT + Plug Optional - see page 24
Lower Part	Flange (type Welding neck) PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ door gasket C4430 Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 137 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)



Type 810

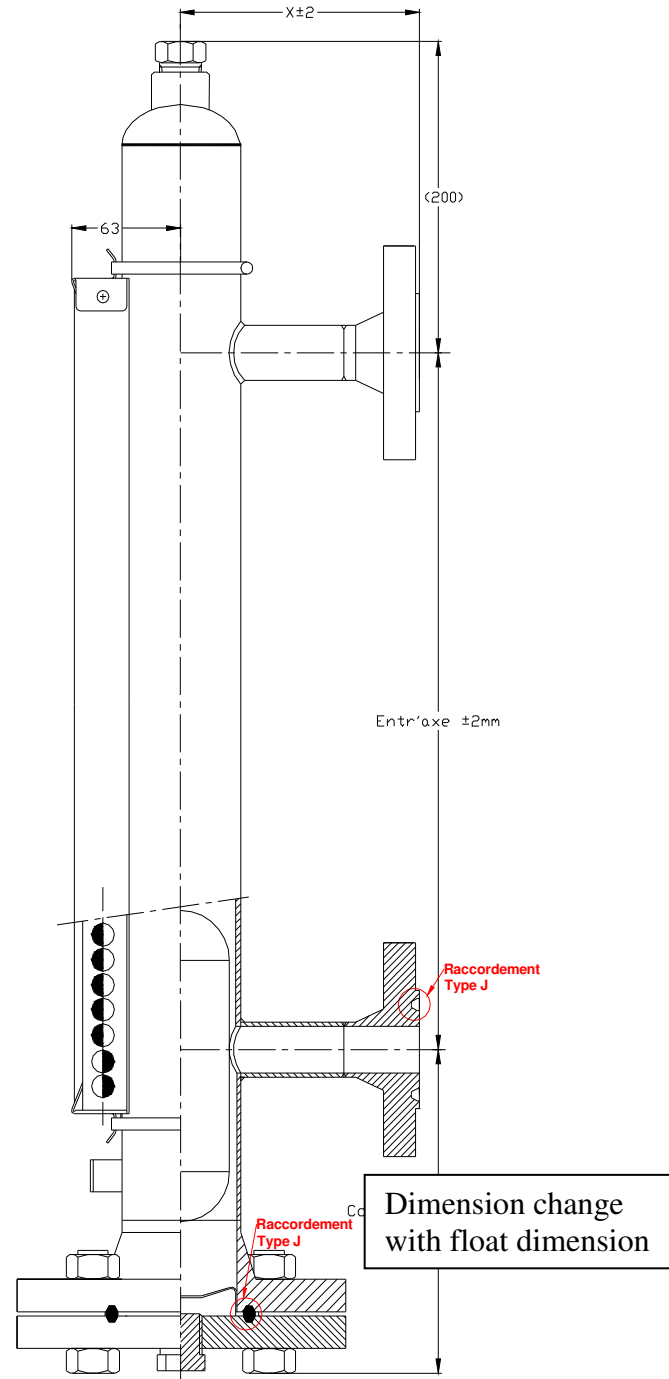
Stainless Steel Constructions 304L/316 L

High Pressure Version

Stainless steel 316 L code C24-C25

Chamber	Material: 316/316 L Ø 73.03 mm x 7.1 mm
Connection <i>C24</i> <i>C25</i>	Side-side DN 15 to 50 (1/2" to 2 ") 304L PN250 Flange type J according to 1759-1 (ANSI 1500 Lbs) 304L PN420 Flange type J according to 1759-1 (ANSI 2500 Lbs) See connections specifications page 23
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent 1/2"NPT + Plug Other available options -see page 24
Lower Part	Flange (type Welding neck) type J PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ door gasket Type J Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 240 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option

Documentation Technical Drawing included (D12)

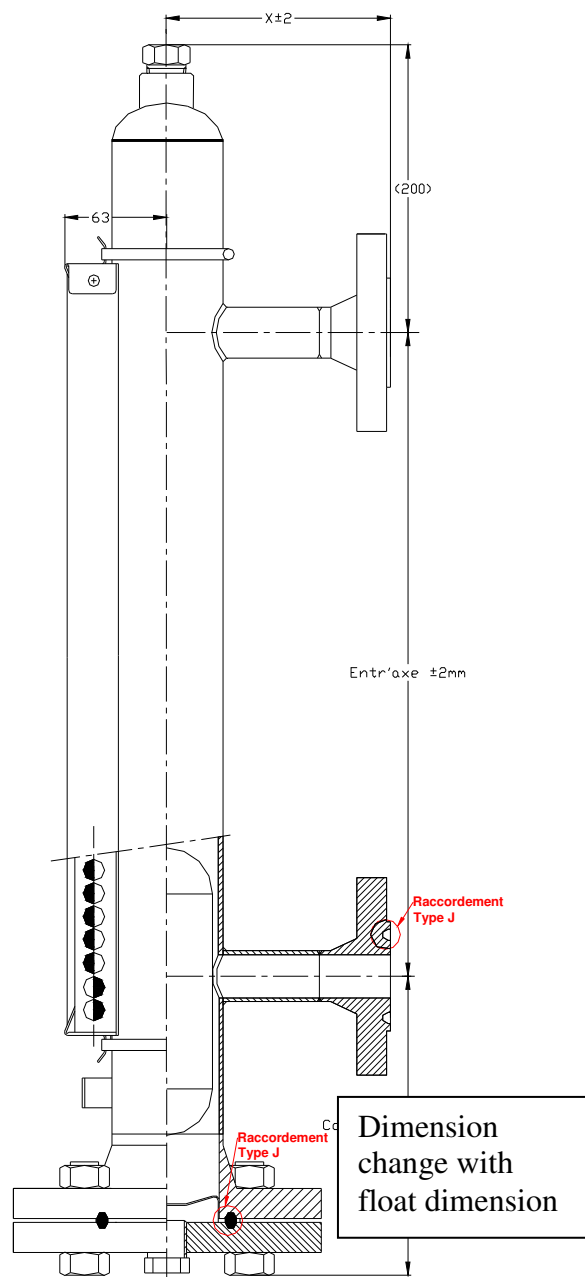


Type 810 Stainless Steel Constructions 316 L

High Pressure Version

Stainless steel 316 L code C34/C35

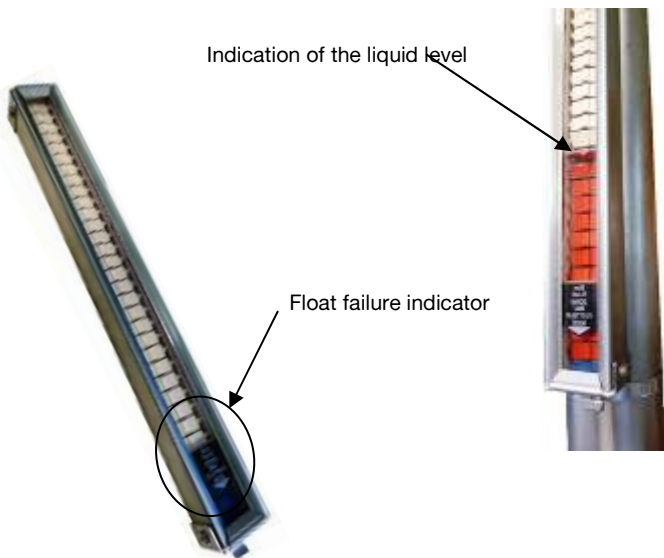
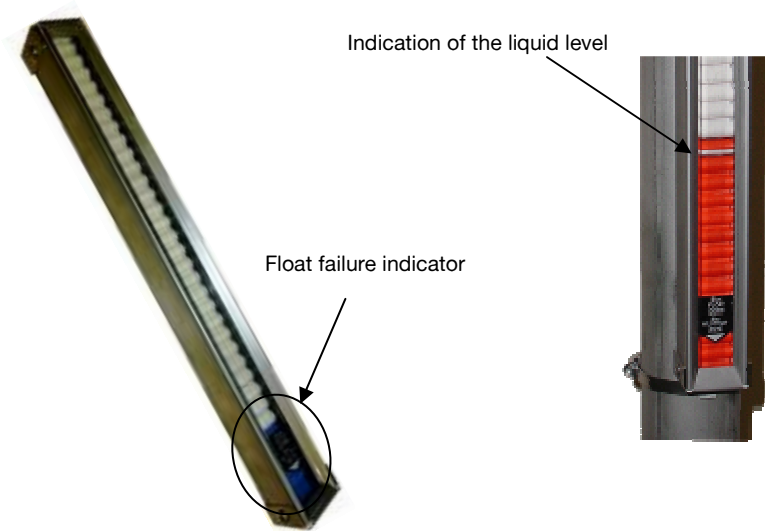
Chamber	Material: 316/316 L Ø 73.03 mm x 7.1 mm
Connection C34 C35	Side-side DN 15 to 50 (1/2" to 2") 316 L PN250 Flange type J according to 1759-1 (ANSI 1500 Lbs) 316 L PN420 Flange type J according to 1759-1 (ANSI 2500 Lbs) See connections specifications page 23
Center distance	Minimum: E= 300 mm Maximum: E= 5500 mm Beyond: on request (device in several sections)
Float	Stainless Steel Titanium See floats' specifications pages 28 to 30
Indication	R - Polyamide Rollers (PA6V) White/Red VA - Aluminum Flaps White/Red S - Magnetic Slider Indication of sank float (Blue Flaps/Rollers) See indicator specifications page 17-18
Upper Part	Sealed bottom 316 L with vent 1/2"NPT + Plug Other available options -see page 24
Lower Part	Flange type (Welding neck) type J PN according to building Purge + plug 1/2" NPT Assembling done by stainless steel fasteners/ door gasket type J Other available options -see page 25
Options	
Switch	See Switch specifications pages 31-32
Transmitter	See transmitters specifications pages 33 to 35
Scales	Stainless steel 304L (Graduated) Other available options -see page 19
Service conditions	
Temperature	-160°C to +350°C
Pressure	-1 Atm to 240 bars according to PN of the process
Density	From 0.52 kg/m ³ Interface measurement as option
Documentation	Technical Drawing included (D12)



Type 810

Visualization Systems

Indicator with two-toned rollers	
Code	R
Envelope	Thickness 1 mm Material: stainless steel -304L as standard Seals: Silicone Sealing: IP 65
Rollers	Resolution: 10 mm Material: polyamide Rollers set position Visualization continuous reading tape Magnet Colors: Red/ White/ Blue
Screen	Material: Transparent Polycarbonate
~~~~~	
Temperature fluid	-10°C to +120°C +120°C to + 200°C thermal screen
Resolution Test	10 MM Float failure indication by blue colored rollers (last three rollers)



Indicator with high temperatures Flaps	
Code	VA
Envelope	Thickness 1 mm Material: Stainless Steel st.steel Seals: Silicone Sealing: IP 66
Flaps	Resolution: 10 mm Material: Aluminum Magnet Colors: Red/ White/ Blue
Screen	Material: Vitro-ceramic Glass
~~~~~	
Temperature fluid	-20 to+ 200°C +200°C to +400°C thermal screen
Resolution	10 MM
Test	Float failure indication
Documentation	Mechanical Atex certificate (D14)

Type 810 Visualization Systems

Indicator with low temperatures Flaps

Code *VA + Z22*

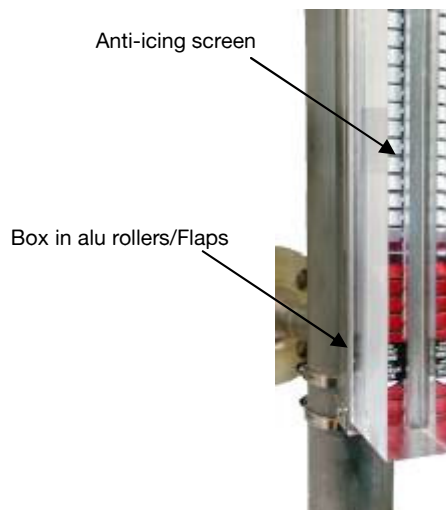
Envelope Thickness 1 mm
Material: Stainless Steel
Seals: Silicone
IP: 65

Flaps Resolution: 10 mm
Material: Aluminum
Magnet
Colors: Red/ White/ Blue

Screen Material: Polycarbonate
ep:70 mm

Temperature process -20 to -160°C

Resolution Test 10 MM
Float failure indication



Indicator with a Slider

Code *S*

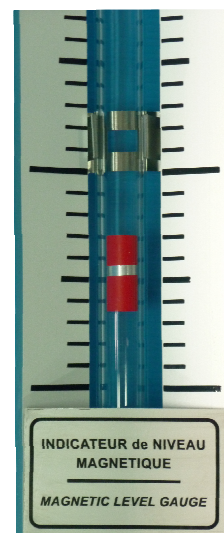
Tube Material: PYREX Ø24
Synthetic Plugs
IP: 66

Slider Size: 35 mm x Ø 15 mm
Material: Aluminum
Magnetic Index
Colors: Red

Sliding bars Material: aluminum /
Stainless Steel
Scale: silk screened see page
10
Unit: Dm/Cm as standard

Temperature fluid Up to +400 °C

Resolution 5 mm



Type 810
Visualization Systems - Accessories and options

Thermal Screen	
Code	Z2

Screen	Material: Glass fiber
Temperatures	From + 120°C for Rollers (R) / Slider (S) indicator version From + 120°C for transmitters From + 200°C on Aluminum Flaps (VA) indicator version



Graduated Scales for 810 R / VA	
Code	Z24/i

Indicator	R / VA
Graduation	Cm and calculation every dm
Material	stainless steel 304L as standard
Fastener	Permanent (score)
Dimensions	Mounting bracket: 20 mm x 30 mm x 1.5 mm

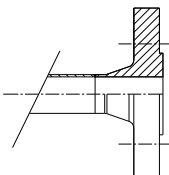
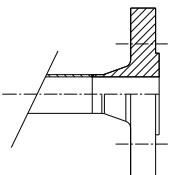
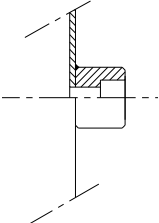
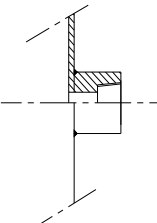
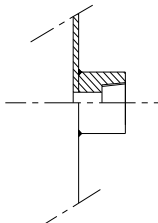
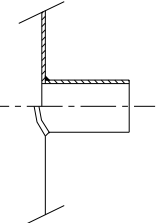
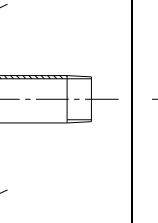
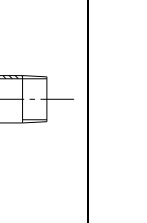
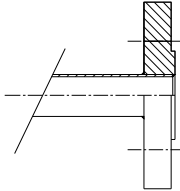
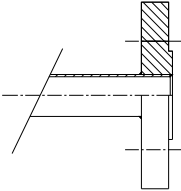


Graduated Scales for 810 R / VA	
Code	Z23/i

Indicator	R / VA
Graduation	Customized according to client specifications (ex: Volume, percentage, inch, feet etc.)
Material	stainless steel 304L as standard
Fastener	Permanent (score)
Dimensions	Mounting bracket: 20 mm x 30 mm x 1.5 mm

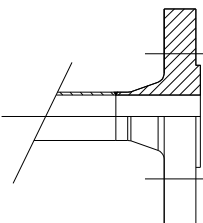
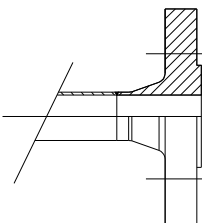
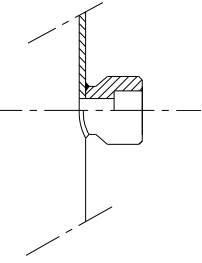
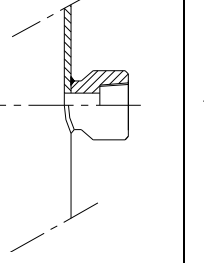
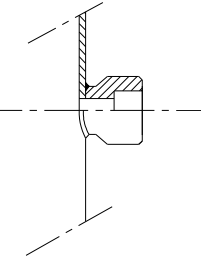
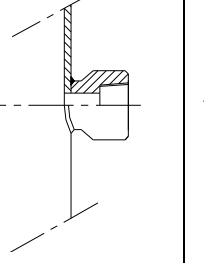
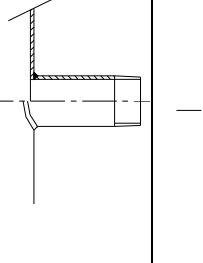
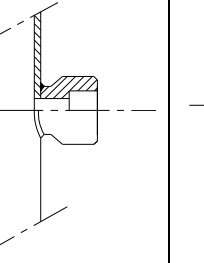
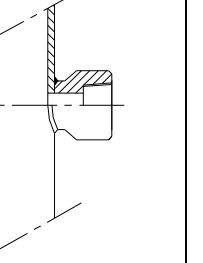
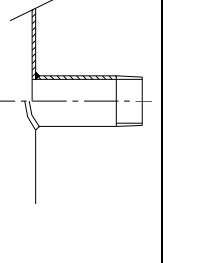
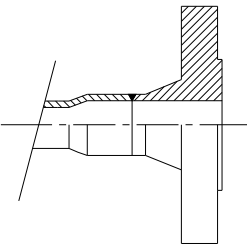
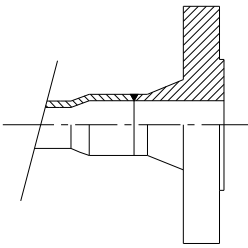


Side connection for rolled welded chamber Ø60.3 x 2 codes C3 to C19

C3 C13	C4 C14	C5 C15	C6 C16	C7 C17	C8 C18	C8/1 C18/1	C8/2 C18/2	C9 C19	C9/1 C19/1	C9/2 C19/2
Bottom flange type 11B (Welding neck)			Reduced Bottom flange type Ø 99							
PN10/16/40	PN20 (150 Lbs)	PN50 (300 Lbs)	PN10/16	PN20 (150 Lbs)	3000 Lbs	3000 Lbs	3000 Lbs	Sch 10	Sch 40	Sch 40
 <p>Flange type 11B (WN) DN ≤ 25 (1 ")</p>			 <p>Flange type 11B (WN) DN ≤ 25 (1 ")</p>		 <p>Half sleeve 1/2"-3/4"SW 3000 Lbs</p>	 <p>Half sleeve 1/2"-3/4"NPT-F 3000 Lbs</p>	 <p>Half sleeve 1/2"-3/4"BSPP-F 3000 Lbs</p>	 <p>1/2"-3/4"BW Tube</p>	 <p>1/2"-3/4" Tube BSPP-M 3000 Lbs</p>	 <p>1/2"-3/4" Tube NPT-M 3000 Lbs</p>
 <p>Flange type 05B on 1" tube DN >25</p>			 <p>Flange type 05B on 1" tube DN >25</p>							

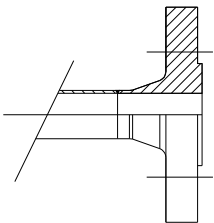
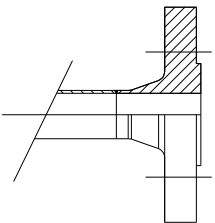
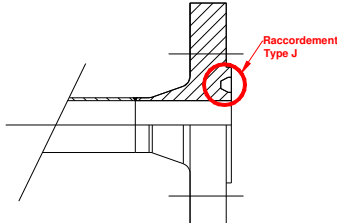
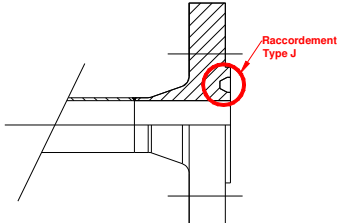
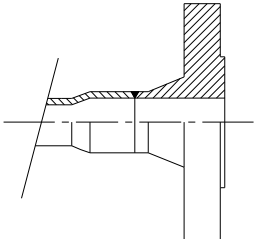
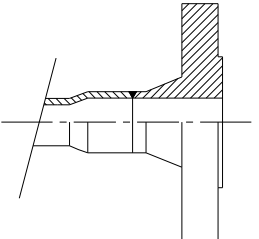
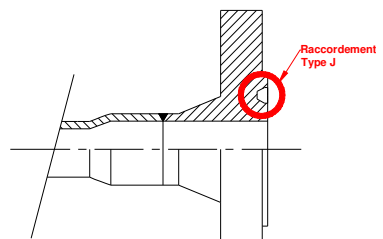
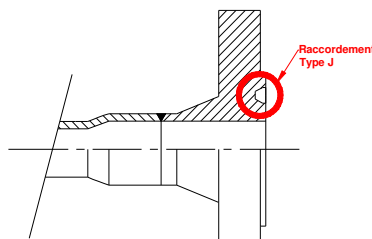
CX : Other specific lateral links on request

Side connection for seamless chamber Ø60.3 x 2.77 (Sch10) codes C20 to C32

C20	C21	C22	C30	C31	C32	C30/1	C30/2	C30/3	C31/1	C31/2	C31/3
Chamber flange type 11B (Welding neck -PN according to building code)											
PN20 (150 Lbs)	PN50 (300 Lbs)	PN100 (600 Lbs)	PN20 (150 Lbs)	PN50 (300 Lbs)	PN100 (600 Lbs)	PN20 (150 Lbs)	PN20 (150 Lbs)	Sch 10	PN50 (300 Lbs)	PN50 (300 Lbs)	Sch 40
											
Flange type 11B (WN) DN ≤ 25 (1 ")	Flange type 11B (WN) DN ≤ 25 (1 ")		Half sleeve 1/2"-3/4" SW 3000 Lbs	Half sleeve 1/2"3/4" NPT- 3000 Lbs		Half sleeve 1/2"-3/4" SW 3000 Lbs	Half sleeve 1/2"3/4" NPT- 3000 Lbs	1/2"-3/4"-1" Tube NPT-M 3000 Lbs	Half sleeve 1/2"-3/4"-1" SW 3000 Lbs	Half sleeve 1/2"-3/4"-1" NPT-F 3000 Lbs	Tube 1/2"-3/4"-1" NPT-M 3000 Lbs
											
Flange type 11B (WN) on discount DN >25	Flange type 11B (WN) on discount DN >25										

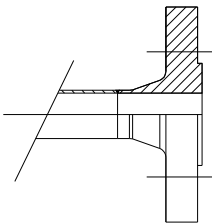
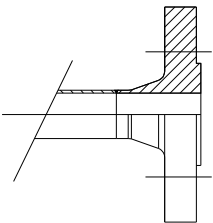
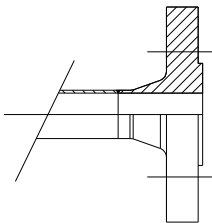
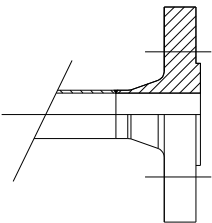
CX: Other specific lateral links on request

Side connection for seamless chamber Ø60.3 x 3.65 codes C37 to C40

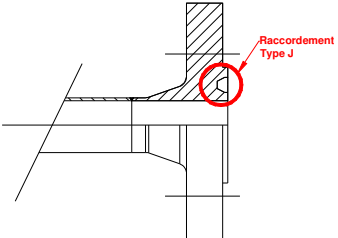
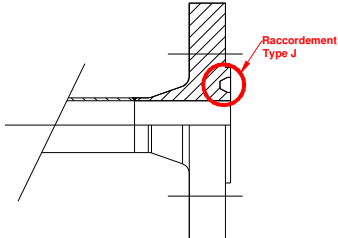
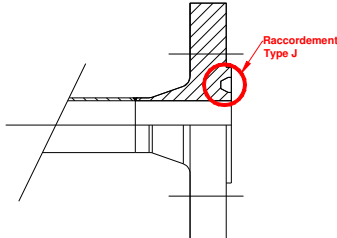
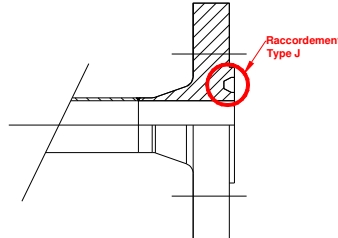
C37	C39	C38	C40
Chamber flange type Welding neck 11B (PN according to building code)	Chamber flange type Welding neck 11B (PN according to building code)	Chamber flange type Welding neck 11J (PN according to building code)	Chamber flange type Welding neck 11J (PN according to building code)
PN100 (ANSI 600 Lbs)	PN150 (ANSI 900 Lbs)	PN100 (ANSI 600 Lbs)	PN150 (ANSI 900 Lbs)
 <p>Flange type 11B DN ≤ 25 (1 ")</p>	 <p>Flange type 11B DN ≤ 25 (1 ")</p>	 <p>Flange type 11J DN ≤ 25 (1 ")</p>	 <p>Flange type 11J DN ≤ 25 (1 ")</p>
 <p>Flange Type 11B on discount DN >25</p>	 <p>Flange Type 11B on discount DN >25</p>	 <p>Flange Type 11J on discount DN >25</p>	 <p>Flange Type 11J on discount DN >25</p>

CX: Other specific lateral links on request

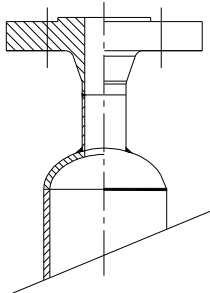
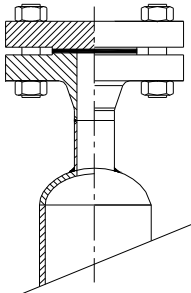
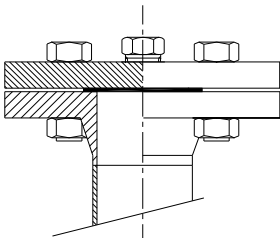
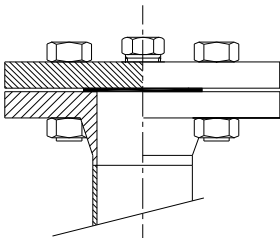
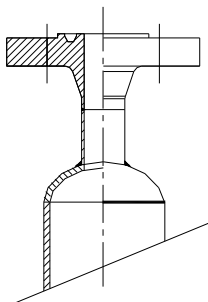
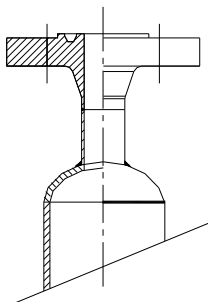
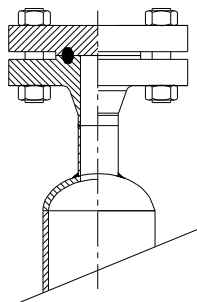
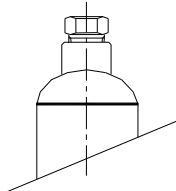
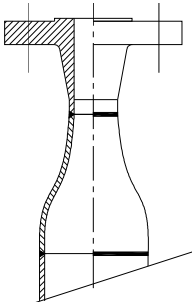
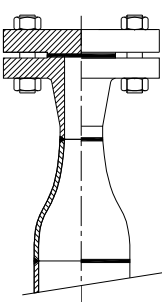
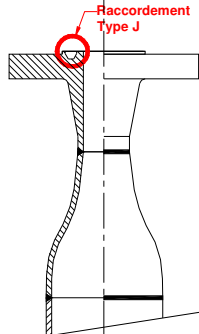
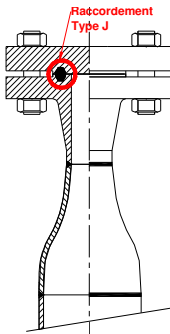
Side connection for seamless chamber Ø73.03 x 5.16 (Sch40) codes C26 to C33

C26	C36	C23	C33
Chamber flange type Welding neck 11B (PN according to building code)	Chamber flange type Welding neck 11B (PN according to building code)	Chamber flange type Welding neck 11B (PN according to building code)	Chamber flange type Welding neck 11B (PN according to building code)
PN50 (ANSI 300 Lbs)	PN50 (ANSI 300 Lbs)	PN100 (ANSI 600 Lbs)	PN100 (ANSI 600 Lbs)
			
Flange type 11B	Flange type 11B	Flange type 11B	

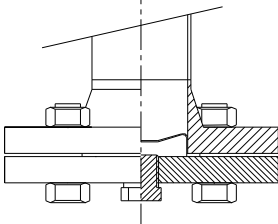
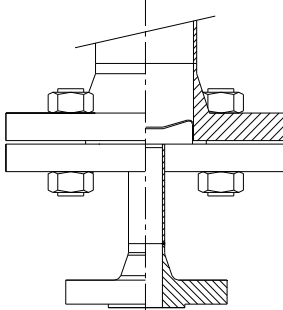
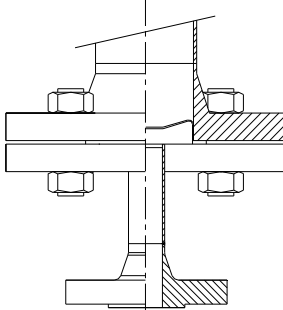
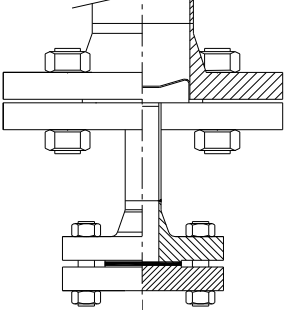
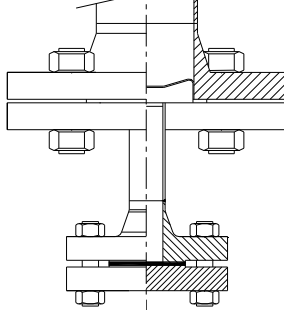
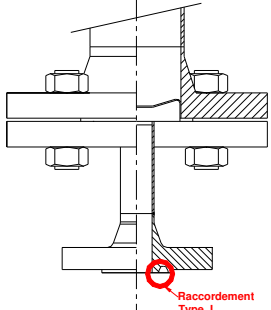
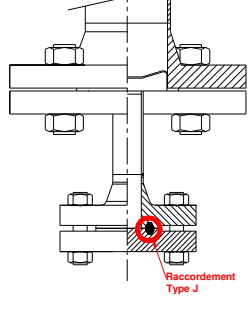
Side connection for seamless chamber Ø73.03 x 7.01 (Sch80) codes C24 to C35

C24	C25	C34	C35
Chamber flange type Welding neck 11J (PN according to building code)	Chamber flange type Welding neck 11J (PN according to building code)	Chamber flange type Welding neck 11J (PN according to building code)	Chamber flange type Welding neck 11J (PN according to building code)
PN250 (ANSI 1500 Lbs)	PN420 (ANSI 2500 Lbs)	PN250 (ANSI 1500 Lbs)	PN420 (ANSI 2500 Lbs)
			
Flange type 11J	Flange type 11J	Flange type 11J	Flange type 11J

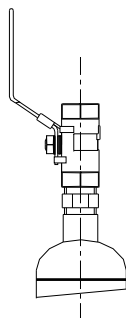
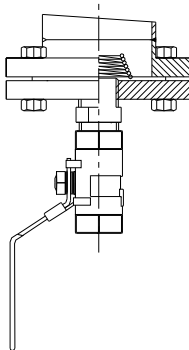
Option of upper connection for Ø60.3 (2") // Ø73.01 (2"½) chamber

Z3	Z4	Z33	Z40 <i>Klingersil Seal C4430</i>	Z58 <i>Spiral wound gasket in graphite and inox</i>	Z63 <i>Klingersil Seal C4430</i>	Z64 <i>Spiral wound gasket in graphite and inox</i>	Z46	Z52
1/2" BSP	1/2"NPT	 DN15 <i>PN according to building code</i>	 DN15 <i>PN according to building code</i>	 On 2□ body <i>PN according to building code</i>	 On 2□ body <i>PN according to building code</i>	 DN15 <i>PN according to building code</i>	 DN15 <i>PN according to building code</i>	 DN15 <i>PN according to building code</i>
Z25	Z34 / Z35	Z41 / Z42	Z59 / Z60		Z47 / Z48	Z53 / Z54 Annular Seal type RTJ		
 3/4"NPT	 DN20 & DN25 <i>PN according to building code</i>	 DN20 & DN25 <i>PN according to building code</i>			 DN20 & DN25 <i>PN according to building code</i>	 DN20 & DN25 <i>PN according to building code</i>		

Option for lower connection Ø60.3 (2") // Ø73.01 (2"½) chamber

Z26	Z18	Z30	Z37 / Z38 / Z39 <i>Klingsil Seal C4430</i>	Z55 / Z56 / Z57 <i>Spiral wound gasket in graphite and inox</i>	Z43 / Z44 / Z45 <i>Annular Seal type RTJ</i>	Z49 / Z50 / Z51 <i>Annular Seal type RTJ</i>
						
3/4"NPT ½"BSP-P		DN15 to 25 <i>PN according to building code</i>	DN15 to 25 <i>PN according to building code</i>	DN15 to 25 <i>PN according to building code</i>	DN15 to 25 <i>PN according to building code</i>	DN15 to 25 <i>PN according to building code</i>

ZX : Other specific high links on request

Z17/Top	Z17/Bottom
	
Valve+Nipple ½" NPT (without cap)	Valve+Nipple ½" NPT (without cap)

Type 810

Range of floats

Stainless Steel Floats

Code	M1/...	M2 /...
Body	Stainless steel 316 L L=262 ± 0.5 mm	
Transmitter	magnetic	
Temperature	≤ 200°C	≤ 350°C
Spans of Densities	M1/1 0.75 < d < 0.86 M1/2 0.87 < d < 1.03 M1/3 1.04 < d < 1.2 M1/X d > 1.2	M2/1 0.75 < d < 0.86 M2/2 0.87 < d < 1.03 M2/3 1.04 < d < 1.2 M2/X d > 1.2
	M1/X - M2/x interface density	
Pressure	20 bars to 20°C	

Titanium Floats

Code	M3/...
Body	Titanium L=250 ± 0.5 mm
Transmitter	magnetic
Temperature	≤ 200°C
Spans of Densities	M3/1 0.75 < d < 0.86 M3/2 0.87 < d < 1.03 M3/3 1.04 < d < 1.2 M3/X d > 1.2
	M3/X interface density
Pressure	65 bars to 20°C



Titanium Floats

Code	M5/...
Body	Titanium L=250 ± 0.5 mm
Transmitter	magnetic
Temperature	≤ 350°C
Spans of Densities	M5/1 0.74 < d < 0.8 M5/2 0.8 < d < 0.93 M5/3 0.93 < d < 1.05 M5/4 1.05 < d < 1.2 M5/X d > 1.2
	M5/X interface density
Pressure	65 bars to 20°C

Type 810

Range of floats

Titanium Floats				
Code	M6		M7	
Body	Titanium L= 250± 0.5 mm		Titanium L= 350± 0.5 mm	
Transmitter	magnetic			
Temperature	≤ 350°C		≤ 350°C	
Spans of Densities	M6	0.75 < d <0.86	M7	0.75 < d <0.86
	M6/X	d>1.2	M7/X	d>1.2
	M6/X interface density			
Pressure	16 bars to 20°C			



Titanium Floats				
Code		M8		M9
Body	Titanium L= 350± 0.5 mm		Titanium L= 350± 0.5 mm	
Transmitter	magnetic			
Temperature	≤ 350°C		≤ 350°C	
Spans of Densities	M8	0.67 < d <0.75	M9	0.6 < d <0.67
	M8/X	d>0.75	M9/X	d>0.67
	M8/X - M9/x interface density			
Pressure	65 bars to 20°C			

Titanium Floats				
Code	M60		M61	
Body	Titanium L= 360± 0.5 mm		Titanium L= 360± 0.5 mm	
Transmitter	magnetic			
Temperature	≤ 350°C		≤ 350°C	
Spans of Densities	M60	0.52 < d <0.56	M61	0.56 < d <0.6
	M60/X	d>0.56	M61/X	d>0.6
	M60/X - M61/x interface density			
Pressure	40 bars to 20°C			



Type 810

Range of floats

Titanium Floats

Code	M10	M11
Body	Titanium L= 452± 0.5 mm	Titanium L= 378± 0.5 mm
Transmitter	magnetic	
Temperature	≤ 350°C	≤ 350°C
Spans of Densities	M10 0.535 < d < 0.57	M11 0.57 < d < 0.635
	M10/X d > 0.57	M11/X d > 0.635
	M10/X - M11/X interface density	
Pressure	140 bars to 20°C	



Titanium Floats

Code	M12/--	M13/--
Body	Titanium L= 378± 0.5 mm	Titanium L= 304± 0.5 mm
Transmitter	magnetic	
Temperature	≤ 350°C	≤ 350°C
Spans of Densities	M12/1 0.6 < d < 0.649	M13/1 0.671 < d < 0.726
	M12/2 0.587 < d < 0.6	M13/2 0.65 < d < 0.671
	M12/X d > 0.649	M13/X d > 0.726
	M12/X - M13/x interface density	
Pressure	140 bars to 20°C	



Titanium Floats

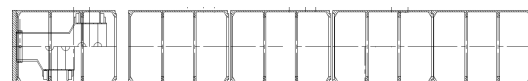
Code	M14/--	M15/--
Body	Titanium L= 230± 0.5 mm	Titanium L= 156± 0.5 mm
Transmitter	magnetic	
Temperature	≤ 350°C	≤ 350°C
Spans of Densities	M14/1 0.785 < d < 0.903	M15/1 1.05 < d < 1.18
	M14/2 0.726 < d < 0.785	M15/2 0.904 < d < 1.05
	M14/X d > 0.903	M15/X d > 1.18
	M14/X - M15/X interface density	
Pressure	140 bars to 20°C	

Type 810

Range of floats

Titanium Floats				
Code		M20/--		M21/--
Body		Titanium L= 378± 0.5 mm		Titanium L= 304± 0.5 mm
Transmitter		magnetic		
Temperature		≤ 350°C		≤ 350°C
Spans of Densities		M20/1	0.737 < d <0.78	M21/1 0.808 < d <0.876
		M20/2	0.711 < d <0.736	M21/2 0.772 < d <0.807
		M20/X	d>0.78	M21/X d>0.876
		M20/X - M21/X interface density		
Pressure		240 bars to 20°C		

Titanium Floats				
Code		M22/--		M23/--
Body		Titanium L= 230± 0.5 mm		Titanium L= 230± 0.5 mm
Transmitter		magnetic		
Temperature		≤ 350°C		≤ 350°C
Spans of Densities		M22/1	0.934 < d <1.043	M23/1 1.319 < d <1.38
		M22/2	0.877 < d <0.933	M23/2 1.042 < d <1.32
		M22/X	d>1043	M23/X d>1.38
		M22/X - M23/X interface density		
Pressure		240 bars to 20°C		



Titanium Floats		
Code	M40	M41
Body	Titanium L= 230± 0.5 mm	Titanium L= 230± 0.5 mm
Transmitter	magnetic	
Temperature	≤ 350°C	
Spans of Densities	M40	0.52 < d < 0.6
	M40/X	d>0.6
	M40/X - M41/X interface density	
Pressure	100 bars to 20°C	

Titanium Floats		
Code	M45	
Body	Titanium L=498 ± 0.5 mm	
Transmitter	magnetic	
Temperature	≤ 350°C	
Spans of Densities	M45	0.4 < d < 0.43
	M45/X	d>0.43
	M45/X interface density	
Pressure	40 bars to 20°C	

Type 810

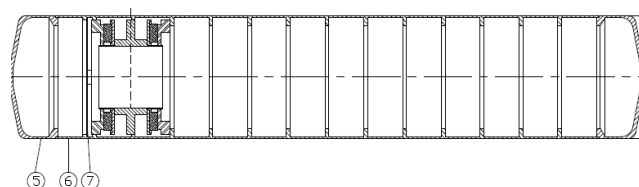
Range of floats (For body Ø 60.3 ep 3.65)

Titanium Floats

Code	M65/3	M65/4
Body	Titanium L= 250± 0.5 mm	Titanium L= 250± 0.5 mm
Transmitter	magnetic	
Temperature	≤ 350°C	≤ 350°C
Spans of Densities	M65/3 0.95 < d <1.05	M65/4 1.06 < d <1.2 M65/X d>1.2
Pressure	M65/X interface density 140 bars to 20°C	

Titanium Floats

Code	M65/1	M65/2
Body	Titanium L= 250± 0.5 mm	Titanium L= 250± 0.5 mm
Transmitter	magnetic	
Temperature	≤ 350°C	≤ 350°C
Spans of Densities	M65/1 0.75 < d <0.83	M65/2 0.84 < d <0.94
Pressure	M65/X interface density 140 bars to 20°C	



Titanium Floats

Code	M66
Body	Titanium L=350 ± 0.5 mm
Transmitter	magnetic
Temperature	≤ 350°C
Spans of Densities	M66 0.65 < d <0.75 M66/X d>0.75
Pressure	M66/X interface density 140 bars to 20°C

Type 810

Alarm Switch

Each level gauge can be equipped with alarm Switch. These are adjusted in such a way that they can switch to the rise or descent from a chosen liquid level.

NOTE: The options of alarm Switch for the gauges of type 810 can be installed for both versions indicator rolls (R), strands bicolor (VA) or follower (S).

They are simply mounted against the main chamber through stainless steel clamps.

The electrical connection is made by screw terminal and cable gland.

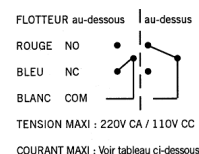
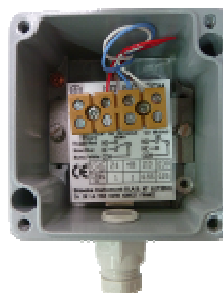
NOTE: For each Switch, the cutting height and the orientation must be specified when ordering. Without any indication, the Switch will simply be mounted on the chamber and the client will have to bear the cost of setting.

Option S20: "Tropicalisation" of Switch

Switch can be added on the existing level gauges.

Simple Switch ILS IP65

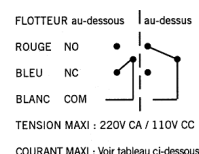
Code	S1	S6
Dimensions (LxWxH)	80 mm x 75 mm x 57 mm	
Material	Aluminum	
Switch	ILS simple inverter	
Connection	Cable gland PG9 Polyamide For cables Ø 5 to 8 m	
Protection	IP65	
Finishing	Polyester Paint	
Voltage Max.	230V	
Max Power.	60 W/ 60 VA	
Temperature	+ 200°C Max.	+ 300°C Max.



TENSION	COURANT MAXI	
	AC	DC
230V	0,25A	////////
110V	0,55A	
48V	1A	
24V	1A	

Simple Switch / Double ILS ADF

Code	S2	S4
Dimensions (LxWxH)	80 mm x 75 mm x 57 mm	
Material	Aluminum	
Switch	simple ILS	double ILS
Connection	Cable gland 3/4" NPT Aluminum for cables Ø 5 to 12 mm (supplied) Certified ADF ATEX ("d")	
Protection	IP65/66 - Screw cover	
Finishing	Aluminum epoxy paint finish	
Voltage Max. ILS	230V	
Max Power. ILS	60 W/ 60 VA	
Approval	ATEX NO. LCIE01ATEX6060X	
Marking ***	II 2G ExdIICT6Gb	
Electrical Parameters (CE certificate)	Max Power.: 230 V Max Current.: 15 A Max Power loss.: 20 W	
Temperature	Ta = -40°C at + 75°C	
Rating Plate	Aluminum / stainless steel rivets	

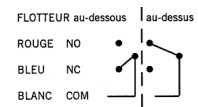
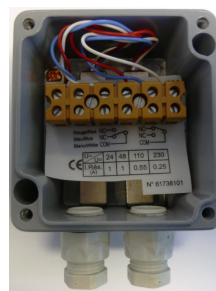


TENSION	COURANT MAXI	
	AC	DC
230V	0,25A	////////
110V	0,55A	
48V	1A	
24V	1A	

*** The ATEX marking complies with the Directive 2014/68/UE, and certifies the Switch ILS and the enclosure.

Double Switch ILS IP65

Code	S3	S7
Dimensions (LxWxH)	80 mm x 75 mm x 57 mm	
Material	Aluminum	
Switch	Double ILS simple inverter (see diagram)	
Connection	Cable gland PG9 Polyamide for cables Ø 5 to 9 mm	
Protection	IP65 - 4 screws cap closure	
Finishing	Polyester Paint	
Voltage Max.	230 V	
Max Power.	60 W/ 60 VA	
Temperature	+ 200°C Max.	+ 300°C Max.



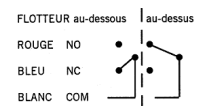
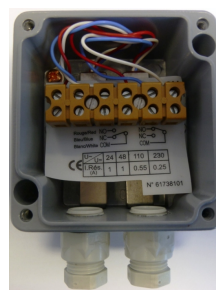
TENSION MAXI : 220V CA / 110V CC

COURANT MAXI : Voir tableau ci-dessous

TENSION	COURANT MAXI	
	AC	DC
230V	0,25A	0,55A
110V	0,55A	
48V	1A	
24V	1A	

Simple/Double Switch ILS S.I.

Code	S8	S9
Dimensions (LxWxH)	80 mm x 75 mm x 57 mm	
Material	Aluminum	
Switch	Simple ILS inverter	Double ILS inverter
Connection	Cable gland PG9 EExe Polyamide For cables Ø 5 to 9 mm	
Protection	IP65 - 4 screws cap closure	
Finishing	Polyester Paint	
Approval	ATEX NO. LCIE05ATEX6034X	
Marking **	II 1 G ExialICT6/T5/T4Ga/Gb	
Electrical Parameters	Ui≤30V; Ii≤101mA; Pi≤400MW Ci= 0nF ; Li= 0mH	
Temperatures	T6: Ta= 50°Cmax. / T5:Ta=65°Cmax./ T4: Ta= 80°Cmax.	
Rating Plate	Aluminum / stainless steel rivets	



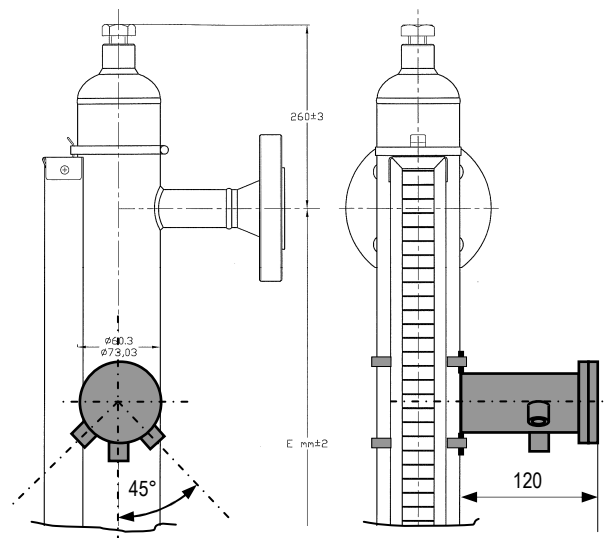
TENSION MAXI : 220V CA / 110V CC

COURANT MAXI : Voir tableau ci-dessous

TENSION	COURANT MAXI	
	AC	DC
230V	0,25A	0,55A
110V	0,55A	
48V	1A	
24V	1A	

Pneumatic Switch N/O - N/F

Code	S21	S22
Dimensions H x D	120 mm x Ø 80 mm	
Material	Stainless steel 316 L	
Switch	"Normally Closed"	"Normally Open"
	1: Input 2: Output 3: Escapement	1: Input 2: Output 3: Escapement
Connection	3 Inputs/Outputs at 0°/ 45°/ 90°	
Connection	1/4" NPT	
Finishing	Crude Stainless Steel	
Pressure	2 to 6 bars	
Temperature	-15°C < T < + 60°C	



Type 810

Transmitters / continuous measurement 4-20mA

Each level gauge can be equipped with a magnetic transmitter for continuous measurement.

An electronic line consisting of reed Switch thumbnails is inserted in a stainless steel tube maintained along the body of the appliance.

This line acts as a control potentiometer guide by the movements of the float.

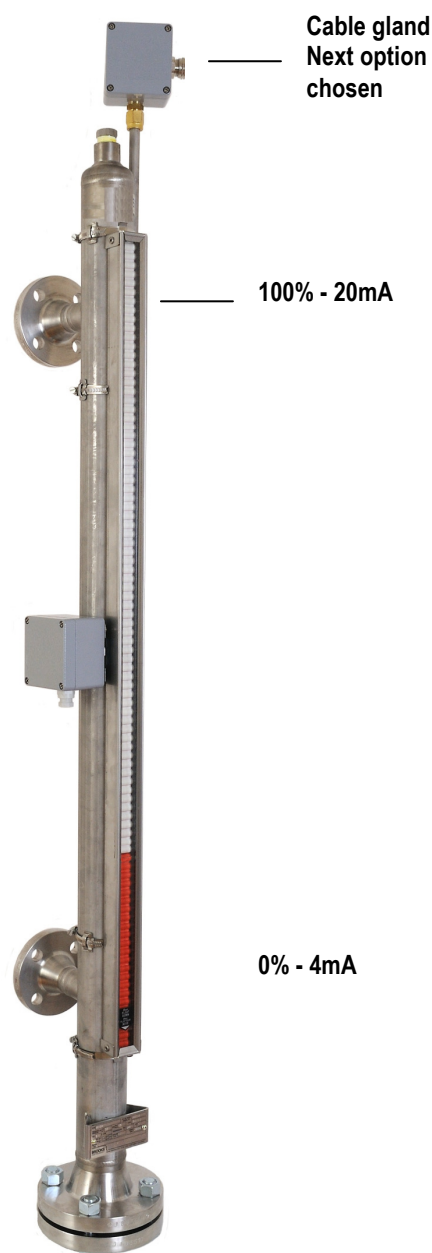
The transmitter is housed in an IP65 aluminum enclosure, ATEX version or other on request.

The transmitter can be added on an existing level gauge.

Construction

Type	Transmitter 4-20 mA
Tube Guide	Stainless steel 316 L
Enclosures	IP65 aluminum as standard ADF Aluminum "d" Aluminum S.I. "ia" 316 L Stainless Steel "d" or "ia"
Construction	Vertical is Standard Angled optional **
Fastener	Stainless Steel Clamps
Modules Transmitters	Standard ATEX S. I. "ia" HART HART ATEX S.I. "ia" HART LIN HART LIN ATEX S.I. "ia" PR Type for CSA Approval
Max. Reading	5.5 m
Resolution	15 mm
Protection	IP65 - IP67
Max Temperature	+ 300°C (insulation from 120°C)

**** The angled version is mandatory**
when the level gauge is equipped with
a blowhole in the flange or when the
transmitter is reversed



Type 810

Transmitters / continuous measurement 4-20 mA

Transmitter Code T1 - T1/C

Protective Housing

Type	Square Standard
Dimensions (LxWxH)	80 mm x 75 mm x 57 mm
Material	Aluminum
Tube Guide	Ø 14 mm Stainless Steel 316 L
Connection	Cable gland PG9 Polyamide for cables Ø 6 to 11 mm
Protection	IP65 - 4 screws cap closure
Finishing	Polyester Paint

Type XT42 -NIV (standard)

Output	4-20 mA 2 wires
Maximum Measurement	5.5 m
Power Supply	12 V < U < 30 V
Temperature	-20°C < T < 70°C
Precision	0.15% full scale
Resolution	15 mm

Option	Stainless steel housing code T20 - T20/C
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Transmitter Code T2 – T2/C

Protective Housing

Type	Intrinsic Safety ("ia") *
Dimensions (LxWxH)	See diagram opposite
Tube Guide	Ø 14 mm 316 L Stainless Steel on brass fitting ¾" NPT
Connection	Cable gland PG9 Exe blue Polyamide For cables Ø 5 to 8 mm
Protection	IP65
Finishing	Ash epoxy paint finish
Approval	ATEX NO. LCIE05ATEX6034X
Marking **	II 1 G ExiallCT6/T5/T4Ga/Gb
Electrical Parameters	$U_i \leq 30V$; $I_i \leq 101mA$; $P_i \leq 758mW$ Or $U_i \leq 28,4V$; $I_i \leq 116mA$; $P_i \leq 824mW$ $C_i = 0nF$; $L_i = 0mH$
Temperatures	T6: Ta= 50°Cmax. / T5: Ta=65°Cmax. T4: Ta= 80°Cmax.
Rating Plate	In accordance with existing regulations

Type XT42-NIV S.I

Output	4-20 mA - 2 wires
Maximum Measurement	5.5 m
Power Supply	12 V < U < 30 V
Temperature	-20°C < T < 65°C
Precision	0.15% full scale
Resolution	15 mm


ATEX Approval	Intrinsic Safety ("ia") *
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* The transmitter module must be chosen from among the ATEX models certified by S. I.

Transmitter Code T4 –T4/C

Protective Housing

Type	B4 - Flameproof (ADF "d")
Dimensions (LxWxH)	See diagram opposite
Material	Aluminum
Tube Guide	Ø 14 mm 316 L Stainless Steel on brass fitting ¾" NPT
Connection	Cable gland ¾"NPT for cables Ø 6 to 14 mm (supplied) Certified ADF ATEX ("d")
Protection	IP65/66 - Screw cap cover
Finishing	Aluminum paint
Approval	ATEX NO. LCIE01ATEX6060X
Marking ***	 II 2G ExdIICT6Gb
Electrical Parameters	Max Power.: 230 V Max Current. : 15 A Max Power loss. : 20 W Ta = - 40°C at + 75°C
Temperatures	
Rating Plate	In accordance with existing regulations



Type XT42 -NIV (standard)

Output	4-20 mA 2 wires
Maximum Measurement	5.5 m
Power Supply	12 V < U < 30 V
Temperature	-20°C < T < 70°C
Precision	0.15% full scale
Resolution	15 mm



Transmitter Code T5 – T5/C

Protective Housing

Type	Square Standard
Dimensions (LxWxH)	80 mm x 75 mm x 57 mm
Material	Aluminum
Tube Guide	Ø 14 mm Stainless Steel 316 L
Connection	Cable gland PG9 Polyamide for cables Ø 6 to 11 mm
Protection	IP65 - 4 screws cap closure
Finishing	Polyester Paint

Type XT43-H-NIV

Output	4-20 mA 2 wires
Maximum Measurement	5.5 m
Power Supply	9.5 V < U < 30 V
Temperature	-20°C < T < 70°C
Precision	0.1% full scale
Resolution	15 mm
Protocol	HART
Acquisition	10/s
Limits	3.8 mA / 22 mA

Option	<i>Linearization Code T9 - T9/C</i> <i>Stainless steel housing code T23 - T23/C</i> <i>Stainless steel Housing+Linearization code T26- T26/C</i>
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*** The ATEX marking complies with the Directive 2014/34/UE, and certifies the ILS ramp and the enclosure.



Transmitter Code T6 – T6/C

Protective Housing

Type	Intrinsic Safety ("ia") *
Dimensions (LxWxH)	See diagram opposite
Tube Guide	Ø 14 mm 316 L Stainless Steel on brass fitting ¾" NPT
Connection	Cable gland PG9 Exe blue Polyamide For cables Ø 5 to 8 mm
Protection	IP65
Finishing	Ash epoxy paint finish
Approval	ATEX NO. LCIE05ATEX6034X
Marking **	II 1 G ExiaIICT6/T5/T4Ga/Gb
Electrical Parameters	Ui≤30V; li≤101mA; Pi≤758mW
	Or Ui≤28,4V; li≤116mA; Pi≤824mW Ci= 0nF ; Li= 0mH
Temperatures	T6: Ta= 50°Cmax. / T5:Ta=65°Cmax. T4: Ta= 80°Cmax.
Rating Plate	In accordance with existing regulations



*** The ATEX marking complies with the Directive 2014/34/UE, and certifies the transmitter, the ILS ramp and the enclosure.

Type XT 43-HART S.I.


Output	4-20mA 2 wires
Maximum Measurement	5.5 m
Power Supply	9.5 V < U < 30 V
Temperature	-20°C < T < 65°C
Precision	0.1% full scale
Resolution	15 mm
Protocol	HART
Acquisition	10/s
Limits	3.8 mA / 22 mA
ATEX Approval	Intrinsic Safety ("ia") *

Option	<p>Linearization Code T10- T10/C</p> <p>Stainless steel housing code T24 - T24/C</p> <p>Stainless steel Housing+Linearization code T27- T27/C</p>
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Transmitter Code T7 –T7/C

Protective Housing

Type	B4 - Flameproof (ADF "d")
Dimensions (LxWxH)	See diagram opposite
Material	Aluminum
Tube Guide	Ø 14mm 316 L Stainless Steel on brass fitting ¾" NPT
Connection	Cable gland ¾"NPT for cables Ø 6 to 14mm (supplied) Certified ADF ATEX ("d")
Protection	IP65/66 - Screw cap cover
Finishing	Aluminum paint
Approval	ATEX NO. LCIE01ATEX6060X
Marking ***	 II 2G ExdIICT6Gb
Electrical Parameters	Max Power.: 230 V Max Current. : 15 A Max Power loss. : 20 W
Temperatures	Ta = - 40°C at + 75°C
Rating Plate	In accordance with existing regulations




Type XT43-H-NIV

Output	4-20mA 2 wires
Maximum Measurement	5.5 m
Power Supply	9.5 V < U < 30 V
Temperature	-20°C < T < 70°C
Precision	0.1% full scale
Resolution	15 mm
Protocol	HART
Acquisition	10/s
Limits	3.8 mA / 22 mA

Option	<i>Linearization Code T11 - T11/C</i> <i>Stainless steel Housing+Linearization code T25- T25/C</i> <i>Stainless steel Housing+Linearization code T28- T28/C</i>
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ISA Housing - 316 L Stainless Steel

Dimensions (Øxh)	Ø 103 mm, H=117 mm
Tube Guide	Ø 14mm Stainless Steel 316 L
Connection	Cable gland M20x1.5 Polyamide for cables Ø 5 to 9 mm
Protection	IP67- closing by screw cover
Finishing	Crude Stainless Steel
<i>ADF Certified version</i>	
Marking ***	 II 2G ExdIICT6 Gb
Approval	ATEX NO. LCIE01ATEX6060X
Connection	Cable gland M20x1.5 Certified ADF "d" Stainless Steel
Protection	IP67- closing by screw cover
Finishing	Crude Stainless Steel



Type 810

PVC Version // PVC-C// PVDF // PPH (On study)

Designed specifically for aggressive processes not incurred by a construction in stainless steel

PVC Version:

Connections : Rotating Flanges armed PP, PN10, DN25 with PVC clamps

Minimum density: $d=0.9$

Max Pressure at ambient temperature: 6 bars

(PxV < 25 for gas group I following the D. E. S P. 2014/68/EU)

Maximum allowable Temperature : < 60°C at atmospheric pressure

PPH Version :

Connections : Rotating Flanges armed PP, PN10, DN25 with PVC clamps

Minimum density: $d=0.9$

Max Pressure at ambient temperature: 6 bars

(PxV < 25 for gas group I following the D. E. S P. 2014/68/EU)

Maximum allowable Temperature : < 80°C at atmospheric pressure

PVDF Version:

Connections : Rotating Flanges armed PP, PN10, DN25 with PVC clamps

Minimum density: $d=0.9$

Max Pressure at ambient temperature: 6 bars

(PxV < 25 for gas group I following the D. E. S P. 2014/68/EU)

Maximum allowable Temperature : < 140°C at atmospheric pressure

Special design and sheathing in special materials on request

(Eg : 904L, Halar Coating, Hastelloy, etc.)



Type 810

Documentation

Document Code	Description
	Instruction Manual
D0	Material certificate 3.1 (except Float)
D1	NACE MR-01-075 Certificate
D2	Welding book (CODAP - ASME)
D3	Calculation note (CODAP-ASME)
D4A	Information Folder <ul style="list-style-type: none"> - Design report CODAP or ASME - Material certificate 3.1 - Hydraulic test certificate
D4B	Information Folder <ul style="list-style-type: none"> - Material certificate 3.1 - Hydraulic test certificate
D6	Dye Penetrant test HOUEDEC (Not certified COFREND-ASNT)
D7	Dye Penetrant 10% (Certified COFREND-ASNT)
D7A	Dye Penetrant 20% (Certified COFREND-ASNT)
D8	Radiographic test 10% (Certified COFREND-ASNT)
D8A	Radiographic test 20% (Certified COFREND-ASNT)
D9	Radiographic test 100% (Certified COFREND-ASNT)
D10	Point Zero (Certified COFREND-ASNT)
D11	Electronic documentation (CD-Rom - USB key)
D12	Technical drawing
D13	Hydraulic test certificate Material certificate 2.2
D14	ATEX mechanical certificate (Version 810VA only)

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