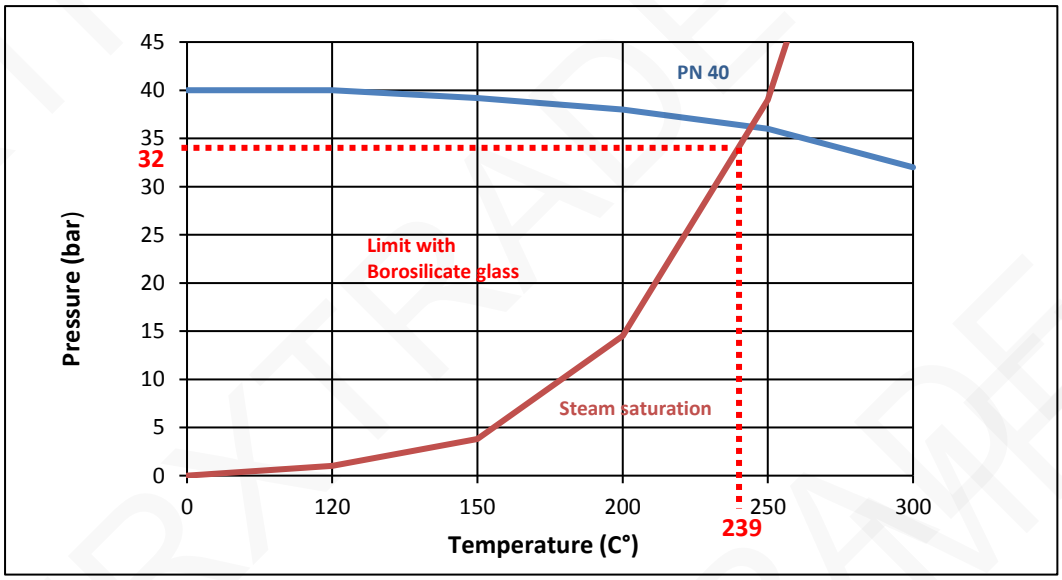
REFLEX STEEL LEVEL GAUGE RBF

FEATURES

The RBF level gauge with reflection glass is intended for the immediate visual indication of a level of liquid in a tank. The working principe is based on the diffraction of the light through a prism. In practice, for the user the liquid part will appear sinks there and the brilliant gaseous part. Of carbon steel standard construction, the level gauge suits perfectly for the level indication on steam boilers until 32 bar. It is equipped with one borosilicate glass following DIN 7081 standard type A. The level gauge RBF must be linked by two NX isolation valves. The connection of the valve is made throught smoother pipes Ø 16 mm allowing an adjustment of the center distance.

LIMITS OF USE

Max allowed fluid pressure : PS	40 bar to 20°C
Max allowed fluid temperature :TS	239°C with borosilicate glass
Use on saturated steam	32 bar to 239°C



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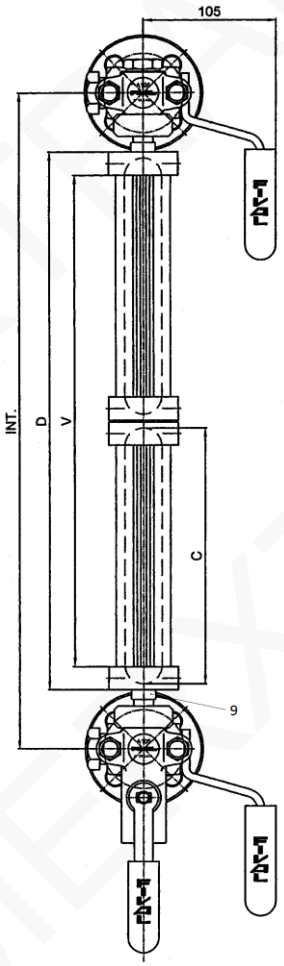
REFLEX STEEL LEVEL GAUGE RBF

REGULATIONS AND STANDARDS OF CONSTRUCTION

Item	Standard
Pressure equipment directive 2014/68	Excluded
Dimensions of the glass	DIN 7081
Steel materials	EN 1503-1

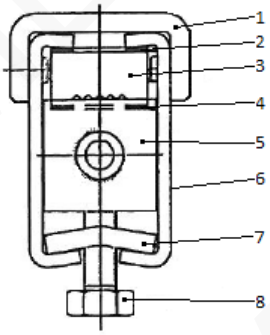


CONNECTION

Smooths nipples ø 16mm length 60mm.

CONSTRUCTION

N°	Item	Material
1	Stirrup	Carbon steel
2	Spacer	Fiber
3	Reflex glass	Borosilicate
4	Lower gasket	Stainless graphit
5	Body	Carbon steel
6	Cover	Carbon steel
7	Plate of tightening	Carbon steel
8	Bolts	Acier zingué grad. 8.8
9	Nipples	Stainless steel



DIMENSIONS (mm) AND WEIGHT (kg)

Size	3	4	5	6	7	8	9
Center distance INT	285	310	340	370	400	440	460
D	178	203	233	263	293	333	353
Visibility	141	166	196	226	256	296	313
C	165	190	220	250	280	320	340
Glass type	B	B	B	B	B	B	B
Weight (kg)	3,1	3,5	3,9	3,4	4,8	5,4	5,7

Size	2x4	2x5	2x6	2x7	2x8	2x9	3x6	3x7	3x8	3x9
Center distance INT	515	575	635	695	775	815	900	990	1110	1170
D	406	466	526	586	666	706	789	879	999	1059
Visibility	367	427	489	549	628	668	751	841	961	1021
C	190	220	250	280	320	340	250	280	320	340
GlassType	B	B	B	B	B	B	B	B	B	B
Weight (kg)	7	8	9,4	10,4	12,6	15,2	14,1	15,6	18,9	22,8

Size	4x7	4x8	4x9	5x7	5x8	5x9	6x8	6x9	7x9
Center distance INT	1285	1445	1525	1580	1780	1880	2115	2235	2590
D	1172	1332	1412	1465	1665	1765	1998	2118	2471
Visibility	1134	1294	1374	1427	1627	1727	1960	2080	2433
C	280	320	340	280	320	340	320	340	340
Glass type	B	B	B	B	B	B	B	B	B
Weight (kg)	21	25	31	26	32	38	38	46	53

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REFLEX STEEL LEVEL GAUGE RBF

MOUNTING AND USE

1 - Isolate the supply system of the level gauge and remove the indicator case from reflex of the installation.
2 - To install the borosilicate glass, begin by unscrewing in the order bolts bootstraps (Item 8) of the case and unscrew the screws of the stirrups of security (Item 1).
3 - Remove delicately both lids (Item 6) from the case to remove the reflexion glass (Item 3) damaged, the superior spacer (Item 2) and the lower joint (Item4).
4 - Clean the impact of gasket (Item 4). It is very important to take up a new gasket on the absolutely cleaned surface. (Never reuse old gasket).
5 - Mounting successively :
- Lower gasket (Item 4), glass with srooved face in contact with lover gasket (Item 3), superior spacer (Item2), Put back in position both lids (Item 6) of the case, and the stirrups of security (Item 1).
- Tighten the screws of stirrups (Item 1) of security.
- Tighten bolts bootstraps (Item 8).
- Never tighten the level gauge body in a vice but put it on a plane surface.
- Never use adhesives.
6 - Put back the assembly on the installation and open the supply system.

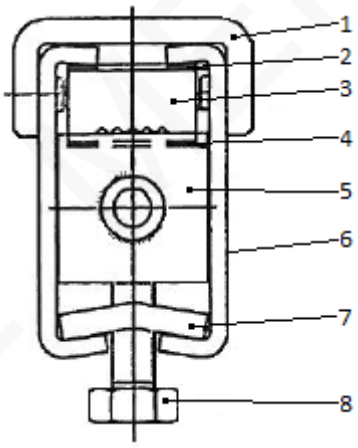
MAINTENANCE

1 - Visual control.
2 - Cleaning of glass (cloth).

INDICATIVE PLAN OF PLAN TIGHTENING :

Respect le torque of tightening indicated for level indicator.

For the RBF level gauge this torque value is 37 Nm



SPARE PARTS

1 - Glass borosilicate: FT 2350

OPTIONS

1 - Valves type NX : FT 2315
2 - Nipples (Item 9) : lenght 57,5 – 62 – 102 mm

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CARBON STEEL LEVEL GAUGE COCK TYPE NX

MAIN CHARACTERISTICS

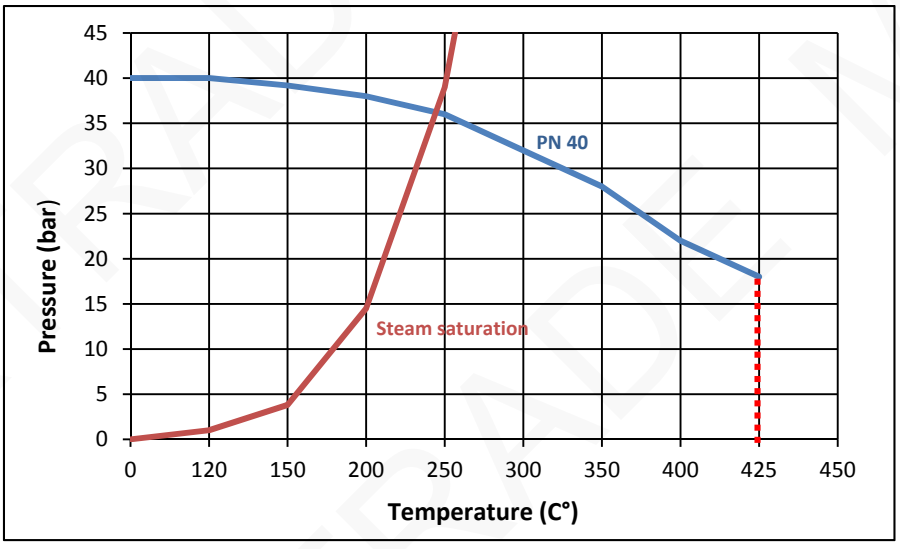
The level gauge cock valves NX are intended for the equipment of level indicators with tube or with glass with pipes of diameter 16mm. The tightening is made by cylindrical plug with graphite or PTFE rings. The lower valve is provided with a drain valve. Optional it can be provided with a ball of security and with a push-button.

AVAILABLE MODELS

BSP screwed end connections : G1/2", G3/4", and G1".
Flanges connections PN10, 16, 25, 40 - DN15, 20 and 25.
Flanges connections ANSI 150 RF - G1/2", G3/4" and G1".

LIMITS OF USE

Max allowed fluid pressure : PS	40 bar to 20°C
Max allowed fluid temperature : TS	-25°C to 425°C
Use on saturated steam	36 bar / 245°C



REGULATIONS AND STANDARDS OF CONSTRUCTION

Item	Standard
Pressure equipment directive 97/23	Excluded
Steel materials	EN 1503-1
BSP thread	ISO 228
Flanges	EN 1092-1

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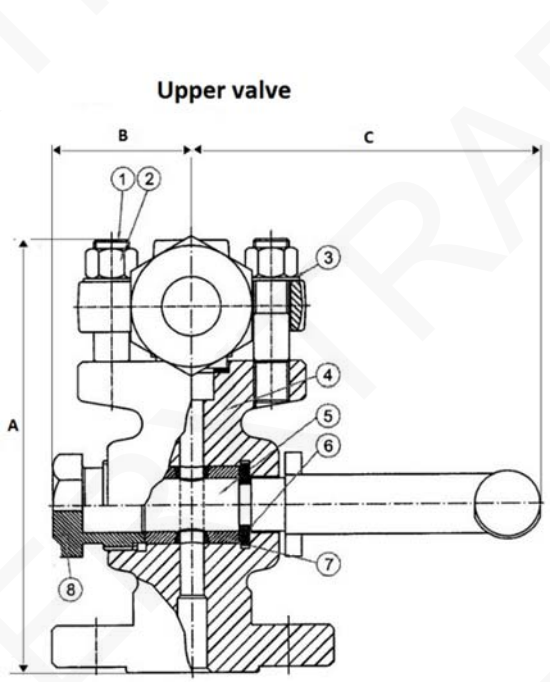
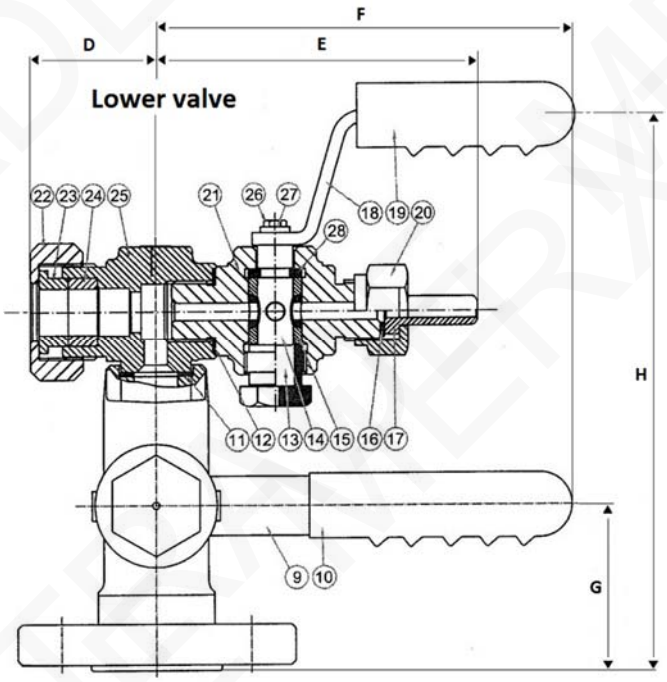
CARBON STEEL LEVEL GAUGE COCK TYPE NX

CONSTRUCTION

N°	Item	Material (steel type)	Material (stainless steel type)	Code pièce détachée
1	Bolt	B7 Carbon steel	B8 stainless steel	
2	Nut	2H Carbon steel	Gr 8 stainless steel	
3	washer	UNI 6592 Carbon steel	Stainless steel	
4	Body	A105N Carbon steel	Stainless steel 316	
5	plug F18	Stainless steel AISI 316	Stainless steel AISI 316	kit 986070 Included
6	Ring F18	Stainless steel AISI 316	Stainless steel AISI 316	kit 986070 Included
7	Packing sleeves F18,5	Graphite	Graphite	kit 986070 Included
8	Stuffing box F18	Carbon steel	Stainless steel 316	kit 986070 Included
9	Big cock handle	Carbon steel	Stainless steel 316	
10	Big cover handle	Nylon 66	Nylon 66	
11	Spirometallic gasket	Stainless steel / Graphite	Stainless steel / Graphit	
12	Ring thickneess	Stainless steel AISI 316	Stainless steel AISI 316	
13	Stuffing box F12	Stainless steel AISI 316	Stainless steel 316	kit 986070 Included
14	Plug F12	Stainless steel AISI 316	Stainless steel AISI 316	
15	Packing sleeves F12,2	Graphite	Graphite	kit 986070 Included
16	Gasket	Graphite	Graphite	kit 986070 Included
17	Connection pipe	Carbon steel	Stainless steel 316	
18	Little cock handle	Carbon steel	Stainless steel 316	
19	Little cock handle	Nylon 66	Nylon 66	
20	Drain cock cover	Carbon steel	Stainless steel 316	
21	Drain cock	A 105N Carbon steel	Stainless steel 316	
22	Connections cover	Carbon steel	Stainless steel 316	
23	Stuffing box ring	Carbon steel	Stainless steel 316	
24	Packing sleeves	Graphite	Graphite	kit 986070 Included
25	Stuffing box body	A 105N Carbon steel	Stainless steel 316	
26	Cap screw	UNI 5739 Carbon steel	UNI 5739 Carbon steel	
27	Washer	UNI 6592 Carbon steel	UNI 6592 Carbon steel	
28	Ring F12	Stainless steel AISI 316	Stainless steel AISI 316	kit 986070 Included





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CARBON STEEL LEVEL GAUGE COCK TYPE NX

DIMENSIONS (mm) AND WEIGHT (kg)

DN	Flanges EN 1092-1 PN 10/20/25/40 dimensions	Flanges ANSI 150 PN 20 dimensions	Thread Nbr	A	B	C	D	E	F	G	H
15	95	88,9	4	150	45	90	43	115	160	47	193
20	105	98,6	4	150	45	90	43	115	160	47	193
25	115	108	4	150	45	90	43	115	160	47	193
G 1/2"				150	45	90	43	115	160	47	193
G 3/4"				150	45	90	43	115	160	47	193
G 1"				150	45	90	43	115	160	47	193

DN	Item	Weight (kg) Flanges PN 40	Weight (kg) BSP thread	Weight (kg) Flanges ANSI 150
15	Upper valve	2,9	3	2,5
15	Upper valve with drain 1/2" M/M	3,3	3,6	2,9
15	Upper valve + lower + drain 1/2" M/M	6,1	6,6	5,4
20	Upper valve	3,1	3	2,7
20	Upper valve with drain 1/2" M/M	3,6	3,6	3,2
20	Upper valve + lower + drain 1/2" M/M	6,7	6,6	5,8
25	Upper valve	3,4	3	3
25	Upper valve with drain 1/2" M/M	3,8	3,6	3,5
25	Upper valve + lower + drain 1/2" M/M	7,2	6,6	6,5

MOUNTING

1 - Verify that the tank is empty.
2 - To install the valve of level NX, begin by choosing flange gasket of reins adapted in the conditions of use.
3 - Present and fix the lower valve with drain NX to the tank. Insert the gasket and the bolts (not supplied) and tighten.
4 - Then position the axis pipe of the indicator level case in the nut and the ring of guide of the lower valve with drain NX then tighten the nut.
5 - Then position the ring of guide of the upper valve NX in the axis pipe superior of the indicator level case, then tighten the nut.
6 - End the installation of the upper valve NX on the tank. Insert the gasket and the bolts (not supplied) and tighten.
7 - Open the system supply.

USE

1 - Close the opening of drain by means of the lower handle (Item 18).
2 - Open slowly the lower and upper valves NX by means of the handles (Item 9).

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CARBON STEEL LEVEL GAUGE COCK TYPE NX

MAINTENANCE

1 - Close both lower and upper valves NX of the supply by means of the handle (Item 9).
2 - Make decrease the pressure and the temperature to the ambient conditions.
3 - Open the valve of drain NX by means of the handle (Item 18), and drain down the fluid contained in the case of the level indicator. Close the valve drain.
4 - Verify the state of the rings in the valves. Replace them if need by means of kits planned for that purpose.
5 - Unscrew the nuts of the rings of guide of the lower and upper valve, to remove the case level indicator.
6 - Replace the case or change if so necessary the glasses.
7 - Replace the indicator level case on the rings of guide of the lower valves and upper NX.
8 - Tighten the nuts of the rings of guide.
9 - Open slowly the lower and upper valves NX by means of the handles (Item 9).

SPARE PARTS

N°	Item	Code
	Drain valve alone	986050
	Nipples ø 16mm L : 57,5mm + joint	986053
	Nipples ø 16mm L : 72mm + joint	986054
	Nipples ø 16mm L : 102mm + joint	986055
24	Graphite ring F16 - ø 16mm – H : 10mm	986060
24	PTFE ring F16 - ø 16mm – H : 10mm	986061
15	Packing sleeves graphite F12,2 - øE 18 - øI 12 - 2 orifices	986063
7	Packing sleeves graphite F18,2 - øE 26 - øI 18 - 2 orifices	986064
15	Packing sleeves PTFE F12,2 - øE 18 - øI 12 - 2 orifices	986065
7	Packing sleeves PTFE F18,2 - øE 26 - øI 18 - 2 orifices	986066
5, 6, 7, 8, 13, 15, 16, 24, 28	Complete gasket's Kit NX	986070

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