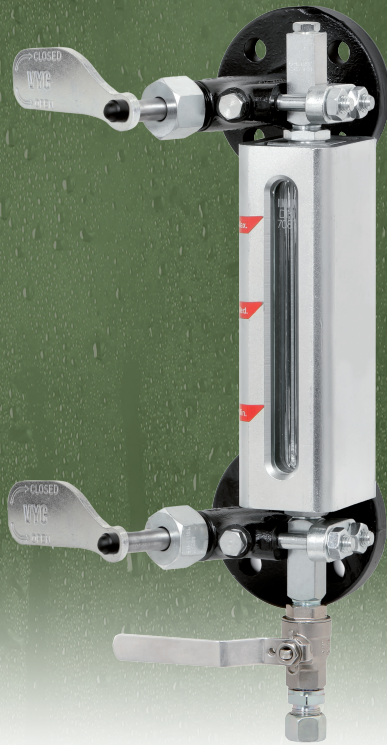


Square-dowel level indicator



Level gauges Model 466
Level indicator box Model 166-EC



EN ASME/ANSI

For use in boilers, receivers, cisterns, reservoirs, ...etc., to control the level of liquids, gases and steam. A multiple-slot polyprismatic viewer allows the level to be optically read, clearly differentiating liquid and gas phases from liquid ones.

Specifications

- Level gauges with replaceable floating or mobile needle seal and safety ball. Should the viewer break a pressure imbalance is caused which moves the ball onto the seating preventing the fluid from flowing out.
- Gauge activation by means of a fast control lever.
- Indiscriminate gauge assembly with lever on the right or on the left.
- Seals are highly tightness, exceeding the requirements of the EN 12266-1.
- Gauges and level indicator box with draining plugs allowing crystals and sediments to be thoroughly cleaned out by inserting a \varnothing 7 mm. rod.
- Box easily attached with flanges, facilitating maintenance without needing to take gauges apart even when operational. Has no glands avoiding irrecoverable losses of fluid in these areas. Can be positioned at 360°.
- Maximum, medium and minimum level optical mobile indicators.
- Boron silicate viewer with the special feature that if accidentally broken it is not shed out in pieces.
- Greater reading area than in the round-dowel system, at the same distance between flange centre.

IMPORTANT

We advise you to perfect the system with a cleaning valve, 3/8" Mod. 999 connected to the draining tube, in order to check the level indicator and its state of cleanliness periodically.

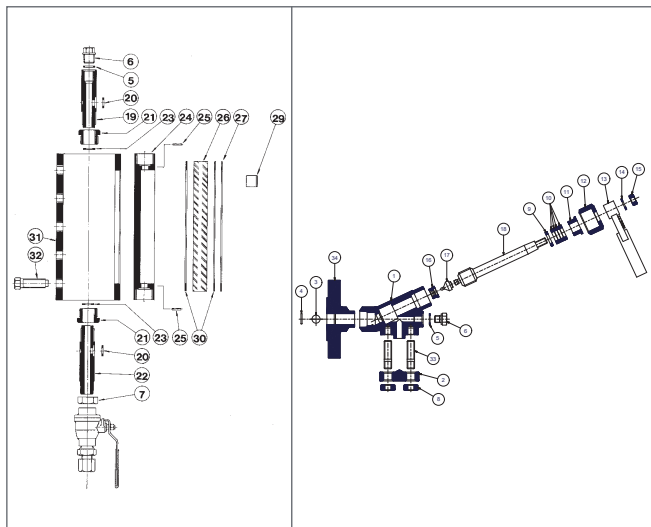
In steam boilers and other receivers with fluids that precipitate carry out at least one 2 ÷ 3 second cleaning session at 8 hour intervals.

Depending on demand:

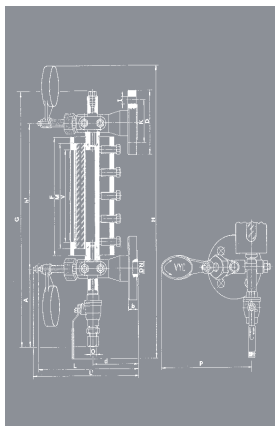
- Possibility of manufacture in other types of material, for use in special working conditions (high temperatures, fluids, etc.).
- Special gaskets.
- Transparent viewers with mica plates, recommendable for temperatures exceeding 250° C.
- Boxes with special dowels for other distances between flange centres.
- Link boxes for viewing long levels.

N° PIECE	PIECE	MATERIAL																	
		CAST STEEL				CAST STEEL				STAINLESS STEEL									
1	Body	Cast steel (EN-1.0619)				Cast steel (EN-1.0619)				S. steel (EN-1.4408)									
2	Flange	Cast steel (EN-1.0619)				Cast steel (EN-1.0619)				S. steel (EN-1.4408)									
3	Safety ball	S. steel (EN-1.4401)				S. steel (EN-1.4401)				S. steel (EN-1.4401)									
4	Safety ring	S. steel (EN-1.4310)				S. steel (EN-1.4310)				S. steel (EN-1.4310)									
5,23	Coupling	Aluminium / Copper				Aluminium / Copper				PTFE (Teflón)									
6	Screw	Carbon steel (EN-1.1151)				Carbon steel (EN-1.1151)				S. steel (EN-1.4401)									
7	Cap	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
8,15	Nut	Carbon steel (EN-1.1141)				Carbon steel (EN-1.1141)				S. steel (EN-1.4401)									
9	Ring	S. steel (EN-1.4401)				S. steel (EN-1.4401)				S. steel (EN-1.4401)									
10	Seal	Graphite				Graphite				PTFE (Teflón)									
11	Gland	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
12	Gland nut	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
13	Lever	Carbon steel (EN-1.0037)				Carbon steel (EN-1.0037)				Carbon steel (EN-1.0037)									
14	Washer	Carbon steel (EN-1.1141)				Carbon steel (EN-1.1141)				S. steel (EN-1.4401)									
16	Seating	S. steel (EN-1.4028)				S. steel (EN-1.4028)				S. steel (EN-1.4401)									
17	Seal	S. steel (EN-1.4401)				S. steel (EN-1.4401)				S. steel (EN-1.4401)									
18	Shaft	S. steel (EN-1.4028)				S. steel (EN-1.4028)				S. steel (EN-1.4401)									
19	Upper dowel	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
20	Coupling	Copper				Copper				PTFE (Teflón)									
21	Double screw	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
22	Lower dowel	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
24	Box	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
25	Gudgeon	Carbon steel (EN-1.1231)				Carbon steel (EN-1.1231)				S. steel (EN-1.4310)									
26	Viewer	Boron-Silicate				Boron-Silicate				Boron-Silicate									
27	Reglet	S. steel (EN-1.4401)				S. steel (EN-1.4401)				S. steel (EN-1.4401)									
29	Indicator arrow	Aluminium				Aluminium				Aluminium									
30	Coupling	Klingerit cardboard / Graphite				Klingerit cardboard / Graphite				Klingerit cardboard / Graphite									
31	Body	Carbon steel (EN-1.0570)				Carbon steel (EN-1.0570)				S. steel (EN-1.4408)									
32	Screw	Carbon steel (EN-1.1191)				Carbon steel (EN-1.1191)				S. steel (EN-1.4401)									
33	Stud	Carbon steel (EN-1.1181)				Carbon steel (EN-1.1181)				S. steel (EN-1.4401)									
34	Flange	Carbon steel (EN-1.0460)				Carbon steel (EN-1.0460)				S. steel (EN-1.4401)									
DN		20 and 25																	
PN		16				40				40									
OPERATING CONDITIONS	MAX. PRESSURE IN bar	16	14,8	13,3	12,1	10,2	9,5	40	37,1	33,3	30,4	25,7	23,8	40	40	33,7	31,8	28,5	27,4
	MAX. TEMP. IN °C	*RT	100	200	250	350	400	*RT	100	200	250	350	400	*RT	100	200	250	350	400

*Room Temperature (-10 °C a 50 °C)



LEVEL GAUGE		UPPER				LOWER											
DN		20		25		20		25									
NPS		3/4"		1"		3/4"		1"									
A		-		-		127		127									
L		165		88		165		88									
L1		180		182,50		180		182,50									
P		185		85		185		85									
d		83		85,50		83		85,50									
O		-		-		12		12									
CONNECTION		D	K	I	b	D	K	I	b	D	K	I	b	D	K	I	b
	EN 1092-1 PN-16/40	105	75	14	18	115	85	14	18	105	75	14	18	115	85	14	18
	ASME B16.5 150 lbs	100	69,90	15,90	13,20	110	79,40	15,90	14,70	100	69,90	15,90	13,20	110	79,40	15,90	14,70
	ASME B16.5 300 lbs	115	82,60	19,10	16,30	125	88,90	19,10	17,90	115	82,60	19,10	16,30	125	88,90	19,10	17,90
REDUCED PITCH Ø		15				15				15							
DRILLS N°.		4				4				4							
WEIGHT IN kgs.	CAST STEEL	2,30				2,53				2,30				2,53			
	STAINL. STEEL	2,30				2,53				2,30				2,53			
CODE 2101-466.	CAST STEEL PN-16	5344				5104				5344				5104			
	CAST STEEL PN-40	8344				8104				8344				8104			
	STAINL. STEEL PN-40	8342				8102				8342				8102			
	CAST STEEL 150#	53441				51041				53441				51041			
	CAST STEEL 300#	83442				81042				83442				81042			
	STAINL. STEEL 150#	83421				81021				83421				81021			
	STAINL. STEEL 300#	83422				81022				83422				81022			



N°. LEVEL INDICATOR BOX		0	I	II	III	IV	V	VI	VII	VIII	IX	X
h1		160	180	205	230	255	285	320	345	385	405	435
V		75	95	120	145	170	200	230	260	300	320	350
M		95	115	140	165	190	220	250	280	320	340	370
F		115	135	160	185	210	240	275	300	340	360	390
G		337	357	382	407	432	462	497	522	562	582	612
H		413	433	458	483	508	538	573	598	638	658	688
WEIGHT IN kgs.	CARBON STEEL. PN-16	2,84	3,30	3,89	4,40	4,97	5,59	6,20	6,79	7,40	7,80	8,40
	CARBON STEEL. PN-40	2,84	3,30	3,89	4,40	4,97	5,59	6,20	6,79	7,40	7,80	8,40
	STAINLESS STEEL. PN-40	2,98	3,39	4,05	4,46	5,11	5,80	6,60	7,00	7,80	8,40	9,00
CODE 2101-166.	CARBON STEEL. PN-16	51840	51841	51842	51843	51844	51845	51846	51847	51848	51849	5184
	CARBON STEEL. PN-40	81840	81841	81842	81843	81844	81845	81846	81847	81848	81849	8184
	STAINLESS STEEL. PN-40	81820	81821	81822	81823	81824	81825	81826	81827	81828	81829	8182