

Square-dowel level indicator



EN

Level gauges Model 466
Level indicator box Model 166-EC



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.

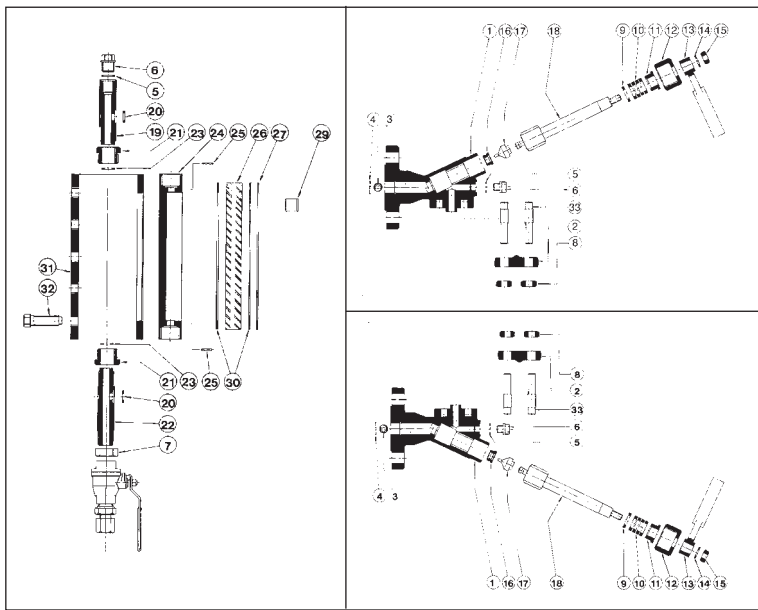
Depending on demand:

- 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.

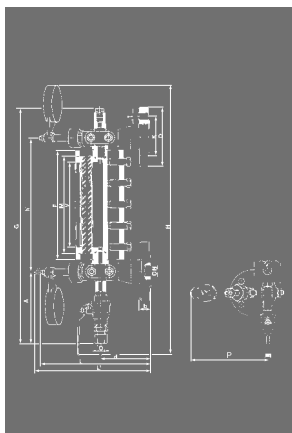
Light boxes for viewing long levels.

Nº. PIECE	PIECE	MATERIAL				
		CAST IRON	NODULAR IRON	CAST STEEL	STAINLESS STEEL	
1	Body	Cast iron (EN-5.1301)	Nodular iron (EN-5.3106)	Cast steel (EN-1.0619)	S. steel (EN-1.4408)	
2	Flange	Cast steel (EN-1.0619)	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)	S. steel (EN-1.4401)	
4	Safety ring	S. steel (EN-1.4310)	S. steel (EN-1.4310)	S. steel (EN-1.4310)	S. steel (EN-1.4310)	
5/23	Coupling	Aluminium / Copper	Aluminium / Copper	Aluminium / Copper	PTFE (Teflón)	
6	Screw	Carbon steel (EN-1.1151)	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)	Carbon steel (EN-1.1191)	S. steel (EN-1.4401)	
8/15	Nut	Carbon steel (EN-1.1141)	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)	S. steel (EN-1.4401)	
10	Seal	Graphite	Graphite	Graphite	PTFE (Teflón)	
11	Gland	Carbon steel (EN-1.1191)	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)	Carbon steel (EN-1.1191)	S. steel (EN-1.4401)	
13	Lever	Nodular iron (EN-5.3106)	Nodular iron (EN-5.3106)	Nodular iron (EN-5.3106)	Nodular iron (EN-5.3106)	
14	Washer	Carbon steel (EN-1.1141)	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-1.4028)	S. steel (EN-1.4401)	
17	Seal	S. steel (EN-1.4401)	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-1.4028)	S. steel (EN-1.4401)	
19	Upper dowel	Carbon steel (EN-1.1191)	Carbon steel (EN-1.1191)	Carbon steel (EN-1.1191)	S. steel (EN-1.4401)	
20	Coupling	Copper	Copper	Copper	PTFE (Teflón)	
21	Double screw	Carbon steel (EN-1.1191)	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)	Carbon steel (EN-1.1191)	S. steel (EN-1.4401)	
24	Box	Carbon steel (EN-1.1191)	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)	Carbon steel (EN-1.1231)	S. steel (EN-1.4310)	
26	Viewer	Boron-Silicate	Boron-Silicate	Boron-Silicate	Boron-Silicate	
27	Reglet	S. steel (EN-1.4401)	S. steel (EN-1.4401)	S. steel (EN-1.4401)	S. steel (EN-1.4401)	
29	Indicator arrow	Aluminium	Aluminium	Aluminium	Aluminium	
30	Coupling	Klingerit cardboard / Graphite	Klingerit cardboard / Graphite	Klingerit cardboard / Graphite	Klingerit cardboard / Graphite	
31	Body	Carbon steel (EN-1.0570)	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)	Carbon steel (EN-1.1191)	S. steel (EN-1.4401)	
33	Stud	Carbon steel (EN-1.1181)	Carbon steel (EN-1.1181)	Carbon steel (EN-1.1181)	S. steel (EN-1.4401)	

DN		20 and 25																		
PN		16				40				40				40						
OPERATING CONDITIONS	PRESSURE IN bar	16	13	13	13	40	35	32	28	24	40	35	32	28	24	21	40	34	32	29
	MAXIMUM TEMP. IN °C	120	200	250	300	120	200	250	300	350	120	200	250	300	350	400	120	200	300	400
	MINIMUM TEMP. IN °C	-10				-20				-29				-60						



LEVEL GAUGE		UPPER		LOWER	
DN		20	25	20	25
A		—	—	127	127
L		165	165	165	165
L ¹		180	180	180	180
P		185	185	185	185
d		83	83	83	83
O		—	—	12	12
PN-16 EN-1092-2 PN-40 EN-1092-2 EN-1092-1	D	105	115	105	115
	K	75	85	75	85
	I	14	14	14	14
	b	16	16	16	16
PN-16		18	18	18	18
PN-40		18	18	18	18
REDUCED PITCH Ø		15	15	15	15
DRILLS N°.		4	4	4	4
WEIGHT IN Kgs.	CAST IRON	2,18	2,39	2,18	2,39
	NODULAR IRON	2,20	2,42	2,20	2,42
	CAST STEEL	2,30	2,53	2,30	2,53
STAINLESS STEEL		2,30	2,53	2,30	2,53
CODE 2101-466	CAST IRON	5346	5106	5346	5106
	NODULAR IRON	8346	8106	8346	8106
	CAST STEEL	8344	8104	8344	8104
	STAINLESS STEEL	8342	8102	8342	8102



Nº. LEVEL INDICATOR BOX	0	I	II	III	IV	V	VI	VII	VIII	IX	X	
h ¹	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	8,40	
	CARBON STEEL. PN-40	2,84	3,30	3,89	4,40	4,97	5,59	6,20	6,79	7,40	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