

Round-dowel level indicator



NE

Level gauges Model 666
Level indicator box Model 166-ER



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 DIN-3230 norms. Page 3.
- Gauges with draining plugs allowing crystals and sediments to be thoroughly cleaned out by inserting a \varnothing 7 mm. rod.
- The round-dowell system, in certain applications, allows the level indicator box to be replaced with a \varnothing 20 mm. glass tube.
- Level box which can be positioned at any angle in the 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.

IMPORTANT

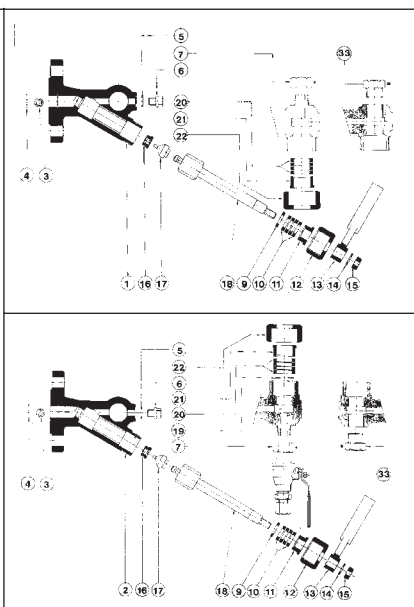
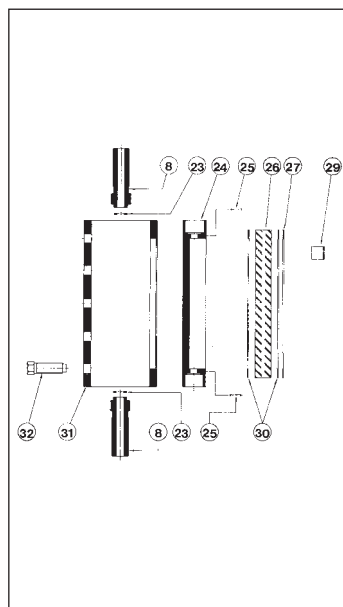
When assembling remove the washer (19) of the gauge operating as the upper one. We advise you to perfect the system with a cleaning valve, 3/8" Mod. 999 connected to the draining tube, in order to check the level indicator and its state of cleanliness periodically.

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

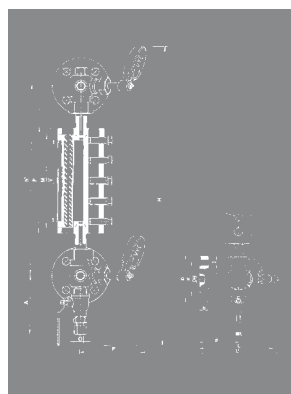
Depending on demand:

- 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.
- Possibility to replace the level indicator box for \varnothing 20 mm. glass tube and to fit it out with a protective pipe in case that it should be necessary.
- Boxes with special dowels for other distances between flange centres.
- Link boxes for viewing long levels.

| Nº. PIECE | PIECE | MATERIAL | | | | | | | | | | | | | | | | | | |
|----------------------|---------------------|--------------------------------|-----|-----|-----|--------------------------------|-----|-----|-----|--------------------------------|-----|-----|-----|--------------------------------|-----|-----|-----|-----|-----|-----|
| | | CAST IRON | | | | NODULAR IRON | | | | CAST STEEL | | | | STAINLESS STEEL | | | | | | |
| 1,2 | Body | Cast iron (EN-JL1040) | | | | Nodular iron (EN-JS1030) | | | | Cast steel (EN-1.0619) | | | | Stainless steel (EN-1.4408) | | | | | | |
| 3 | Safety ball | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 4 | Safety ring | Stainless steel (EN-1.4310) | | | | Stainless steel (EN-1.4310) | | | | Stainless steel (EN-1.4310) | | | | Stainless 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) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 7,33 | Cover*/Cap* | Carbon steel (EN-1.1181)* | | | | Carbon steel (EN-1.1181)* | | | | Carbon steel (EN-1.1191)* | | | | Stainless steel (EN-1.4401)* | | | | | | |
| 8 | Dowel | Stainless steel (EN-1.4305) | | | | Stainless steel (EN-1.4305) | | | | Stainless steel (EN-1.4305) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 9 | Ring | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 10,20 | Seal | Graphite | | | | Graphite | | | | Graphite | | | | PTFE (Teflón) | | | | | | |
| 11,21 | Gland | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 12,22 | Gland nut | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 13 | Lever | Nodular iron (EN-JS1030) | | | | Nodular iron (EN-JS1030) | | | | Nodular iron (EN-JS1030) | | | | Nodular iron (EN-JS1030) | | | | | | |
| 14 | Washer | Carbon steel (EN-1.1141) | | | | Carbon steel (EN-1.1141) | | | | Carbon steel (EN-1.1141) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 15 | Nut | Carbon steel (EN-1.1141) | | | | Carbon steel (EN-1.1141) | | | | Carbon steel (EN-1.1141) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 16 | Seating | Stainless steel (EN-1.4028) | | | | Stainless steel (EN-1.4028) | | | | Stainless steel (EN-1.4028) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 17 | Seal | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 18 | Shaft | Stainless steel (EN-1.4028) | | | | Stainless steel (EN-1.4028) | | | | Stainless steel (EN-1.4028) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 19 | Washer | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 24 | Box | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Stainless steel (EN-1.4401) | | | | | | |
| 25 | Gudgeon | Carbon steel (EN-1.1231) | | | | Carbon steel (EN-1.1231) | | | | Carbon steel (EN-1.1231) | | | | Stainless steel (EN-1.4310) | | | | | | |
| 26 | Viewer | Boron-Silicate | | | | Boron-Silicate | | | | Boron-Silicate | | | | Boron-Silicate | | | | | | |
| 27 | Reglet | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless steel (EN-1.4401) | | | | Stainless 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) | | | | Stainless steel (EN-1.4408) | | | | | | |
| 32 | Screw | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Carbon steel (EN-1.1191) | | | | Stainless steel (EN-1.4401) | | | | | | |
| DN | | 20 | | | | | | | | | | | | | | | | | | |
| 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 | 20 | 25 |
| A | | — | — | 110 | 110 | — | — |
| L | | 165 | 165 | 165 | 165 | — | — |
| L1 | | 180 | 180 | 180 | 180 | — | — |
| P | | 155 | 155 | 155 | 155 | — | — |
| d | | 87 | 87 | 87 | 87 | — | — |
| O | | — | — | 12 | 12 | — | — |
| PN-16 EN-10922 PN-40 EN-10922 EN-1092-1 | D | 105 | 115 | 105 | 115 | — | — |
| | K | 75 | 85 | 75 | 85 | — | — |
| | I | 14 | 14 | 14 | 14 | — | — |
| | b | PN-16 | 16 | 16 | 16 | 16 | — |
| PN-40 | | 18 | 18 | 18 | 18 | — | — |
| REDUCED PITCH Ø | | 15 | 15 | 15 | 15 | — | — |
| DRILLS N°. | | 4 | 4 | 4 | 4 | — | — |
| WEIGHT IN Kgs. | CAST IRON | 2,35 | 2,58 | 2,27 | 2,49 | — | — |
| | NODULAR IRON | 2,35 | 2,58 | 2,28 | 2,50 | — | — |
| | CAST STEEL | 2,55 | 2,80 | 2,50 | 2,75 | — | — |
| | STAINLESS STEEL | 2,55 | 2,80 | 2,50 | 2,75 | — | — |
| CODE 2101-666. | CAST IRON | 53461 | 51061 | 53462 | 51062 | — | — |
| | NODULAR IRON | 83461 | 81061 | 83462 | 81062 | — | — |
| | CAST STEEL | 83441 | 81041 | 83442 | 81042 | — | — |
| | STAINLESS STEEL | 83421 | 81021 | 83422 | 81022 | — | — |



| Nº. LEVEL INDICATOR BOX | 0 | I | II | III | IV | V | VI | VII | VIII | IX | X | |
|-------------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| h ¹ | 285 | 305 | 330 | 355 | 380 | 410 | 445 | 470 | 510 | 530 | 560 | |
| 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 | |
| H | 518 | 538 | 563 | 588 | 613 | 643 | 678 | 703 | 743 | 763 | 793 | |
| 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 | 53440 | 53441 | 53442 | 53443 | 53444 | 53445 | 53446 | 53447 | 53448 | 53449 | 5344 |
| | CARBON STEEL PN-40 | 83440 | 83441 | 83442 | 83443 | 83444 | 83445 | 83446 | 83447 | 83448 | 83449 | 8344 |
| | STAINLESS STEEL PN-40 | 83420 | 83421 | 83422 | 83423 | 83424 | 83425 | 83426 | 83427 | 83428 | 83429 | 8342 |