

## weld-on level gauges

This type of level gauge is designed to be welded on to the tank and withstand the pressure inside it.

It is made from both carbon steel and stainless steel and can take reflex and transparent glasses. Reflex glasses are recommended as they improve visibility.

In order to prevent warping or distortions while the level gauge is in service, the technician tasked with installing the product must reinforce the wall of the tank where the gauge is to be welded on.

For visible lengths exceeding 320 mm, we recommend welding additional gauges on different axes to avoid weakening the tank structure.

During welding operations (which must only be carried out prior to gauge assembly), special care must be taken to avoid exposing the weld-on base to high temperatures for long periods of time as this may compromise the resistance of the gauge when in operation.

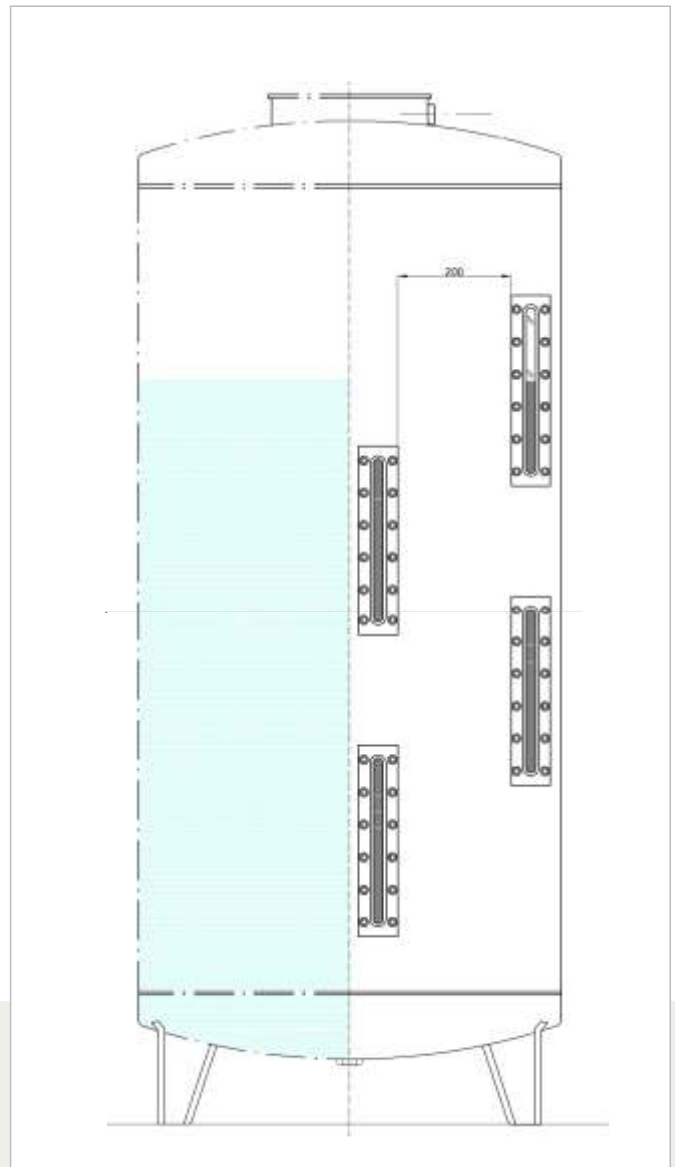
### Operating limits / Conditions:

Process:

Max. pressure: rating class 300 (A105: 51 bar; AISI 316L : 49,6 bar) @ 38°C

Max. temperature: 300°C (max. temperature allowed by borosilicate glasses as per the DIN 7081 standard - see page 1.69)

On request: rating class 600 (A105: 102 bar; AISI 316L : 99,3 bar) @ 38°C



## Materials / Specifications

### Weld-on base:

- standard: flat with a hole running along the whole visible length
- additional options: with radius (state the tank radius); with 2 holes ( $\varnothing$ : 15 mm) at the far ends of the visible length

### Wetted parts:

- standard: galvanized ASTM A105 or A105 LF2 carbon steel, ASTM A182 F316L stainless steel
- additional options: on request

### Non-wetted parts:

- standard: galvanized carbon steel, AISI 316L stainless steel
- additional options: on request

### Gaskets: (see page 1.71)

- standard: graphite
- additional options: PTFE; other extras on request

### Glasses: (see page 1.69)

- reflex or transparent borosilicate glasses, thermally pre-stressed and extra hard as per the DIN 7081 standard

### **Spare parts:**

**Our spare parts are interchangeable with those of major international manufacturers.**

For the full range of complete sets, turn to the spares section on page 1.69.

### **Accessories:**

Mica or PCTFE protective shield (for transparent glass only), calibrated scale, non-frosting extension, minimum level arrow (see page 1.55 for details)

### **Certifications (on request):**

- NACE MR0175
- Others on request



**This kind of level gauge can only be tested once it has been welded on to the tank in question.**

**All DIESSE components are individually checked and tested in accordance with company quality procedures and the industry regulations currently in effect.**

**Certificates can be issued on request.**

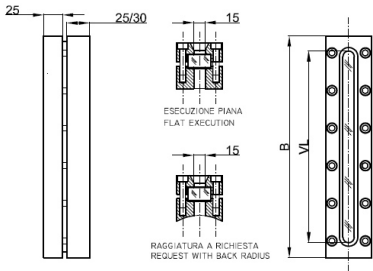
*Specifications and design can be subject to change without notice*

**WELD-ON GLASS LEVEL GAUGE  
REFLEX and TRANSPARENT  
PN40 / Class 300**

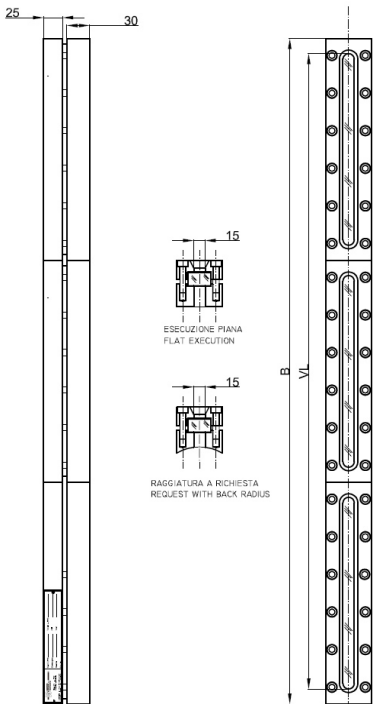
**DS LG - RCW / TCW**

Code: DS LG-RCW...-CS/CS  
Code: DS LG-TCW...-CS/CS

**REFLEX  
TRANSPARENT**



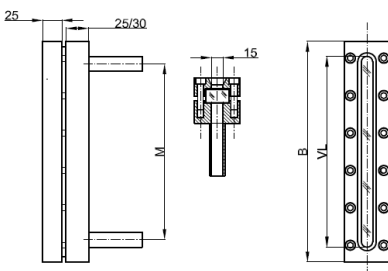
RCW/TCW



RCWM/TCWM

Code: DS LG-RCWSP...-CS/CS  
Code: DS LG-TCWSP...-CS/CS

**REFLEX  
TRANSPARENT**



RCWSP/TCWSP

**Technical data**

**Service conditions**

Max Pressure: PN40; Class 300 (A105: 51 bar @ 38°C; AISI 316L: 49,6 bar @ 38°C)  
Option: PN100; Class 600 (A105: 102 bar @ 38°C; AISI 316L: 99,3 bar @ 38°C)  
Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

**Total length**

Standard: see below table  
Option: On request intermediate lengths and over 1.080 mm

**Process connections**

Standard: Drilling on the whole visible length  
Option: Two holes Ø 15 mm at the opposite ends of the visible length or two pipes welded at the centre-to-centre distance requested (see below drawing)

**Execution of housing to be weld**

Standard: flat  
Option: On request with back radius

**Materials (Standard)**

|               |           |           |           |
|---------------|-----------|-----------|-----------|
| Execution:    | CS/CS     | SS/CS     | SS/SS     |
| Housing body: | ASTM A105 | AISI 316L | AISI 316L |
| Cover:        | ASTM A105 | ASTM A105 | AISI 316L |

**Gaskets**

Standard: graphite      Option: PTFE

**Glasses**

Reflex and Transparent - Borosilicate glass, "extra hard" and thermally pre-stressed - According to DIN 7081  
Standard: fitted with type B (see page 1.69)  
Option: type A (see page 1.69)

**Accessories**

See from page 1.55

**Weights**

See below table

**Tightening torque of screws**

Standard: 25-30 Nm

**Spare parts**

See from page 1.69

**Recommendation**

For requested visible lengths over 320 mm, to avoid the tank structure weakness, it is recommended to weld on the tank more level gauges positioned on different axes

| CODE      | TYPE       | BODY Length [mm] | VISIBLE Length [mm] | GLASS Length [mm]     | WEIGHT Housing [Kg] |
|-----------|------------|------------------|---------------------|-----------------------|---------------------|
|           |            | <b>B</b>         | <b>VL</b>           | <b>x No. elements</b> |                     |
| <b>11</b> | <b>1</b>   | 130              | <b>95</b>           | 115                   | 2,5                 |
| <b>12</b> | <b>2</b>   | 155              | <b>120</b>          | 140                   | 3,0                 |
| <b>13</b> | <b>3</b>   | 180              | <b>145</b>          | 165                   | 3,4                 |
| <b>14</b> | <b>4</b>   | 205              | <b>170</b>          | 190                   | 3,9                 |
| <b>15</b> | <b>5</b>   | 235              | <b>200</b>          | 220                   | 4,7                 |
| <b>16</b> | <b>6</b>   | 265              | <b>230</b>          | 250                   | 5,1                 |
| <b>17</b> | <b>7</b>   | 295              | <b>260</b>          | 280                   | 5,6                 |
| <b>18</b> | <b>8</b>   | 335              | <b>300</b>          | 320                   | 6,0                 |
| <b>19</b> | <b>9</b>   | 360              | <b>320</b>          | 340                   | 6,9                 |
| <b>24</b> | <b>4x2</b> | 410              | <b>375</b>          | 190x2                 | 7,8                 |
| <b>25</b> | <b>5x2</b> | 470              | <b>435</b>          | 220x2                 | 9,4                 |
| <b>26</b> | <b>6x2</b> | 530              | <b>495</b>          | 250x2                 | 10,2                |
| <b>27</b> | <b>7x2</b> | 590              | <b>555</b>          | 280x2                 | 11,2                |
| <b>28</b> | <b>8x2</b> | 670              | <b>635</b>          | 320x2                 | 12,0                |
| <b>29</b> | <b>9x2</b> | 720              | <b>680</b>          | 340x2                 | 13,8                |
| <b>36</b> | <b>6x3</b> | 795              | <b>760</b>          | 250x3                 | 15,3                |
| <b>37</b> | <b>7x3</b> | 885              | <b>850</b>          | 280x3                 | 16,8                |
| <b>38</b> | <b>8x3</b> | 1005             | <b>970</b>          | 320x3                 | 18,0                |
| <b>39</b> | <b>9x3</b> | 1080             | <b>1040</b>         | 340x3                 | 20,7                |

Tab. RCW/TCW