

level gauges WITH GLASS TUBE

Level gauges with a glass tube are an inexpensive but valid option for checking the level of non-hazardous or non-reactive fluids in unpressurised tanks.

An external metal protection of the glass tube is recommended.

Available configurations:

Borosilicate glass tube. Diameter: 16 mm; thickness: 2.5 mm.

Centre-to-centre distance with a single tube: 3000 mm.

Visible length (without protection):
centre-to-centre distance - 95 mm.

Visible length (with protection):
centre-to-centre distance - 135 mm.

Spare glass tube: centre-to-centre distance - 30 mm.

Spare protection: centre-to-centre distance - 100 mm.

In the event of greater centre-to-centre distances, additional pipes can be connected up via middle terminals for glass tube

Operating limits / Conditions:

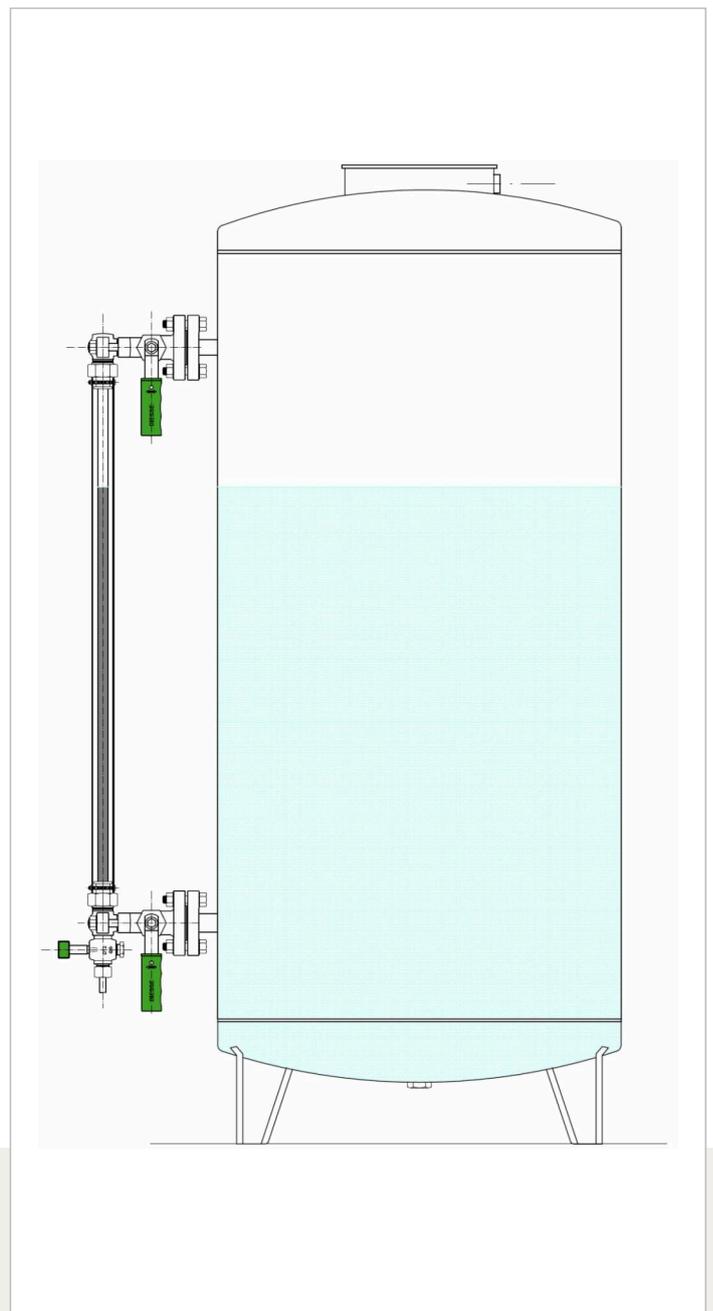
Process:

Max. pressure: 5 bar @ 38°C (the max. pressure also depends on the length and temperature)

Max. temperature: 120°C

The product is NOT suitable for use in the following instances:

- if it is likely to be exposed to vibrations (glass tube will break)
- if the installation is situated by a walkway (possibility of blows/impact)
- if exposed to steam (shortens glass tube life)



Materials / Specifications

Transparent tube: grade 3.3 borosilicate glass

Glass protection (optional): AISI 304 stainless steel

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 316/316L stainless steel
- additional options: on request

Gaskets: (see page 1.72)

Cocks:

- standard: graphite/copper (ASTM A105), graphite/AISI 316 (A105 LF2 and ASTM A182 F316L)
- additional options: PTFE; other extras on request

Sealing gasket:

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

Shut-off: (see page 1.49)

- standard: upper valve and lower valve (side/side)
- additional options: on request

Drain: (see page 1.50)

- standard: threaded valve
- additional options: on request

Vent: (see page 1.50)

- standard: blind
- additional options: threaded with plug; other extras on request

Tank connections:

Flanged:

- UNI standard: PN40 DN15 / DN20 / DN25
- ANSI standard: #150 DN ½" / ¾" / 1"
- additional options: on request

Threaded:

- BSP (GAS) standard: ½"-M / ¾"-M
- NPT standard: ½"-M / ¾"-M

Weld-on: from ½" to 1" BW or SW

Option: further connections type or direct connections to the process without shut-off cocks (see page 1.49 for more details)

Shut-off cocks, drain cock and vent cock:

- Cylindrical plug cocks

Spares:

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:

Stainless steel "U" protection, lower and/or upper safety ball, pusher for safety ball, calibrated, non-frosting extension, minimum level arrow, continuous reading, cocks handles lock (see page 1.55 for details)

Certifications (on request):

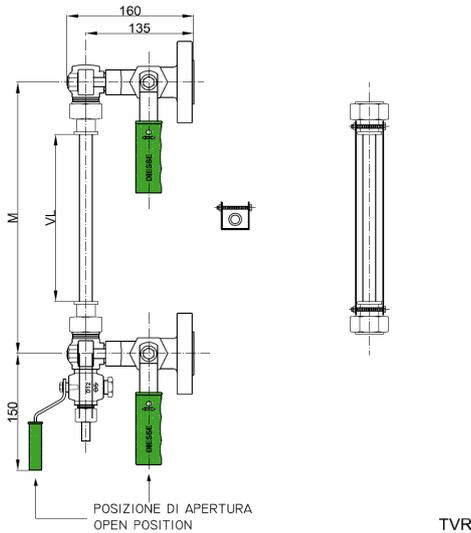
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For this kind of gauge the pressure test can be performed only on the cocks (on request), glass tubes cannot be tested due to their fragility. All DIESSE components are individually checked and tested in accordance with company quality procedures and the industry regulations currently in effect. Certificates can be issued on request.

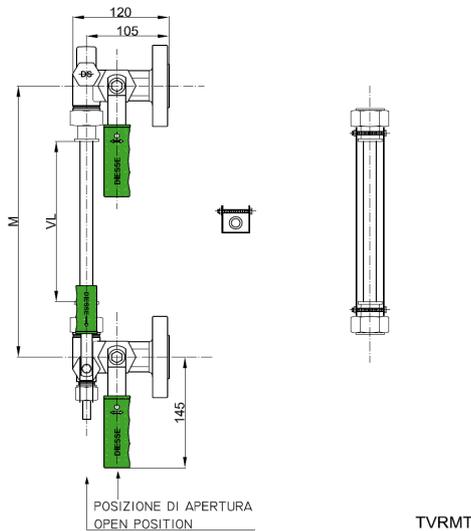
LEVEL GAUGE WITH GLASS TUBE AND "U" SHAPED PROTECTION

DS LG - TVR GR18 / MT18

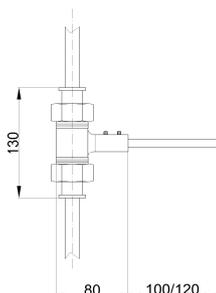
Code: DS LG-TVR... /16/RF-GR18/...-M...-CS/CS



Code: DS LG TVR... /16/RF-MT18/...-M...-CS/CS



MIDDLE TERMINAL
CODE: MJT



Technical data

Service conditions

Max Pressure: 5 barg (Max. pressure also function of the length and the temperature)
Max Temperature: 120°C

View

Standard: adjustable on 360° in the installation phase (Rotating the "U" shaped protection)

Distance (Centre-to-centre)

On request

Max with a single glass tube 3.000 mm

Option: on request are available distances over 3.000 mm using the middle terminals to connect more glass tubes

Visible length [VL]

With shut-off cocks DS GR18

- **With the "U" shaped protection**

Visible length [VL] = Centre-to-centre distance [M] - 135 mm (With extended stuffing box covers to fasten the "U" shaped protection)

- **Without protection**

Visible length [VL] = Centre-to-centre distance [M] - 95 mm (With standard stuffing box covers)

With shut-off cocks DS MT18

- **With the "U" shaped protection**

Visible length [VL] = Centre-to-centre distance [M] - 145 mm (With extended stuffing box covers to fasten the "U" shaped protection)

- **Without protection**

Visible length [VL] = Centre-to-centre distance [M] - 105 mm (With standard stuffing box cover)

Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Cocks body:	ASTM A105	AISI 316L	AISI 316L
Cocks trim:	AISI 303	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

Glass tube

Standard: borosilicate glass 3.3, Ø 16 mm, thickness 2,5 mm

Protection for glass tube (Option always recommended)

Standard: metal sheet "U" shaped in stainless steel AISI 304

Gaskets

Standard:	Cocks: graphite/copper	Glass sealing: EPDM
Option:	Cocks: graphite/AISI 316	Glass sealing: graphite
	Cocks: PTFE/AISI316	Glass sealing: PTFE

Shut-off cocks

DS GR18: cylindrical plug type - Straight type - Quick 90° closing

DS MT18: cylindrical plug type with monolithic body - Straight type - Quick 90° closing

Handling: lever operated with PP handle (Standard: right; Option: left)

Process connections:

Standard flanges:	UNI PN16/40 DN15-20-25	ANSI #150/RF DN 1/2" - 3/4" - 1"
Standard threaded unions:	BSP-M 1/2" - 3/4"	NPT-M 1/2" - 3/4"

Options: further connections types or direct connections to the process without cocks
(See page 1.49)

Vent: Standard: blind

Option: see page 1.50

Drain: Standard: cock DS D12 threaded 1/2"

Option: see page 1.50

Accessories

See from page 1.55

Weights

Cocks DS GR18: Kg. 7,4 approx. (With flanges UNI DN20 PN40)

Cocks DS MT18: Kg. 6,1 approx. (With flanges UNI DN20 PN40)

Spare parts

Glass tube: Length = Centre-to-centre distance [M] - 30 mm

Protection: Length = Centre-to-centre distance [M] - 100 mm

Cocks DS GR18: see from page 1.72

(Drawing with components and parts list see page 1.66)

Cocks DS MT18: see from page 1.64

(Drawing with components and parts list see page 1.67)

Utilization

The product is NOT suitable for use in the following instances:

- if it is likely to be exposed to vibrations (Glass tube will break)
- if the installation is situated by a walkway (Possibility of blows/impact)
- if exposed to steam (Shortens glass tube life)