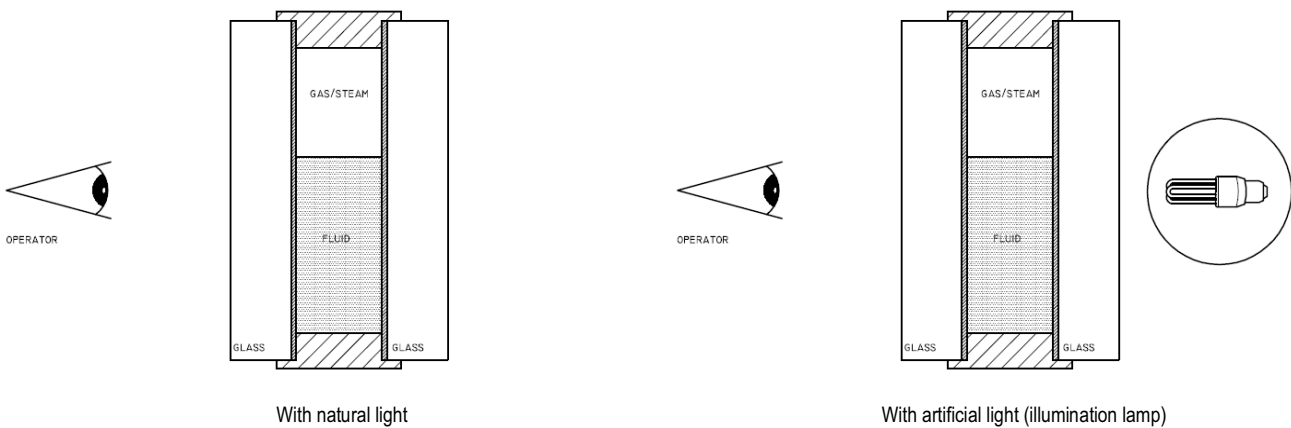


# TRASPARENT level gauges

In this kind of level gauge, the fluid is held between two smooth glasses. The level can be identified as the fluid has a different level of transparency compared to gases and steam.

The transparent level gauge is particularly recommended for applications where the glass needs to be protected from corrosive fluids and high temperatures. A lamp can also be fitted behind the gauge to improve visibility in special operating conditions.



The product line includes level gauges suitable for pressure ratings from PN10 to PN250 and a huge number of industrial process applications.

**This type of gauge is recommended:**

- for use with corrosive fluids (protective shield for the glass is required)
- for steam with an operating pressure > 20 bar (protective shield for the glass is required)
- if repeated thermal shocks are likely (protective shield for the glass is required)
- for checking the interface (level of separation between two immiscible fluids)
- for checking the colour of a fluid
- for dirty / oily fluids

**Operating limits / Conditions:**

Process:

Max. pressure: 255,5 bar @ 38°C (rating class 1500)

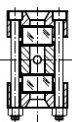
Max. temperature: 300°C (max. temperature allowed by borosilicate glasses as per the DIN 7081 standard - see page 1.69)

Steam: (see page 1.59)

Max. pressure: 70 bar

Max. temperature: 280°C

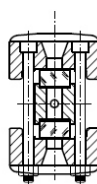
**Types:**



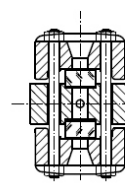
**PN25/40**  
Class 150/300



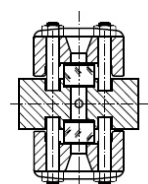
**PN40/64**  
Class 300



**PN64/100**  
Class 600



**PN100/160**  
Class 600/900



**PN250**  
Class 1500

## TRASPARENT level gauges

### Materials / Specifications:

#### Connections between housing and cocks:

- with grinded pipes and stuffing box (view can be turned can be positioned by the customer during installation)
- fixed centre-to-centre distance with metal seal (view can be turned can be positioned during manufacture)

#### 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 1.71)

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

#### Glasses: (see page 1.69)

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

#### 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 (for grinded pipes version)
- threaded with plug (for fixed centre-to-centre version)
- additional options: on request

### Tank connections:

#### Flanged:

- UNI standard: PN40 DN15 / DN20 / DN25
- ANSI standard: #150 / #300 / #600 DN 1/2" / 3/4" / 1"
- additional options: on request

#### Threaded:

- BSP (GAS) standard: 1/2"-M / 3/4"-M
- NPT standard: 1/2"-M / 3/4"-M

#### Weld-on: from 1/2" 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 (type GR18 or MT18 - see page 1.47)
- Globe valves (type SHV - see page 1.48)
- Push-button valves (type NPV - see page 1.48)
- Ball valves (type SBB)

### 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 the glass, flameproof and watertight illumination lamp (ATEX approved), lower and/or upper safety ball, pusher for safety ball, calibrated scale, non-frosting extension, minimum level arrow, continuous reading, cocks handles lock (see page 1.55 for details)

### Certifications (On request):

- ATEX
- Tests and inspection by Notified Bodies
- NACE MR0175
- Others on request

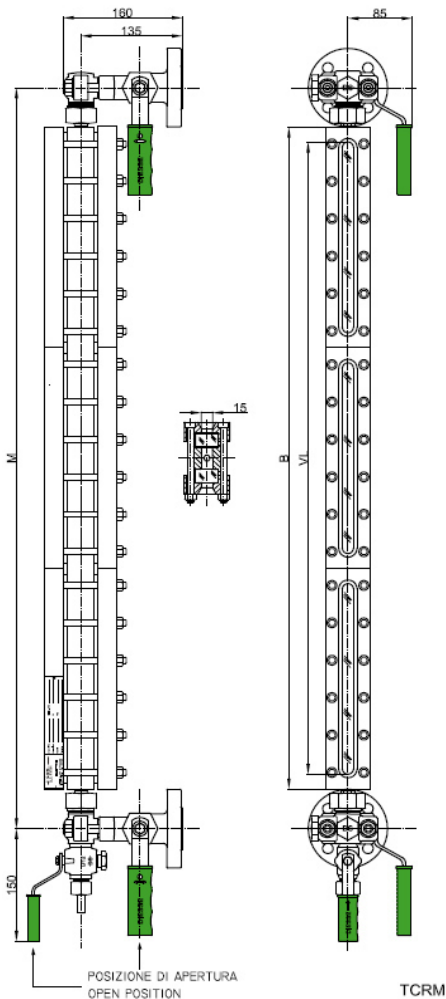
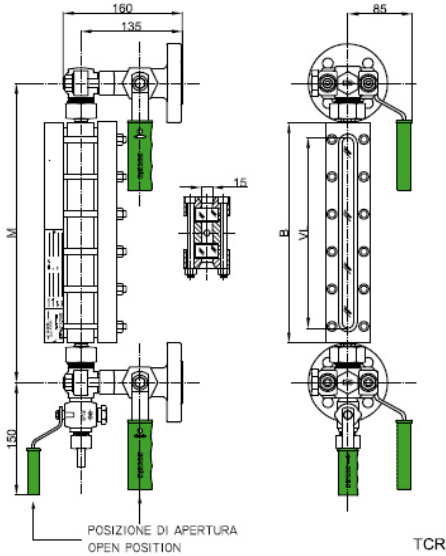
**All DIESSE products are individually checked and tested in accordance with company quality procedures and the industry regulations currently in effect.**

**Certificates can be issued on request.**

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN25 and PN40

### DS LG - TCR GR18

Code: DS LG-TCR...-... /40/RF-GR18/...-...-M...-CS/CS



#### Technical data

#### Service conditions

Max Pressure: PN25 e PN40

Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: adjustable on 360° in the installation phase

Note: depending on operating conditions, each element may have one or more internal reinforcements

#### Distance (Centre-to-centre)

Standard: see below table (**Distance adjustable - 0 mm + 10 mm**)

Option: On request intermediate distances and over 3.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body & 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

#### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off cocks

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

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

#### Process connections:

Standard flanges: UNI PN40 DN15-20-25 ANSI#150-300-600/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 shut-off cocks (see page 1.49)

Vent: Standard: blind

Option: see page 1.50

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

Option: see page 1.50

#### Glasses

Transparent - Borosilicate glass, "extra hard" and thermally pre-stressed - According to DIN 7081

Standard: fitted with type A (see page 1.69)

#### Accessories

See from page 1.55

#### Weights

Housing type DS TCR: see below table

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

#### Tightening torque of housing screws

Standard: 35 Nm

#### Spare parts

Housing type DS TCR: see from page 1.69 (drawing with components and parts list see page 1.64)

Cocks type DS GR18: see from page 1.72 (drawing with components and parts list see page 1.66)

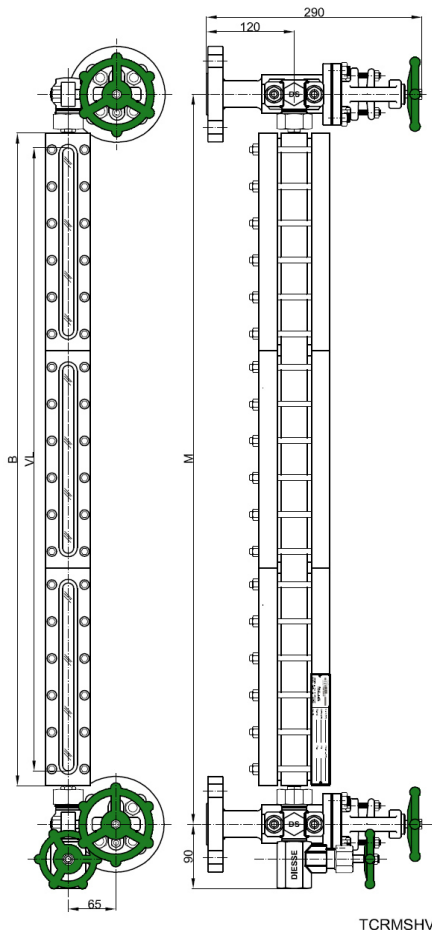
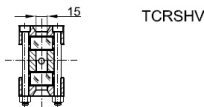
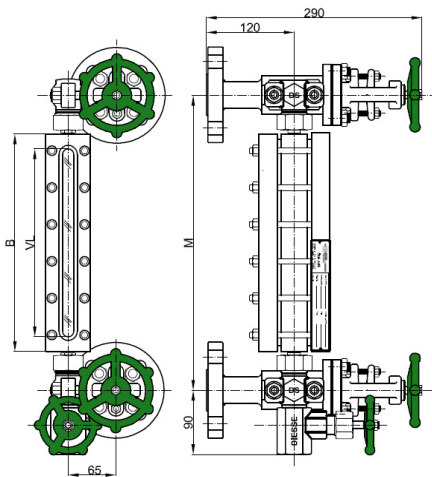
CODE	TYPE	BODY Length [mm]	DISTANCE SL Pipes L = 57 -0/+10 mm	DISTANCE HL Pipes L = 70 -0/+10 mm	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+105	M = B+130	VL	x No. elements	
11	1x1	130	235	260	95	115x1	3,2
12	2x1	155	260	285	120	140x1	3,8
13	3x1	180	285	310	145	165x1	4,3
14	4x1	205	310	335	170	190x1	4,7
15	5x1	235	340	365	200	220x1	5,5
16	6x1	265	370	395	230	250x1	6,0
17	7x1	295	400	425	260	280x1	6,7
18	8x1	335	440	465	300	320x1	7,4
19	9x1	360	465	490	320	340x1	8,1
24	4x2	410	515	540	375	190x2	9,2
25	5x2	470	575	600	435	220x2	10,8
26	6x2	530	635	660	495	250x2	11,8
27	7x2	590	695	720	555	280x2	13,3
28	8x2	670	775	800	635	320x2	14,6
29	9x2	720	825	850	680	340x2	16,0
36	6x3	795	900	925	760	250x3	17,7
37	7x3	885	990	1015	850	280x3	19,8
38	8x3	1005	1110	1145	970	320x3	21,9
39	9x3	1080	1185	1210	1040	340x3	24,0
47	7x4	1180	1285	1310	1145	280x4	26,3
48	8x4	1340	1445	1470	1305	320x4	29,1
49	9x4	1440	1545	1570	1400	340x4	31,9
57	7x5	1475	1580	1605	1440	280x5	32,8
58	8x5	1675	1780	1805	1640	320x5	36,3
59	9x5	1800	1905	1930	1760	340x5	39,8
68	8x6	2010	2115	2140	1975	320x6	43,6
69	9x6	2160	2265	2290	2120	340x6	47,8
78	8x7	2345	2450	2475	2310	320x7	50,8
79	9x7	2520	2625	2650	2480	340x7	55,7
88	8x8	2680	2785	2810	2645	320x8	57,9
89	9x8	2880	2985	3010	2840	340x8	63,5

Tab. TCR

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN25 and PN40

### DS LG - TCR SHV

Code: DS LG-TCR...-... /40/RF-SHV/...-...-M...-CS/CS



#### Technical data

##### Service conditions

Max Pressure: PN25 e PN40

Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

##### View

Standard: adjustable on 360° in the installation phase

Note: depending on operating conditions, each element may have one or more internal reinforcements

##### Distance (Centre-to-centre)

Standard: see below table (**Distance adjustable - 0 mm / + 10 mm**)

Option: On request intermediate distances and over 3.000 mm

##### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

##### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

##### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

##### Process connections:

Standard flanges: UNI PN40 DN15-20-25

ANSI#150-300-600/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 shut-off valves (see page 1.53)

Vent: Standard: blind

Option: see page 1.54

Drain: Standard: valve type DHV threaded 3/4"

Option: see page 1.54

##### Glasses

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

##### Accessories

See from page 1.55

##### Weights

Housing type DS TCR: see below table

Valves type DS SHV: Kg. 11,8 approx. (with flanges UNI DN20 PN40)

##### Tightening torque of housing screws

Standard: 35 Nm

##### Spare parts

Housing type DS TCR: see from page 1.69 (drawing with components and parts list see page 1.64)

Valves type DS GR18: see from page 1.74 (drawing with components and parts list see page 1.68)

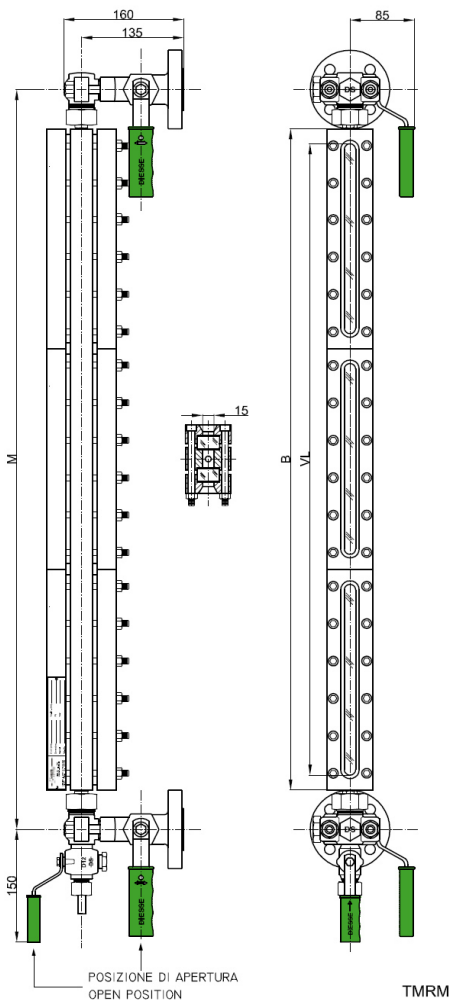
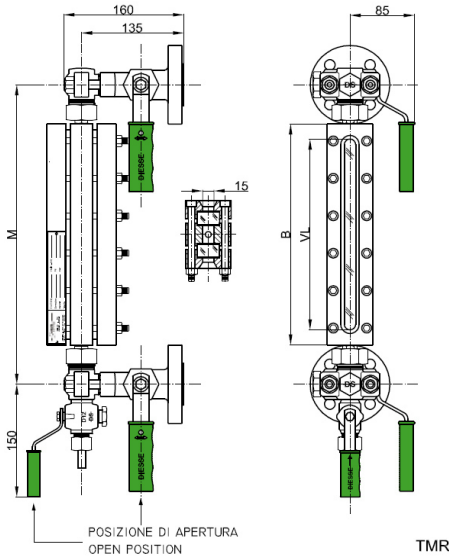
CODE	TYPE	BODY Length [mm]	DISTANCE SL Pipes L = 57 -0/+10 mm	DISTANCE HL Pipes L = 70 -0/+10 mm	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+105	M = B+130	VL	x No. elements	
11	1x1	130	235	260	95	115x1	3,2
12	2x1	155	260	285	120	140x1	3,8
13	3x1	180	285	310	145	165x1	4,3
14	4x1	205	310	335	170	190x1	4,7
15	5x1	235	340	365	200	220x1	5,5
16	6x1	265	370	395	230	250x1	6,0
17	7x1	295	400	425	260	280x1	6,7
18	8x1	335	440	465	300	320x1	7,4
19	9x1	360	465	490	320	340x1	8,1
24	4x2	410	515	540	375	190x2	9,2
25	5x2	470	575	600	435	220x2	10,8
26	6x2	530	635	660	495	250x2	11,8
27	7x2	590	695	720	555	280x2	13,3
28	8x2	670	775	800	635	320x2	14,6
29	9x2	720	825	850	680	340x2	16,0
36	6x3	795	900	925	760	250x3	17,7
37	7x3	885	990	1015	850	280x3	19,8
38	8x3	1005	1110	1145	970	320x3	21,9
39	9x3	1080	1185	1210	1040	340x3	24,0
47	7x4	1180	1285	1310	1145	280x4	26,3
48	8x4	1340	1445	1470	1305	320x4	29,1
49	9x4	1440	1545	1570	1400	340x4	31,9
57	7x5	1475	1580	1605	1440	280x5	32,8
58	8x5	1675	1780	1805	1640	320x5	36,3
59	9x5	1800	1905	1930	1760	340x5	39,8
68	8x6	2010	2115	2140	1975	320x6	43,6
69	9x6	2160	2265	2290	2120	340x6	47,8
78	8x7	2345	2450	2475	2310	320x7	50,8
79	9x7	2520	2625	2650	2480	340x7	55,7
88	8x8	2680	2785	2810	2645	320x8	57,9
89	9x8	2880	2985	3010	2840	340x8	63,5

Tab. TCR

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN40

### DS LG - TMR GR18

Code: DS LG-TMR...-... /40/RF-GR18/...-...-M...-CS/CS



#### Technical data

#### Service conditions

Max Pressure: PN40

Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: adjustable on 360° in the installation phase

#### Distance (Centre-to-centre)

Standard: see below table (Distance adjustable - 0 mm / + 10 mm)

Option: On request intermediate distances and over 3.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body & 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

#### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off cocks

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

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

#### Process connections:

Standard flanges: UNI PN40 DN15-20-25

ANSI#150-300-600/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 shut-off cocks

(see page 1.49)

Vent: Standard: blind

Option: see page 1.50

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

Option: see page 1.50

#### Glasses

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

Housing type DS TMR: see below table

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

#### Tightening torque of housing screws

Standard: 35 Nm

#### Spare parts

Housing type DS TMR: see from page 1.69 (drawing with components and parts list see page 1.64)

Cocks type DS GR18: see from page 1.72 (drawing with components and parts list see page 1.66)

CODE	TYPE	BODY Length [mm]	DISTANCE SL Pipes L = 57 -0/+10 mm	DISTANCE HL Pipes L = 70 -0/+10 mm	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+105	M = B+130	VL	x No. elements	
11	1x1	130	235	260	95	115x1	3,6
12	2x1	155	260	285	120	140x1	4,3
13	3x1	180	285	310	145	165x1	4,9
14	4x1	205	310	335	170	190x1	5,4
15	5x1	235	340	365	200	220x1	6,3
16	6x1	265	370	395	230	250x1	6,9
17	7x1	295	400	425	260	280x1	7,7
18	8x1	335	440	465	300	320x1	8,6
19	9x1	360	465	490	320	340x1	9,4
24	4x2	410	515	540	375	190x2	10,6
25	5x2	470	575	600	435	220x2	12,4
26	6x2	530	635	660	495	250x2	13,6
27	7x2	590	695	720	555	280x2	15,2
28	8x2	670	775	800	635	320x2	17,0
29	9x2	720	825	850	680	340x2	18,6
36	6x3	795	900	925	760	250x3	20,3
37	7x3	885	990	1015	850	280x3	22,7
38	8x3	1005	1110	1145	970	320x3	25,4
39	9x3	1080	1185	1210	1040	340x3	27,8
47	7x4	1180	1285	1310	1145	280x4	30,2
48	8x4	1340	1445	1470	1305	320x4	33,8
49	9x4	1440	1545	1570	1400	340x4	37,0
57	7x5	1475	1580	1605	1440	280x5	37,7
58	8x5	1675	1780	1805	1640	320x5	42,2
59	9x5	1800	1905	1930	1760	340x5	46,2
68	8x6	2010	2115	2140	1975	320x6	50,6
69	9x6	2160	2265	2290	2120	340x6	55,4
78	8x7	2345	2450	2475	2310	320x7	59,0
79	9x7	2520	2625	2650	2480	340x7	64,6
88	8x8	2680	2785	2810	2645	320x8	67,4
89	9x8	2880	2985	3010	2840	340x8	73,8

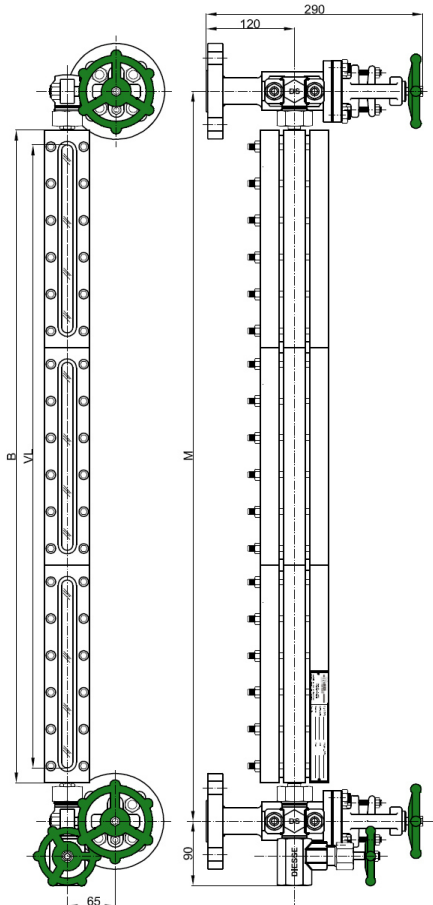
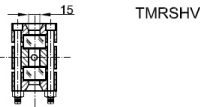
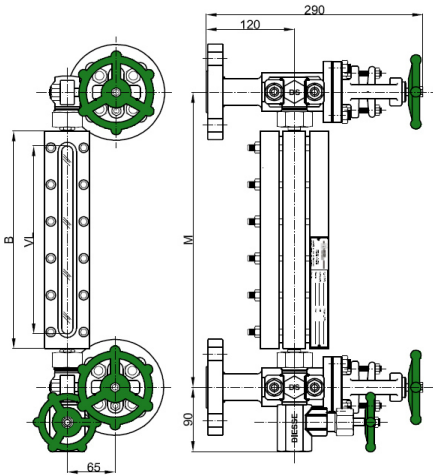
Tab. TMR



## GLASS LEVEL GAUGE TRANSPARENT TYPE PN40

### DS LG - TMR SHV

Code: DS LG-TMR...-... /40/RF-SHV/...-...-M...-CS/CS



TMRMSHV

#### Technical data

##### Service conditions

Max Pressure: PN40

Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

##### View

Standard: adjustable on 360° in the installation phase

##### Distance (Centre-to-centre)

Standard: see below table (**Distance adjustable - 0 mm / + 10 mm**)

Option: On request intermediate distances and over 3.000 mm

##### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

##### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

##### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

##### Process connections:

Standard flanges: UNI PN40 DN15-20-25

ANSI#150-300-600/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 shut-off valves

(see page 1.53)

Vent: Standard: blind

Option: see page 1.54

Drain: Standard: valve type DHV threaded 3/4"

Option: see page 1.54

##### Glasses

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

Housing type DS TMR: see below table

Valves type DS SHV: Kg. 11,8 approx. (with flanges UNI DN20 PN40)

##### Tightening torque of housing screws

Standard: 35 Nm

##### Spare parts

Housing type DS TMR: see from page 1.69 (drawing with components and parts list see page 1.64)

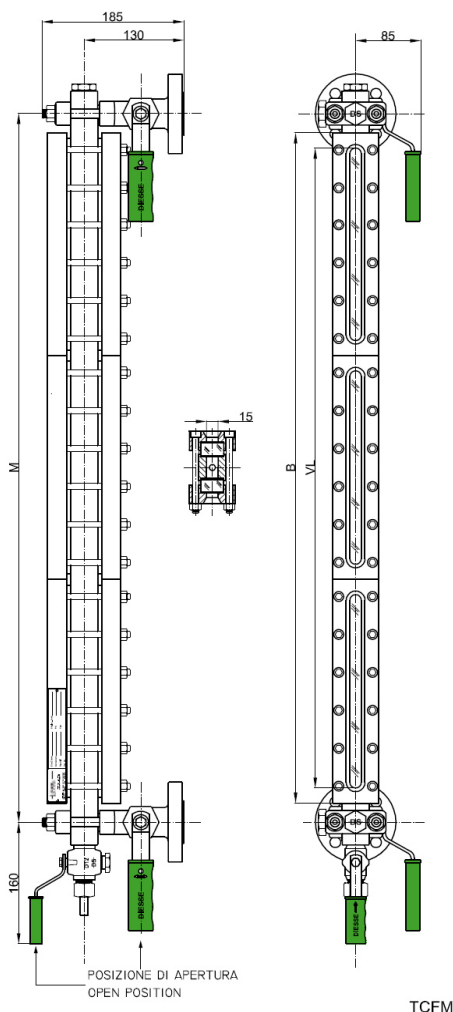
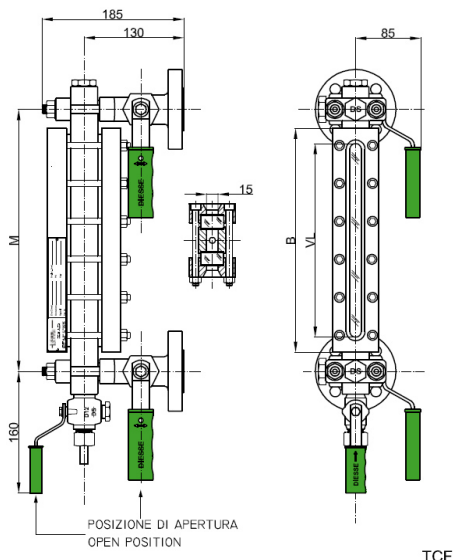
Valves type DS SHV: see from page 1.74 (drawing with components and parts list see page 1.68)

CODE	TYPE	BODY Length [mm]	DISTANCE SL Pipes L = 57 -0/+10 mm	DISTANCE HL Pipes L = 70 -0/+10 mm	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+105	M = B+130	VL	x No. elements	
11	1x1	130	235	260	95	115x1	3,6
12	2x1	155	260	285	120	140x1	4,3
13	3x1	180	285	310	145	165x1	4,9
14	4x1	205	310	335	170	190x1	5,4
15	5x1	235	340	365	200	220x1	6,3
16	6x1	265	370	395	230	250x1	6,9
17	7x1	295	400	425	260	280x1	7,7
18	8x1	335	440	465	300	320x1	8,6
19	9x1	360	465	490	320	340x1	9,4
24	4x2	410	515	540	375	190x2	10,6
25	5x2	470	575	600	435	220x2	12,4
26	6x2	530	635	660	495	250x2	13,6
27	7x2	590	695	720	555	280x2	15,2
28	8x2	670	775	800	635	320x2	17,0
29	9x2	720	825	850	680	340x2	18,6
36	6x3	795	900	925	760	250x3	20,3
37	7x3	885	990	1015	850	280x3	22,7
38	8x3	1005	1110	1145	970	320x3	25,4
39	9x3	1080	1185	1210	1040	340x3	27,8
47	7x4	1180	1285	1310	1145	280x4	30,2
48	8x4	1340	1445	1470	1305	320x4	33,8
49	9x4	1440	1545	1570	1400	340x4	37,0
57	7x5	1475	1580	1605	1440	280x5	37,7
58	8x5	1675	1780	1805	1640	320x5	42,2
59	9x5	1800	1905	1930	1760	340x5	46,2
68	8x6	2010	2115	2140	1975	320x6	50,6
69	9x6	2160	2265	2290	2120	340x6	55,4
78	8x7	2345	2450	2475	2310	320x7	59,0
79	9x7	2520	2625	2650	2480	340x7	64,6
88	8x8	2680	2785	2810	2645	320x8	67,4
89	9x8	2880	2985	3010	2840	340x8	73,8

Tab. TMR

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN40 / Class 300 DS LG - TCF GR18

Code: DS LG-TCF.../40/RF-GR18/...-M...-CS/CS



### Technical data

#### Service conditions

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

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase  
Note: depending on operating conditions, each element may have one or more internal reinforcements

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 3.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body & 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

#### Gaskets

Standard: graphite/copper  
Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off cocks

Type DS GR18: cylindrical plug type - Straight type - Quick 90° closing  
Handling: lever operated with PP handle (Standard: right; Option: left)

#### Process connections:

Standard flanges:	UNI PN40 DN15-20-25	ANSI#150-300-600/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 shut-off cocks (see page 1.51)

Vent: Standard: threaded 1/2" with plug  
Option: see page 1.52

Drain: Standard: cock type D12 threaded 1/2"  
Option: see page 1.52

#### Glasses

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

#### Accessories

See from page 1.55

#### Weights

Housing type DS TCF: see below table  
Cocks type DS GR18: Kg. 7,4 approx. (with flanges UNI DN20 PN40)

#### Tightening torque of housing screws

Standard: 35 Nm

#### Spare parts

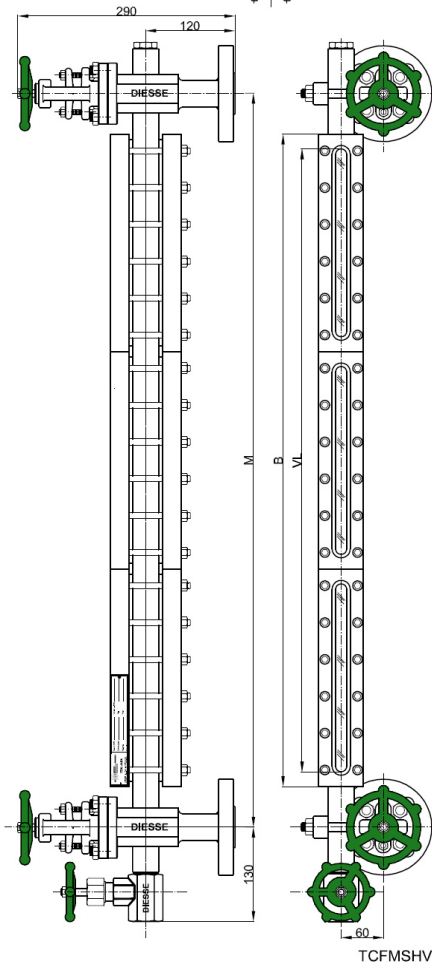
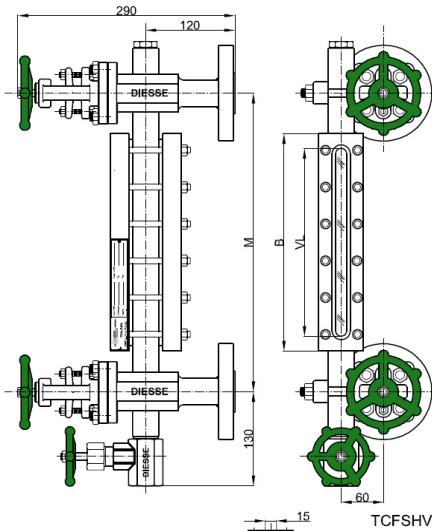
Housing type DS TCF: see from page 1.69 (drawing with components and parts list see page 1.64)  
Cocks type DS GR18: see from page 1.72 (drawing with components and parts list see page 1.66)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+40	VL	x No. elements	
11	1x1	130	170	95	115x1	4,5
12	2x1	155	195	120	140x1	5,1
13	3x1	180	220	145	165x1	5,6
14	4x1	205	245	170	190x1	6,0
15	5x1	235	275	200	220x1	6,8
16	6x1	265	305	230	250x1	7,3
17	7x1	295	335	260	280x1	8,0
18	8x1	335	375	300	320x1	8,7
19	9x1	360	400	320	340x1	9,4
24	4x2	410	450	375	190x2	10,5
25	5x2	470	510	435	220x2	12,1
26	6x2	530	570	495	250x2	13,1
27	7x2	590	630	555	280x2	14,6
28	8x2	670	710	635	320x2	15,9
29	9x2	720	760	680	340x2	17,3
36	6x3	795	835	760	250x3	19,0
37	7x3	885	925	850	280x3	21,1
38	8x3	1005	1045	970	320x3	23,2
39	9x3	1080	1120	1040	340x3	25,3
47	7x4	1180	1220	1145	280x4	27,6
48	8x4	1340	1380	1305	320x4	30,4
49	9x4	1440	1480	1400	340x4	33,2
57	7x5	1475	1515	1440	280x5	34,1
58	8x5	1675	1715	1640	320x5	37,6
59	9x5	1800	1840	1760	340x5	41,1
68	8x6	2010	2050	1975	320x6	44,9
69	9x6	2160	2200	2120	340x6	49,1
78	8x7	2345	2385	2310	320x7	52,1
79	9x7	2520	2560	2480	340x7	57,0
88	8x8	2680	2720	2645	320x8	59,2
89	9x8	2880	2920	2840	340x8	64,8

Tab. TCF

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN40 / Class 300 DS LG - TCF SHV

Code: DS LG-TCF...-... /40/RF-SHV/...-...-M...-CS/CS



### Technical data

#### Service conditions

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

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase  
Note: depending on operating conditions, each element may have one or more internal reinforcements

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 3.000 mm

#### Materials (Standard)

Execution ne:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

#### Gaskets

Standard: graphite/copper      Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

#### Process connections:

Standard flanges: UNI PN40 DN15-20-25      ANSI#150-300-600/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 shut-off valves (see page 1.53)

Vent: Standard: threaded 1/2" with plug

Option: see page 1.54

Drain: Standard: valve type DHV threaded 3/4"

Option: see page 1.54

#### Glasses

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

#### Accessories

See from page 1.55

#### Weights

Housing type DS TCF: see below table

Valves type DS SHV: Kg. 11,8 approx. (with flanges UNI DN20 PN40)

#### Tightening torque of housing screws

Standard: 35 Nm

#### Spare parts

Housing type DS TCF: see from page 1.69 (drawing with components and parts list see page 1.64)

Valves type DS SHV: see from page 1.74 (drawing with components and parts list see page 1.68)

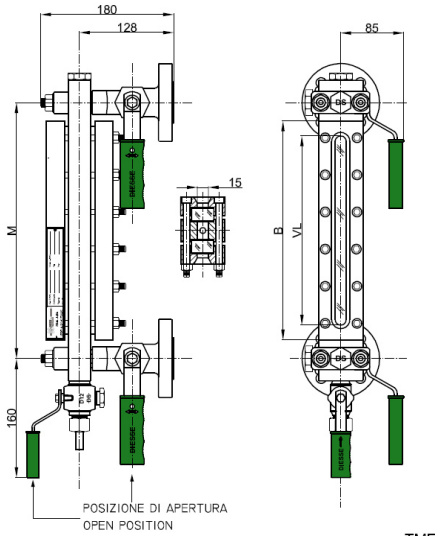
CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+80	VL	x No. elements	
11	1x1	130	210	95	115x1	4,5
12	2x1	155	235	120	140x1	5,1
13	3x1	180	260	145	165x1	5,6
14	4x1	205	285	170	190x1	6,0
15	5x1	235	315	200	220x1	6,8
16	6x1	265	345	230	250x1	7,3
17	7x1	295	375	260	280x1	8,0
18	8x1	335	415	300	320x1	8,7
19	9x1	360	440	320	340x1	9,4
24	4x2	410	490	375	190x2	10,5
25	5x2	470	550	435	220x2	12,1
26	6x2	530	610	495	250x2	13,1
27	7x2	590	670	555	280x2	14,6
28	8x2	670	750	635	320x2	15,9
29	9x2	720	800	680	340x2	17,3
36	6x3	795	875	760	250x3	19,0
37	7x3	885	965	850	280x3	21,1
38	8x3	1005	1085	970	320x3	23,2
39	9x3	1080	1160	1040	340x3	25,3
47	7x4	1180	1260	1145	280x4	27,6
48	8x4	1340	1420	1305	320x4	30,4
49	9x4	1440	1520	1400	340x4	33,2
57	7x5	1475	1555	1440	280x5	34,1
58	8x5	1675	1755	1640	320x5	37,6
59	9x5	1800	1880	1760	340x5	41,1
68	8x6	2010	2090	1975	320x6	44,9
69	9x6	2160	2240	2120	340x6	49,1
78	8x7	2345	2425	2310	320x7	52,1
79	9x7	2520	2600	2480	340x7	57,0
88	8x8	2680	2760	2645	320x8	59,2
89	9x8	2880	2960	2840	340x8	64,8

Tab. TCF

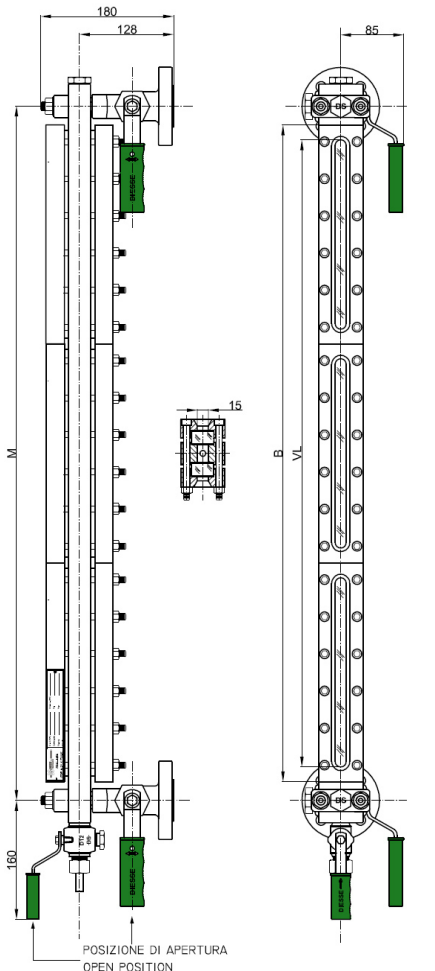


## GLASS LEVEL GAUGE TRANSPARENT TYPE PN40 and PN64 / Class 300 DS LG - TMF GR18

Code: DS LG-TMF...-... /40/RF-GR18/...-...-M...-CS/CS



TMF



TMFM

### Technical data

#### Service conditions

Max Pressure: PN40 e PN64; Class 300 (A105: 51 bar @ 38°C; AISI 316L: 49,6 bar @ 38°C)  
Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 3.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body & 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

#### Gaskets

Standard: graphite/copper      Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off cocks

Type DS GR18: cylindrical plug type - Straight type - Quick 90° closing  
Handling: lever operated with PP handle (Standard: right; Option: left)

#### Process connections:

Standard flanges:      UNI PN40-64 DN15-20-25      ANSI#150-300-600/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 shut-off cocks  
(see page 1.51)

**Vent:** Standard: threaded 1/2" with plug      Option: see page 1.52

**Drain:** Standard: cock type D12 threaded 1/2"      Option: see page 1.52

#### Glasses

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

Housing type DS TMF: see below table

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

#### Tightening torque of housing screws

Standard: 35 Nm

#### Spare parts

Housing type DS TMF: see from page 1.69 (drawing with components and parts list see page 1.64)

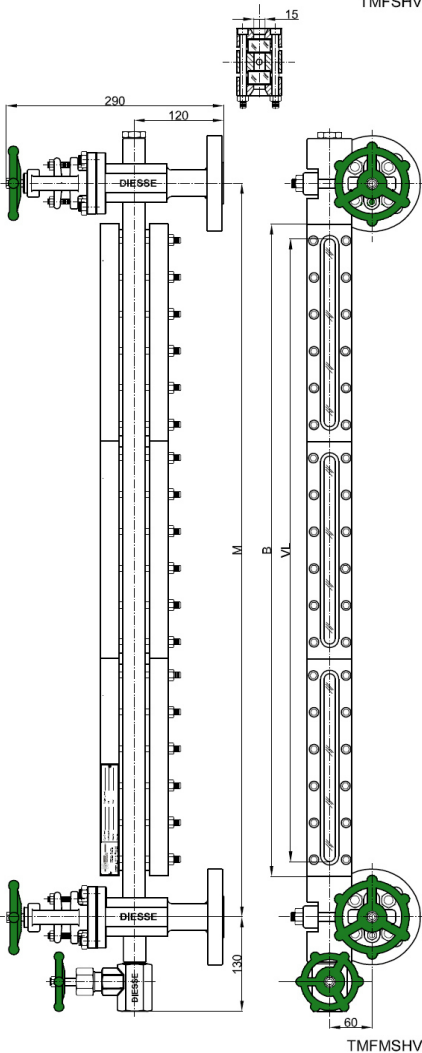
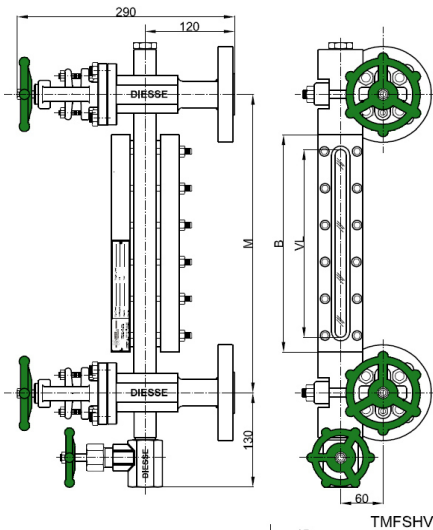
Cocks type DS GR18: see from page 1.72 (drawing with components and parts list see page 1.66)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+40	VL	x No. elements	
11	1x1	130	170	95	115x1	5,4
12	2x1	155	195	120	140x1	6,1
13	3x1	180	220	145	165x1	6,7
14	4x1	205	245	170	190x1	7,2
15	5x1	235	275	200	220x1	8,1
16	6x1	265	305	230	250x1	8,8
17	7x1	295	335	260	280x1	9,5
18	8x1	335	375	300	320x1	10,4
19	9x1	360	400	320	340x1	11,2
24	4x2	410	450	375	190x2	12,4
25	5x2	470	510	435	220x2	14,2
26	6x2	530	570	495	250x2	15,4
27	7x2	590	630	555	280x2	17,0
28	8x2	670	710	635	320x2	18,8
29	9x2	720	760	680	340x2	20,4
36	6x3	795	835	760	250x3	22,1
37	7x3	885	925	850	280x3	24,5
38	8x3	1005	1045	970	320x3	27,2
39	9x3	1080	1120	1040	340x3	29,6
47	7x4	1180	1220	1145	280x4	32,0
48	8x4	1340	1380	1305	320x4	35,6
49	9x4	1440	1480	1400	340x4	38,8
57	7x5	1475	1515	1440	280x5	39,5
58	8x5	1675	1715	1640	320x5	44,0
59	9x5	1800	1840	1760	340x5	48,0
68	8x6	2010	2050	1975	320x6	52,4
69	9x6	2160	2200	2120	340x6	57,2
78	8x7	2345	2385	2310	320x7	60,8
79	9x7	2520	2560	2480	340x7	66,4
88	8x8	2680	2720	2645	320x8	69,2
89	9x8	2880	2920	2840	340x8	75,6

Tab. TMF

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN40 and PN64 / Class 300 DS LG - TMF SHV

Code: DS LG-TMF... /40/RF-SHV.../...-M...-CS/CS



### Technical data

#### Service conditions

Max Pressure: PN40 e PN64; Class 300 (A105: 51 bar @ 38°C; AISI 316L: 49,6 bar @ 38°C)  
Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 3.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

#### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

#### Process connections:

Standard flanges: UNI PN40-64 DN15-20-25 ANSI#150-300-600/RF DN 1/2" - 3/4" - 1"

Standard threaded unions: GAS-M 1/2" - 3/4" NPT-M 1/2" - 3/4"

Options: further connections types or direct connections to the process without shut-off valves

(see page 1.53)

Vent: Standard: threaded 1/2" with plug

Option: see page 1.54

Drain: Standard: valve type DHV threaded 3/4"

Option: see page 1.54

#### Glasses

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

Housing type DS TMF: see below table

Valves type DS SHV: Kg. 11,8 approx. (with flanges UNI DN20 PN40)

#### Tightening torque of housing screws

Standard: 35 Nm

#### Spare parts

Housing type DS TMF: see from page 1.69 (drawing with components and parts list see page 1.64)

Valves type DS SHV: see from page 1.74 (drawing with components and parts list see page 1.68)

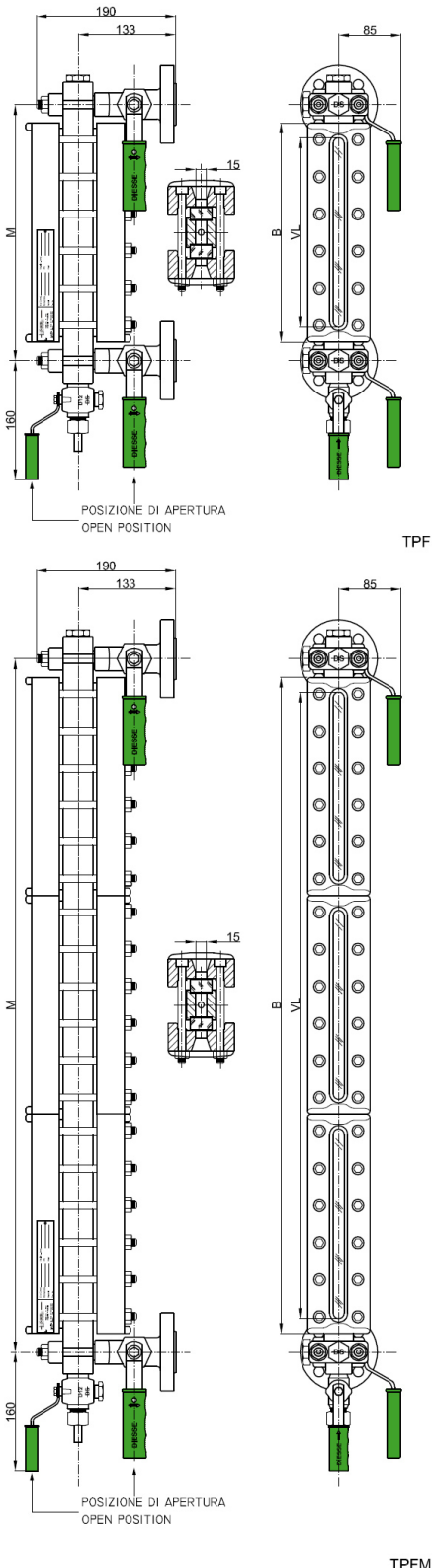
CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+80	VL	x No. elements	
11	1x1	130	210	95	115x1	5,4
12	2x1	155	235	120	140x1	6,1
13	3x1	180	260	145	165x1	6,7
14	4x1	205	285	170	190x1	7,2
15	5x1	235	315	200	220x1	8,1
16	6x1	265	345	230	250x1	8,8
17	7x1	295	375	260	280x1	9,5
18	8x1	335	415	300	320x1	10,4
19	9x1	360	440	320	340x1	11,2
24	4x2	410	490	375	190x2	12,4
25	5x2	470	550	435	220x2	14,2
26	6x2	530	610	495	250x2	15,4
27	7x2	590	670	555	280x2	17,0
28	8x2	670	750	635	320x2	18,8
29	9x2	720	800	680	340x2	20,4
36	6x3	795	875	760	250x3	22,1
37	7x3	885	965	850	280x3	24,5
38	8x3	1005	1085	970	320x3	27,2
39	9x3	1080	1160	1040	340x3	29,6
47	7x4	1180	1260	1145	280x4	32,0
48	8x4	1340	1420	1305	320x4	35,6
49	9x4	1440	1520	1400	340x4	38,8
57	7x5	1475	1555	1440	280x5	39,5
58	8x5	1675	1755	1640	320x5	44,0
59	9x5	1800	1880	1760	340x5	48,0
68	8x6	2010	2090	1975	320x6	52,4
69	9x6	2160	2240	2120	340x6	57,2
78	8x7	2345	2425	2310	320x7	60,8
79	9x7	2520	2600	2480	340x7	66,4
88	8x8	2680	2760	2645	320x8	69,2
89	9x8	2880	2960	2840	340x8	75,6

Tab. TMF

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN64 and PN100 / Class 600

## DS LG - TPF GR18

Code: DS LG-TPF.../100/RF-GR18/...-M...-CS/CS



### Technical data

#### Service conditions

Max Pressure: PN64 e 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)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase  
Note: depending on operating conditions, each element may have one or more internal reinforcements

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 2.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body & 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

#### Gaskets

Standard: graphite/copper  
Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off cocks

Type DS GR18: cylindrical plug type - Straight type - Quick 90° closing  
Handling: lever operated with PP handle (Standard: right; Option: left)

#### Process connections:

Standard flanges:	UNI PN64-100 DN20 - DN25	ANSI#600/RF DN ¾" - 1"
Standard threaded unions:	BSP-M ¾" - 1"	NPT-M ¾" - 1"

Options: further connections types or direct connections to the process without shut-off cocks (see page 1.51)

**Vent:** Standard: threaded ½" with plug  
Option: see page 1.52

**Drain:** Standard: cock type D12 threaded ½"  
Option: see page 1.52

#### Glasses

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

#### Accessories

See from page 1.55

#### Weights

Housing type DS TPF: see below table  
Cocks type DS GR18: Kg. 9,2 approx. (with flanges UNI DN20 PN100)

#### Tightening torque of housing screws

Standard: 75 Nm

#### Spare parts

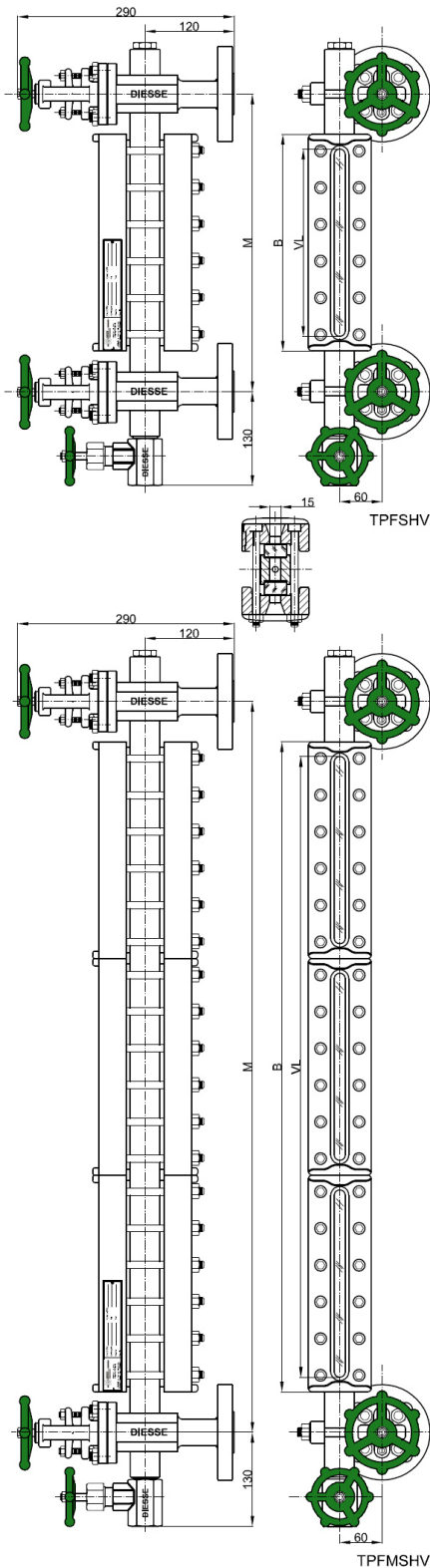
Housing type DS TPF: see from page 1.69 (drawing with components and parts list see page 1.65)  
Cocks type DS GR18: see from page 1.72 (drawing with components and parts list see page 1.66)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+50	VL	x No. elements	
11	1x1	130	180	95	115x1	7,9
12	2x1	155	205	120	140x1	9,0
13	3x1	180	230	145	165x1	10,5
14	4x1	205	255	170	190x1	11,5
15	5x1	235	285	200	220x1	12,8
16	6x1	265	315	230	250x1	13,5
17	7x1	295	345	260	280x1	15,4
18	8x1	335	385	300	320x1	16,8
19	9x1	360	410	320	340x1	18,1
24	4x2	410	460	375	190x2	21,5
25	5x2	470	520	435	220x2	24,1
26	6x2	530	580	495	250x2	25,5
27	7x2	590	640	555	280x2	29,3
28	8x2	670	720	635	320x2	32,1
29	9x2	720	770	680	340x2	34,7
36	6x3	795	845	760	250x3	37,5
37	7x3	885	935	850	280x3	43,2
38	8x3	1005	1055	970	320x3	47,4
39	9x3	1080	1130	1040	340x3	51,3
47	7x4	1180	1230	1145	280x4	57,1
48	8x4	1340	1390	1305	320x4	62,7
49	9x4	1440	1490	1400	340x4	67,9
57	7x5	1475	1525	1440	280x5	71,0
58	8x5	1675	1725	1640	320x5	78,0
59	9x5	1800	1850	1760	340x5	84,5

Tab. TPF

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN64 and PN100 / Class 600 DS LG - TPF SHV

Code: DS LG-TPF... /100/RF-GR18/...-M...-CS/CS



### Technical data

#### Service conditions

Max Pressure: PN64 e 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)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase  
Note: depending on operating conditions, each element may have one or more internal reinforcements

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 2.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

#### Gaskets

Standard: graphite/copper      Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

#### Process connections:

Standard flanges: UNI PN64-100 DN15-20-25      ANSI#600/RF DN ¾" - 1"  
Standard threaded unions: BSP-M ¾" - 1"      NPT-M ¾" - 1"

Options: further connections types or direct connections to the process without shut-off valves (see page 1.53)

Vent: Standard: threaded ½" with plug      Option: see page 1.54

Drain: Standard: valve type DHV threaded ¾"      Option: see page 1.54

#### Glasses

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

#### Accessories

See from page 1.55

#### Weights

Housing type DS TPF: see below table

Valves type DS SHV: Kg. 13,5 approx. (with flanges UNI DN20 PN100)

#### Tightening torque of housing screws

Standard: 75 Nm

#### Spare parts

Housing type DS TPF: see from page 1.69 (drawing with components and parts list see page 1.65)

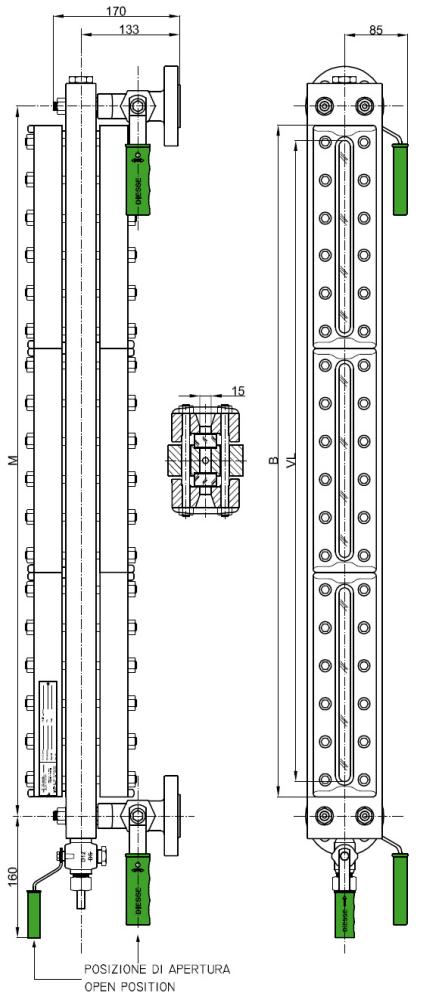
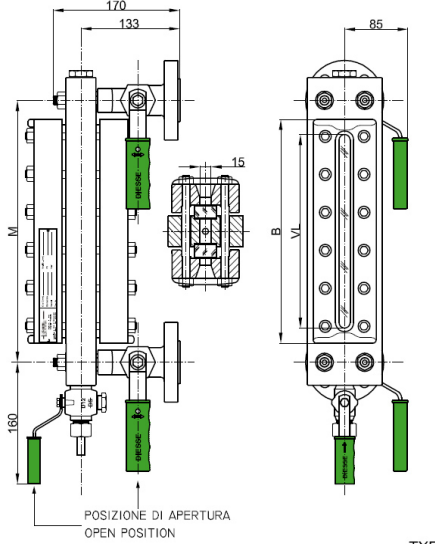
Valves type DS SHV: see from page 1.74 (drawing with components and parts list see page 1.68)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+80	VL	x No. elements	
11	1x1	130	210	95	115x1	7,9
12	2x1	155	235	120	140x1	9,0
13	3x1	180	260	145	165x1	10,5
14	4x1	205	285	170	190x1	11,5
15	5x1	235	315	200	220x1	12,8
16	6x1	265	345	230	250x1	13,5
17	7x1	295	375	260	280x1	15,4
18	8x1	335	415	300	320x1	16,8
19	9x1	360	440	320	340x1	18,1
24	4x2	410	490	375	190x2	21,5
25	5x2	470	550	435	220x2	24,1
26	6x2	530	610	495	250x2	25,5
27	7x2	590	670	555	280x2	29,3
28	8x2	670	750	635	320x2	32,1
29	9x2	720	800	680	340x2	34,7
36	6x3	795	875	760	250x3	37,5
37	7x3	885	965	850	280x3	43,2
38	8x3	1005	1085	970	320x3	47,4
39	9x3	1080	1160	1040	340x3	51,3
47	7x4	1180	1260	1145	280x4	57,1
48	8x4	1340	1420	1305	320x4	62,7
49	9x4	1440	1520	1400	340x4	67,9
57	7x5	1475	1555	1440	280x5	71,0
58	8x5	1675	1755	1640	320x5	78,0
59	9x5	1800	1880	1760	340x5	84,5

Tab. TPF

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN100 and PN160 / Class 600 and 900 DS LG - TXF GR18

Code: DS LG-TXF..... /160/RF-GR18/.....-M...-CS/CS



### Technical data

#### Service conditions

Max Pressure: PN100; Class 600 (A105: 102 bar @ 38°C; AISI 316L: 99,3 bar @ 38°C) and  
PN160; Class 900 (A105: 153,1 bar @ 38°C; AISI 316L: 148,9 bar @ 38°C)  
Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 2.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body & 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

#### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off cocks

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

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

#### Process connections:

Standard flanges: UNI PN100-160 DN20 - DN25 ANSI#600-900/RF DN ¾" - 1"

Standard threaded unions: BSP-M ¾" - 1" NPT-M ¾" - 1"

Options: further connections types or direct connections to the process without shut-off cocks  
(see page 1.51)

Vent: Standard: threaded ½" with plug

Option: see page 1.52

Drain: Standard: cock type D12 threaded ½"

Option: see page 1.52

#### Glasses

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

#### Accessories

See from page 1.55

#### Weights

Housing type DS TXF: see below table

Cocks type DS GR18: Kg. 9,2 approx. (with flanges UNI DN20 PN100)

#### Tightening torque of housing screws

Standard: 75 Nm

#### Spare parts

Housing type DS TPF: see from page 1.69 (drawing with components and parts list see page 1.65)

Cocks type DS GR18: see from page 1.72 (drawing with components and parts list see page 1.66)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+50	VL	x No. elements	
11	1x1	130	180	95	115x1	11,6
12	2x1	155	205	120	140x1	13,2
13	3x1	180	230	145	165x1	15,1
14	4x1	205	255	170	190x1	16,5
15	5x1	235	285	200	220x1	18,3
16	6x1	265	315	230	250x1	19,5
17	7x1	295	345	260	280x1	22,0
18	8x1	335	385	300	320x1	24,1
19	9x1	360	410	320	340x1	25,8
24	4x2	410	460	375	190x2	30,0
25	5x2	470	520	435	220x2	33,6
26	6x2	530	580	495	250x2	36,0
27	7x2	590	640	555	280x2	41,0
28	8x2	670	720	635	320x2	45,2
29	9x2	720	770	680	340x2	48,6
36	6x3	795	845	760	250x3	52,5
37	7x3	885	935	850	280x3	60,0
38	8x3	1005	1055	970	320x3	66,3
39	9x3	1080	1130	1040	340x3	71,4
47	7x4	1180	1230	1145	280x4	79,0
48	8x4	1340	1390	1305	320x4	87,4
49	9x4	1440	1490	1400	340x4	94,2
57	7x5	1475	1525	1440	280x5	98,0
58	8x5	1675	1725	1640	320x5	108,5
59	9x5	1800	1850	1760	340x5	117,0

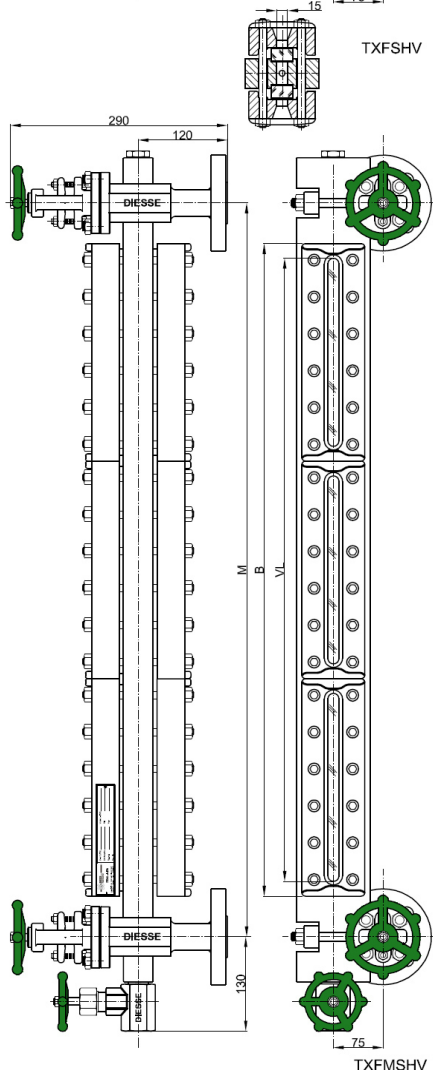
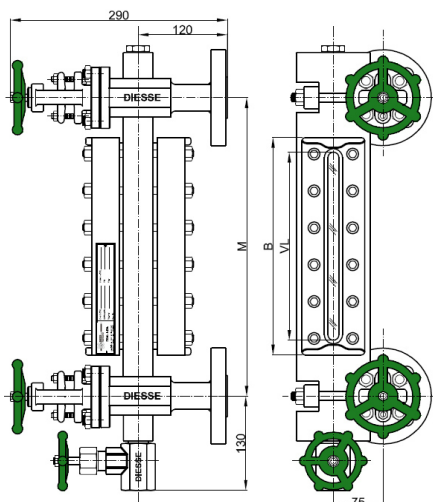
Tab. TXF



# GLASS LEVEL GAUGE TRANSPARENT TYPE PN100 and PN160 / Class 600 and 900

## DS LG - TXF SHV

Code: DS LG-TXF... /160/RF-SHV/...-M...-CS/CS



### Technical data

#### Service conditions

Max Pressure: PN100; Class 600 (A105: 102 bar @ 38°C; AISI 316L: 99,3 bar @ 38°C) and PN160; Class 900 (A105: 153,1 bar @ 38°C; AISI 316L: 148,9 bar @ 38°C)  
Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 2.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

#### Gaskets

Standard: graphite/copper

Option: graphite/AISI 316 or PTFE/AISI316

#### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

#### Process connections

Standard flanges: UNI PN100-160 DN20-25      ANSI#600-900/RF DN ¾" - 1"

Standard threaded unions: BSP-M ¾" - 1"      NPT-M ¾" - 1"

Options: further connections types or direct connections to the process without shut-off valves  
(see page 1.53)

Vent: Standard: threaded ½" with plug

Option: see page 1.54

Drain: Standard: cock type DHV threaded ¾"

Option: see page 1.54

#### Glasses

Transparent - Borosilicate glass, "extra hard" and thermally pre-stressed - According to DIN 7081

Standard: fitted with type B (see page 1.69)

#### Accessories

See from page 1.55

#### Weights

Housing type DS TXF: see below table

Valves type DS SHV: Kg. 13,5 approx. (with flanges UNI DN20 PN100)

#### Tightening torque of housing screws

Standard: 75 Nm

#### Spare parts

Housing type DS TPF: see from page 1.69 (drawing with components and parts list see page 1.65)

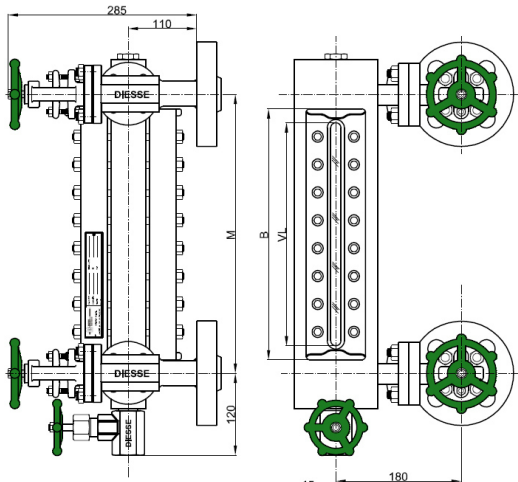
Valves type DS SHV: see from page 1.74 (drawing with components and parts list see page 1.68)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+80	VL	x No. elements	
11	1x1	130	210	95	115x1	11,6
12	2x1	155	235	120	140x1	13,2
13	3x1	180	260	145	165x1	15,1
14	4x1	205	285	170	190x1	16,5
15	5x1	235	315	200	220x1	18,3
16	6x1	265	345	230	250x1	19,5
17	7x1	295	375	260	280x1	22,0
18	8x1	335	415	300	320x1	24,1
19	9x1	360	440	320	340x1	25,8
24	4x2	410	490	375	190x2	30,0
25	5x2	470	550	435	220x2	33,6
26	6x2	530	610	495	250x2	36,0
27	7x2	590	670	555	280x2	41,0
28	8x2	670	750	635	320x2	45,2
29	9x2	720	800	680	340x2	48,6
36	6x3	795	875	760	250x3	52,5
37	7x3	885	965	850	280x3	60,0
38	8x3	1005	1085	970	320x3	66,3
39	9x3	1080	1160	1040	340x3	71,4
47	7x4	1180	1260	1145	280x4	79,0
48	8x4	1340	1420	1305	320x4	87,4
49	9x4	1440	1520	1400	340x4	94,2
57	7x5	1475	1555	1440	280x5	98,0
58	8x5	1675	1755	1640	320x5	108,5
59	9x5	1800	1880	1760	340x5	117,0

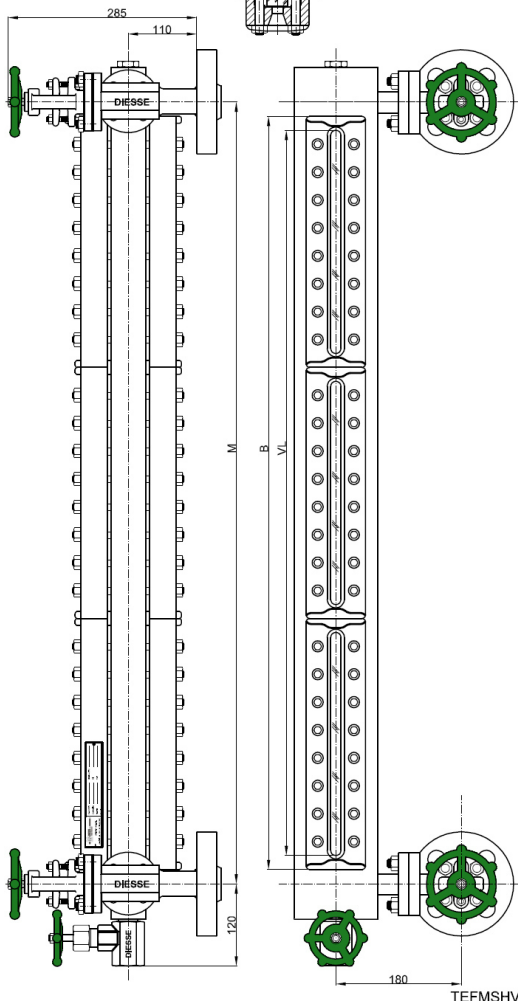
Tab. TXF

## GLASS LEVEL GAUGE TRANSPARENT TYPE PN250 / Class 1500 DS LG - TEF SHV

Code: DS LG-TEF... /1500/...-SHV/...-M...-CS/CS



TEFSHV



TEFMSHV

### Technical data

#### Service conditions

Max Pressure: PN250; Class 1500 (A105: 255,5 bar @ 38°C; AISI 316L: 239,2 bar @ 38°C)  
Max Temperature: 300°C (According to DIN 7081 for glasses, see page 1.69)

#### View

Standard: front, on request lateral (right or left) adjustable in the production phase

#### Distance (Centre-to-centre)

Standard: see below table for minimum distance (Fixed distance, not adjustable)  
Option: On request intermediate distances and over 2.000 mm

#### Materials (Standard)

Execution:	CS/CS	SS/CS	SS/SS
Gauge body:	ASTM A105 / A105 LF2	AISI 316L	AISI 316L
Valves body:	A105 LF2	AISI 316L	AISI 316L
Stem, disc / seat valves:	AISI 410 / AISI 316	AISI 316	AISI 316
Non-wetted parts:	Carbon steel galvanized	Carbon steel galvanized	AISI 316

#### Gaskets

Standard: graphite/AISI 316

Option: PTFE/AISI316

#### Shut-off valves

Type DS SHV: globe type

Handling: by handwheel

#### Process connections:

Standard flanges: UNI PN250 DN On request ANSI#1500 DN On request

Options: further connections types or direct connections to the process without shut-off valves (see page 1.53)

Vent: Standard: threaded 1/2" with plug

Option: see page 1.54

Drain: Standard: cock type DHV threaded 3/4"

Option: see page 1.54

#### Glasses

Transparent - Borosilicate glass, "extra hard" and thermally pre-stressed - According to DIN 7081  
Standard: fitted with type B, thickness 21 mm (see page 1.69)

#### Accessories

See from page 1.55

#### Weights

Housing type DS TEF: see below table

Valves type DS SHV: Kg. 16,5 approx. (with flanges 1" ANSI 1500#RF)

#### Tightening torque of housing screws

Standard: 90 Nm

#### Spare parts

Housing type DS TEF: see from page 1.69 (drawing with components and parts list see page 1.65)

Valves type DS SHV: see from page 1.74 (drawing with components and parts list see page 1.68)

CODE	TYPE	BODY Length [mm]	DISTANCE SL MINIMUM [mm]	VISIBLE Length [mm]	GLASS Length [mm]	WEIGHT Housing [Kg]
	x No. el.	B	M = B+80	VL	x No. elements	
11	1x1	130	210	95	115x1	13,7
12	2x1	155	235	120	140x1	15,7
13	3x1	180	260	145	165x1	18,0
14	4x1	205	285	170	190x1	19,8
15	5x1	235	315	200	220x1	22,1
16	6x1	265	345	230	250x1	23,8
17	7x1	295	375	260	280x1	26,7
18	8x1	335	415	300	320x1	29,5
19	9x1	360	440	320	340x1	31,6
24	4x2	410	490	375	190x2	36,6
25	5x2	470	550	435	220x2	41,1
26	6x2	530	610	495	250x2	44,5
27	7x2	590	670	555	280x2	50,5
28	8x2	670	750	635	320x2	55,9
29	9x2	720	800	680	340x2	60,1
36	6x3	795	875	760	250x3	65,2
37	7x3	885	965	850	280x3	74,2
38	8x3	1005	1085	970	320x3	82,4
39	9x3	1080	1160	1040	340x3	88,7
47	7x4	1180	1260	1145	280x4	97,9
48	8x4	1340	1420	1305	320x4	108,9
49	9x4	1440	1520	1400	340x4	117,3
57	7x5	1475	1555	1440	280x5	121,6
58	8x5	1675	1755	1640	320x5	135,5
59	9x5	1800	1880	1760	340x5	145,8

Tab. TEF