



## accessories for glass level gauges

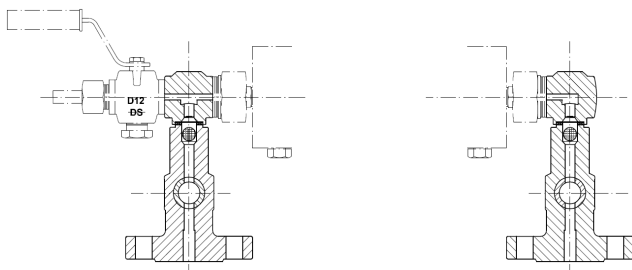


## ACCESSORIES FOR GLASS LEVEL GAUGES

### SAFETY BALL

The DIESSE level gauges can be equipped with a safety ball lower and/or upper (in stainless steel 316) positioned inside the valves, which stops the fluid flow in case glass breakage occurs. The breakage is anyway improbable if the operations are carried out in the proper way.

#### Shut-off cocks DS GR 18



Code:  
LC [Safety ball for lower shut-off cock]  
UC [Safety ball for upper shut-off cock]

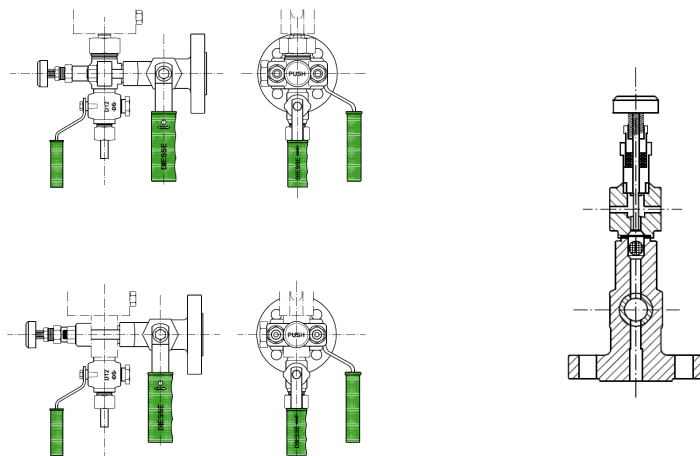
#### Shut-off valves DS SHV

The shut-off valves DS SHV are always equipped with safety balls.

### PUSHER for safety ball

#### Shut-off cocks DS GR 18

To re-position the safety balls and enable the normal flow of the fluid, on request it's available a pusher in stainless steel.

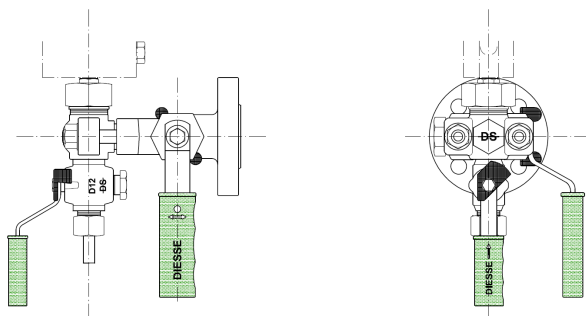


Code:  
LPH [Pusher for lower shut-off cock]  
UPH [Pusher for upper shut-off cock]

#### Shut-off valves DS SHV

The pusher is not necessary for shut-off valves DS SHV because, when closing, the extension of the stem provides by itself for the repositioning of the safety ball.

### COCKS HANDLES LOCK (on request also lockable)

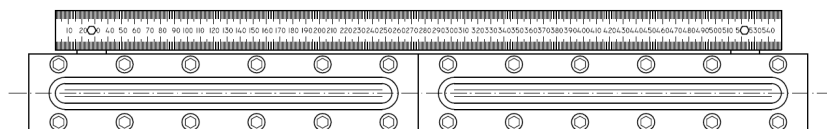


Code:  
SMHD [Cocks handles lock (all)]  
LU-SMHD [Shut-off handles lock]  
D-SMHD [Drain handle lock]  
V-SMHD [Vent handle lock]

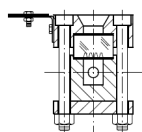
## ACCESSORIES FOR GLASS LEVEL GAUGES

### CALIBRATED SCALE

The calibrated scale (millimeters) is in stainless steel, the values are engraved and black coloured.  
The standard indication correspond to the centre-to-centre distance of the level gauge.  
On request other materials and graduations can be supplied.

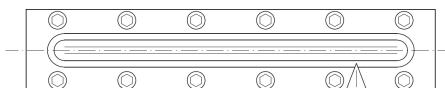


Code: VSG

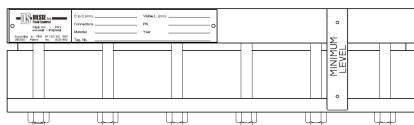


### MINIMUM LEVEL ARROW

To mark the minimum level of the fluid which must be maintained inside the tank, a minimum level arrow in stainless steel can be fixed on the level gauge. On request to enable its regulation along the full visible length it is possible to fix the arrow on a small rail.

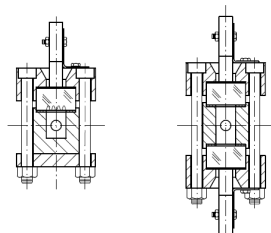
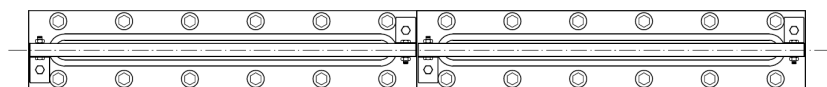


Code: MLA



### NON-FROSTING EXTENSION

On request an acrylic transparent resin slab can be supplied to be positioned on the level gauge glass (both for reflex and transparent one) to avoid the frost formation on the external surface of the glass to facilitate the fluid level reading.  
The non-frosting extension is recommended when the fluid reach a temperature  $< 0^{\circ}\text{C}$ .

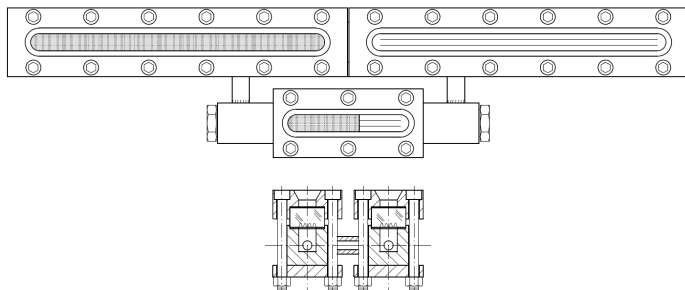


Code: NFE

## ACCESSORIES FOR GLASS LEVEL GAUGES

### CONTINUOUS READING

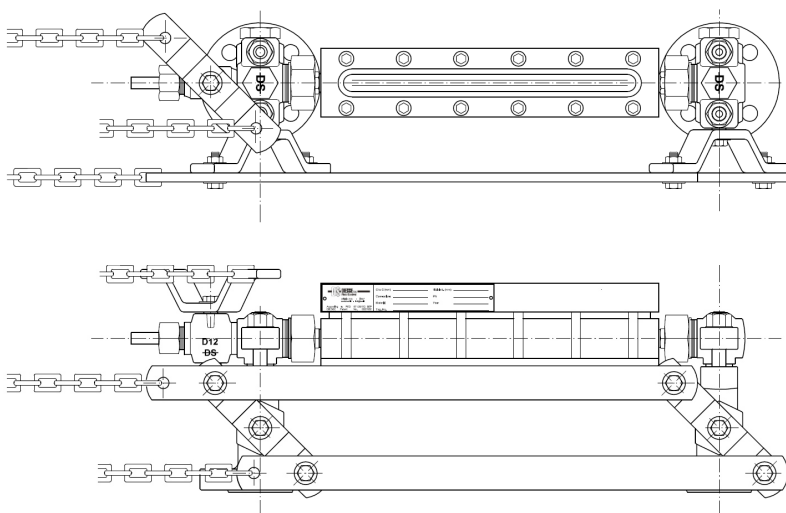
The execution of a multiple level gauge involves a discontinuity in reading due to short dark area as a result of the two elements joint. If a continuous reading of the fluid level is necessary, a special type can be supplied.



Code: CR

### REMOTE CONTROL

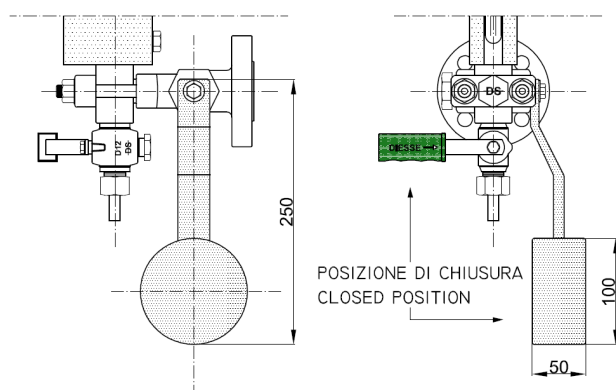
In case of level gauge installed in a high position which does not enable an easy shut-off cocks opening/closure, the handles can be equipped with a remote control device. Cable or chains are not supplied by the manufacturer.



Code: ELC

### WEIGHT CLOSING for handle (SELF-CLOSING DEVICE)

This device is supplied to ensure that the shut-off cocks remain closed even in case of the operator absence.



Code:  
LFC [Weight closing for lower handle]  
UFC [Weight closing for upper handle]

## ACCESSORIES FOR GLASS LEVEL GAUGES

### ILLUMINATION LAMP (For transparent level gauges only)

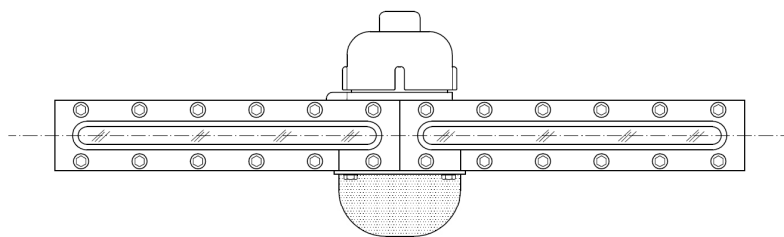
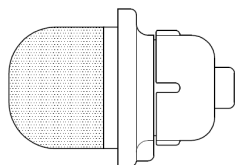
The visibility of the transparent level gauges can be improved by the installation of an illumination lamp positioned on the back side of the instrument. The lamp light is directed at the level gauge by a borosilicate or plexiglas diffuser.

#### Materials:

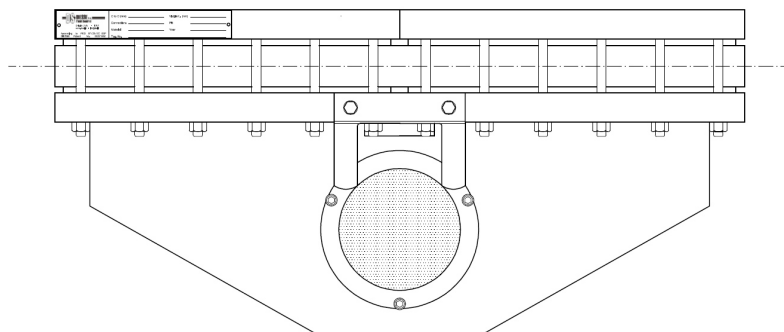
Body and cover:	aluminium with epoxy paint Option in stainless steel AISI 316
Transparent globe:	thermorestant and impact resistant glass
Support for glass level gauge:	carbon steel galvanized Option in stainless steel AISI 316
Lamp:	LED lamp 10 W E27 for supply voltage 230 VAC, 50/60 Hz Option with LED lamp E27 24V DC

#### Technical data:

Supply voltage	12-24 V AC/DC	125 V AC	230 V AC
Rated current	90-130 mA	15 mA	20 mA
Working temperature	- 20°C + 60°C	- 20°C + 60°C	- 20°C + 60°C
Frequency	--	50 / 60 Hz	50 / 60 Hz
Average power consumption	2 W	1,6 W	4,5 W
Lamp power	6J	6J	6J
Service	Continuous	Continuous	Continuous
Cable entry	3/4" NPT-F	3/4" NPT-F	3/4" NPT-F
ATEX approval	INERIS 01 ATEX 0068X	INERIS 01 ATEX 0068X	INERIS 01 ATEX 0068X



Code: EVA50



## ACCESSORIES FOR GLASS LEVEL GAUGES

### ILLUMINATION LAMP with LED driver (For transparent level gauges only)

The visibility of the transparent level gauges can be improved by the installation of an illumination lamp positioned on the back side of the instrument. All external components are made of stainless steel which provides excellent corrosion resistance. The LED driver is completely encapsulated with epoxy resin, thus offering the highest IP protection and can be used in environments with high humidity. The illumination lamp can be supplied with illumination lengths from 250 mm to 2500 mm at 50 mm intervals.



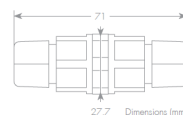
Code: LLSS

Voltage: 110-240 VAC  
Effect: Max 12W  
Available colors: white, yellow, red, green and blue  
Operating temperature: -30°C to +60°C  
Operation: > 50000 hours  
Material: stainless steel  
IP rating: IP 67

#### LED driver specifications

Output	DC Voltage Range	12 V
	Current accuracy	±0,5 V
	Rated current	1,25 A
	Rated power	15 W
Input	Voltage range	100-265 V
	Frequency range	47...63 Hz
	Power factor	PF ≥ 0,90 230V
	Full load efficiency	83
Protection	Leakage current	< 0,25 mA / 220 VAC
	Short circuit	Recovers automatically after fault condition is removed
	Over voltage	≤ 280 VAC
	Over temperature	100°C ± 10°C shut down o/p voltage, re-power on to recover
Environment	Working temperature	-30...+60°C
	Working humidity	20...95% RH, non condensing
	Temperature coefficient	± 0,03%/°C (0...50°C)
	Vibration	10...500 Hz, 5G 12 min
Safety	Safety standards	EN61347-2-13 IP67
	Withstand voltage	I/P-O/P: 3,75 KVAC
	Isolation resistance	I/P-O/P: 100 MOhm
	EMC emission	Compliance to EN55015, EN6100-3-2
	EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,11 EN61547

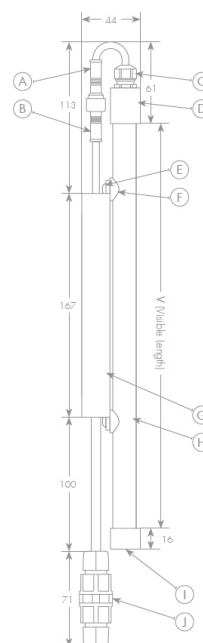
#### Inline connector specifications



Rated current: 20 A  
IP rating: IP 67  
Material: nylon  
Fire-retardant rating: UL94V-01/16 20 A  
Insulation resistance: > 2000 Ohm  
Max cable OD: 9,5 mm

#### Materials

Position	Description	Material
A	Male cable connector - IP68	Nylon, general purpose
B	Female cable connector - IP68	Nylon, general purpose
C	Cable gland M12 x 1,5	Nickel-plated brass
D	Connection sleeve	Stainless steel 316
E	M4 x 5 mm screw	Stainless steel 316
F	Saddle washer	LDPE
G	12 V LED driver	Aluminium, 1060
H	LED tube casing	Stainless steel 304
I	LED tube cap	Stainless steel 316
J	Inline cable connector - IP67	Nylon, general purpose



## ACCESSORIES FOR GLASS LEVEL GAUGES

### ILLUMINATION LAMP with LED driver (For transparent level gauges only) with Ex protection

The visibility of the transparent level gauges can be improved by the installation of an illumination lamp positioned on the back side of the instrument. All external components are made of stainless steel which provides excellent corrosion resistance. The LED driver is completely encapsulated with epoxy resin, thus offering the highest IP protection and can be used in environments with explosive atmosphere. The illumination lamp can be supplied with illumination lengths from 250 mm to 2500 mm at 50 mm intervals.



Code: LLSP Ex

Voltage: 110-240 VAC

Effect: Max 5W

Available colors: white, yellow, red, green and blue

Operating temperature: -30°C to +50°C

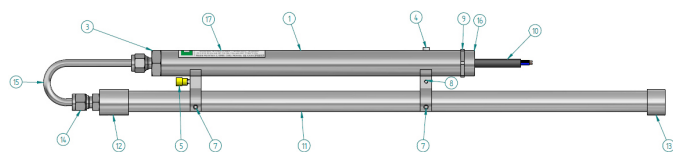
Operation: > 50000 hours

Material: stainless steel S.S. 316

Ex protection:

- With flying lead: Ex mb IIC T4 Gb / Ex mb IIIC T135°C Db
- With optional Ex e JB: Ex eb mb IIC T4 Gb / Ex mb tb IIIC T135°C Db

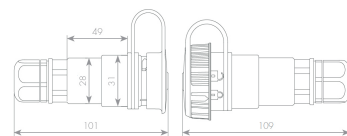
IP rating: IP 66/67



#### Materials

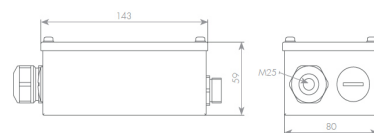
Position	Description	Material
1	LED driver tube	Stainless steel 316
3	M20 Compression fitting	Stainless steel 316
4	M3 x 6 mm screw	Stainless steel 316
5	Ring cable lug (4 to 6 mm <sup>2</sup> )	Tin-plated brass, with nylon insulation
7	M4 x 5 mm set screw	Stainless steel 316
8	M3 tooth washer	Stainless steel 304
9	LED driver adapter	Stainless steel 316
10	Radox 125 cable 3x0,75 mm <sup>2</sup>	—
11	Led tube casing	Stainless steel 316
12	LED tube adapter	Stainless steel 316
13	LED tube cap	Stainless steel 316
14	M12 compression fitting	Stainless steel 316
15	Connection tube 6 mm	Stainless steel 316
16	LED driver adaptor cap	Stainless steel 316

#### Inline connector specifications



Ex protection: Ex e IIC T6 Gb  
Ex tb IIIC T72°C Db  
Rated current: 10 A  
IP rating: IP 66/67  
Material: plastic

#### Terminal box



Ex protection: Ex eb IIC T4 Gb  
Ex tb IIIC T135°C Db  
IP rating: IP 66  
Material: S.S. 316  
Gasket: silicone rubber

