

# **MAGNETIC MARINE LEVEL GAUGES**

Product origin Design & Manufacturing

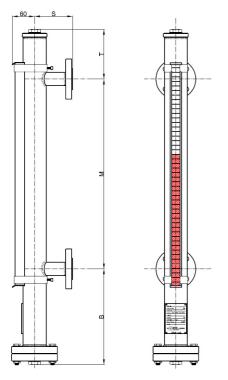
On request the product is available also with the approval certificate of Lloyd's Register

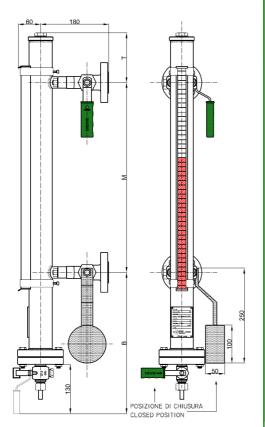


PN16 and PN25 / Class 150

DS MG - DS BP - SHP

Code: DS MG - DSBP - ... /16/RF - M...- SS/SS/.../SS - SHP





### Technical data

Service conditions

Max Pressure: PN16 and PN25 Max temperature: 200°C and 300°C

Standard execution:

Max pressure 16 bar

Pressure > 16 bar and up to 25 bar with reinforcements

Max temperature 200°C Rollers:

Temperature up to 300°C with ceramic rollers

Specific weight: ≥ 0,65 g/cm<sup>3</sup>

< 0,65 g/cm3 with special float

Application

Fluid storage tanks also aboard of ships

View

Standard: adjustable on 360° in the installation phase

Distance M (Centre-to-centre)

On request, distances up to 5.600 mm in one sole piece (Fixed distance, not adjustable)

Option: On request distances over 5.600 mm (In several pieces)

Materials (Standard)

Chamber: Stainless steel 316L (Ø 60,3 x 2 mm)

Stainless steel 316L (Ø 50 mm for S.W. ≥ 1,0 g/cm³) Titanium Grade 2 (Ø 50 mm for S.W. ≤ 1,0 g/cm³) Stainless steel (flanged, threaded pipes, butt weld pipes) Float: Process connections:

With cocks: Carbon steel A105 cocks or Stainless steel 316L cocks Rollers: Brass with red and white epoxy paint, aluminium housing, glass cover

(Temperature ≤ 200°C)

Blue and white ceramic, aluminium housing, glass cover

(Temperature > 200°C up to 300°C)

Options: chamber and float in other materials; roller display housing with stainless steel cover

Gaskets

Standard: graphite/AISI 316 Options: PTFE/AISI 316

Process connections

UNI PN16/40 DN15-20-25 ANSI#150-300/RF DN 1/2" - 3/4" - 1" Standard flanges:

BSP-M ½" - ¾" - 1" BSP-F ½" - ¾" - 1" NPT-M ½" - ¾" - 1' NPT-F ½" - ¾" - 1' Standard threaded pipes: BW ½" - ¾" - 1" SW ½" - ¾" - 1" Standard butt weld pipes:

Options: further connections type or connections with cocks (see details at page 2.13 and 2.14)

Standard: threaded 1/2" with plug Options: On request, with flange or with cock

(see details at page 2.13 and page 2.14)

Drain: Standard: threaded 1/2" with plug Options: On request, with flange or with cock

(see details at page 2.13 and page 2.14)

**Process connections with shut-off cocks:** (see details at page 2.13 and page 2.14) Cocks type DS GR18: cylindrical plug type - Straight type - Quick 90° closing Lower cock with weight closing accessory for self closing

B = Distance depending on the specific weight of the fluid and weight of float

T = 130 mm (Standard); Option: on request

S = 100 mm (Standard); Option: on request

Accessories

Shut-off cocks (see details from page 2.13) Drain cock (see details from page 2.13) Vent cock (see details from page 2.13) Calibrated scale (see details from page 2.14) Magnetic switches (see details from page 2.15) Level transmitter (see details from page 2.23) Control unit (see details from page 2.27)

Magnetic level gauge: Kg. 12,0 approx. (with centre-to-centre 1.000 mm and flanges DN20 PN16) Cocks type DS GR18 with weight closing for lower handle: Kg. 9,6 approx. (with flanges UNI DN20 PN40)

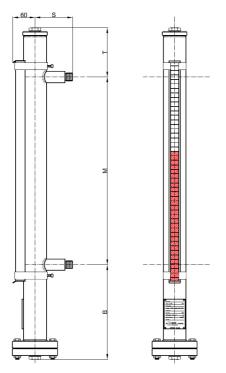
For routine maintenance are not necessary spare parts.

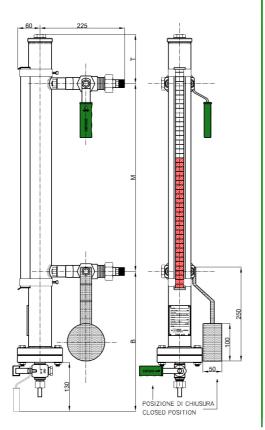


PN16 and PN25 / Class 150

DS MG - DS BP - SHP

Code: DS MG - DSBP - 1/2" GAS-M - M...-SS/SS/.../SS-SHP





### Technical data

### Service conditions

Max Pressure: PN16 and PN25 Max temperature: 200°C and 300°C

### Standard execution:

Max pressure 16 bar

Pressure > 16 bar and up to 25 bar with reinforcements

Max temperature 200°C Rollers:

Temperature up to 300°C with ceramic rollers

Specific weight: ≥ 0,65 g/cm<sup>3</sup>

< 0,65 g/cm3 with special float

### Application

Fluid storage tanks also aboard of ships

### View

Standard: adjustable on 360° in the installation phase

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

On request, distances up to 5.600 mm in one sole piece (Fixed distance, not adjustable) Option: On request distances over 5.600 mm (In several pieces)

### Materials (Standard)

Chamber: Stainless steel 316L (Ø 60,3 x 2 mm)

Stainless steel 316L (Ø 50 mm for S.W. ≥ 1,0 g/cm³) Titanium Grade 2 (Ø 50 mm for S.W. ≤ 1,0 g/cm³) Stainless steel (flanged, threaded pipes, butt weld pipes) Float: Process connections:

With cocks: Carbon steel A105 cocks or Stainless steel 316L cocks Rollers: Brass with red and white epoxy paint, aluminium housing, glass cover

(Temperature ≤ 200°C)

Blue and white ceramic, aluminium housing, glass cover

(Temperature > 200°C up to 300°C)

Options: chamber and float in other materials; roller display housing with stainless steel cover

### Gaskets

Standard: graphite/AISI 316 Options: PTFE/AISI 316

### Process connections

UNI PN16/40 DN15-20-25 ANSI#150-300/RF DN 1/2" - 3/4" - 1" Standard flanges:

BSP-M ½" - ¾" - 1" BSP-F ½" - ¾" - 1" NPT-M ½" - ¾" - 1' NPT-F ½" - ¾" - 1' Standard threaded pipes: BW ½" - ¾" - 1" SW ½" - ¾" - 1" Standard butt weld pipes:

Options: further connections type or connections with cocks (see details at page 2.13 and 2.14)

Standard: threaded 1/2" with plug Options: On request, with flange or with cock

(see details at page 2.13 and page 2.14)

Drain: Standard: threaded 1/2" with plug Options: On request, with flange or with cock

(see details at page 2.13 and page 2.14)

**Process connections with shut-off cocks:** (see details at page 2.13 and page 2.14) Cocks type DS GR18: cylindrical plug type - Straight type - Quick 90° closing Lower cock with weight closing accessory for self closing

B = Distance depending on the specific weight of the fluid and weight of float

T = 130 mm (Standard); Option: on request

S = 100 mm (Standard); Option: on request

### Accessories

Shut-off cocks (see details from page 2.13) Drain cock (see details from page 2.13) Vent cock (see details from page 2.13) Calibrated scale (see details from page 2.14) Magnetic switches (see details from page 2.15) Level transmitter (see details from page 2.23) Control unit (see details from page 2.27)

Magnetic level gauge: Kg. 10,0 approx. (with centre-to-centre 1.000 mm and threads 1/2" BSP-M) Cocks type DS GR18 with weight closing for lower handle: Kg. 7,2 approx. (with threads 1/2" BSP-M)

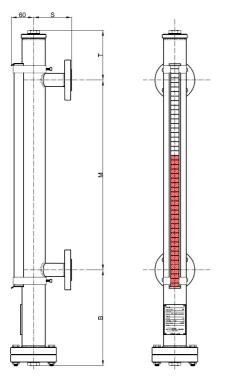
For routine maintenance are not necessary spare parts.

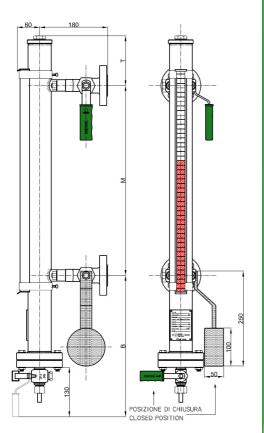


PN40 / Class 300

DS MG - DS MP - SHP

Code: DS MG - DSMP - ... /40/RF - M...- SS/SS/.../SS - SHP





### Technical data

Service conditions

Max Pressure: PN40; Class 300 (49,6 bar @ 38°C)

Max temperature: 200°C and 300°C

Standard execution:

Max pressure 40 bar; Class 300 (49,6 bar @ 38°C)

Rollers: Max temperature 200°C

Temperature up to 300°C with ceramic rollers

Specific weight: ≥ 0,65 g/cm<sup>3</sup>

< 0,65 g/cm<sup>3</sup> with special float

**Application**Fluid storage tanks also aboard of ships

Standard: adjustable on 360° in the installation phase

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

On request, distances up to 5.600 mm in one sole piece (Fixed distance, not adjustable) Option: On request distances over 5.600 mm (In several pieces)

Materials (Standard)

Chamber: Stainless steel 316L (Ø 60,3 x 2,77 mm)

Float: Stainless steel 316L (Ø 50 mm for S.W. ≥ 1,0 g/cm<sup>3</sup>) Titanium Grade 2 (Ø 50 mm for S.W. ≤ 1,0 g/cm<sup>3</sup>)

Stainless steel (flanged, threaded pipes, butt weld pipes)
With cocks: Carbon steel A105 cocks or Stainless steel 316L cocks Process connections:

Rollers: Brass with red and white epoxy paint, aluminium housing, glass cover

(Temperature ≤ 200°C)

Blue and white ceramic, aluminium housing, glass cover

(Temperature > 200°C up to 300°C)

Options: chamber and float in other materials; roller display housing with stainless steel cover

Gaskets

Standard: graphite/AISI 316 Options: PTFE/AISI 316

Process connections

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

BSP-M ½" - ¾" - 1" BSP-F ½" - ¾" - 1" NPT-M ½" - ¾" - 1" NPT-F ½" - ¾" - 1" Standard threaded pipes: SW ½" - ¾" - 1" BW ½" - ¾" - 1" Standard butt weld pipes:

Options: further connections type or connections with cocks (see details at page 2.13 and 2.14)

Options: On request, with flange or with cock (see details at page 2.13 and page 2.14) Vent: Standard: threaded 1/2" with plug

Options: On request, with flange or with cock Drain: Standard: threaded 1/2" with plug (see details at page 2.13 and page 2.14)

Process connections with shut-off cocks: (see details at page 2.13 and page 2.14)

Cocks type DS GR18: cylindrical plug type - Straight type - Quick 90° closing Lower cock with weight closing accessory for self closing

Dimensions

B = Distance depending on the specific weight of the fluid and weight of float

T = 130 mm (Standard); Option: on request S = 100 mm (Standard); Option: on request

Accessories

Shut-off cocks (see details from page 2.13) (see details from page 2.13) Drain cock Vent cock (see details from page 2.13) Calibrated scale (see details from page 2.14) Magnetic switches (see details from page 2.15) (see details from page 2.23) Level transmitter Control unit (see details from page 2.27)

Magnetic level gauge: Kg. 12,0 approx. (with centre-to-centre 1.000 mm and flanges DN20 PN40) Cocks type DS GR18 with weight closing for lower handle: Kg. 9,6 approx. (with flanges UNI DN20 PN40)

Spare parts

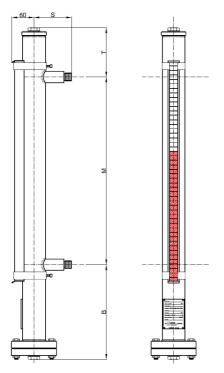
For routine maintenance are not necessary spare parts.

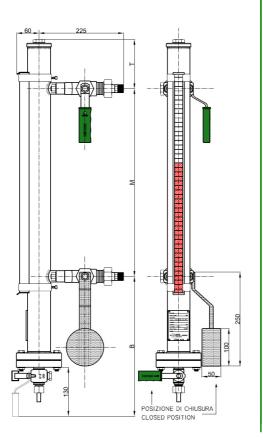


PN40 / Class 300

DS MG - DS MP - SHP

Code: DS MG - DSBP - 1/2" GAS-M - M...-SS/SS/.../SS-SHP





### Technical data

Service conditions

Max Pressure: PN40; Class 300 (49,6 bar @ 38°C)

Max temperature: 200°C and 300°C

Standard execution:

Max pressure 40 bar; Class 300 (49,6 bar @ 38°C)

Rollers: Max temperature 200°C

Temperature up to 300°C with ceramic rollers

Specific weight: ≥ 0,65 g/cm<sup>3</sup>

< 0,65 g/cm<sup>3</sup> with special float

**Application**Fluid storage tanks also aboard of ships

Standard: adjustable on 360° in the installation phase

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

On request, distances up to 5.600 mm in one sole piece (Fixed distance, not adjustable) Option: On request distances over 5.600 mm (In several pieces)

Materials (Standard)

Chamber: Stainless steel 316L (Ø 60,3 x 2,77 mm)

Float: Stainless steel 316L (Ø 50 mm for S.W. ≥ 1,0 g/cm<sup>3</sup>) Titanium Grade 2 (Ø 50 mm for S.W. ≤ 1,0 g/cm<sup>3</sup>) Process connections:

Stainless steel (flanged, threaded pipes, butt weld pipes)
With cocks: Carbon steel A105 cocks or Stainless steel 316L cocks

Rollers: Brass with red and white epoxy paint, aluminium housing, glass cover (Temperature ≤ 200°C)

Blue and white ceramic, aluminium housing, glass cover

(Temperature > 200°C up to 300°C)

Options: chamber and float in other materials; roller display housing with stainless steel cover

Gaskets

Standard: graphite/AISI 316 Options: PTFE/AISI 316

Process connections

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

BSP-M ½" - ¾" - 1" BSP-F ½" - ¾" - 1" NPT-M ½" - ¾" - 1" NPT-F ½" - ¾" - 1" Standard threaded pipes: SW ½" - ¾" - 1" BW ½" - ¾" - 1" Standard butt weld pipes:

Options: further connections type or connections with cocks (see details at page 2.13 and 2.14)

Options: On request, with flange or with cock (see details at page 2.13 and page 2.14) Vent: Standard: threaded 1/2" with plug

Options: On request, with flange or with cock Drain: Standard: threaded 1/2" with plug

(see details at page 2.13 and page 2.14)

Process connections with shut-off cocks: (see details at page 2.13 and page 2.14)

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

Lower cock with weight closing accessory for self closing

## Dimensions

B = Distance depending on the specific weight of the fluid and weight of float

T = 130 mm (Standard); Option: on request S = 100 mm (Standard); Option: on request

# Accessories

Shut-off cocks (see details from page 2.13) (see details from page 2.13) Drain cock Vent cock (see details from page 2.13) Calibrated scale (see details from page 2.14) Magnetic switches (see details from page 2.15) (see details from page 2.23) Level transmitter Control unit (see details from page 2.27)

### Weiahts

Magnetic level gauge: Kg. 10,0 approx. (with centre-to-centre 1.000 mm and threads 1/2" BSP-M) Cocks type DS GR18 with weight closing for lower handle: Kg. 7,2 approx. (with thread 1/2" BSP-M)

### Spare parts

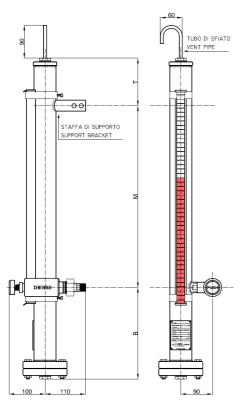
For routine maintenance are not necessary spare parts.

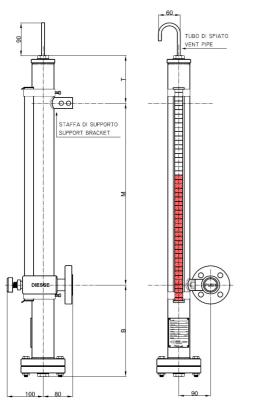


### **PN16**

# DS MG - DS BP - NPV - SHP

Code: DS MG-DSBP-.../16/RF-M...- SS/SS/.../SS-NPV- SHP





### Technical data

# Service conditions

Max Pressure: PN16 Max temperature: 150°C

### Standard execution:

Specific weight: ≥ 0,65 g/cm<sup>3</sup>

< 0,65 g/cm3 with special float

### Application

Fluid storage tanks also aboard of ships

Standard: adjustable on 360° in the installation phase

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

On request, distances up to 5.600 mm in one sole piece (Fixed distance, not adjustable)

Option: On request distances over 5.600 mm (In several pieces)

### Materials (Standard)

Chamber:

Stainless steel 316L (Ø 60,3 x 2 mm) Stainless steel 316L (Ø 50 mm for S.W. ≥ 1,0 g/cm³) Titanium Grade 2 (Ø 50 mm for S.W. ≤ 1,0 g/cm³) Float:

Process connection: Self closing valve type DS NPV, push button type in Carbon steel

A105 galvanized or Stainless steel 316L

Brass with red and white epoxy paint, aluminium housing, glass cover Options: chamber and float in other materials; roller display housing with stainless steel cover

Standard: graphite/AISI 316 Options: PTFE/AISI 316

### Self-closing Valve

Type DS NPV: self-closing, push button type

Handling: opening by push button (Standard: valve on the right side; On request on the left side)

Process connection:

Standard flange: UNI PN16 DN15-20-25 ANSI#150/RF DN 1/2" - 3/4" - 1" NPT-M 1/2" - 3/4"

Standard threaded union: BSP-M 1/2" - 3/4"

Option: further connection types

Standard: threaded 1/2" with vent pipe Option: on request (see details at page 1.52) Drain: Standard: threaded 1/2" with plug Option: on request (see details at page 1.52)

### Dimensions

B= Distance depending on the specific weight of the fluid and weight of float T=130 mm (Standard); Option: on request

### Accessories

(see details from page 2.13) Shut-off cocks (see details from page 2.13) (see details from page 2.13) Drain cock Vent cock Calibrated scale (see details from page 2.14) (see details from page 2.15) Magnetic switches Level transmitter (see details from page 2.23) Control unit (see details from page 2.27)

### Weights

Magnetic level gauge: Kg. 13,5 approx. (with centre-to-centre 1.000 mm and valve type DS NPV flanged DN20 PN16

### Spare parts

For routine maintenance are not necessary spare parts.

For valve type DS NPV: see from page 1.74 (drawing with components and parts list see page 1.67) of the catalogue relative to the glass level gauges.