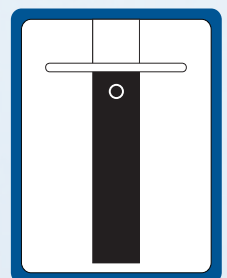
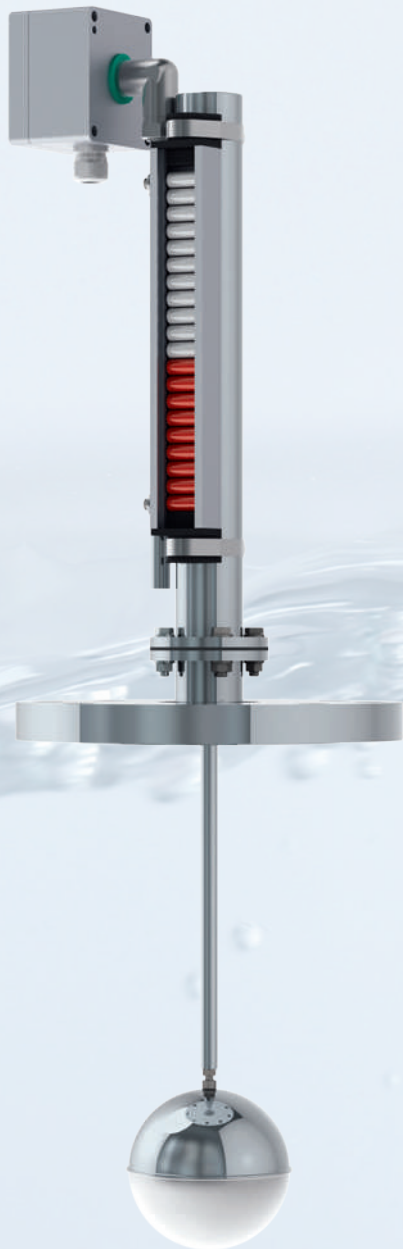


# 1016-MINI

## TOP MOUNTED LEVEL INDICATOR-MINI



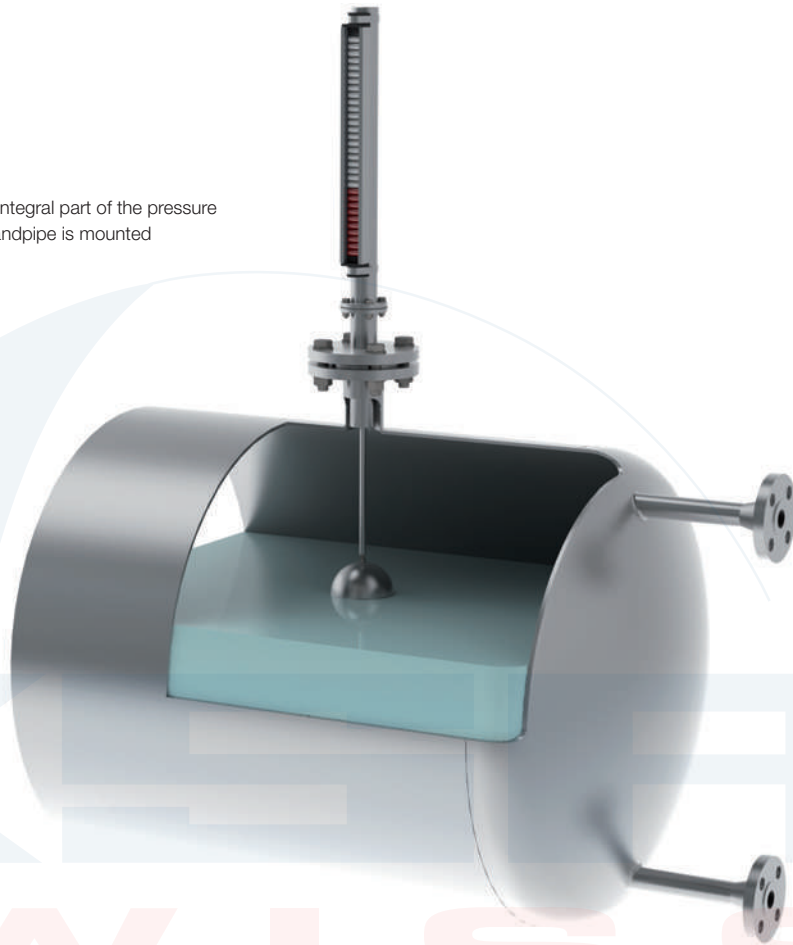
### Table of content

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| Top Mounted Level Indicator-Mini / Content.....                             | 384 |
| Top Mounted Level Indicator-Mini / Functional description .....             | 385 |
| Top Mounted Level Indicator-Mini / Type key.....                            | 386 |
| Top Mounted Level Indicator-Mini / Type key.....                            | 387 |
| Top Mounted Level Indicator-Mini / Type key.....                            | 388 |
| Top Mounted Level Indicator-Mini / Type key.....                            | 389 |
| Top Mounted Level Indicator-Mini / Type key.....                            | 390 |
| Top Mounted Level Indicator-Mini / Type key.....                            | 391 |
| Top Mounted Level Indicator-Mini / Stainless steel .....                    | 392 |
| Top Mounted Level Indicator-Mini / Stainless steel with stilling well ..... | 393 |
| Top Mounted Level Indicator-Mini / Stainless steel .....                    | 394 |
| Top Mounted Level Indicator-Mini / Stainless steel with stilling well ..... | 395 |
| Top Mounted Level Indicator-Mini / Ball float .....                         | 396 |
| Top Mounted Level Indicator-Mini / Ball float .....                         | 397 |
| Top Mounted Level Indicator-Mini / Ball float .....                         | 398 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 399 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 400 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 401 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 402 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 403 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 404 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 405 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 406 |
| Top Mounted Level Indicator-Mini / Cylindrical float .....                  | 407 |
| Top Mounted Level Indicator-Mini / Magnetic roller indicator .....          | 408 |
| Top Mounted Level Indicator-Mini / Scale.....                               | 409 |
| Top Mounted Level Indicator-Mini / Level transmitter.....                   | 410 |
| Top Mounted Level Indicator-Mini / Level transmitter.....                   | 411 |
| Top Mounted Level Indicator-Mini / Level transmitter.....                   | 412 |
| Top Mounted Level Indicator-Mini / Level transmitter.....                   | 413 |
| Top Mounted Level Indicator-Mini / Level transmitter.....                   | 414 |
| Top Mounted Level Indicator-Mini / Level transmitter.....                   | 415 |
| Top Mounted Level Indicator-Mini / Magnetic switch.....                     | 416 |
| Top Mounted Level Indicator-Mini / Magnetic switch.....                     | 417 |
| Top Mounted Level Indicator-Mini / Magnetic switch.....                     | 418 |
| Top Mounted Level Indicator-Mini / Magnetic switch.....                     | 419 |
| Top Mounted Level Indicator-Mini / Isolation / Heat tracing .....           | 420 |
| Top Mounted Level Indicator-Mini / Isolation .....                          | 421 |

SWISS

## Functional description

Top mounted level indicators form an integral part of the pressure vessel. Via a process connection a standpipe is mounted on top of a tank or a vessel.



The top mounted pipe contains a magnetic system which is connected to a float and buoyancy rod system. The concentrated magnetic field of the permanent magnet transmits the liquid level of the tank below in proportion to the filling height in a contactless way through the wall of the top-mounted standpipe onto externally mounted displaying, recording and switching elements.

## Design limits

|                     |                           |
|---------------------|---------------------------|
| Specific gravity:   | $\geq 300 \text{ kg/m}^3$ |
| Design pressure:    | -1 bar ... 6 bar          |
| Design temperature: | -196°C ... 150°C          |

## Top Mounted Level Indicator-Mini / Type key

### Code 1

Key 1

... -

**Version**

|                  |                                                    |
|------------------|----------------------------------------------------|
| UNA <sup>1</sup> | Top mounted level indicator                        |
| UMG <sup>1</sup> | Top mounted level indicator with level transmitter |

### Code 2

Key 1 ( for process connection flange )

... -

**Flange connection**

Key 1 ( for process connection other )

... -

**Other process connection**

|                 |                             |                   |                 |
|-----------------|-----------------------------|-------------------|-----------------|
| FE <sup>1</sup> | Flange according to EN      | GN <sup>1</sup>   | Male thread G   |
| FA <sup>1</sup> | Flange according to ANSI    | NPTN <sup>1</sup> | Male thread NPT |
| F <sup>1</sup>  | Flange according to ...     |                   |                 |
| FS <sup>1</sup> | Flange according to drawing |                   |                 |

### Code 3

Key 1.1 ( only for flange )

... / ... / ... -

**Flange connection**

Key 1.2 ( only for flange )

... / ... / ... -

**Flange connection**

Key 1.3 ( only for flange )

... / ... / ... -

**Flange connection**

|     |                     |     |                        |     |               |
|-----|---------------------|-----|------------------------|-----|---------------|
| ... | Flange nominal bore | ... | Flange pressure rating | ... | Flange facing |
|-----|---------------------|-----|------------------------|-----|---------------|

### Code 3

Key 1 ( for process connection other )

... -

**Size**

|     |                          |
|-----|--------------------------|
| ... | Threaded connection size |
|-----|--------------------------|

### Example

| Code    | 1   | 2 | 3  |   |     | 4 |     |   |     |   |     |   |       |   |   | 5 | 6  |   | 7 |   |   |   |   |   |   |       |   |    |   |      |   |      |   |   |   |    |   |   |   |
|---------|-----|---|----|---|-----|---|-----|---|-----|---|-----|---|-------|---|---|---|----|---|---|---|---|---|---|---|---|-------|---|----|---|------|---|------|---|---|---|----|---|---|---|
| Key     | 1   | - | 1  | - | 1.1 | / | 1.2 | / | 1.3 | - | 1   | / | 2     | / | 3 | / | 4  | / | 5 | / | 6 | / | 7 | / | 8 | -     | 1 | -  | 1 | /    | 2 | -    | 1 | / | 2 | /  | 3 | - |   |
| Example | UMG | - | FE | - | 25  | / | 16  | / | B1  | - | ALE | / | TP43B | / | V | / | K5 | / |   |   |   |   |   |   |   | EXIAG | - | DU | - | L... | / | A... | - | V | / | 40 | / | 2 | - |

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue<sup>1</sup> = possible according to Atex Exia and Exd / Black<sup>1</sup> = possible according to Atex Exd

## Code 4

| Key 1<br>... / ... / ... / ... / ... / ... -<br><b>Electrical connection level transmitter</b> | Key 2<br>... / ... / ... / ... / ... / ... -<br><b>Control unit</b> | Key 3<br>... / ... / ... / ... / ... / ... -<br><b>Level transmitter tube material quality</b> |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| ALE Aluminium terminal box 64 x 58 x 34 mm<br>( only without control unit )                    | TP43A <sup>1</sup> TP5343A<br>TP43B <sup>1</sup> TP5343B Ex         | V <sup>1</sup> Stainless steel                                                                 |
| ALF Aluminium terminal box 80 x 75 x 57 mm                                                     | TD35A <sup>1</sup> TD5335A                                          |                                                                                                |
| ALDA <sup>1</sup> Aluminium terminal box Ø 95 x 84 mm                                          | TD35B <sup>1</sup> TD5335D Ex                                       |                                                                                                |
| AVA Stainless steel terminal box Ø 82 x 110 mm                                                 | TP50AP <sup>1</sup> TP5350AP / PROFIBUS® PA                         |                                                                                                |
| AVDA <sup>1</sup> Stainless steel terminal box Ø 82 x 110 mm                                   | TP50BP <sup>1</sup> TP5350BP Ex / PROFIBUS® PA                      |                                                                                                |
| AVM Stainless steel terminal box Ø 50 x 117 mm                                                 | TP50AF <sup>1</sup> TP5350AF / FOUNDATION™ Fieldbus                 |                                                                                                |
| AVDM <sup>1</sup> Stainless steel terminal box Ø 169 x 117 mm                                  | TP50BF <sup>1</sup> TP5350BF Ex / FOUNDATION™ Fieldbus              |                                                                                                |
| DAAVDM <sup>1</sup> Stainless steel terminal box with<br>LED display Ø 169 x 117 mm            | TMT181A <sup>1</sup> TMT181<br>TMT181B <sup>1</sup> TMT181 Ex       |                                                                                                |
| APA Polyester terminal box 80 x 75 x 55 mm                                                     | ZMU <sup>1</sup> XT42Si Ex                                          |                                                                                                |
| APB Polyester terminal box 80 x 75 x 55 mm / Exm                                               | TAMX <sup>1</sup> Other control unit                                |                                                                                                |
| ABA ABS terminal box 80 x 82 x 55 mm                                                           | MST <sup>1</sup> Magnetostrictive / 4 ... 20 mA                     |                                                                                                |
| K Connection cable                                                                             | MSTB <sup>1</sup> Magnetostrictive / 4 ... 20 mA / Ex               |                                                                                                |
| K68 Connection cable IP 68 ( ≥ G 3/8" )                                                        | MSTH <sup>1</sup> Magnetostrictive / HART®-Protocol                 |                                                                                                |
| DAALA Aluminium terminal box with<br>LED display Ø 82 x 100 mm                                 | MSTHB <sup>1</sup> Magnetostrictive / HART®-Protocol / Ex           |                                                                                                |
| DAAVDA <sup>1</sup> Stainless steel terminal box with<br>LED display Ø 82 x 100 mm             |                                                                     |                                                                                                |

## Code 4

| Key 4<br>... / ... / ... / ... / ... / ... -<br><b>Accuracy</b> | Key 5 ( only for connection cable )<br>... / ... / ... / ... / ... / ... -<br><b>Length of cable</b> | Key 6 ( only for connection cable )<br>... / ... / ... / ... / ... / ... -<br><b>Connection cable</b> |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| K5 <sup>1</sup> Accuracy 5 mm / -30 ... 130°C                   | ... Length of cable in meter                                                                         | PVC <sup>1</sup> PVC connection cable                                                                 |
| K5HTF <sup>1</sup> Accuracy 5 mm / -30 ... 200°C                |                                                                                                      | PVCB <sup>1</sup> PVC connection cable with blue coating                                              |
| K5HT <sup>1</sup> Accuracy 5 mm / -40 ... 250°C                 |                                                                                                      | SIL <sup>1</sup> Silicone connection cable                                                            |
| K10 <sup>1</sup> Accuracy 10 mm / -30 ... 130°C                 |                                                                                                      | PUR <sup>1</sup> PUR connection cable                                                                 |
| K10HTF <sup>1</sup> Accuracy 10 mm / -30 ... 200°C              |                                                                                                      | RAD <sup>1</sup> Radox connection cable                                                               |
| K10HT <sup>1</sup> Accuracy 10 mm / -40 ... 250°C               |                                                                                                      |                                                                                                       |
| K15 <sup>1</sup> Accuracy 15 mm / -30 ... 130°C                 |                                                                                                      |                                                                                                       |
| K15HTF <sup>1</sup> Accuracy 15 mm / -30 ... 200°C              |                                                                                                      |                                                                                                       |
| K15HT <sup>1</sup> Accuracy 15 mm / -40 ... 250°C               |                                                                                                      |                                                                                                       |
| K1 <sup>1</sup> Accuracy 0.2 mm / -40 ... 125°C                 |                                                                                                      |                                                                                                       |
| K1HT <sup>1</sup> Accuracy 0.2 mm / -40 ... 250°C               |                                                                                                      |                                                                                                       |

## Code 4

| Key 7 ( only for connection cable )<br>... / ... / ... / ... / ... / ... -<br><b>Connection cable option</b> | Key 8<br>... / ... / ... / ... / ... / ... -<br><b>Approvals level transmitter</b> |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| KA <sup>1</sup> Shielded                                                                                     | EXIAG Acc. to Exia, atmosphere gas                                                 |
| KB <sup>1</sup> Shielded / oil-resistant                                                                     | EXIAGD Acc. to Exia, atmosphere gas and dust                                       |
| KC <sup>1</sup> Shielded / oil-resistant / halogen-free                                                      | EXDG <sup>1</sup> Acc. to Exd, atmosphere gas                                      |
| KD <sup>1</sup> Oil-resistant                                                                                | EXDGD <sup>1</sup> Acc. to Exd, atmosphere gas and dust                            |
| KE <sup>1</sup> Oil-resistant / halogen-free                                                                 | EXIADG <sup>1</sup> Acc. to Exia and Exd, atmosphere gas                           |
| KF <sup>1</sup> Halogen-free                                                                                 | EXIADGD <sup>1</sup> Acc. to Exia and Exd, atmosphere gas and dust                 |

## Example

| 8                                                                        | 9 | 10 | 11 | 12 | 13 | Code    |
|--------------------------------------------------------------------------|---|----|----|----|----|---------|
| 1 / 2 / 3 - 1 / 2 / 3 / 4 / 5 / 6 / 7 - 1 / 2 / 3 - 1 - 1 / 2 - 1 / 2    |   |    |    |    |    | Key     |
| MNB / SA1 - 3 / RU40 / N / 1 / PVCB / KA EXIAG - USV / 98 - - - EX / PED |   |    |    |    |    | Example |

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue<sup>1</sup> = possible according to Atex Exia and Exd / Black<sup>1</sup> = possible according to Atex Exd

## Top Mounted Level Indicator-Mini / Type key

### Code 5

Key 1

... -

**Electrical connection position of the level transmitter**

|                 |                                      |
|-----------------|--------------------------------------|
| DO <sup>1</sup> | Electrical connection top mounted    |
| DU <sup>1</sup> | Electrical connection bottom mounted |

### Code 6

Key 1

... / ... -

**Length of instrument**

Key 2

... / ... -

**Display indication range**

|                   |                            |                   |                                |
|-------------------|----------------------------|-------------------|--------------------------------|
| L... <sup>1</sup> | Length of instrument in mm | A... <sup>1</sup> | Display indication range in mm |
|-------------------|----------------------------|-------------------|--------------------------------|

### Code 7

Key 1

... / ... / ... -

**Chamber material quality**

Key 2

... / ... / ... -

**Chamber outside diameter**

Key 3

... / ... / ... -

**Chamber wall thickness**

|                |                 |                 |            |                   |                              |
|----------------|-----------------|-----------------|------------|-------------------|------------------------------|
| V <sup>1</sup> | Stainless steel | 40 <sup>1</sup> | Ø 40.00 mm | 2.00 <sup>1</sup> | Chamber wall thickness in mm |
|----------------|-----------------|-----------------|------------|-------------------|------------------------------|

### Code 8

Key 1

... / ... / ... -

**Magnetic roller indicator**

Key 2

... / ... / ... -

**Scale**

Key 3

... / ... / ... -

**Mag. roller indicator sight extension**

|                    |                                                    |                  |                                                                  |                 |                       |
|--------------------|----------------------------------------------------|------------------|------------------------------------------------------------------|-----------------|-----------------------|
| MNA                | Magnetic roller indicator MNA                      | SAK              | Scale in Aluminium with adhesive foil                            | PV <sup>1</sup> | Acryl glass extension |
| MNB <sup>1</sup>   | Magnetic roller indicator MNB ( Ex )               | SA0 <sup>1</sup> | Scale in Aluminium without engraving                             |                 |                       |
| MNAN               | Mag. roller indicator MNAN over-roll-protected     | SA1 <sup>1</sup> | Scale in Aluminium with engraving in %                           |                 |                       |
| MNBN <sup>1</sup>  | Mag. roller indicator MNBN over-roll-prot. ( Ex )  | SA2 <sup>1</sup> | Scale in Aluminium with engraving in cm                          |                 |                       |
| MNAV               | Magnetic roller indicator MNAV                     | SA3 <sup>1</sup> | Scale in Aluminium with engraving in inch.                       |                 |                       |
| MNBV <sup>1</sup>  | Magnetic roller indicator MNBV ( Ex )              | SA4 <sup>1</sup> | Scale in Aluminium with engraving acc. to customized table       |                 |                       |
| MNAVN              | Magnetic roller indicator MNAVN over-roll-prot.    | SV0 <sup>1</sup> | Scale in Stainless steel without engraving                       |                 |                       |
| MNBVN <sup>1</sup> | Mag. roller indicator MNBVN over-roll-prot. ( Ex ) | SV1 <sup>1</sup> | Scale in Stainless steel with engraving in %                     |                 |                       |
|                    |                                                    | SV2 <sup>1</sup> | Scale in Stainless steel with engraving in cm                    |                 |                       |
|                    |                                                    | SV3 <sup>1</sup> | Scale in Stainless steel with engraving in inch.                 |                 |                       |
|                    |                                                    | SV4 <sup>1</sup> | Scale in Stainless steel with engraving acc. to customized table |                 |                       |

### Code 9

Key 1

... / ... / ... / ... / ... -

**Number of magnetic switches**

Key 2

... / ... / ... / ... / ... -

**Magnetic switch**

Key 3

... / ... / ... / ... / ... -

**Magnetic switch option**

|     |                             |                     |                         |                  |                                                         |
|-----|-----------------------------|---------------------|-------------------------|------------------|---------------------------------------------------------|
| ... | Number of magnetic switches | RU40                | Magnetic switch RU40    | R22 <sup>1</sup> | Switch protective circuit with 22 ohm / 0.21 W resistor |
|     |                             | RUD40 <sup>1</sup>  | Magnetic switch RUD40   | N <sup>1</sup>   | Switch protective circuit according to NAMUR EN 60947   |
|     |                             | RUV40               | Magnetic switch RUV40   |                  |                                                         |
|     |                             | RUVD40 <sup>1</sup> | Magnetic switch RUVD40  |                  |                                                         |
|     |                             | ALERU40             | Magnetic switch ALERU40 |                  |                                                         |
|     |                             | ALFRU40             | Magnetic switch ALFRU40 |                  |                                                         |

### Example

| Code    | 1   | 2 | 3  | 4 |     |   |     |   |     |   |     |   |       |   |   |   |    |   |   | 5 | 6 | 7 |   |   |   |       |   |    |   |      |   |      |   |   |   |    |   |   |   |
|---------|-----|---|----|---|-----|---|-----|---|-----|---|-----|---|-------|---|---|---|----|---|---|---|---|---|---|---|---|-------|---|----|---|------|---|------|---|---|---|----|---|---|---|
| Key     | 1   | - | 1  | - | 1.1 | / | 1.2 | / | 1.3 | - | 1   | / | 2     | / | 3 | / | 4  | / | 5 | / | 6 | / | 7 | / | 8 | -     | 1 | -  | 1 | /    | 2 | -    | 1 | / | 2 | /  | 3 | - |   |
| Example | UMG | - | FE | - | 25  | / | 16  | / | B1  | - | ALE | / | TP43B | / | V | / | K5 | / |   |   |   |   |   |   |   | EXIAG | - | DU | - | L... | / | A... | - | V | / | 40 | / | 2 | - |

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue<sup>1</sup> = possible according to Atex Exia and Exd / Black<sup>1</sup> = possible according to Atex Exd



## Code 9

| Key 4<br>... / ... / ... / ... / ... -<br>Length of cable | Key 5<br>... / ... / ... / ... / ... -<br>Connection cable                                                                                                                                                                          | Key 6<br>... / ... / ... / ... / ... -<br>Connection cable option                                                                                                                                                                                |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ... Length of cable in meter                              | PVC <sup>1</sup> PVC connection cable<br>PVCB <sup>1</sup> PVC connection cable with blue coating<br>SIL <sup>1</sup> Silicone connection cable<br>PUR <sup>1</sup> PUR connection cable<br>RAD <sup>1</sup> Radox connection cable | KA <sup>1</sup> Shielded<br>KB <sup>1</sup> Shielded / oil-resistant<br>KC <sup>1</sup> Shielded / oil-resistant / halogen-free<br>KD <sup>1</sup> Oil-resistant<br>KE <sup>1</sup> Oil-resistant / halogen-free<br>KF <sup>1</sup> Halogen-free |

## Code 9

| Key 7<br>... / ... / ... / ... / ... -<br>Approvals magnetic switch                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXIAG Acc. to Exia, atmosphere gas<br>EXIAGD Acc. to Exia, atmosphere gas and dust<br>EXDG <sup>1</sup> Acc. to Exd, atmosphere gas<br>EXDGD <sup>1</sup> Acc. to Exd, atmosphere gas and dust<br>EXIADG <sup>1</sup> Acc. to Exia and Exd, atmosphere gas<br>EXIADGD <sup>1</sup> Acc. to Exia and Exd, atmosphere gas and dust |

## Code 10

| Key 1<br>... / ... / ... -<br>Float                                                                                                                      | Key 2<br>... / ... / ... -<br>Diameter    | Key 3<br>... / ... / ... -<br>Float length |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------|
| USV <sup>1</sup> Float in Stainless steel ( Key 3 not applicable )<br>UZVS <sup>1</sup> Float in Stainless steel<br>UZTIS <sup>1</sup> Float in Titanium | ... Acc. to float table on page 396 - 407 | ... Acc. to float table on page 396 - 407  |

## Code 11

| Key 1<br>... -<br>Stilling well                                                                                        |
|------------------------------------------------------------------------------------------------------------------------|
| 60 <sup>1</sup> Ø 60.30 mm<br>73 <sup>1</sup> Ø 73.03 mm<br>88 <sup>1</sup> Ø 88.90 mm<br>114 <sup>1</sup> Ø 114.30 mm |

## Code 12

| Key 1<br>... / ... -<br>Instrument isolation                                       | Key 2<br>... / ... -<br>Electrical heat tracing                                                                                                                                |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AIT Armaflex isolation AIT<br>AHT Armaflex isolation AHT<br>SW Rock-wool isolation | H75A Electrical heat tracing 75°C<br>H75B Electrical heat tracing 75°C acc. to EExe<br>H150A Electrical heat tracing 150°C<br>H150B Electrical heat tracing 150°C acc. to EExe |

## Example

| 8                                                                        | 9 | 10 | 11 | 12 | 13 | Code    |
|--------------------------------------------------------------------------|---|----|----|----|----|---------|
| 1 / 2 / 3 - 1 / 2 / 3 / 4 / 5 / 6 / 7 - 1 / 2 / 3 - 1 - 1 / 2 - 1 / 2    |   |    |    |    |    | Key     |
| MNB / SA1 - 3 / RU40 / N / 1 / PVCB / KA EXIAG - USV / 98 - - - EX / PED |   |    |    |    |    | Example |

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue<sup>1</sup> = possible according to Atex Exia and Exd / Black<sup>1</sup> = possible according to Atex Exd

## Code 13

| Key 1<br>... / ... / ... -<br><b>Approvals / 1</b> |            | Key 2<br>... / ... / ... -<br><b>Approvals / 2</b> |                                                                    |
|----------------------------------------------------|------------|----------------------------------------------------|--------------------------------------------------------------------|
| EX                                                 | Acc. to Ex | PEDII <sup>1</sup><br>PEDIV <sup>1</sup>           | Acc. to PED97/23/EC category II<br>Acc. to PED97/23/EC category IV |



## Example

| Code    | 1   | 2 | 3  | 4 |     |   |     |   |     |   |     |   |       |   |   |   |    |   |   | 5 | 6 | 7 |   |   |   |       |   |    |   |      |   |      |   |   |   |    |   |   |
|---------|-----|---|----|---|-----|---|-----|---|-----|---|-----|---|-------|---|---|---|----|---|---|---|---|---|---|---|---|-------|---|----|---|------|---|------|---|---|---|----|---|---|
| Key     | 1   | - | 1  | - | 1.1 | / | 1.2 | / | 1.3 | - | 1   | / | 2     | / | 3 | / | 4  | / | 5 | / | 6 | / | 7 | / | 8 | -     | 1 | -  | 1 | /    | 2 | -    | 1 | / | 2 | /  | 3 |   |
| Example | UMG | - | FE | - | 25  | / | 16  | / | B1  | - | ALE | / | TP43B | / | V | / | K5 | / |   |   |   |   |   |   |   | EXIAG | - | DU | - | L... | / | A... | - | V | / | 40 | / | 2 |

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue<sup>1</sup> = possible according to Atex Exia and Exd / Black<sup>1</sup> = possible according to Atex Exd



## Notes



## Example

| 8   |   |     | 9 |   |   |   |   |      |   | 10 |   |   | 11 | 12   |   | 13 |   | Code  |   |     |   |    |   |   |   |   |   |   |   |   |   |    |   |     |         |
|-----|---|-----|---|---|---|---|---|------|---|----|---|---|----|------|---|----|---|-------|---|-----|---|----|---|---|---|---|---|---|---|---|---|----|---|-----|---------|
| 1   | / | 2   | / | 3 | - | 1 | / | 2    | / | 3  | / | 4 | /  | 5    | / | 6  | / | 7     | - | 1   | / | 2  | / | 3 | - | 1 | - | 1 | / | 2 | - | 1  | / | 2   | Key     |
| MNB | / | SA1 |   |   | - | 3 | / | RU40 | / | N  | / | 1 | /  | PVCB | / | KA |   | EXIAG | - | USV | / | 98 |   |   | - |   | - |   |   |   | - | EX | / | PED | Example |

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue' = possible according to Atex Exia and Exd / Black' = possible according to Atex Exd

## Top Mounted Level Indicator-Mini / Stainless steel

### Type

UNA-...-...-L...-V/40/-MN..-UZ..S/..

|                       |                                         |
|-----------------------|-----------------------------------------|
| Material quality:     | 1.4404 / 1.4435 / 1.4571 (316L / 316Ti) |
| Length of instrument: | 400 ... 6000 mm                         |
| Specific gravity:     | $\geq 400 \text{ kg/m}^3$               |
| Design pressure:      | -1 bar ... 6 bar                        |
| Design temperature:   | -10°C ... 150°C ( optional -196°C )     |

### Design

|                     |                                            |
|---------------------|--------------------------------------------|
| Chamber:            | $\varnothing 40.00 \times 2.00 \text{ mm}$ |
| Process connection: | Type key page 386                          |
| Chamber end top:    | Tube plate                                 |
| Chamber end bottom: | -                                          |
| Float:              | Page 399 - 407                             |

### Option magnetic roller indicator / Page 408

|                                     |                 |
|-------------------------------------|-----------------|
| Aluminium or Stainless steel / Poca | -40°C ... 200°C |
|-------------------------------------|-----------------|

### Option scale / Page 409

|                             |                                        |
|-----------------------------|----------------------------------------|
| Aluminium / Stainless steel | With adhesive foil / Engraving / Blank |
|-----------------------------|----------------------------------------|

### Option magnetic switch / Page 416 - 419

|                             |                 |
|-----------------------------|-----------------|
| Aluminium / Stainless steel | -40°C ... 150°C |
|-----------------------------|-----------------|

### Option level transmitter / Page 410 - 414

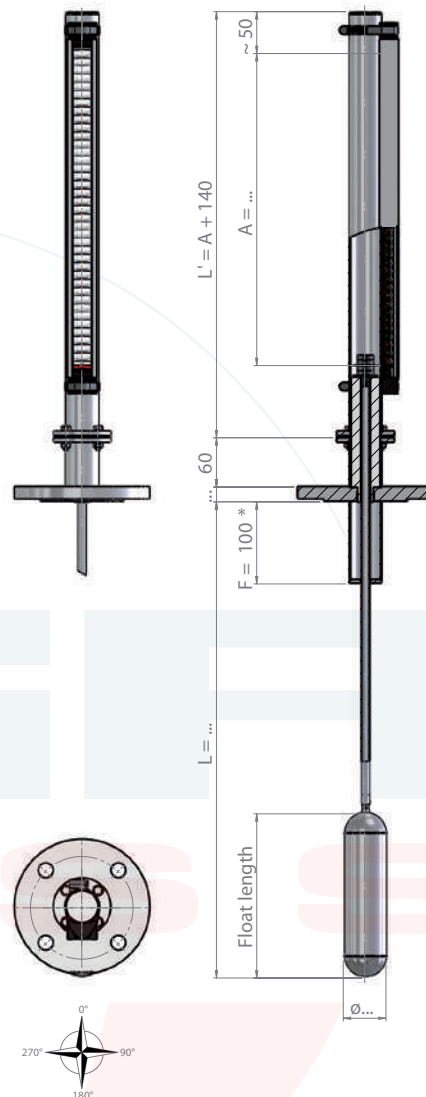
|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| Accuracy / Reed contacts:    | 5 / 10 / 15 mm                                                                         |
| Accuracy / Magnetostrictive: | 0.2 mm                                                                                 |
| Control unit:                | - Programmable<br>- Hart-programmable / SIL2<br>- Profibus PA<br>- Foundation Fieldbus |

### Option electrical heat tracing / Page 420

|                      |                                            |
|----------------------|--------------------------------------------|
| Holding temperature: | $\sim 10^\circ\text{C}$ / Frost protection |
|----------------------|--------------------------------------------|

### Option instrument isolation / Page 420 - 421

|            |                                          |
|------------|------------------------------------------|
| Isolation: | Armaflex isolation / Rock-wool isolation |
|------------|------------------------------------------|



\* If instrument length  $L > 1000 \text{ mm}$  guidance tube to be used

### Approvals / Certificates



ATEX\*

II 1G2D/2GD c

II 2GD c

Liquid temperature Ex max. 150°C

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

\* = The approval is dependent on the equipment combination

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Type

UNA-.../.../...-L...-V/40/...-MN-UZ...S/...

|                       |                                           |
|-----------------------|-------------------------------------------|
| Material quality:     | 1.4404 / 1.4435 / 1.4571 ( 316L / 316Ti ) |
| Length of instrument: | 400 ... 6000 mm                           |
| Specific gravity:     | $\geq 400 \text{ kg/m}^3$                 |
| Design pressure:      | -1 bar ... 6 bar                          |
| Design temperature:   | -10°C ... 150°C ( optional -196°C )       |

## Design

|                     |                                            |
|---------------------|--------------------------------------------|
| Chamber:            | $\varnothing 40.00 \times 2.00 \text{ mm}$ |
| Stilling well:      | Type key page 389                          |
| Process connection: | Type key page 386                          |
| Chamber end top:    | Tube plate                                 |
| Chamber end bottom: | -                                          |
| Float:              | Page 399 - 407                             |

## Option magnetic roller indicator / Page 408

|                                      |                 |
|--------------------------------------|-----------------|
| Aluminium or Stainless steel / Pocan | -40°C ... 200°C |
|--------------------------------------|-----------------|

## Option scale / Page 409

|                             |                                        |
|-----------------------------|----------------------------------------|
| Aluminium / Stainless steel | With adhesive foil / Engraving / Blank |
|-----------------------------|----------------------------------------|

## Option magnetic switch / Page 416 - 419

|                             |                 |
|-----------------------------|-----------------|
| Aluminium / Stainless steel | -40°C ... 150°C |
|-----------------------------|-----------------|

## Option level transmitter / Page 410 - 414

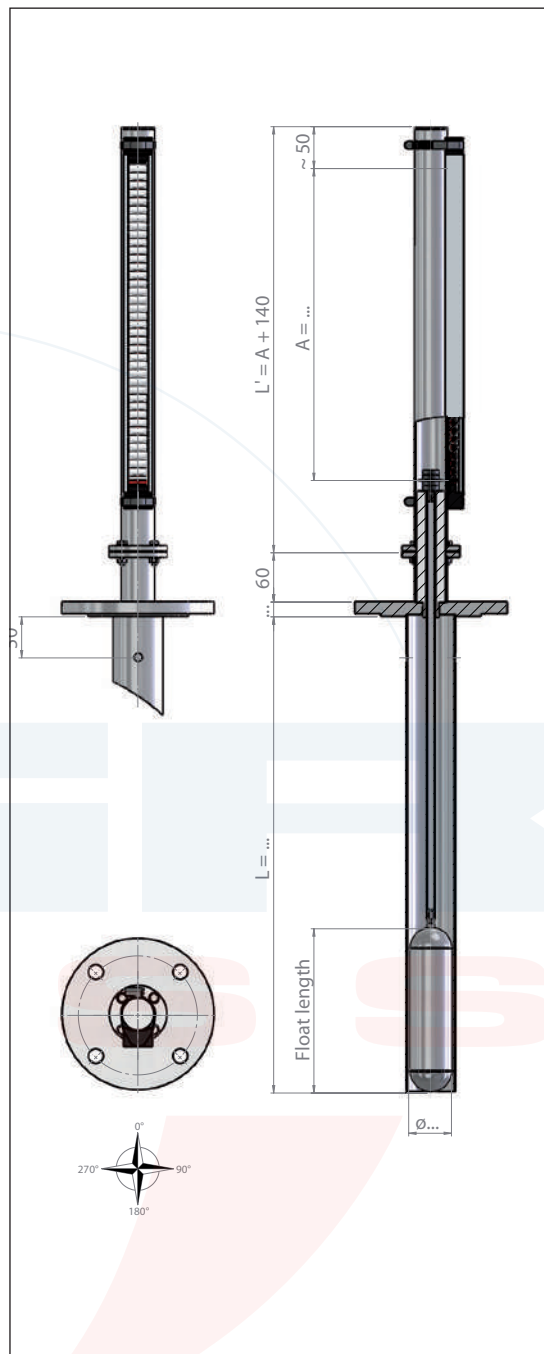
|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| Accuracy / Reed contacts:    | 5 / 10 / 15 mm                                                                         |
| Accuracy / Magnetostrictive: | 0.2 mm                                                                                 |
| Control unit:                | - Programmable<br>- Hart-programmable / SIL2<br>- Profibus PA<br>- Foundation Fieldbus |

## Option electrical heat tracing / Page 420

|                      |                                            |
|----------------------|--------------------------------------------|
| Holding temperature: | $\sim 10^\circ\text{C}$ / Frost protection |
|----------------------|--------------------------------------------|

## Option instrument isolation / Page 420 - 421

|            |                                          |
|------------|------------------------------------------|
| Isolation: | Armaflex isolation / Rock-wool isolation |
|------------|------------------------------------------|



## Approvals / Certificates



ATEX\*

II 1G2D/2GD c

II 2GD c

Liquid temperature Ex max. 150°C

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

\* = The approval is dependent on the equipment combination

## Top Mounted Level Indicator-Mini / Stainless steel

### Type

UNA-...-...-L...-V/40/-MN...-USV...-

|                       |                                         |
|-----------------------|-----------------------------------------|
| Material quality:     | 1.4404 / 1.4435 / 1.4571 (316L / 316Ti) |
| Length of instrument: | 400 ... 6000 mm                         |
| Specific gravity:     | $\geq 300 \text{ kg/m}^3$               |
| Design pressure:      | -1 bar ... 6 bar                        |
| Design temperature:   | -10°C ... 150°C ( optional -196°C )     |

### Design

|                     |                                            |
|---------------------|--------------------------------------------|
| Chamber:            | $\varnothing 40.00 \times 2.00 \text{ mm}$ |
| Process connection: | Type key page 386                          |
| Chamber end top:    | Tube plate                                 |
| Chamber end bottom: | -                                          |
| Float:              | Page 396 - 398                             |

### Option magnetic roller indicator / Page 408

|                                     |                 |
|-------------------------------------|-----------------|
| Aluminium or Stainless steel / Poca | -40°C ... 200°C |
|-------------------------------------|-----------------|

### Option scale / Page 409

|                             |                                        |
|-----------------------------|----------------------------------------|
| Aluminium / Stainless steel | With adhesive foil / Engraving / Blank |
|-----------------------------|----------------------------------------|

### Option magnetic switch / Page 416 - 419

|                             |                 |
|-----------------------------|-----------------|
| Aluminium / Stainless steel | -40°C ... 150°C |
|-----------------------------|-----------------|

### Option level transmitter / Page 410 - 414

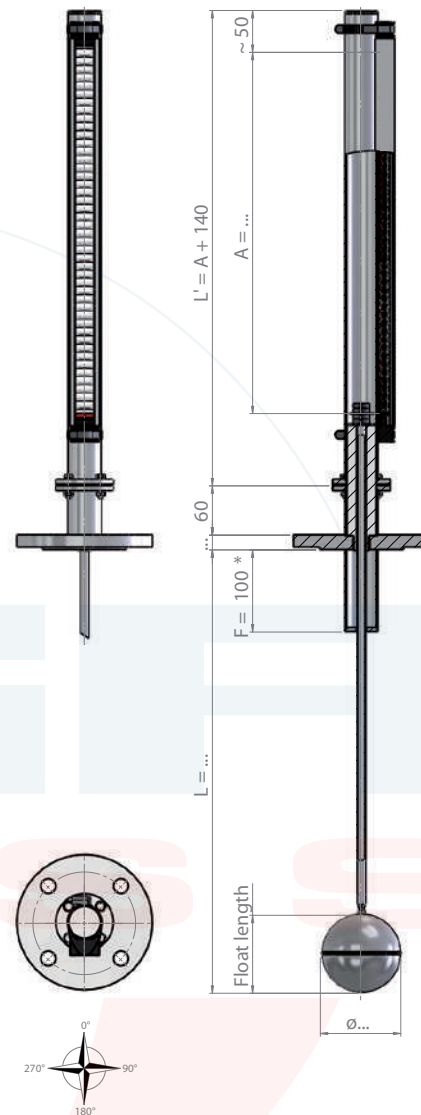
|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| Accuracy / Reed contacts:    | 5 / 10 / 15 mm                                                                         |
| Accuracy / Magnetostrictive: | 0.2 mm                                                                                 |
| Control unit:                | - Programmable<br>- Hart-programmable / SIL2<br>- Profibus PA<br>- Foundation Fieldbus |

### Option electrical heat tracing / Page 420

|                      |                                            |
|----------------------|--------------------------------------------|
| Holding temperature: | $\sim 10^\circ\text{C}$ / Frost protection |
|----------------------|--------------------------------------------|

### Option instrument isolation / Page 420 - 421

|            |                                          |
|------------|------------------------------------------|
| Isolation: | Armaflex isolation / Rock-wool isolation |
|------------|------------------------------------------|



\* If instrument length  $L > 1000 \text{ mm}$  guidance tube to be used

### Approvals / Certificates



ATEX\*

II 1G2D/2GD c

II 2GD c

Liquid temperature Ex max. 150°C

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

\* = The approval is dependent on the equipment combination

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

**Type** UNA-.../.../...-L...-V/40/...-MN...-USV...-

Material quality: 1.4404 / 1.4435 / 1.4571 ( 316L / 316Ti )  
 Length of instrument: 400 ... 6000 mm  
 Specific gravity:  $\geq 300 \text{ kg/m}^3$   
 Design pressure: -1 bar ... 6 bar  
 Design temperature: -10°C ... 150°C ( optional -196°C )

## Design

Chamber:  $\varnothing 40.00 \times 2.00 \text{ mm}$   
 Stilling well: Type key page 389  
 Process connection: Type key page 386  
 Chamber end top: Tube plate  
 Chamber end bottom: -  
 Float: Page 396 - 398

Option magnetic roller indicator / Page 408

Aluminium or Stainless steel / Pocan -40°C ... 200°C

Option scale / Page 409

Aluminium / Stainless steel With adhesive foil / Engraving / Blank

Option magnetic switch / Page 416 - 419

Aluminium / Stainless steel -40°C ... 150°C

Option level transmitter / Page 410 - 414

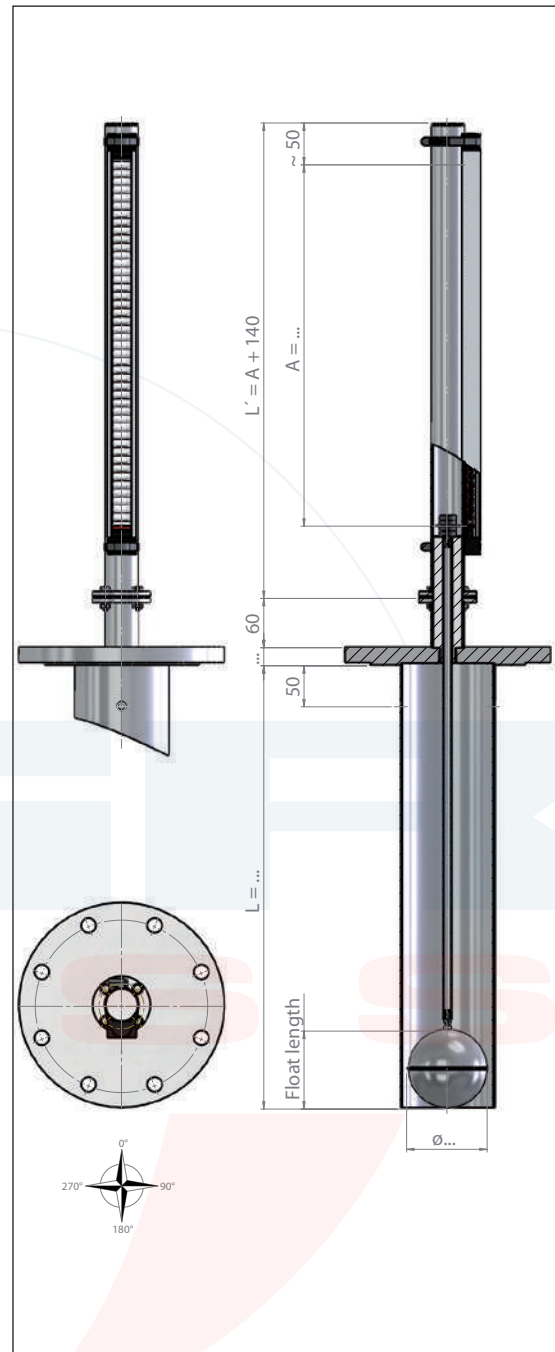
Accuracy / Reed contacts: 5 / 10 / 15 mm  
 Accuracy / Magnetostrictive: 0.2 mm  
 Control unit:  
 - Programmable  
 - Hart-programmable / SIL2  
 - Profibus PA  
 - Foundation Fieldbus

Option electrical heat tracing / Page 420

Holding temperature:  $\sim 10^\circ\text{C}$  / Frost protection

Option instrument isolation / Page 420 - 421

Isolation: Armaflex isolation / Rock-wool isolation



## Approvals / Certificates



ATEX\*

II 1G2D/2GD c

II 2GD c

Liquid temperature Ex max. 150°C

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

\* = The approval is dependent on the equipment combination

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Top Mounted Level Indicator-Mini / Ball float

### Ball float

### USV/98

### Stainless steel 1.4571 ( 316Ti )

Diameter / height [ mm ]: 98 / 95  
 Design temperature [ °C ]: -196 ... 200  
 Design pressure [ bar ]: -1 ... 16  
 Weight [ g ]: 180  
 Flange min.: DN 100



#### Float USV/98

Specific gravity of the liquid [ kg/m³ ]

|  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

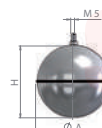
| L-Mass [mm]       | Immersion depth [%] |   |   |   |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|---|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | - | 80 | 70 | 65 | 60 | 55 | 50 | 50 | 45 | 45 |
| 500 <sup>1</sup>  | -                   | - | - | - | -  | 75 | 65 | 60 | 55 | 55 | 50 | 50 | 45 |
| 600 <sup>1</sup>  | -                   | - | - | - | -  | 75 | 70 | 65 | 60 | 55 | 50 | 50 | 50 |
| 700 <sup>1</sup>  | -                   | - | - | - | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 | 50 |
| 800 <sup>1</sup>  | -                   | - | - | - | -  | 85 | 75 | 65 | 60 | 60 | 55 | 50 | 50 |
| 900 <sup>1</sup>  | -                   | - | - | - | -  | -  | 75 | 70 | 65 | 60 | 55 | 55 | 50 |
| 1000 <sup>1</sup> | -                   | - | - | - | -  | -  | 80 | 70 | 65 | 60 | 60 | 55 | 50 |
| 1100 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |
| 1200 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |
| 1300 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 85 | 75 | 70 |
| 1400 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | -  | 80 | 75 |
| 1500 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | -  | 85 | 75 |

### Ball float

### USV/105

### Stainless steel 1.4571 ( 316Ti )

Diameter / height [ mm ]: 105 / 102  
 Design temperature [ °C ]: -196 ... 200  
 Design pressure [ bar ]: -1 ... 25  
 Weight [ g ]: 257  
 Flange min.: DN 100



#### Float USV/105

Specific gravity of the liquid [ kg/m³ ]

|  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

| L-Mass [mm]       | Immersion depth [%] |   |   |   |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|---|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | - | 85 | 75 | 65 | 60 | 55 | 55 | 50 | 50 | 45 |
| 500 <sup>1</sup>  | -                   | - | - | - | -  | 75 | 70 | 60 | 60 | 55 | 50 | 50 | 45 |
| 600 <sup>1</sup>  | -                   | - | - | - | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 | 50 |
| 700 <sup>1</sup>  | -                   | - | - | - | -  | 80 | 70 | 65 | 60 | 60 | 55 | 50 | 50 |
| 800 <sup>1</sup>  | -                   | - | - | - | -  | 85 | 75 | 65 | 60 | 60 | 55 | 50 | 50 |
| 900 <sup>1</sup>  | -                   | - | - | - | -  | -  | 75 | 70 | 65 | 60 | 55 | 55 | 50 |
| 1000 <sup>1</sup> | -                   | - | - | - | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 |
| 1100 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | 85 | 75 | 70 | 65 | 65 |
| 1200 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |
| 1300 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | 85 | 75 | 70 | 65 |
| 1400 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |
| 1500 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

## Ball float

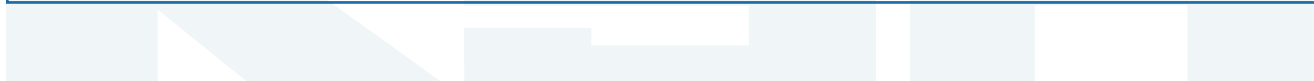
## USV/120

## Stainless steel 1.4571 ( 316Ti )

Diameter / height [ mm ]: 120 / 116  
Design temperature [ °C ]: -196 ... 200  
Design pressure [ bar ]: -1 ... 16  
Weight [ g ]: 220  
Flange min.: DN 125



| Float USV/120                            | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|------------------------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| Specific gravity of the liquid [ kg/m³ ] |                     |     |     |     |     |     |     |      |      |      |      |      |      |
| L-Mass [mm]                              | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| 400 <sup>1</sup>                         | -                   | -   | -   | 60  | 55  | 50  | 45  | 45   | 40   | 40   | 35   | 35   | 35   |
| 500 <sup>1</sup>                         | -                   | -   | -   | 65  | 55  | 50  | 45  | 45   | 40   | 40   | 40   | 35   | 35   |
| 600 <sup>1</sup>                         | -                   | -   | -   | 65  | 55  | 50  | 50  | 45   | 45   | 40   | 40   | 35   | 35   |
| 700 <sup>1</sup>                         | -                   | -   | -   | 65  | 60  | 55  | 50  | 45   | 45   | 40   | 40   | 35   | 35   |
| 800 <sup>1</sup>                         | -                   | -   | -   | 70  | 60  | 55  | 50  | 45   | 45   | 40   | 40   | 40   | 35   |
| 900 <sup>1</sup>                         | -                   | -   | -   | 70  | 60  | 55  | 50  | 50   | 45   | 45   | 40   | 40   | 35   |
| 1000 <sup>1</sup>                        | -                   | -   | -   | 70  | 65  | 55  | 55  | 50   | 45   | 45   | 40   | 40   | 40   |
| 1100 <sup>2</sup>                        | -                   | -   | -   | -   | 85  | 70  | 65  | 60   | 55   | 55   | 50   | 50   | 45   |
| 1200 <sup>2</sup>                        | -                   | -   | -   | -   | -   | 75  | 65  | 60   | 60   | 55   | 50   | 50   | 45   |
| 1300 <sup>2</sup>                        | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 55   | 50   | 50   |
| 1400 <sup>2</sup>                        | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 55   | 50   | 50   |
| 1500 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 75  | 70   | 65   | 60   | 55   | 55   | 50   |
| 1600 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 80  | 70   | 65   | 60   | 55   | 55   | 50   |
| 1700 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 80  | 70   | 65   | 60   | 60   | 55   | 55   |
| 1800 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 85  | 75   | 70   | 65   | 60   | 55   | 55   |
| 1900 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 75   | 70   | 65   | 60   | 60   | 55   |
| 2000 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 80   | 75   | 65   | 65   | 60   | 55   |



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm



## Top Mounted Level Indicator-Mini / Ball float

### Ball float

### USV/205

### Stainless steel 1.4571 ( 316Ti )

Diameter / hight [ mm ]: 205 / 200  
 Design temperature [ °C ]: -196 ... 200  
 Design pressure [ bar ]: -1 ... 6  
 Weight [ g ]: 788  
 Flange min.: DN 200



#### Float USV/205

Specific gravity of the liquid [ kg/m³ ]

| L-Mass [mm]       | Immersion depth [%] |    |    |    |    |    |    |    |    |    |    |    |    |  |
|-------------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|--|
| 400 <sup>1</sup>  | 65                  | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 30 | 25 | 25 | 25 | 25 |  |
| 600 <sup>1</sup>  | 65                  | 55 | 45 | 40 | 35 | 35 | 30 | 30 | 30 | 25 | 25 | 25 | 25 |  |
| 800 <sup>1</sup>  | 65                  | 55 | 45 | 40 | 40 | 35 | 30 | 30 | 30 | 30 | 25 | 25 | 25 |  |
| 1000 <sup>1</sup> | 70                  | 55 | 45 | 40 | 40 | 35 | 35 | 30 | 30 | 30 | 25 | 25 | 25 |  |
| 1200 <sup>2</sup> | 80                  | 60 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 | 30 | 30 | 25 |  |
| 1400 <sup>2</sup> | 80                  | 65 | 55 | 45 | 45 | 40 | 35 | 35 | 35 | 30 | 30 | 30 | 25 |  |
| 1600 <sup>2</sup> | -                   | 65 | 55 | 50 | 45 | 40 | 35 | 35 | 35 | 30 | 30 | 30 | 30 |  |
| 1800 <sup>2</sup> | -                   | 65 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 | 30 | 30 |  |
| 2000 <sup>2</sup> | -                   | 70 | 60 | 50 | 45 | 40 | 40 | 35 | 35 | 35 | 30 | 30 | 30 |  |
| 2200 <sup>3</sup> | -                   | -  | 70 | 60 | 55 | 50 | 45 | 45 | 40 | 40 | 35 | 35 | 35 |  |
| 2400 <sup>3</sup> | -                   | -  | 75 | 65 | 55 | 50 | 45 | 45 | 40 | 40 | 40 | 35 | 35 |  |
| 2600 <sup>3</sup> | -                   | -  | 75 | 65 | 60 | 55 | 50 | 45 | 45 | 40 | 40 | 35 | 35 |  |
| 2800 <sup>3</sup> | -                   | -  | 80 | 70 | 60 | 55 | 50 | 45 | 45 | 40 | 40 | 40 | 35 |  |
| 3000 <sup>3</sup> | -                   | -  | 85 | 70 | 60 | 55 | 50 | 50 | 45 | 45 | 40 | 40 | 35 |  |
| 3200 <sup>3</sup> | -                   | -  | -  | 70 | 65 | 55 | 55 | 50 | 45 | 45 | 40 | 40 | 40 |  |
| 3400 <sup>3</sup> | -                   | -  | -  | 75 | 65 | 60 | 55 | 50 | 45 | 45 | 45 | 40 | 40 |  |
| 3600 <sup>3</sup> | -                   | -  | -  | 80 | 65 | 60 | 55 | 50 | 50 | 45 | 45 | 40 | 40 |  |
| 3800 <sup>3</sup> | -                   | -  | -  | 80 | 70 | 60 | 55 | 55 | 50 | 45 | 45 | 40 | 40 |  |
| 4000 <sup>3</sup> | -                   | -  | -  | 85 | 70 | 65 | 60 | 55 | 50 | 50 | 45 | 45 | 40 |  |
| 4200 <sup>3</sup> | -                   | -  | -  | -  | 75 | 65 | 60 | 55 | 50 | 50 | 45 | 45 | 40 |  |
| 4400 <sup>3</sup> | -                   | -  | -  | -  | 75 | 65 | 60 | 55 | 55 | 50 | 45 | 45 | 45 |  |
| 4600 <sup>3</sup> | -                   | -  | -  | -  | 80 | 70 | 60 | 60 | 55 | 50 | 50 | 45 | 45 |  |
| 4800 <sup>3</sup> | -                   | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 50 | 45 | 45 |  |
| 5000 <sup>3</sup> | -                   | -  | -  | -  | 85 | 70 | 65 | 60 | 55 | 55 | 50 | 50 | 45 |  |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

### UZVS/52/200

### Stainless steel 1.4571 ( 316Ti )

Diameter / length [ mm ]:  
Design temperature [ °C ]:  
Design pressure [ bar ]:  
Weight [ g ]:  
Flange min.:

52 / 200  
-196 ... 250  
-1 ... 16  
154  
DN 50



#### Float UZVS/50/200

Specific gravity of the liquid [ kg/m³ ]

|                   | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|-------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| L-Mass [mm]       | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| 400 <sup>1</sup>  | -                   | -   | -   | -   | -   | 85  | 75  | 70   | 60   | 55   | 55   | 50   | 45   |
| 500 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | 80  | 70   | 65   | 60   | 55   | 50   | 50   |
| 600 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | 80  | 75   | 70   | 60   | 60   | 55   | 50   |
| 700 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | 85  | 75   | 70   | 65   | 60   | 55   | 55   |
| 800 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | -   | 80   | 75   | 65   | 60   | 60   | 55   |
| 900 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | -   | 85   | 75   | 70   | 65   | 60   | 55   |
| 1000 <sup>1</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | 80   | 70   | 65   | 65   | 60   |
| 1100 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | 85   | 80   |
| 1200 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -    | 85   |
| 1300 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -    | -    |
| 1400 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -    | -    |
| 1500 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -    | -    |

### Cylindrical float

### UZVS/52/250

### Stainless steel 1.4571 ( 316Ti )

Diameter / length [ mm ]:  
Design temperature [ °C ]:  
Design pressure [ bar ]:  
Weight [ g ]:  
Flange min.:

52 / 250  
-196 ... 250  
-1 ... 16  
191  
DN 50



#### Float UZVS/52/250

Specific gravity of the liquid [ kg/m³ ]

|                   | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|-------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| L-Mass [mm]       | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| 400 <sup>1</sup>  | -                   | -   | -   | -   | 85  | 75  | 65  | 60   | 55   | 50   | 45   | 45   | 40   |
| 500 <sup>1</sup>  | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 50   | 45   | 45   |
| 600 <sup>1</sup>  | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 50   | 50   | 45   |
| 700 <sup>1</sup>  | -                   | -   | -   | -   | -   | 85  | 75  | 70   | 60   | 55   | 55   | 50   | 45   |
| 800 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | 80  | 70   | 65   | 60   | 55   | 50   | 50   |
| 900 <sup>1</sup>  | -                   | -   | -   | -   | -   | -   | 80  | 75   | 65   | 60   | 55   | 55   | 50   |
| 1000 <sup>1</sup> | -                   | -   | -   | -   | -   | -   | 85  | 75   | 70   | 65   | 60   | 55   | 50   |
| 1100 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 85   | 75   | 70   | 65   |
| 1200 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 80   | 75   | 70   |
| 1300 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 85   | 80   | 75   |
| 1400 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | 80   | 75   |
| 1500 <sup>2</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | 85   | 80   |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

### UZVS/52/350

### Stainless steel 1.4571 ( 316Ti )

Diameter / length [ mm ]: 52 / 350  
 Design temperature [ °C ]: -196 ... 250  
 Design pressure [ bar ]: -1 ... 16  
 Weight [ g ]: 270  
 Flange min.: DN 50



| Float UZVS/52/350                        | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|------------------------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| Specific gravity of the liquid [ kg/m³ ] |                     |     |     |     |     |     |     |      |      |      |      |      |      |
| L-Mass [mm]                              | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| 400 <sup>1</sup>                         | -                   | -   | -   | -   | 75  | 65  | 60  | 55   | 50   | 45   | 40   | 40   | 35   |
| 500 <sup>1</sup>                         | -                   | -   | -   | -   | 75  | 70  | 60  | 55   | 50   | 45   | 45   | 40   | 35   |
| 600 <sup>1</sup>                         | -                   | -   | -   | -   | 80  | 70  | 65  | 55   | 50   | 45   | 45   | 40   | 40   |
| 700 <sup>1</sup>                         | -                   | -   | -   | -   | 80  | 70  | 65  | 60   | 55   | 50   | 45   | 40   | 40   |
| 800 <sup>1</sup>                         | -                   | -   | -   | -   | 85  | 75  | 65  | 60   | 55   | 50   | 45   | 45   | 40   |
| 900 <sup>1</sup>                         | -                   | -   | -   | -   | -   | 75  | 70  | 60   | 55   | 50   | 50   | 45   | 40   |
| 1000 <sup>1</sup>                        | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 50   | 45   | 45   |
| 1100 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 80   | 70   | 65   | 60   | 55   | 55   |
| 1200 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 80   | 75   | 70   | 65   | 60   | 55   |
| 1300 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 85   | 80   | 70   | 65   | 60   | 60   |
| 1400 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | 80   | 75   | 70   | 65   | 60   |
| 1500 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | 85   | 75   | 70   | 65   | 60   |
| 1600 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 80   | 75   | 70   | 65   |
| 1700 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 85   | 75   | 70   | 65   |
| 1800 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 85   | 80   | 75   | 70   |
| 1900 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 80   | 75   | 70   |
| 2000 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 85   | 80   | 75   |

### Cylindrical float

### UZVS/62/250

### Stainless steel 1.4571 ( 316Ti )

Diameter / length [ mm ]: 62 / 250  
 Design temperature [ °C ]: -196 ... 200  
 Design pressure [ bar ]: -1 ... 6  
 Weight [ g ]: 174  
 Flange min.: DN 65



| Float UZVS/62/250                        | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|------------------------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| Specific gravity of the liquid [ kg/m³ ] |                     |     |     |     |     |     |     |      |      |      |      |      |      |
| L-Mass [mm]                              | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| 400 <sup>1</sup>                         | -                   | -   | -   | -   | 55  | 50  | 45  | 40   | 40   | 35   | 35   | 30   | 30   |
| 500 <sup>1</sup>                         | -                   | -   | -   | -   | 60  | 55  | 45  | 45   | 40   | 35   | 35   | 30   | 30   |
| 600 <sup>1</sup>                         | -                   | -   | -   | -   | 60  | 55  | 50  | 45   | 40   | 40   | 35   | 35   | 30   |
| 700 <sup>1</sup>                         | -                   | -   | -   | -   | 65  | 55  | 50  | 45   | 45   | 40   | 35   | 35   | 30   |
| 800 <sup>1</sup>                         | -                   | -   | -   | -   | 65  | 60  | 55  | 50   | 45   | 40   | 40   | 35   | 35   |
| 900 <sup>1</sup>                         | -                   | -   | -   | -   | 70  | 60  | 55  | 50   | 45   | 40   | 40   | 35   | 35   |
| 1000 <sup>1</sup>                        | -                   | -   | -   | -   | 70  | 65  | 55  | 50   | 45   | 45   | 40   | 40   | 35   |
| 1100 <sup>2</sup>                        | -                   | -   | -   | -   | -   | 85  | 75  | 70   | 60   | 55   | 55   | 50   | 45   |
| 1200 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 80  | 70   | 65   | 60   | 55   | 50   | 50   |
| 1300 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 80  | 75   | 70   | 65   | 60   | 55   | 50   |
| 1400 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | 85  | 80   | 70   | 65   | 60   | 55   | 55   |
| 1500 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 80   | 75   | 70   | 65   | 60   | 55   |
| 1600 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | 85   | 75   | 70   | 65   | 60   | 55   |
| 1700 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | 80   | 75   | 70   | 65   | 60   |
| 1800 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | 85   | 75   | 70   | 65   | 60   |
| 1900 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | 85   | 80   | 75   | 70   | 65   |
| 2000 <sup>2</sup>                        | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 80   | 75   | 70   | 65   |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

UZVS/72/250

Stainless steel 1.4571 ( 316Ti )

Diameter / length [ mm ] : 72 / 250  
 Design temperature [ °C ] : -196 ... 200  
 Design pressure [ bar ] : -1 ... 10  
 Weight [ g ] : 325  
 Flange min. : DN 80



#### Float UZVS/72/250

Specific gravity of the liquid [ kg/m³ ]

300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

| L-Mass [mm]       | Immersion depth [%] |   |   |   |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|---|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | - | 65 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 500 <sup>1</sup>  | -                   | - | - | - | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 600 <sup>1</sup>  | -                   | - | - | - | 70 | 60 | 55 | 50 | 45 | 45 | 40 | 35 | 35 |
| 700 <sup>1</sup>  | -                   | - | - | - | 70 | 65 | 55 | 50 | 45 | 45 | 40 | 40 | 35 |
| 800 <sup>1</sup>  | -                   | - | - | - | 75 | 65 | 60 | 55 | 50 | 45 | 40 | 40 | 35 |
| 900 <sup>1</sup>  | -                   | - | - | - | 75 | 65 | 60 | 55 | 50 | 45 | 45 | 40 | 40 |
| 1000 <sup>1</sup> | -                   | - | - | - | 75 | 70 | 60 | 55 | 50 | 45 | 45 | 40 | 40 |
| 1100 <sup>2</sup> | -                   | - | - | - | -  | 85 | 75 | 65 | 60 | 55 | 55 | 50 | 50 |
| 1200 <sup>2</sup> | -                   | - | - | - | -  | -  | 75 | 70 | 65 | 60 | 55 | 50 | 50 |
| 1300 <sup>2</sup> | -                   | - | - | - | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 |
| 1400 <sup>2</sup> | -                   | - | - | - | -  | -  | 80 | 75 | 70 | 65 | 60 | 55 | 50 |
| 1500 <sup>2</sup> | -                   | - | - | - | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 55 |
| 1600 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | 80 | 70 | 65 | 60 | 60 | 55 |
| 1700 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | 80 | 75 | 70 | 65 | 60 | 55 |
| 1800 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 |
| 1900 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | 80 | 75 | 65 | 65 | 60 |
| 2000 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 |

### Cylindrical float

UZVS/82/250

Stainless steel 1.4571 ( 316Ti )

Diameter / length [ mm ] : 82 / 250  
 Design temperature [ °C ] : -196 ... 200  
 Design pressure [ bar ] : -1 ... 16  
 Weight [ g ] : 370  
 Flange min. : DN 100



#### Float UZVS/82/250

Specific gravity of the liquid [ kg/m³ ]

300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

| L-Mass [mm]       | Immersion depth [%] |   |   |    |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|----|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | 65 | 60 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 |
| 500 <sup>1</sup>  | -                   | - | - | 70 | 60 | 50 | 45 | 45 | 40 | 35 | 35 | 30 | 30 |
| 600 <sup>1</sup>  | -                   | - | - | 70 | 60 | 55 | 50 | 45 | 40 | 35 | 35 | 35 | 30 |
| 700 <sup>1</sup>  | -                   | - | - | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 |
| 800 <sup>1</sup>  | -                   | - | - | 75 | 65 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 |
| 900 <sup>1</sup>  | -                   | - | - | 75 | 65 | 55 | 50 | 45 | 45 | 40 | 35 | 35 | 35 |
| 1000 <sup>1</sup> | -                   | - | - | 75 | 65 | 60 | 50 | 50 | 45 | 40 | 40 | 35 | 35 |
| 1100 <sup>2</sup> | -                   | - | - | -  | 80 | 70 | 65 | 55 | 50 | 50 | 45 | 40 | 40 |
| 1200 <sup>2</sup> | -                   | - | - | -  | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 45 | 40 |
| 1300 <sup>2</sup> | -                   | - | - | -  | 85 | 75 | 65 | 60 | 55 | 50 | 50 | 45 | 40 |
| 1400 <sup>2</sup> | -                   | - | - | -  | -  | 75 | 70 | 60 | 55 | 55 | 50 | 45 | 45 |
| 1500 <sup>2</sup> | -                   | - | - | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 45 |
| 1600 <sup>2</sup> | -                   | - | - | -  | -  | 80 | 75 | 65 | 60 | 55 | 50 | 50 | 45 |
| 1700 <sup>2</sup> | -                   | - | - | -  | -  | 85 | 75 | 70 | 60 | 55 | 55 | 50 | 45 |
| 1800 <sup>2</sup> | -                   | - | - | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 50 | 50 |
| 1900 <sup>2</sup> | -                   | - | - | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 |
| 2000 <sup>2</sup> | -                   | - | - | -  | -  | -  | 80 | 75 | 65 | 60 | 60 | 55 | 50 |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

### UZVS/82/300

### Stainless steel 1.4571 ( 316Ti )

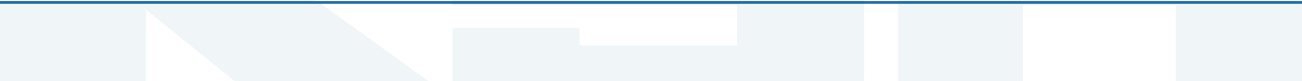
Diameter / length [ mm ]: 82 / 300  
 Design temperature [ °C ]: -196 ... 200  
 Design pressure [ bar ]: -1 ... 16  
 Weight [ g ]: 450  
 Flange min.: DN 100



#### Float UZVS/82/300

Specific gravity of the liquid [ kg/m³ ]

|                         | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|-------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| L-Mass [mm]             | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| <b>400<sup>1</sup></b>  | -                   | -   | -   | 65  | 55  | 50  | 45  | 40   | 35   | 35   | 30   | 30   | 30   |
| <b>500<sup>1</sup></b>  | -                   | -   | -   | 65  | 55  | 50  | 45  | 40   | 35   | 35   | 30   | 30   | 30   |
| <b>600<sup>1</sup></b>  | -                   | -   | -   | 65  | 55  | 50  | 45  | 40   | 40   | 35   | 35   | 30   | 30   |
| <b>700<sup>1</sup></b>  | -                   | -   | -   | 65  | 60  | 50  | 45  | 40   | 40   | 35   | 35   | 30   | 30   |
| <b>800<sup>1</sup></b>  | -                   | -   | -   | 70  | 60  | 55  | 45  | 45   | 40   | 35   | 35   | 30   | 30   |
| <b>900<sup>1</sup></b>  | -                   | -   | -   | 70  | 60  | 55  | 50  | 45   | 40   | 35   | 35   | 35   | 30   |
| <b>1000<sup>1</sup></b> | -                   | -   | -   | 70  | 60  | 55  | 50  | 45   | 40   | 40   | 35   | 35   | 30   |
| <b>1100<sup>2</sup></b> | -                   | -   | -   | 85  | 70  | 65  | 55  | 50   | 50   | 45   | 40   | 40   | 35   |
| <b>1200<sup>2</sup></b> | -                   | -   | -   | -   | 75  | 65  | 60  | 55   | 50   | 45   | 40   | 40   | 35   |
| <b>1300<sup>2</sup></b> | -                   | -   | -   | -   | 75  | 70  | 60  | 55   | 50   | 45   | 45   | 40   | 40   |
| <b>1400<sup>2</sup></b> | -                   | -   | -   | -   | 80  | 70  | 60  | 55   | 50   | 50   | 45   | 40   | 40   |
| <b>1500<sup>2</sup></b> | -                   | -   | -   | -   | 80  | 70  | 65  | 60   | 55   | 50   | 45   | 45   | 40   |
| <b>1600<sup>2</sup></b> | -                   | -   | -   | -   | 85  | 75  | 65  | 60   | 55   | 50   | 45   | 45   | 40   |
| <b>1700<sup>2</sup></b> | -                   | -   | -   | -   | 85  | 75  | 65  | 60   | 55   | 50   | 50   | 45   | 40   |
| <b>1800<sup>2</sup></b> | -                   | -   | -   | -   | -   | 75  | 70  | 65   | 55   | 55   | 50   | 45   | 45   |
| <b>1900<sup>2</sup></b> | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 50   | 45   | 45   |
| <b>2000<sup>2</sup></b> | -                   | -   | -   | -   | -   | 80  | 70  | 65   | 60   | 55   | 50   | 50   | 45   |



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

### UZTIS/52/200

### Titanium

Diameter / length [ mm ]:  
Design temperature [ °C ]:  
Design pressure [ bar ]:  
Weight [ g ]:  
Flange min.:

52 / 200  
-30 ... 150  
-1 ... 16  
109  
DN 50



#### Float UZTIS/52/200

Specific gravity of the liquid [ kg/m³ ]

300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

| L-Mass [mm]       | Immersion depth [%] |   |   |   |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|---|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | - | 75 | 65 | 60 | 55 | 50 | 45 | 45 | 40 | 40 |
| 500 <sup>1</sup>  | -                   | - | - | - | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 40 |
| 600 <sup>1</sup>  | -                   | - | - | - | 85 | 75 | 65 | 60 | 55 | 50 | 50 | 45 | 40 |
| 700 <sup>1</sup>  | -                   | - | - | - | -  | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 45 |
| 800 <sup>1</sup>  | -                   | - | - | - | -  | 80 | 75 | 65 | 60 | 55 | 50 | 50 | 45 |
| 900 <sup>1</sup>  | -                   | - | - | - | -  | 85 | 75 | 70 | 65 | 60 | 55 | 50 | 50 |
| 1000 <sup>1</sup> | -                   | - | - | - | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 |
| 1100 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |
| 1200 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 85 | 80 | 75 |
| 1300 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | -  | 85 | 75 |
| 1400 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | -  | -  | 80 |
| 1500 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | -  | -  | 85 |

### Cylindrical float

### UZVS/52/250

### Titanium

Diameter / length [ mm ]:  
Design temperature [ °C ]:  
Design pressure [ bar ]:  
Weight [ g ]:  
Flange min.:

52 / 250  
-30 ... 150  
-1 ... 16  
138  
DN 50



#### Float UZVS/52/250

Specific gravity of the liquid [ kg/m³ ]

300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

| L-Mass [mm]       | Immersion depth [%] |   |   |   |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|---|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | - | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 500 <sup>1</sup>  | -                   | - | - | - | 70 | 65 | 55 | 50 | 45 | 45 | 40 | 35 | 35 |
| 600 <sup>1</sup>  | -                   | - | - | - | 75 | 65 | 60 | 55 | 50 | 45 | 40 | 40 | 35 |
| 700 <sup>1</sup>  | -                   | - | - | - | 80 | 70 | 60 | 55 | 50 | 45 | 45 | 40 | 40 |
| 800 <sup>1</sup>  | -                   | - | - | - | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 40 |
| 900 <sup>1</sup>  | -                   | - | - | - | 85 | 75 | 65 | 60 | 55 | 50 | 45 | 45 | 40 |
| 1000 <sup>1</sup> | -                   | - | - | - | -  | 75 | 70 | 65 | 55 | 55 | 50 | 45 | 45 |
| 1100 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | 85 | 80 | 70 | 65 | 60 | 60 |
| 1200 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 |
| 1300 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |
| 1400 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | 85 | 75 | 70 | 65 |
| 1500 <sup>2</sup> | -                   | - | - | - | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 10 x 0.5 mm / <sup>2</sup> = Guidance rod 10 x 1.0 mm / <sup>3</sup> = Guidance rod 16 x 1.0 mm

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

### UZTIS/52/350

### Titanium

Diameter / length [ mm ]: 52 / 350  
 Design temperature [ °C ]: -30 ... 150  
 Design pressure [ bar ]: -1 ... 16  
 Weight [ g ]: 193  
 Flange min.: DN 50



#### Float UZTIS/52/350

Specific gravity of the liquid [ kg/m³ ]

|  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

| L-Mass [mm]       | Immersion depth [%] |   |   |    |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|----|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | 65 | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 30 |
| 500 <sup>1</sup>  | -                   | - | - | 70 | 60 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 |
| 600 <sup>1</sup>  | -                   | - | - | 70 | 60 | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 |
| 700 <sup>1</sup>  | -                   | - | - | 75 | 65 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 |
| 800 <sup>1</sup>  | -                   | - | - | 75 | 65 | 60 | 50 | 45 | 45 | 40 | 35 | 35 | 30 |
| 900 <sup>1</sup>  | -                   | - | - | 80 | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 1000 <sup>1</sup> | -                   | - | - | 85 | 70 | 65 | 55 | 50 | 45 | 45 | 40 | 35 | 35 |
| 1100 <sup>2</sup> | -                   | - | - | -  | -  | 80 | 75 | 65 | 60 | 55 | 50 | 50 | 45 |
| 1200 <sup>2</sup> | -                   | - | - | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 50 | 45 |
| 1300 <sup>2</sup> | -                   | - | - | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 50 |
| 1400 <sup>2</sup> | -                   | - | - | -  | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 50 |
| 1500 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 |
| 1600 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 | 55 |
| 1700 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 |
| 1800 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 |
| 1900 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | -  | 85 | 75 | 70 | 65 | 60 |
| 2000 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |

### Cylindrical float

### UZTIS/76/200

### Titanium

Diameter / length [ mm ]: 76 / 200  
 Design temperature [ °C ]: -30 ... 150  
 Design pressure [ bar ]: -1 ... 1  
 Weight [ g ]: 148  
 Flange min.: DN 80



#### Float UZTIS/76/200

Specific gravity of the liquid [ kg/m³ ]

|  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|--|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

| L-Mass [mm]       | Immersion depth [%] |   |   |    |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|---|----|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | - | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 25 | 25 | 25 |
| 500 <sup>1</sup>  | -                   | - | - | 55 | 50 | 40 | 40 | 35 | 35 | 30 | 30 | 25 | 25 |
| 600 <sup>1</sup>  | -                   | - | - | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 30 | 25 |
| 700 <sup>1</sup>  | -                   | - | - | 60 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 | 25 |
| 800 <sup>1</sup>  | -                   | - | - | 60 | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 30 |
| 900 <sup>1</sup>  | -                   | - | - | 65 | 55 | 50 | 45 | 40 | 35 | 35 | 35 | 30 | 30 |
| 1000 <sup>1</sup> | -                   | - | - | 65 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 |
| 1100 <sup>2</sup> | -                   | - | - | -  | 75 | 70 | 60 | 55 | 50 | 50 | 45 | 40 | 40 |
| 1200 <sup>2</sup> | -                   | - | - | -  | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 45 | 40 |
| 1300 <sup>2</sup> | -                   | - | - | -  | 85 | 75 | 65 | 60 | 55 | 50 | 50 | 45 | 45 |
| 1400 <sup>2</sup> | -                   | - | - | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 45 |
| 1500 <sup>2</sup> | -                   | - | - | -  | -  | 80 | 75 | 65 | 60 | 55 | 50 | 50 | 45 |
| 1600 <sup>2</sup> | -                   | - | - | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 50 | 50 |
| 1700 <sup>2</sup> | -                   | - | - | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 | 50 |
| 1800 <sup>2</sup> | -                   | - | - | -  | -  | -  | 80 | 75 | 70 | 65 | 60 | 55 | 50 |
| 1900 <sup>2</sup> | -                   | - | - | -  | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 55 |
| 2000 <sup>2</sup> | -                   | - | - | -  | -  | -  | -  | 80 | 70 | 65 | 60 | 60 | 55 |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

<sup>1</sup> = Guidance rod 11 x 0.5 mm / <sup>2</sup> = Guidance rod 11 x 1.0 mm / <sup>3</sup> = Guidance rod 17 x 1.0 mm



# Top Mounted Level Indicator-Mini / Cylindrical float

## Cylindrical float

## Uztis/76/250

## Titanium

Diameter / length [ mm ]:  
Design temperature [ °C ]:  
Design pressure [ bar ]:  
Weight [ g ]:  
Flange min.:

76 / 250  
-30 ... 150  
-1 ... 1  
186  
DN 80



### Float Uztis/76/250

Specific gravity of the liquid [ kg/m³ ]

300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

| L-Mass [mm]       | Immersion depth [%] |   |    |    |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|---|----|----|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | - | 55 | 45 | 40 | 35 | 35 | 30 | 30 | 25 | 25 | 25 | 20 |
| 500 <sup>1</sup>  | -                   | - | 55 | 50 | 40 | 40 | 35 | 30 | 30 | 25 | 25 | 25 | 20 |
| 600 <sup>1</sup>  | -                   | - | 60 | 50 | 45 | 40 | 35 | 30 | 30 | 30 | 25 | 25 | 25 |
| 700 <sup>1</sup>  | -                   | - | 60 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 25 | 25 | 25 |
| 800 <sup>1</sup>  | -                   | - | 65 | 55 | 45 | 40 | 40 | 35 | 30 | 30 | 30 | 25 | 25 |
| 900 <sup>1</sup>  | -                   | - | 65 | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 25 | 25 |
| 1000 <sup>1</sup> | -                   | - | 70 | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 25 | 25 |
| 1100 <sup>2</sup> | -                   | - | -  | 75 | 65 | 60 | 50 | 45 | 45 | 40 | 35 | 35 | 35 |
| 1200 <sup>2</sup> | -                   | - | -  | 80 | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 1300 <sup>2</sup> | -                   | - | -  | 80 | 70 | 65 | 55 | 50 | 45 | 45 | 40 | 40 | 35 |
| 1400 <sup>2</sup> | -                   | - | -  | 85 | 75 | 65 | 60 | 55 | 50 | 45 | 40 | 40 | 35 |
| 1500 <sup>2</sup> | -                   | - | -  | -  | 75 | 70 | 60 | 55 | 50 | 45 | 45 | 40 | 40 |
| 1600 <sup>2</sup> | -                   | - | -  | -  | 80 | 70 | 65 | 55 | 55 | 50 | 45 | 40 | 40 |
| 1700 <sup>2</sup> | -                   | - | -  | -  | 85 | 75 | 65 | 60 | 55 | 50 | 45 | 45 | 40 |
| 1800 <sup>2</sup> | -                   | - | -  | -  | 85 | 75 | 70 | 60 | 55 | 50 | 50 | 45 | 45 |
| 1900 <sup>2</sup> | -                   | - | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 45 | 45 |
| 2000 <sup>2</sup> | -                   | - | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 50 | 45 |
| 2100 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |
| 2200 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | 85 | 80 | 75 | 70 |
| 2300 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 75 | 70 |
| 2400 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 75 | 75 |
| 2500 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 | 75 |
| 2600 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 | 75 |
| 2700 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 |
| 2800 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 |
| 2900 <sup>3</sup> | -                   | - | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

<sup>1</sup> = Guidance rod 11 x 0.5 mm / <sup>2</sup> = Guidance rod 11 x 1.0 mm / <sup>3</sup> = Guidance rod 17 x 1.0 mm

Heinrich Kübler AG

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Top Mounted Level Indicator-Mini / Cylindrical float

### Cylindrical float

### Uztis/76/300

### Titanium

Diameter / length [ mm ]: 76 / 300  
 Design temperature [ °C ]: -30 ... 150  
 Design pressure [ bar ]: -1 ... 1  
 Weight [ g ]: 218  
 Flange min.: DN 80



#### Float Uztis/76/300

Specific gravity of the liquid [ kg/m³ ]

|                   | 300                 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|-------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| L-Mass [mm]       | Immersion depth [%] |     |     |     |     |     |     |      |      |      |      |      |      |
| 400 <sup>1</sup>  | -                   | 60  | 50  | 40  | 35  | 35  | 30  | 25   | 25   | 25   | 20   | 20   | 20   |
| 500 <sup>1</sup>  | -                   | 65  | 50  | 45  | 40  | 35  | 30  | 30   | 25   | 25   | 20   | 20   | 20   |
| 600 <sup>1</sup>  | -                   | 65  | 55  | 45  | 40  | 35  | 30  | 30   | 25   | 25   | 25   | 20   | 20   |
| 700 <sup>1</sup>  | -                   | 70  | 55  | 45  | 40  | 35  | 30  | 30   | 25   | 25   | 25   | 20   | 20   |
| 800 <sup>1</sup>  | -                   | 70  | 55  | 50  | 40  | 35  | 35  | 30   | 30   | 25   | 25   | 25   | 20   |
| 900 <sup>1</sup>  | -                   | 70  | 60  | 50  | 45  | 40  | 35  | 30   | 30   | 25   | 25   | 25   | 20   |
| 1000 <sup>1</sup> | -                   | 75  | 60  | 50  | 45  | 40  | 35  | 30   | 30   | 30   | 25   | 25   | 25   |
| 1100 <sup>2</sup> | -                   | -   | 80  | 65  | 55  | 50  | 45  | 40   | 40   | 35   | 30   | 30   | 30   |
| 1200 <sup>2</sup> | -                   | -   | 80  | 70  | 60  | 50  | 45  | 45   | 40   | 35   | 35   | 30   | 30   |
| 1300 <sup>2</sup> | -                   | -   | 85  | 70  | 60  | 55  | 50  | 45   | 40   | 40   | 35   | 35   | 30   |
| 1400 <sup>2</sup> | -                   | -   | -   | 75  | 65  | 55  | 50  | 45   | 40   | 40   | 35   | 35   | 30   |
| 1500 <sup>2</sup> | -                   | -   | -   | 75  | 65  | 60  | 50  | 50   | 45   | 40   | 40   | 35   | 35   |
| 1600 <sup>2</sup> | -                   | -   | -   | 80  | 70  | 60  | 55  | 50   | 45   | 40   | 40   | 35   | 35   |
| 1700 <sup>2</sup> | -                   | -   | -   | 80  | 70  | 65  | 55  | 50   | 45   | 45   | 40   | 40   | 35   |
| 1800 <sup>2</sup> | -                   | -   | -   | 85  | 75  | 65  | 60  | 55   | 50   | 45   | 40   | 40   | 35   |
| 1900 <sup>2</sup> | -                   | -   | -   | -   | 75  | 65  | 60  | 55   | 50   | 45   | 45   | 40   | 40   |
| 2000 <sup>2</sup> | -                   | -   | -   | -   | 80  | 70  | 60  | 55   | 50   | 50   | 45   | 40   | 40   |
| 2100 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | 80   | 75   | 70   | 65   | 60   | 55   |
| 2200 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | 85   | 75   | 70   | 65   | 60   | 55   |
| 2300 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | 80   | 75   | 70   | 65   | 60   |
| 2400 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | 80   | 75   | 70   | 65   | 60   |
| 2500 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | 85   | 80   | 70   | 65   | 65   |
| 2600 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 80   | 75   | 70   | 65   |
| 2700 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 80   | 75   | 70   | 65   |
| 2800 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | 85   | 80   | 75   | 70   |
| 2900 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 80   | 75   | 70   |
| 3000 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 85   | 75   | 70   |
| 3100 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | 85   | 80   | 75   |
| 3200 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | 80   | 75   |
| 3300 <sup>3</sup> | -                   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | 85   | 80   |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

<sup>1</sup> = Guidance rod 11 x 0.5 mm / <sup>2</sup> = Guidance rod 11 x 1.0 mm / <sup>3</sup> = Guidance rod 17 x 1.0 mm

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

# Top Mounted Level Indicator-Mini / Cylindrical float

## Cylindrical float

## Uztis/76/350

## Titanium

Diameter / length [ mm ]:  
Design temperature [ °C ]:  
Design pressure [ bar ]:  
Weight [ g ]:  
Flange min.:

76 / 350  
-30 ... 150  
-1 ... 1  
258  
DN 80



### Float Uztis/76/350

Specific gravity of the liquid [ kg/m³ ]

300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

| L-Mass [mm]       | Immersion depth [%] |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| 400 <sup>1</sup>  | -                   | 60 | 45 | 40 | 35 | 30 | 30 | 25 | 25 | 20 | 20 | 20 | 20 |
| 500 <sup>1</sup>  | -                   | 60 | 50 | 40 | 35 | 30 | 30 | 25 | 25 | 20 | 20 | 20 | 20 |
| 600 <sup>1</sup>  | -                   | 60 | 50 | 40 | 35 | 35 | 30 | 25 | 25 | 25 | 20 | 20 | 20 |
| 700 <sup>1</sup>  | -                   | 65 | 50 | 45 | 40 | 35 | 30 | 30 | 25 | 25 | 20 | 20 | 20 |
| 800 <sup>1</sup>  | -                   | 65 | 55 | 45 | 40 | 35 | 30 | 30 | 25 | 25 | 25 | 20 | 20 |
| 900 <sup>1</sup>  | -                   | 70 | 55 | 45 | 40 | 35 | 30 | 30 | 25 | 25 | 25 | 20 | 20 |
| 1000 <sup>1</sup> | -                   | 70 | 55 | 50 | 40 | 35 | 35 | 30 | 30 | 25 | 25 | 20 | 20 |
| 1100 <sup>2</sup> | -                   | -  | 70 | 60 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 25 | 25 |
| 1200 <sup>2</sup> | -                   | -  | 75 | 60 | 55 | 45 | 40 | 40 | 40 | 35 | 30 | 30 | 25 |
| 1300 <sup>2</sup> | -                   | -  | 75 | 65 | 55 | 50 | 45 | 40 | 35 | 35 | 30 | 30 | 30 |
| 1400 <sup>2</sup> | -                   | -  | 80 | 65 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 | 30 |
| 1500 <sup>2</sup> | -                   | -  | 80 | 70 | 60 | 50 | 45 | 45 | 40 | 35 | 35 | 30 | 30 |
| 1600 <sup>2</sup> | -                   | -  | 85 | 70 | 60 | 55 | 50 | 45 | 40 | 35 | 35 | 35 | 30 |
| 1700 <sup>2</sup> | -                   | -  | -  | 75 | 65 | 55 | 50 | 45 | 40 | 40 | 35 | 35 | 30 |
| 1800 <sup>2</sup> | -                   | -  | -  | 75 | 65 | 60 | 50 | 45 | 45 | 40 | 35 | 35 | 35 |
| 1900 <sup>2</sup> | -                   | -  | -  | 80 | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 2000 <sup>2</sup> | -                   | -  | -  | 80 | 70 | 60 | 55 | 50 | 45 | 40 | 40 | 35 | 35 |
| 2100 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 50 | 50 |
| 2200 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | 80 | 75 | 65 | 60 | 55 | 55 | 50 |
| 2300 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 | 50 |
| 2400 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | 80 | 70 | 65 | 60 | 55 | 55 |
| 2500 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 | 55 |
| 2600 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | 85 | 75 | 70 | 65 | 60 | 55 |
| 2700 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | 85 | 80 | 70 | 65 | 60 | 60 |
| 2800 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 |
| 2900 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 | 60 |
| 3000 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | 85 | 80 | 70 | 65 | 65 |
| 3100 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |
| 3200 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 | 65 |
| 3300 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 | 70 | 70 |
| 3400 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |
| 3500 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 | 75 | 70 |
| 3600 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 | 75 |
| 3700 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 | 75 |
| 3800 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 | 75 |
| 3900 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 |
| 4000 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 | 80 |
| 4100 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 |
| 4200 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 80 |
| 4300 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 |
| 4400 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | 85 |
| 4500 <sup>3</sup> | -                   | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

<sup>1</sup> = Guidance rod 11 x 0.5 mm / <sup>2</sup> = Guidance rod 11 x 1.0 mm / <sup>3</sup> = Guidance rod 17 x 1.0 mm

Heinrich Kübler AG

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Top Mounted Level Indicator-Mini / Magnetic roller indicator

### Type

**MNA / MNB  
MNAN / MNBN**

Electrical connection:  
Ingress protection class:

Aluminium anodized  
IP67

MNA / MNB / MNAN / MNBN

Indication

- Material quality:
- Colour:

Pocan  
White / Red

End part:

Ryton, black

Sight cover  
- MNA / MNAN:  
- MNB / MNBN:

Macrolon  
Glass

Ambient temperature:

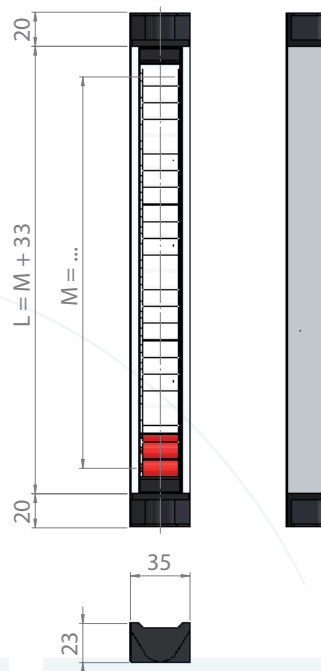
-40°C ... 200°C

MNAN / MNBN ( over-roll-protected ):

Roller rotation max. 180°

### Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



### Type

**MNAV / MNBV  
MNAVN / MNBVN**

Electrical connection:  
Ingress protection class:

Aluminium with Stainless steel covered  
IP67

MNAV / MNBV / MNAVN / MNBVN

Indication

- Material quality:
- Colour:

Pocan  
White / Red

End part:

Ryton, black

Sight cover  
- MNAV / MNAVN:  
- MNBV / MNBVN:

Macrolon  
Glass

Ambient temperature:

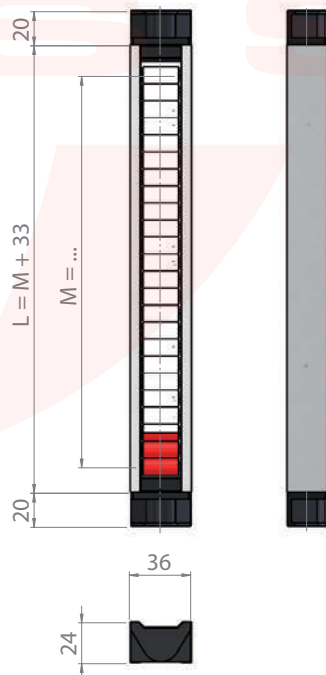
-40°C ... 200°C

MNAVN / MNBVN ( over-roll-protected ):

Roller rotation max. 180°

### Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

## Type

## SAK / SA.. / SV..

**SAK**

|                      |                                              |
|----------------------|----------------------------------------------|
| Scale:               | Adhesive foil ( black )                      |
| Angle profile:       | Aluminium                                    |
| Scaling:             | in cm ( 0 cm .. 10 cm .. 20 cm .. 30 cm .. ) |
| Width:               | 40 mm                                        |
| Ambient temperature: | -40°C ... 200°C                              |

**SA0 / SA1 / SA2 / SA3 / SA4**

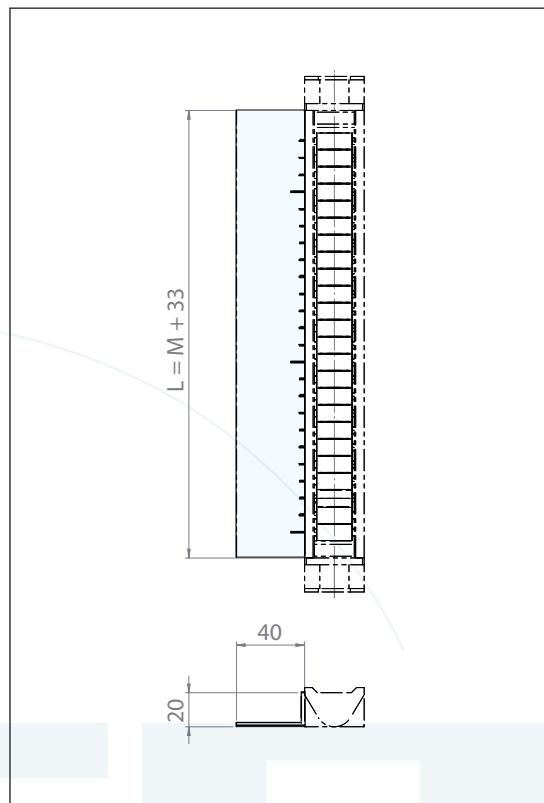
|                      |                             |
|----------------------|-----------------------------|
| Scale:               | Engraved                    |
| Angle profile:       | Aluminium                   |
| Scaling:             | Blank / % / cm / inch. / .. |
| Width:               | 40 mm                       |
| Ambient temperature: | -40°C ... 200°C             |

**SV0 / SV1 / SV2 / SV3 / SV4**

|                      |                             |
|----------------------|-----------------------------|
| Scale:               | Engraved                    |
| Angle profile:       | Stainless steel             |
| Scaling:             | Blank / % / cm / inch. / .. |
| Width:               | 40 mm                       |
| Ambient temperature: | -40°C ... 400°C             |

**Approvals / Certificates**

ATEX / GOST / GL / BV / DNV / ABS



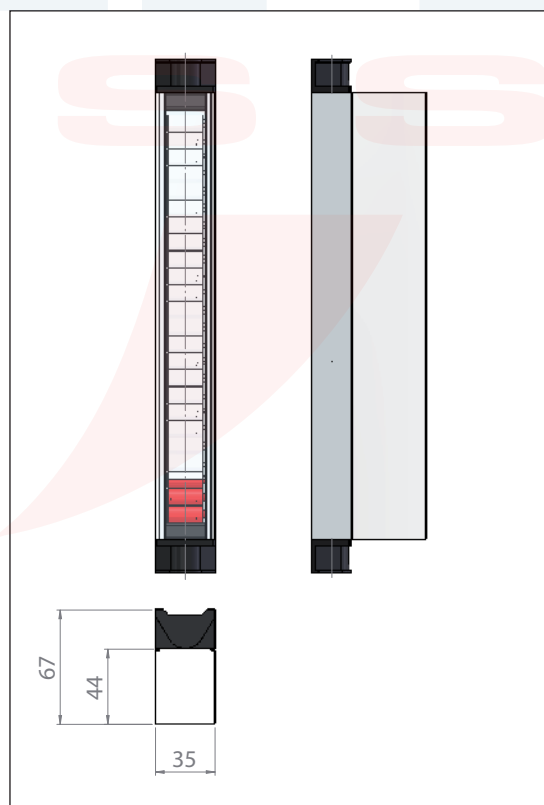
## Type

Magnetic roller indicator  
sight extension PV

|                      |                              |
|----------------------|------------------------------|
| Material quality:    | Acryl glass                  |
| Width:               | 35 mm                        |
| Depth:               | 67 mm                        |
| Ambient temperature: | -40°C ... 100°C              |
| Mounting:            | on magnetic roller indicator |

**Approvals / Certificates**

ATEX / GOST / GL / BV / DNV / ABS

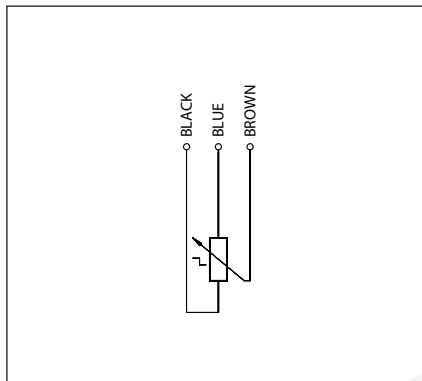


The top mounted level indicator-mini are based on a modular design and can be arranged individually.

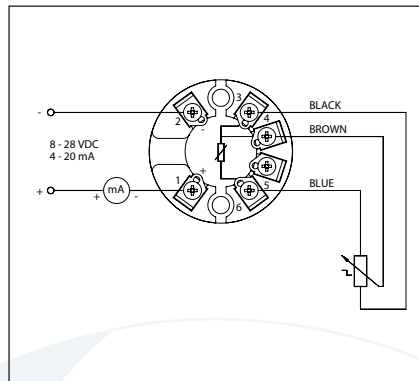
Type key page 386 - 390

## Top Mounted Level Indicator-Mini / Level transmitter

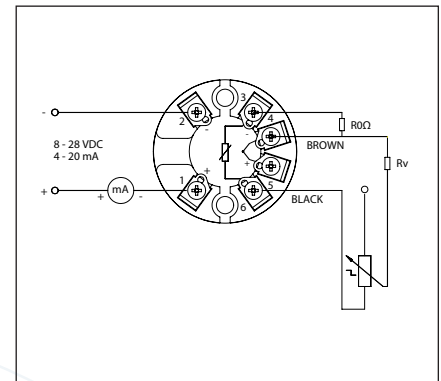
### Connection diagram



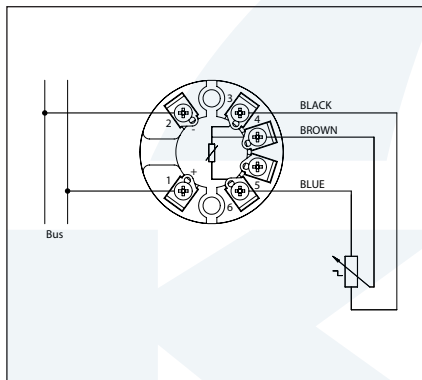
without Control unit



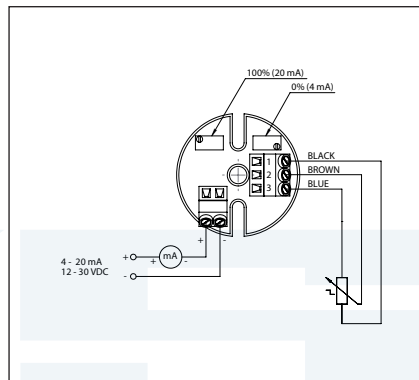
Control unit TP5343..



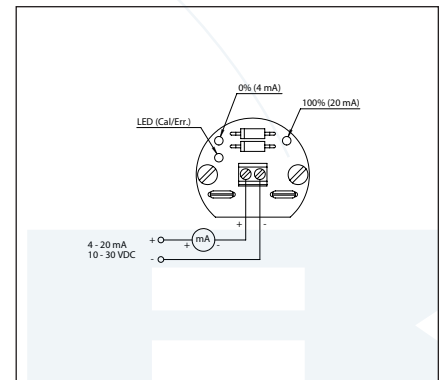
Control unit TD5335..



Control unit TP5350..



Control unit XT42SI Ex



Control unit Magnetostruktiv

Some further data according to chapter Control Units 1011

### Approvals / Certificates



ATEX-Approval for accuracy K5.. / K10.. / K15..\*

II 1/2G Ex ia c IIC T6 - T4

II 1/2G Ex d ia c IIC T6 - T4

Liquid temperature Exia max. 180°C / Exd max. 120°C

Type of protection intrinsic safety Ex ia IIC switch bzw. temperature switch

Type of protection intrinsic safety Ex ia IIC temperature probe

Type of protection intrinsic safety Ex ia IIC with option /N ( NAMUR EN 60947 )

Type of protection „moulding“

Type of protection „moulding“ with option /N ( NAMUR EN 60947 )

Type of protection „moulding“ with option /R22 ( resistor )

II 1/2G Ex ia c IIC T6 - T3 bzw. Ex d ia c IIC T6 - T4

II 2D Ex tD A21 c IP6\* T80°C - T190°C bzw. T125

$I_i \leq 100 \text{ mA}$

$U_i \leq 28 \text{ V}$

$U_i \leq 15 \text{ VDC}$

$U_N \leq 250 \text{ VDC/AC}$

$U_N \leq 15 \text{ VDC}$

$U_N \leq 250 \text{ VDC/AC}$

II 2G Ex d c IIC T6 - T4

$I_i \leq 100 \text{ mA}$

$I_i \leq 60 \text{ mA}$

$P_{SN} \leq 50 \text{ W/VA}$

$I_N \leq 60 \text{ mA}$

$I_N \leq 100 \text{ mA}$

$P_i \leq 700 \text{ mW}$

$P_{FN} \leq 700 \text{ mW}$

ATEX-Approval for accuracy K1..\*

II 1/2G Ex ia c IIC T6 - T2

II 1/2G Ex ia IIC T6 - T2

Type of protection intrinsic safety Ex ia IIC

II 1G Ex ia IIC T4 - T2

II 2G Ex d IIC T4

$U_i \leq 30 \text{ V}$

$I_i \leq 200 \text{ mA}$

$P_i \leq 1000 \text{ mW}$

Temperature class

Ambient temperature( $T_a$ )

Liquid temperature( $T_l$ )

T6

-20°C ... 40°C

-20°C ... 60°C

T5

-20°C ... 55°C

-20°C ... 60°C

T4 - T2

-20°C ... 85°C

-20°C ... 60°C

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

\* = The approval is dependent on the equipment combination

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail info@kubler.ch | Internet www.kubler.ch

## Type ALF/..V/../-M..

|                                          |                                  |
|------------------------------------------|----------------------------------|
| Electrical connection:                   | Aluminium anodized               |
| Cable entry:                             | M20 x 1.5                        |
| Ingress protection class:                | IP 65                            |
| Ambient temperature:                     | -40°C ... 100°C                  |
| Level transmitter tube material quality: | Stainless steel                  |
| Mounting:                                | Tension strap                    |
| Minimum measures:                        | T: 27 mm / L1: 40 mm / Ub: 50 mm |

### Accuracy

Accuracy: 5 / 10 / 15 mm

### Ambient temperature

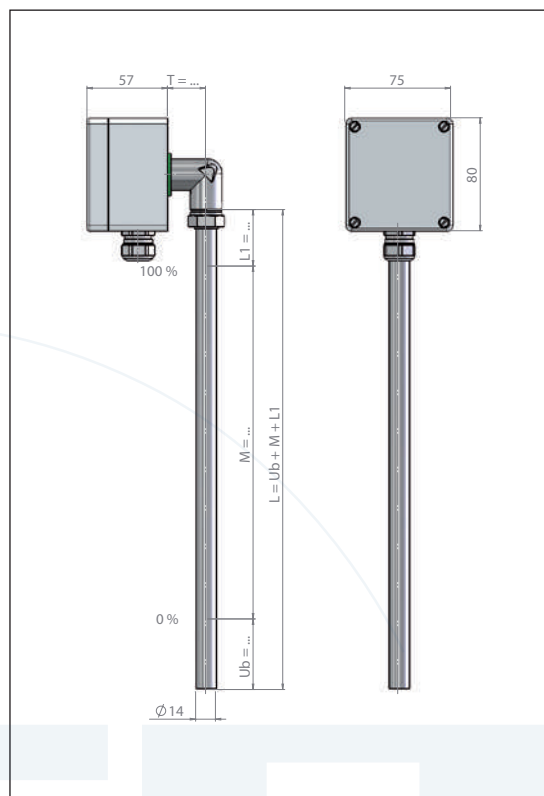
|                            |                 |
|----------------------------|-----------------|
| - K5 / K10 / K15:          | -30°C ... 130°C |
| - K5HTF / K10HTF / K15HTF: | -30°C ... 200°C |
| - K5HT / K10HT / K15HT:    | -40°C ... 250°C |

### Option control unit / Page 410

|               |                            |
|---------------|----------------------------|
| Control unit: | - Programmable             |
|               | - Hart-programmable / SIL2 |
|               | - Profibus PA              |
|               | - Foundation Fieldbus      |

### Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



## Type ALDA/..V/../-EXDG-M..

|                                          |                                  |
|------------------------------------------|----------------------------------|
| Electrical connection:                   | Aluminium coated RAL 9006        |
| Cable entry:                             | M20 x 1.5                        |
| Ingress protection class:                | IP 68                            |
| Ambient temperature:                     | -40°C ... 100°C                  |
| Level transmitter tube material quality: | Stainless steel                  |
| Mounting:                                | Tension strap                    |
| Minimum measures:                        | T: 50 mm / L1: 40 mm / Ub: 50 mm |

### Accuracy

Accuracy: 5 / 10 / 15 mm

### Ambient temperature

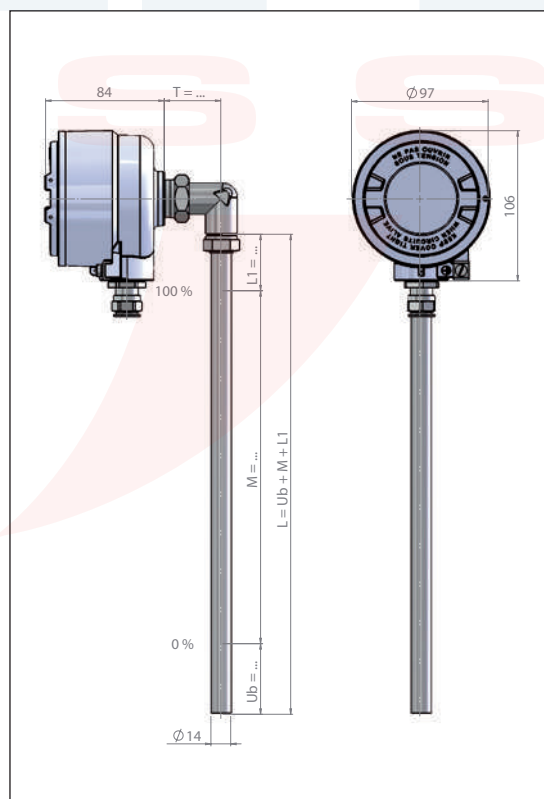
|                            |                 |
|----------------------------|-----------------|
| - K5 / K10 / K15:          | -30°C ... 130°C |
| - K5HTF / K10HTF / K15HTF: | -30°C ... 200°C |
| - K5HT / K10HT / K15HT:    | -40°C ... 250°C |

### Option control unit / Page 410

|               |                            |
|---------------|----------------------------|
| Control unit: | - Programmable             |
|               | - Hart-programmable / SIL2 |
|               | - Profibus PA              |
|               | - Foundation Fieldbus      |

### Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**



## Top Mounted Level Indicator-Mini / Level transmitter

### Type

DAALA/.../I/...-M..

|                                          |                                           |
|------------------------------------------|-------------------------------------------|
| Electrical connection:                   | Aluminium anodized                        |
| Cable entry:                             | M20 x 1.5                                 |
| Ingress protection class:                | IP 65                                     |
| Ambient temperature:                     | -40°C ... 60°C                            |
| Display:                                 | 4-digit LED display in red / Free scaling |
| Current input:                           | 4 ... 20 mA                               |
| Level transmitter tube material quality: | Stainless steel                           |
| Mounting:                                | Tension strap                             |
| Minimum measures:                        | T: 50 mm / L1: 40 mm / Ub: 50 mm          |

|           |                |
|-----------|----------------|
| Accuracy: | 5 / 10 / 15 mm |
|-----------|----------------|

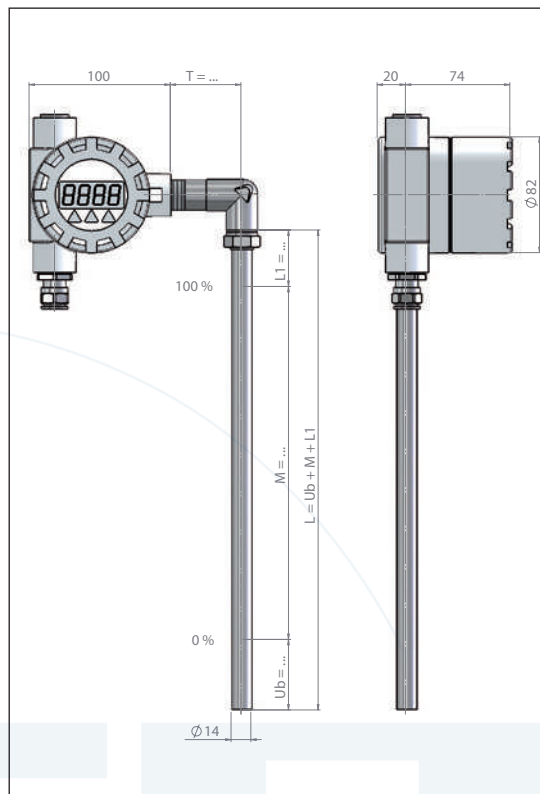
|                            |                 |
|----------------------------|-----------------|
| Ambient temperature        |                 |
| - K5 / K10 / K15:          | -30°C ... 130°C |
| - K5HTF / K10HTF / K15HTF: | -30°C ... 200°C |
| - K5HT / K10HT / K15HT:    | -40°C ... 250°C |

Option control unit / Page 410

|               |                            |
|---------------|----------------------------|
| Control unit: |                            |
|               | - Programmable             |
|               | - Hart-programmable / SIL2 |
|               | - Profibus PA              |
|               | - Foundation Fieldbus      |

### Approvals / Certificates

ATEX / GOST



### Type

DAAVDA/.../I/.../EXIADG-M..

|                                          |                                           |
|------------------------------------------|-------------------------------------------|
| Electrical connection:                   | Stainless steel electropolished           |
| Cable entry:                             | M20 x 1.5                                 |
| Ingress protection class:                | IP 68                                     |
| Ambient temperature:                     | -40°C ... 60°C                            |
| Display:                                 | 4-digit LED display in red / Free scaling |
| Current input:                           | 4 ... 20 mA                               |
| Level transmitter tube material quality: | Stainless steel                           |
| Mounting:                                | Tension strap                             |
| Minimum measures:                        | T: 50 mm / L1: 40 mm / Ub: 50 mm          |

|           |                |
|-----------|----------------|
| Accuracy: | 5 / 10 / 15 mm |
|-----------|----------------|

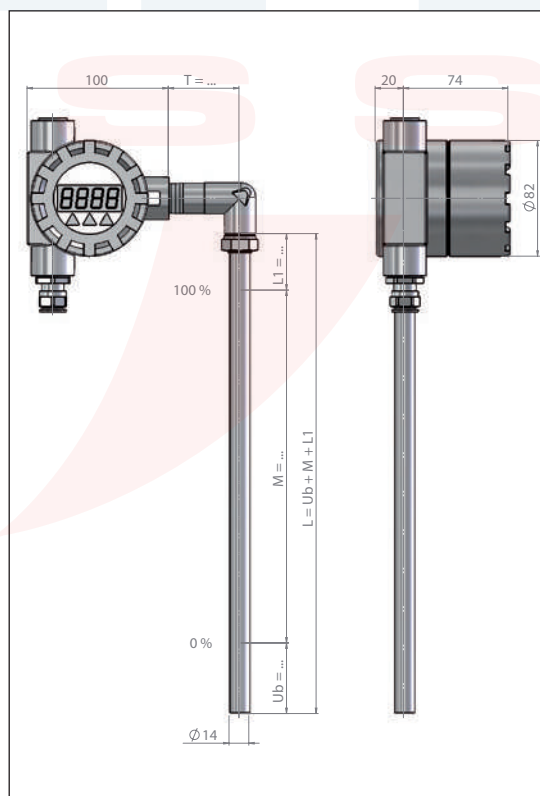
|                            |                               |
|----------------------------|-------------------------------|
| Ambient temperature        |                               |
| - K5 / K10 / K15:          | -30°C ... 130°C ( Exd 120°C ) |
| - K5HTF / K10HTF / K15HTF: | -30°C ... 180°C ( Exd 120°C ) |
| - K5HT / K10HT / K15HT:    | -40°C ... 180°C ( Exd 120°C ) |

Option control unit / Page 410

|               |                            |
|---------------|----------------------------|
| Control unit: |                            |
|               | - Programmable             |
|               | - Hart-programmable / SIL2 |
|               | - Profibus PA              |
|               | - Foundation Fieldbus      |

### Approvals / Certificates

ATEX / GOST



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

## Type

AVA/..V/..-M..

|                                          |                                  |
|------------------------------------------|----------------------------------|
| Electrical connection:                   | Stainless steel A4 ( SS316 )     |
| Cable entry:                             | M20 x 1.5                        |
| Ingress protection class:                | IP 67                            |
| Ambient temperature:                     | -40°C ... 85°C                   |
| Level transmitter tube material quality: | Stainless steel                  |
| Mounting:                                | Tension strap                    |
| Minimum measures:                        | T: 50 mm / L1: 40 mm / Ub: 50 mm |

## Accuracy

Accuracy: 5 / 10 / 15 mm

## Ambient temperature

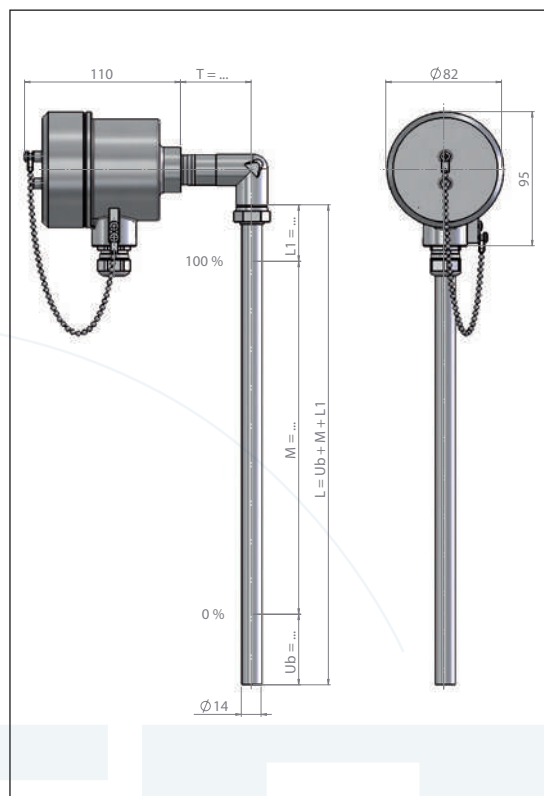
|                            |                 |
|----------------------------|-----------------|
| - K5 / K10 / K15:          | -30°C ... 130°C |
| - K5HTF / K10HTF / K15HTF: | -30°C ... 200°C |
| - K5HT / K10HT / K15HT:    | -40°C ... 250°C |

## Option control unit / Page 410

|               |                                                                                        |
|---------------|----------------------------------------------------------------------------------------|
| Control unit: | - Programmable<br>- Hart-programmable / SIL2<br>- Profibus PA<br>- Foundation Fieldbus |
|---------------|----------------------------------------------------------------------------------------|

## Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



## Type

AVM/..V/..-M..

|                                          |                              |
|------------------------------------------|------------------------------|
| Electrical connection:                   | Stainless steel A4 ( SS316 ) |
| Cable entry:                             | M16 x 1.5                    |
| Ingress protection class:                | IP 68                        |
| Ambient temperature:                     | -40°C ... 85°C               |
| Level transmitter tube material quality: | Stainless steel              |
| Mounting:                                | Tension strap                |
| Minimum measures:                        | L1: 40 mm / Ub: 50 mm        |

## Accuracy

Accuracy: 0.2 mm

## Ambient temperature

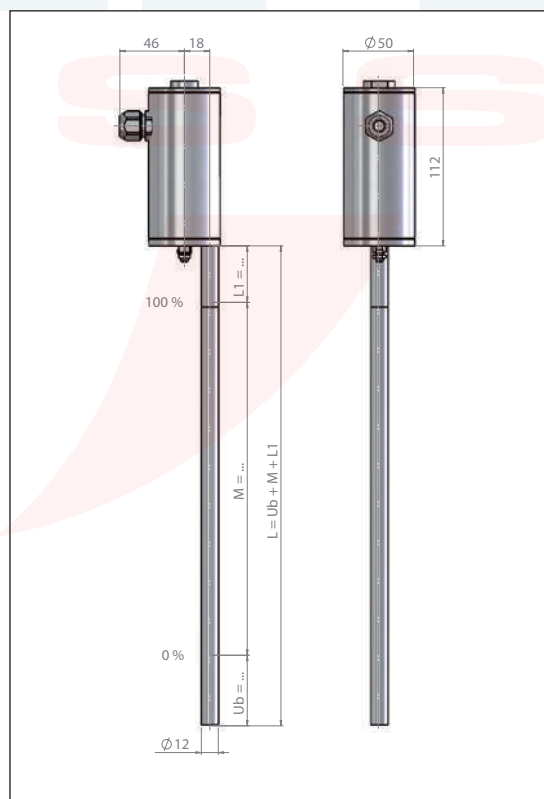
|         |               |
|---------|---------------|
| - K1:   | -40 ... 125°C |
| - K1HT: | -40 ... 250°C |

## Control unit

|                 |                                                   |
|-----------------|---------------------------------------------------|
| - MST / MSTB:   | - Programmable<br>4 ... 20 mA, 10 ... 30 VDC      |
| - MSTH / MSTHB: | - Hart-programmable<br>4 ... 20 mA, 10 ... 30 VDC |

## Approvals / Certificates

ATEX / GOST / IECEx / SIL2



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

## Top Mounted Level Indicator-Mini / Level transmitter

### Type

AVDM/..V/..EXIADG-M..

|                                          |                              |
|------------------------------------------|------------------------------|
| Electrical connection:                   | Stainless steel A4 ( SS316 ) |
| Cable entry:                             | M20 x 1.5                    |
| Ingress protection class:                | IP 68                        |
| Ambient temperature:                     | -40°C ... 85°C               |
| Level transmitter tube material quality: | Stainless steel              |
| Mounting:                                | Tension strap                |
| Minimum measures:                        | L1: 40 mm / Ub: 50 mm        |

### Accuracy

Accuracy: 0.2 mm

Ambient temperature  
- K1:

ATEX temperature page 410

### Control unit

- MSTB:

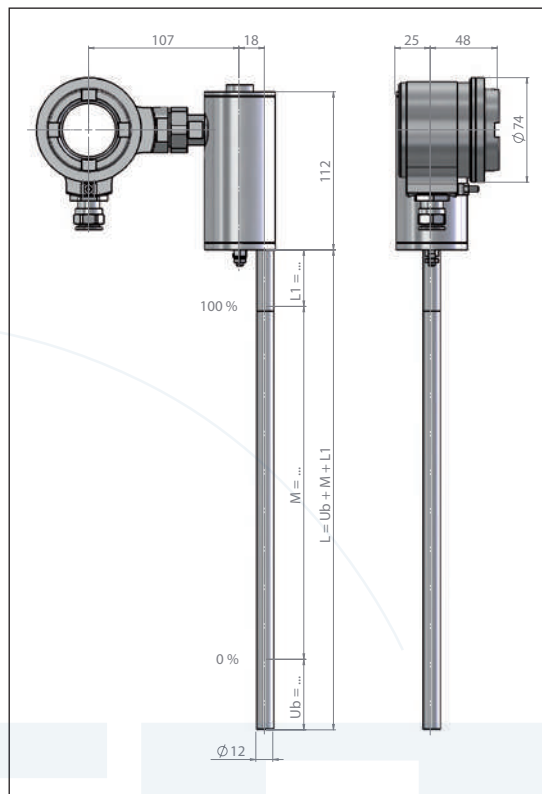
- Programmable  
4 ... 20 mA, 10 ... 30 VDC

- MSTHB:

- Hart-programmable  
4 ... 20 mA, 10 ... 30 VDC

### Approvals / Certificates

ATEX / GOST / IECEx / SIL2



### Type

DAAVDM/..V/..EXIADG-M..

|                                          |                              |
|------------------------------------------|------------------------------|
| Electrical connection:                   | Stainless steel A4 ( SS316 ) |
| Cable entry:                             | M20 x 1.5                    |
| Ingress protection class:                | IP 68                        |
| Ambient temperature:                     | -40°C ... 85°C               |
| Level transmitter tube material quality: | Stainless steel              |
| Mounting:                                | Tension strap                |
| Minimum measures:                        | L1: 40 mm / Ub: 50 mm        |

### Accuracy

Accuracy: 0.2 mm

Ambient temperature  
- K1:

ATEX temperature page 410

### Control unit

- MSTB:

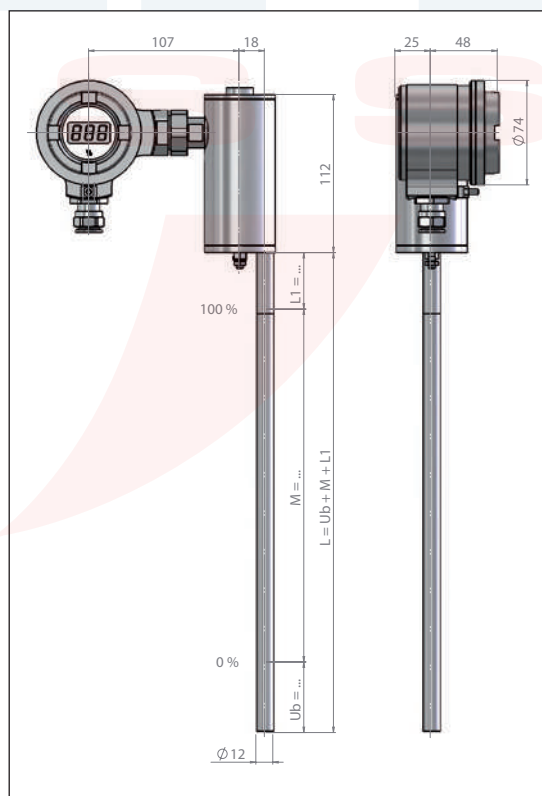
- Programmable  
4 ... 20 mA, 10 ... 30 VDC

- MSTHB:

- Hart-programmable  
4 ... 20 mA, 10 ... 30 VDC

### Approvals / Certificates

ATEX / GOST / IECEx / SIL2



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

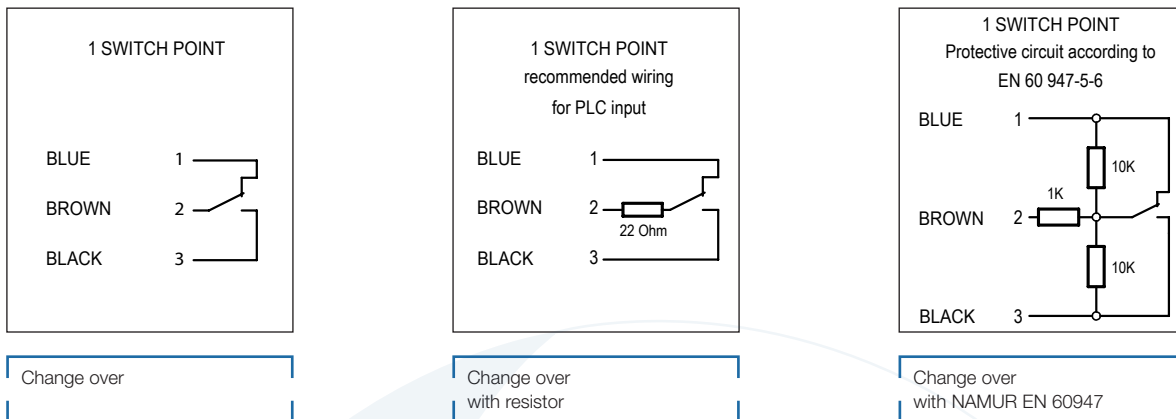
Notes



The top mounted level indicator-mini are based on a modular design and can be arranged individually.  
**Type key page 386 - 390**

## Top Mounted Level Indicator-Mini / Magnetic switch

### Connection diagram



### Approvals / Certificates



#### ATEX\*

|       |                               |       |                               |
|-------|-------------------------------|-------|-------------------------------|
| II 2G | Ex ia IIC T6 - T1             | II 2G | Ex d IIC T6 - T4              |
| II 2D | Ex tD A21 IP6* T80°C - T300°C | II 2D | Ex tD A21 IP6* T80°C - T120°C |

Liquid temperature Exia max. 180°C / Exd max. 120°C

|                                                                                 |                               |                               |                              |
|---------------------------------------------------------------------------------|-------------------------------|-------------------------------|------------------------------|
| Type of protection intrinsic safety Ex ia IIC switch bzw. temperature switch    | $I_i \leq 100 \text{ mA}$     |                               |                              |
| Type of protection intrinsic safety Ex ia IIC temperature probe                 | $U_i \leq 28 \text{ V}$       | $I_i \leq 100 \text{ mA}$     | $P_i \leq 700 \text{ mW}$    |
| Type of protection intrinsic safety Ex ia IIC with option /N ( NAMUR EN 60947 ) | $U_i \leq 15 \text{ VDC}$     | $I_i \leq 60 \text{ mA}$      |                              |
| Type of protection „moulding“                                                   | $U_N \leq 250 \text{ VDC/AC}$ | $P_{SN} \leq 50 \text{ W/VA}$ | $P_{FN} \leq 700 \text{ mW}$ |
| Type of protection „moulding“ with option /N ( NAMUR EN 60947 )                 | $U_N \leq 15 \text{ VDC}$     | $I_N \leq 60 \text{ mA}$      |                              |
| Type of protection „moulding“ with option /R22 ( resistor )                     | $U_N \leq 250 \text{ VDC/AC}$ | $I_N \leq 100 \text{ mA}$     |                              |

The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

\* = The approval is dependent on the equipment combination

**Heinrich Kübler AG**

Ruessenstrasse 4 | CH-6341 Baar | Phone +41 (0)41 766 62 62 | Fax +41 (0)41 766 62 63 | E-Mail [info@kubler.ch](mailto:info@kubler.ch) | Internet [www.kubler.ch](http://www.kubler.ch)

## Type

**RU40/././././.**  
**RU40/./././././EXIAG**

Housing: Aluminium anodized  
Ingress protection class: IP 65  
Mounting: Free positionable on the chamber

Ambient temperature  
- with PVC connection cable: -20°C ... 80°C  
- with Silikon connection cable: -40°C ... 150°C  
- with PUR connection cable: -40°C ... 80°C  
- with Radox connection cable: -35°C ... 120°C

## Switch function

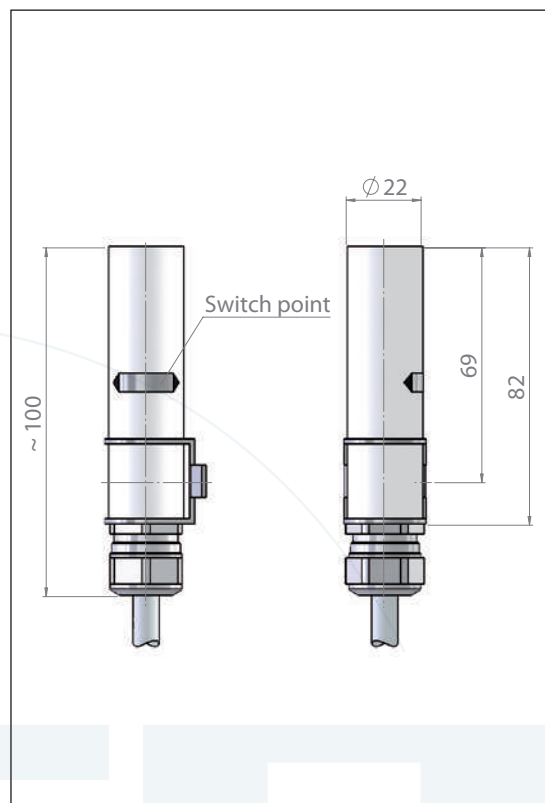
Function: Change over  
Switch behaviour: Bistable  
Switching capacity: 230 V / 0.5 A / 40 VA  
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA  
Switching hysteresis: 5 mm ... 7 mm

## Options

- Switch option .. /R22: 22 Ohm Resistor  
- Switch option .. /N: NAMUR EN 60947

## Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS / SIL1



## Type

**RUD40/././././EXDG**

Housing: Aluminium anodized  
Ingress protection class: IP 65  
Mounting: Free positionable on the chamber

Ambient temperature:  
- with PVC connection cable: -20°C ... 80°C  
- with Silikon connection cable: -40°C ... 120°C  
- with PUR connection cable: -40°C ... 80°C  
- with Radox connection cable: -35°C ... 120°C

## Switch function

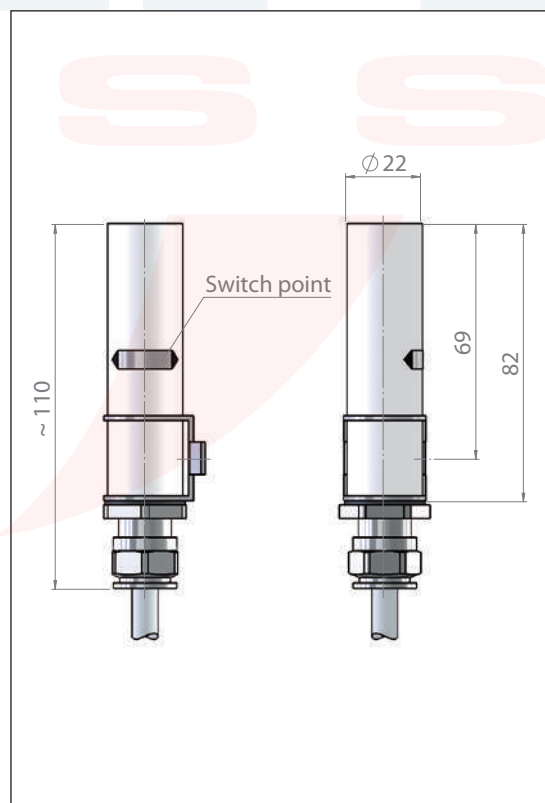
Function: Change over  
Switch behaviour: Bistable  
Switching capacity:  $U_N$  250 V /  $P_{SN}$  50 W/VA /  $P_{FN}$  700 mW  
- NAMUR EN 60947:  $U_N$  15 VDC /  $I_N$  60 mA  
- with resistor:  $U_N$  250 V /  $I_N$  100 mA  
Switching hysteresis: 5 mm ... 7 mm

## Options

- Switch option .. /R22: 22 Ohm Resistor  
- Switch option .. /N: NAMUR EN 60947

## Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS / SIL1



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

## Top Mounted Level Indicator-Mini / Magnetic switch

### Type

**RUV40/.../.../.../EXIAG**  
**RUV40/.../.../.../EXIAG**

Housing: Stainless steel  
Ingress protection class: IP 68  
Mounting: Free positionable on the chamber

Ambient temperature  
- with PVC connection cable: -20°C ... 80°C  
- with Silikon connection cable: -40°C ... 150°C  
- with PUR connection cable: -40°C ... 80°C  
- with Radox connection cable: -35°C ... 120°C

### Switch function

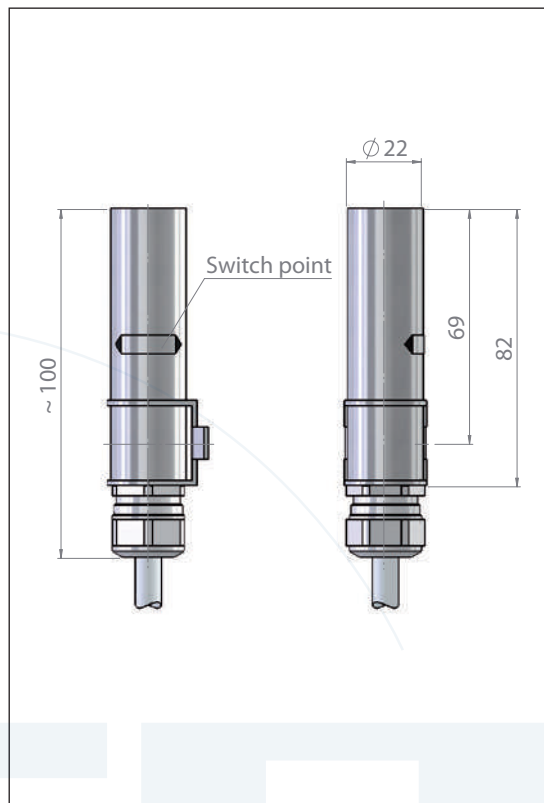
Function: Change over  
Switch behaviour: Bistable  
Switching capacity: 230 V / 0.5 A / 40 VA  
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA  
Switching hysteresis: 5 mm ... 7 mm

### Options

- Switch option .. /R22: 22 Ohm Resistor  
- Switch option .. /N: NAMUR EN 60947

### Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS / SIL1



### Type

**RUVD40/.../.../.../EXDGG**

Housing: Stainless steel  
Ingress protection class: IP 68  
Mounting: Free positionable on the chamber

Ambient temperature  
- with PVC connection cable: -20°C ... 80°C  
- with Silikon connection cable: -40°C ... 150°C  
- with PUR connection cable: -40°C ... 80°C  
- with Radox connection cable: -35°C ... 120°C

### Switch function

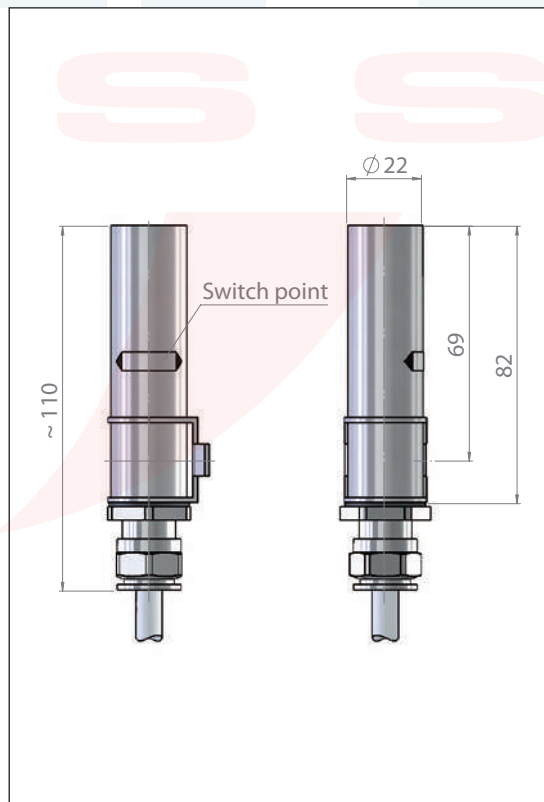
Function: Change over  
Switch behaviour: Bistable  
Switching capacity:  $U_N$  250 V /  $P_{SN}$  50 W/VA /  $P_{FN}$  700 mW  
- NAMUR EN 60947:  $U_N$  15 VDC /  $I_N$  60 mA  
- with resistor:  $U_N$  250 V /  $I_N$  100 mA  
Switching hysteresis: 5 mm ... 7 mm

### Options

- Switch option .. /R22: 22 Ohm Resistor  
- Switch option .. /N: NAMUR EN 60947

### Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS / SIL1



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**



## Type

**ALERU40/..**  
**ALERU40/..EXIAG**

Housing: Aluminium anodized  
Cable entry: M20 x 1.5  
Ingress protection class: IP 65 ( optional IP 66 )  
Mounting: Free positionable on the chamber  
Ambient temperature: -40°C ... 130°C

## Switch function

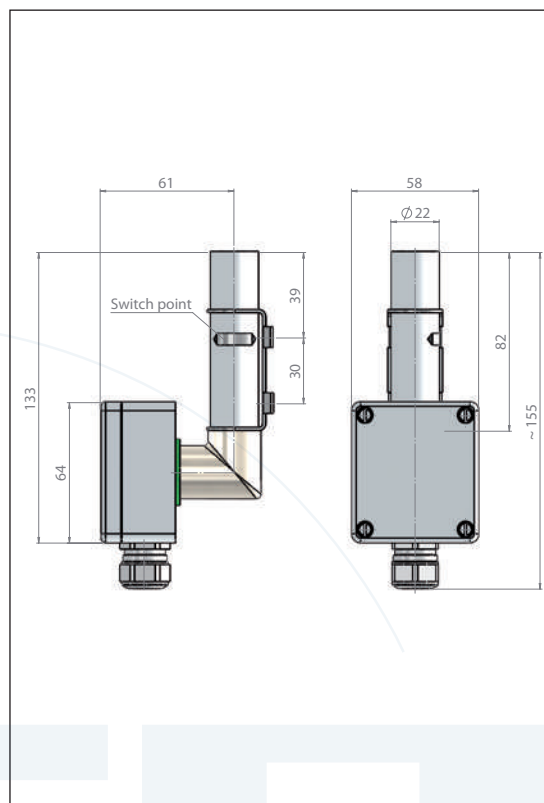
Function: Change over  
Switch behaviour: Bistable  
Switching capacity: 230 V / 0.5 A / 40 VA  
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA  
Switching hysteresis: 5 mm ... 7 mm

## Options

- Switch option .. /R22: 22 Ohm Resistor  
- Switch option .. /N: NAMUR EN 60947

## Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS / SIL1



## Type

**ALFRU40/..**  
**ALFRU40/..EXIAG**

Housing: Aluminium anodized  
Cable entry: M20 x 1.5  
Ingress protection class: IP 65 ( optional IP 66 )  
Mounting: Free positionable on the chamber  
Ambient temperature: -40°C ... 130°C

## Switch function

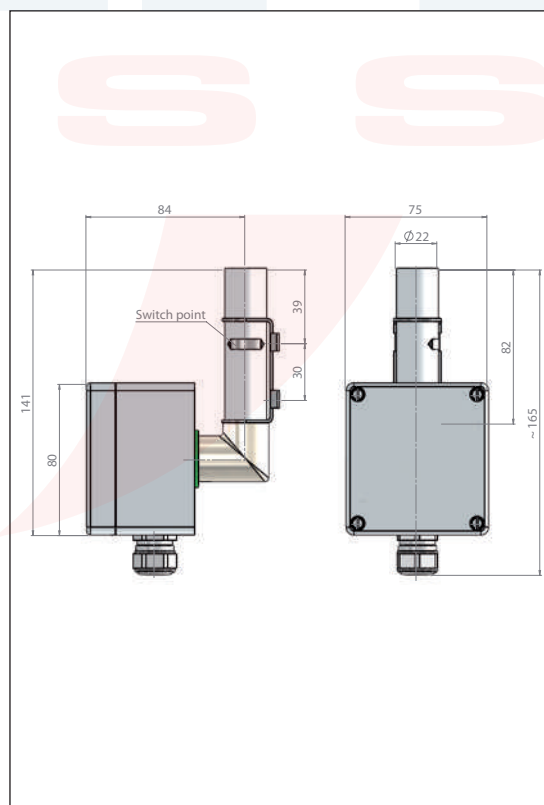
Function: Change over  
Switch behaviour: Bistable  
Switching capacity: 230 V / 0.5 A / 40 VA  
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA  
Switching hysteresis: 5 mm ... 7 mm

## Options

- Switch option .. /R22: 22 Ohm Resistor  
- Switch option .. /N: NAMUR EN 60947

## Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS / SIL1



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

## Type

## AIT AHT

Armaflex isolation AIT

|                      |                                               |
|----------------------|-----------------------------------------------|
| Material quality:    | Cellular plastic based on synthetic rubber    |
| Fire behaviour:      | Self-extinguishing, not drippy, not flammable |
| Nominal thickness:   | 32 mm                                         |
| Ambient temperature: | -50°C ... 105°C                               |
| UV-resistance:       | No                                            |

Armaflex isolation AHT

|                      |                                               |
|----------------------|-----------------------------------------------|
| Material quality:    | Cellular plastic based on synthetic rubber    |
| Fire behaviour:      | Self-extinguishing, not drippy, not flammable |
| Nominal thickness:   | 25 mm                                         |
| Ambient temperature: | -50°C ... 150°C                               |
| UV-resistance:       | Yes                                           |

## Type

## H..A H..B

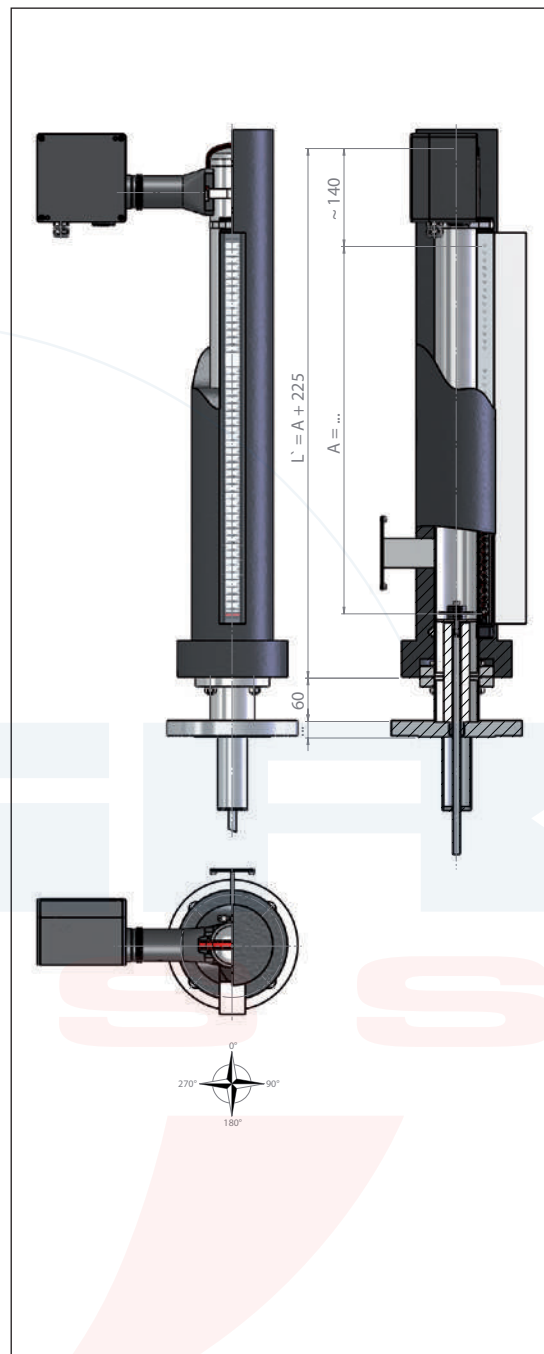
Self-regulating antifreeze heat tracing

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Type:                     | H75A<br>H75B acc. to EExe / T4                          |
| Terminal box:             | GFK black with cable entry M25                          |
| Protective shell:         | Fluoropolymer                                           |
| Power supply:             | 230V AC                                                 |
| Power output:             | 76 W/m at 10°C                                          |
| Holding temperature:      | ~10°C / Frost protection<br>(32 mm Isolation necessary) |
| Steam-flushing:           | No                                                      |
| Ambient temperature:      | -40°C ... 75°C                                          |
| Approvals / Certificates: | ATEX / DNV                                              |

Self-regulating antifreeze heat tracing

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| Type:                         | H150A<br>H150B acc. to EExe / T2                        |
| Terminal box:                 | GFK black with cable entry M25                          |
| Protective shell:             | Fluoropolymer                                           |
| Power supply:                 | 230V AC                                                 |
| Power output:                 | 50 W/m at 10°C                                          |
| Holding temperature:          | ~10°C / Frost protection<br>(32 mm Isolation necessary) |
| Steam-flushing:               | Yes                                                     |
| Minimale Ambient temperature: | -40°C ... 150°C                                         |
| Approvals / Certificates:     | ATEX / DNV                                              |

## Approvals / Certificates



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**

## Type

## SW

Rock-wool isolation SW

Material quality:

Rock-wool with chrome-nickel cover  
(Removable)

Nominal thickness:

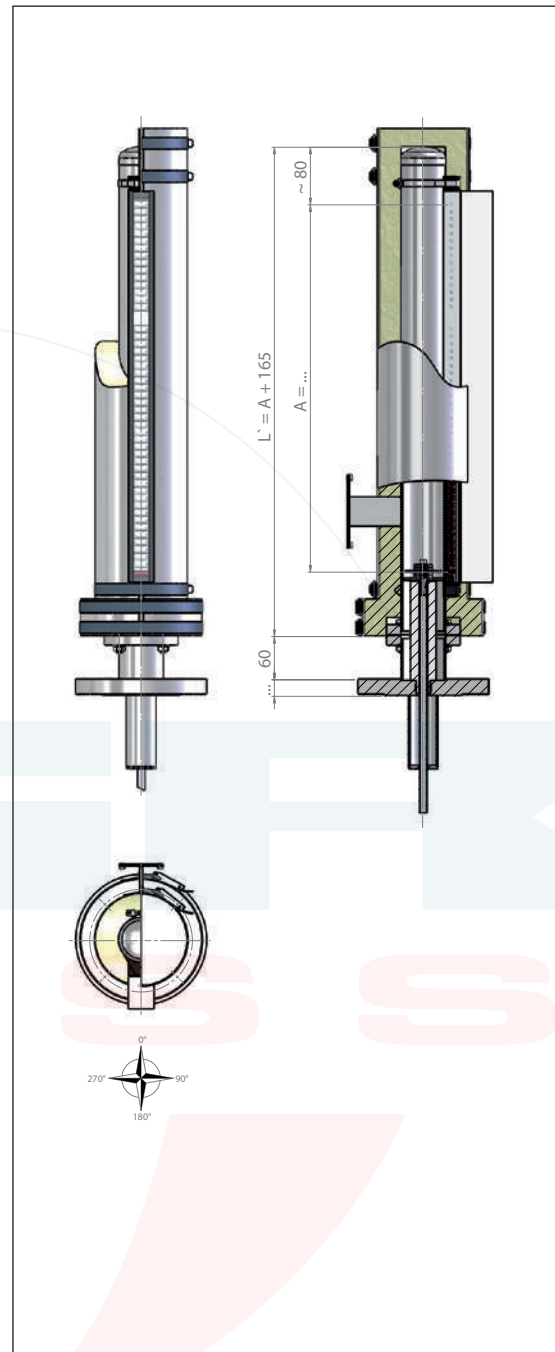
~50 mm

Ambient temperature:

-50°C ... 750°C

UV-resistance:

Yes



The top mounted level indicator-mini are based on a modular design and can be arranged individually.

**Type key page 386 - 390**