

1016-MINI

TOP MOUNTED LEVEL INDICATOR-MINI

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72
Астана +7(7172)727-132
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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 ¹	Top mounted level indicator
UMG ¹	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 ¹	Flange according to EN	GN ¹	Male thread G
FA ¹	Flange according to ANSI	NPTN ¹	Male thread NPT
F ¹	Flange according to ...		
FS ¹	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	- ALF / TP43B / V / K5	- EXIAG	- DU	- L... / A... - V / 40 / 2

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue¹ = possible according to Atex Exia and Exd / Black¹ = possible according to Atex Exd

Code 4

Key 1 ... / ... / ... / ... / ... / ... - Electrical connection level transmitter		Key 2 ... / ... / ... / ... / ... / ... - Control unit		Key 3 ... / ... / ... / ... / ... / ... - Level transmitter tube material quality	
ALE	Aluminium terminal box 64 x 58 x 34 mm (only without control unit)	TP43A ¹	TP5343A	V ¹	Stainless steel
ALF	Aluminium terminal box 80 x 75 x 57 mm	TP43B ¹	TP5343B Ex		
ALDA ¹	Aluminium terminal box Ø 95 x 84 mm	TD35A ¹	TD5335A		
AVA	Stainless steel terminal box Ø 82 x 110 mm	TD35B ¹	TD5335D Ex		
AVDA ¹	Stainless steel terminal box Ø 82 x 110 mm	TP50AP ¹	TP5350AP / PROFIBUS® PA		
AVM	Stainless steel terminal box Ø 50 x 117 mm	TP50BP ¹	TP5350BP Ex / PROFIBUS® PA		
AVDM ¹	Stainless steel terminal box Ø 169 x 117 mm	TP50AF ¹	TP5350AF / FOUNDATION™ Fieldbus		
DAAVDM ¹	Stainless steel terminal box with LED display Ø 169 x 117 mm	TP50BF ¹	TP5350BF Ex / FOUNDATION™ Fieldbus		
APA	Polyester terminal box 80 x 75 x 55 mm	TMT181A ¹	TMT181		
APB	Polyester terminal box 80 x 75 x 55 mm / Exm	TMT181B ¹	TMT181 Ex		
ABA	ABS terminal box 80 x 82 x 55 mm	ZMU ¹	XT42SI Ex		
K	Connection cable	TAMX ¹	Other control unit		
K68	Connection cable IP 68 (≥ G 3/8")	MST ¹	Magnetostrictive / 4 ... 20 mA		
DAALA	Aluminium terminal box with LED display Ø 82 x 100 mm	MSTB ¹	Magnetostrictive / 4 ... 20 mA / Ex		
DAAVDA ¹	Stainless steel terminal box with LED display Ø 82 x 100 mm	MSTH ¹	Magnetostrictive / HART®-Protocol		
		MSTHB ¹	Magnetostrictive / HART®-Protocol / Ex		

Code 4

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

Code 4

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

Black = not possible according to ATEX / Blue = possible according to ATEX Exia / Blue¹ = possible according to ATEX Exia and Exd / Black¹ = possible according to ATEX Exd

Top Mounted Level Indicator-Mini / Type key

Code 5

Key 1 ... -	Electrical connection position of the level transmitter
DO ¹	Electrical connection top mounted
DU ¹	Electrical connection bottom mounted

Code 6

Key 1 ... / ... -	Length of instrument	Key 2 ... / ... -	Display indication range
L... ¹	Length of instrument in mm	A... ¹	Display indication range in mm

Code 7

Key 1 ... / ... / ... -	Chamber material quality	Key 2 ... / ... / ... -	Chamber outside diameter	Key 3 ... / ... / ... -	Chamber wall thickness
V ¹	Stainless steel	40 ¹	Ø 40.00 mm	2.00 ¹	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 ¹	Acryl glass extension
MNB ¹	Magnetic roller indicator MNB (Ex)	SA0 ¹	Scale in Aluminium without engraving		
MNAN	Mag. roller indicator MNAN over-roll-protected	SA1 ¹	Scale in Aluminium with engraving in %		
MNBN ¹	Mag. roller indicator MNBN over-roll-prot. (Ex)	SA2 ¹	Scale in Aluminium with engraving in cm		
MNAV	Magnetic roller indicator MNAV	SA3 ¹	Scale in Aluminium with engraving in inch.		
MNBV ¹	Magnetic roller indicator MNBV (Ex)	SA4 ¹	Scale in Aluminium with engraving acc. to customized table		
MNAVN	Magnetic roller indicator MNAVN over-roll-prot.	SV0 ¹	Scale in Stainless steel without engraving		
MNBVN ¹	Mag. roller indicator MNBVN over-roll-prot. (Ex)	SV1 ¹	Scale in Stainless steel with engraving in %		
		SV2 ¹	Scale in Stainless steel with engraving in cm		
		SV3 ¹	Scale in Stainless steel with engraving in inch.		
		SV4 ¹	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 ¹	Switch protective circuit with 22 ohm / 0.21 W resistor
		RUD40 ¹	Magnetic switch RUD40	N ¹	Switch protective circuit according to NAMUR EN 60947
		RUV40	Magnetic switch RUV40		
		RUVD40 ¹	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
Example	UMG	-	FE	-	25 / 16 / B1	-	ALF / TP43B / V / K5 /
							EXIAG - DU - L... / A... - V / 40 / 2 -

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue¹ = possible according to Atex Exia and Exd / Black¹ = possible according to Atex Exd

Code 9

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

Code 9

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

Code 10

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

Code 11

Key 1 ... - Stilling well
60 ¹ Ø 60.30 mm 73 ¹ Ø 73.03 mm 88 ¹ Ø 88.90 mm 114 ¹ Ø 114.30 mm

Code 12

Key 1 ... / ... - Instrument isolation	Key 2 ... / ... - Electrical heat tracing
AIT Armatflex isolation AIT AHT Armatflex isolation AHT SW Rock-wool isolation	H75A Electrical heat tracing 75°C H75B Electrical heat tracing 75°C acc. to EExe H150A Electrical heat tracing 150°C 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 / PEDII						Example

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue¹ = possible according to Atex Exia and Exd / Black¹ = possible according to Atex Exd

Code 13

Key 1 ... / ... / ... - Approvals / 1		Key 2 ... / ... / ... - Approvals / 2	
EX	Acc. to Ex	PEDII [†] PEDIV [†]	Acc. to PED 97/23/EC category II Acc. to PED 97/23/EC category IV
		EAC1 [†]	Approval EAC TR CU 004/2011 & 012/2011 & 020/2011

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	- ALF / TP43B / V / K5	EXIAG	- DU	- L... / A... - V / 40 / 2

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

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	/	PEDII	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
Maximum indicating range:	$A = L - \text{float length} - (F)$

Option scale / Page 409

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank
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Option magnetic switch / Page 416 - 419

Aluminium / Stainless steel	-40°C ... 150°C
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Option level transmitter / Page 410 - 414

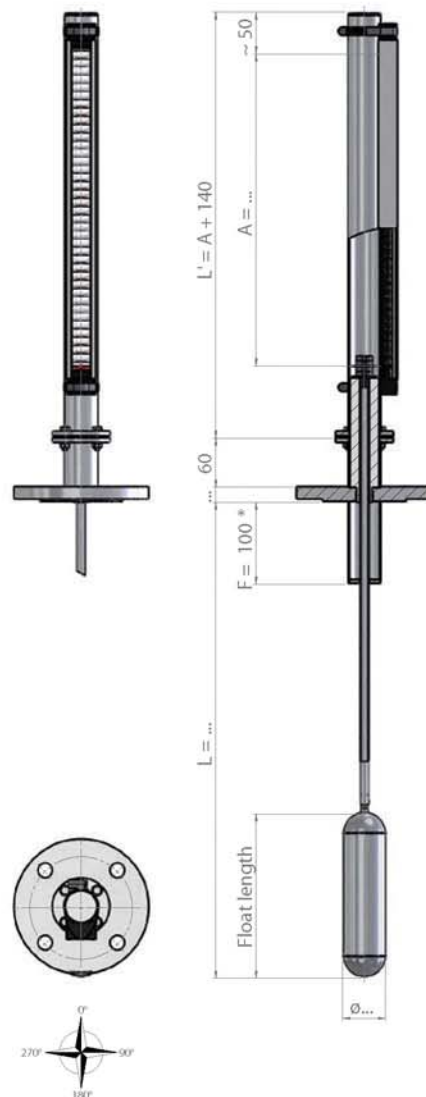
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Foundation Fieldbus

Option electrical heat tracing / Page 420

Holding temperature:	$\sim 10^\circ\text{C}$ / Frost protection
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Option instrument isolation / Page 420 - 421

Isolation:	Armaflex isolation / Rock-wool isolation
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* 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

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 / Poca	-40°C ... 200°C
Maximum indicating range:	$A = L - \text{float length}$

Option scale / Page 409

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank
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Option magnetic switch / Page 416 - 419

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

Option level transmitter / Page 410 - 414

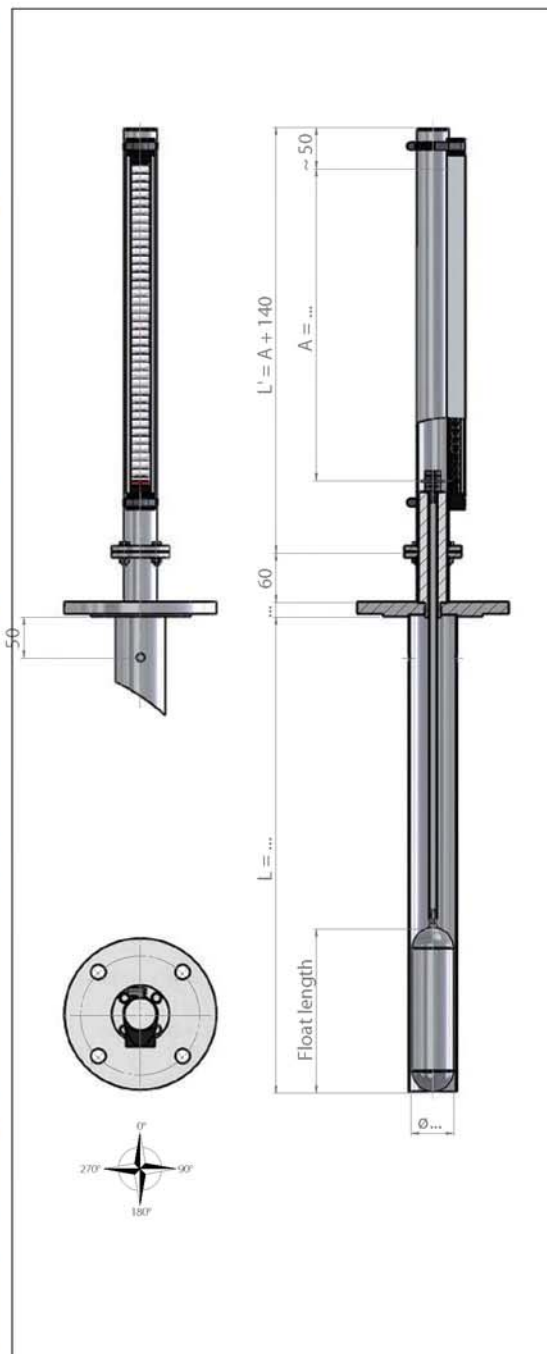
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Foundation Fieldbus

Option electrical heat tracing / Page 420

Holding temperature:	$\sim 10^\circ\text{C}$ / Frost protection
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Option instrument isolation / Page 420 - 421

Isolation:	Armaflex isolation / Rock-wool isolation
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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
Maximum indicating range:	$A = L - \text{float length} - (F)$

Option scale / Page 409

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank
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Option magnetic switch / Page 416 - 419

Aluminium / Stainless steel	-40°C ... 150°C
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Option level transmitter / Page 410 - 414

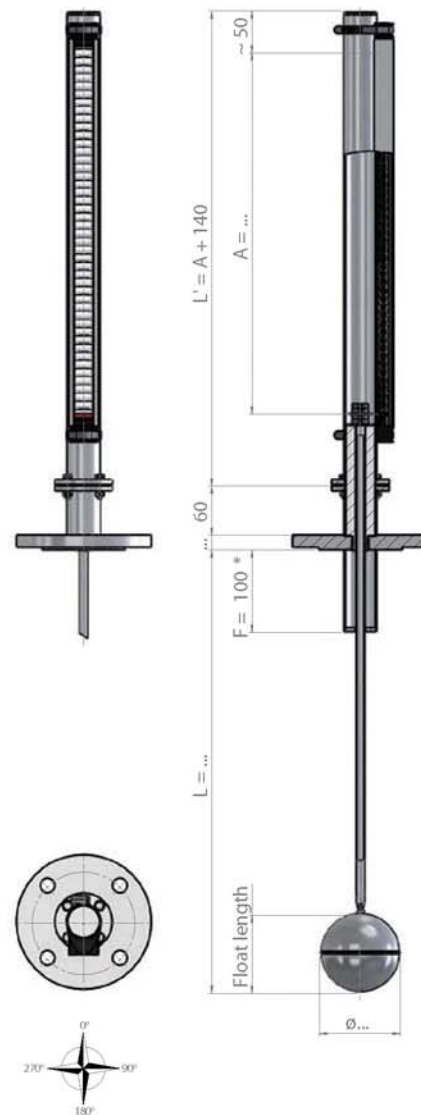
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Foundation Fieldbus

Option electrical heat tracing / Page 420

Holding temperature:	$\sim 10^\circ\text{C}$ / Frost protection
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Option instrument isolation / Page 420 - 421

Isolation:	Armaflex isolation / Rock-wool isolation
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* 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

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 / Poca	-40°C ... 200°C
Maximum indicating range:	$A = L - \text{float length}$

Option scale / Page 409

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank
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Option magnetic switch / Page 416 - 419

Aluminium / Stainless steel	-40°C ... 150°C
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Option level transmitter / Page 410 - 414

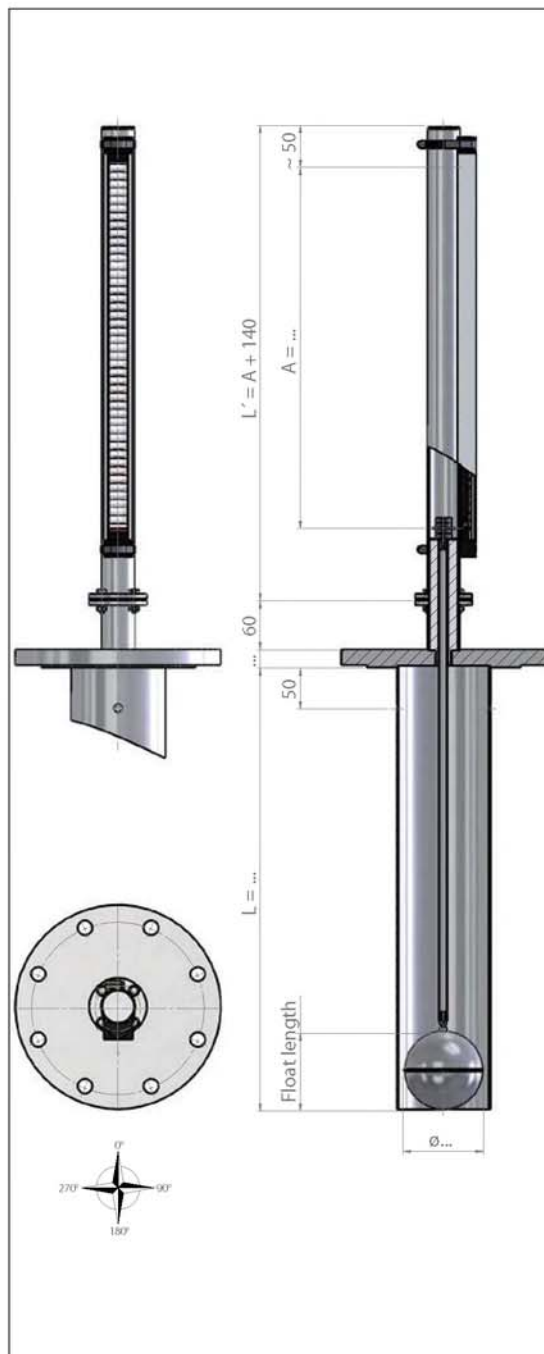
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Foundation Fieldbus

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

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 ¹	-	-	-	-	80	70	65	60	55	50	50	45	45
500 ¹	-	-	-	-	-	75	65	60	55	55	50	50	45
600 ¹	-	-	-	-	-	75	70	65	60	55	50	50	50
700 ¹	-	-	-	-	-	80	70	65	60	55	55	50	50
800 ¹	-	-	-	-	-	85	75	65	60	60	55	50	50
900 ¹	-	-	-	-	-	-	75	70	65	60	55	55	50
1000 ¹	-	-	-	-	-	-	80	70	65	60	60	55	50
1100 ²	-	-	-	-	-	-	-	-	-	80	75	70	65
1200 ²	-	-	-	-	-	-	-	-	-	-	80	75	70
1300 ²	-	-	-	-	-	-	-	-	-	-	85	75	70
1400 ²	-	-	-	-	-	-	-	-	-	-	-	80	75
1500 ²	-	-	-	-	-	-	-	-	-	-	-	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 ¹	-	-	-	-	85	75	65	60	55	55	50	50	45
500 ¹	-	-	-	-	-	75	70	60	60	55	50	50	45
600 ¹	-	-	-	-	-	80	70	65	60	55	55	50	50
700 ¹	-	-	-	-	-	80	70	65	60	60	55	50	50
800 ¹	-	-	-	-	-	85	75	65	60	60	55	50	50
900 ¹	-	-	-	-	-	-	75	70	65	60	55	55	50
1000 ¹	-	-	-	-	-	-	80	70	65	60	55	55	50
1100 ²	-	-	-	-	-	-	-	-	-	85	75	70	65
1200 ²	-	-	-	-	-	-	-	-	-	80	75	70	65
1300 ²	-	-	-	-	-	-	-	-	-	85	75	70	65
1400 ²	-	-	-	-	-	-	-	-	-	-	80	75	70
1500 ²	-	-	-	-	-	-	-	-	-	-	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

¹ = Guidance rod 10 x 0.5 mm / ² = Guidance rod 10 x 1.0 mm / ³ = 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 ¹	-	-	-	60	55	50	45	45	40	40	35	35	35
500 ¹	-	-	-	65	55	50	45	45	40	40	40	35	35
600 ¹	-	-	-	65	55	50	50	45	45	40	40	35	35
700 ¹	-	-	-	65	60	55	50	45	45	40	40	35	35
800 ¹	-	-	-	70	60	55	50	45	45	40	40	40	35
900 ¹	-	-	-	70	60	55	50	50	45	45	40	40	35
1000 ¹	-	-	-	70	65	55	55	50	45	45	40	40	40
1100 ²	-	-	-	-	85	70	65	60	55	55	50	50	45
1200 ²	-	-	-	-	-	75	65	60	60	55	50	50	45
1300 ²	-	-	-	-	-	80	70	65	60	55	55	50	50
1400 ²	-	-	-	-	-	80	70	65	60	55	55	50	50
1500 ²	-	-	-	-	-	-	75	70	65	60	55	55	50
1600 ²	-	-	-	-	-	-	80	70	65	60	55	55	50
1700 ²	-	-	-	-	-	-	80	70	65	60	60	55	55
1800 ²	-	-	-	-	-	-	85	75	70	65	60	55	55
1900 ²	-	-	-	-	-	-	-	75	70	65	60	60	55
2000 ²	-	-	-	-	-	-	-	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

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

Top Mounted Level Indicator-Mini / Ball float

Ball float

USV/205

Stainless steel 1.4571 (316Ti)

Diameter / height [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 ¹	65	50	45	40	35	35	30	30	30	25	25	25	25	
600 ¹	65	55	45	40	35	35	30	30	30	25	25	25	25	
800 ¹	65	55	45	40	40	35	30	30	30	30	25	25	25	
1000 ¹	70	55	45	40	40	35	35	30	30	30	25	25	25	
1200 ²	80	60	50	45	40	40	35	35	30	30	30	30	25	
1400 ²	80	65	55	45	45	40	35	35	35	30	30	30	25	
1600 ²	-	65	55	50	45	40	35	35	35	30	30	30	30	
1800 ²	-	65	55	50	45	40	40	35	35	30	30	30	30	
2000 ²	-	70	60	50	45	40	40	35	35	35	30	30	30	
2200 ³	-	-	70	60	55	50	45	45	40	40	35	35	35	
2400 ³	-	-	75	65	55	50	45	45	40	40	40	35	35	
2600 ³	-	-	75	65	60	55	50	45	45	40	40	35	35	
2800 ³	-	-	80	70	60	55	50	45	45	40	40	40	35	
3000 ³	-	-	85	70	60	55	50	50	45	45	40	40	35	
3200 ³	-	-	-	70	65	55	55	50	45	45	40	40	40	
3400 ³	-	-	-	75	65	60	55	50	45	45	45	40	40	
3600 ³	-	-	-	80	65	60	55	50	50	45	45	40	40	
3800 ³	-	-	-	80	70	60	55	55	50	45	45	40	40	
4000 ³	-	-	-	85	70	65	60	55	50	50	45	45	40	
4200 ³	-	-	-	-	75	65	60	55	50	50	45	45	40	
4400 ³	-	-	-	-	75	65	60	55	55	50	45	45	45	
4600 ³	-	-	-	-	80	70	60	60	55	50	50	45	45	
4800 ³	-	-	-	-	80	70	65	60	55	50	50	45	45	
5000 ³	-	-	-	-	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

¹ = Guidance rod 10 x 0,5 mm / ² = Guidance rod 10 x 1,0 mm / ³ = 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 ¹	-	-	-	-	-	85	75	70	60	55	55	50	45
500 ¹	-	-	-	-	-	-	80	70	65	60	55	50	50
600 ¹	-	-	-	-	-	-	80	75	70	60	60	55	50
700 ¹	-	-	-	-	-	-	85	75	70	65	60	55	55
800 ¹	-	-	-	-	-	-	-	80	75	65	60	60	55
900 ¹	-	-	-	-	-	-	-	85	75	70	65	60	55
1000 ¹	-	-	-	-	-	-	-	-	80	70	65	65	60
1100 ²	-	-	-	-	-	-	-	-	-	-	-	85	80
1200 ²	-	-	-	-	-	-	-	-	-	-	-	-	85
1300 ²	-	-	-	-	-	-	-	-	-	-	-	-	-
1400 ²	-	-	-	-	-	-	-	-	-	-	-	-	-
1500 ²	-	-	-	-	-	-	-	-	-	-	-	-	-

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 ¹	-	-	-	-	85	75	65	60	55	50	45	45	40
500 ¹	-	-	-	-	-	80	70	65	60	55	50	45	45
600 ¹	-	-	-	-	-	80	70	65	60	55	50	50	45
700 ¹	-	-	-	-	-	85	75	70	60	55	55	50	45
800 ¹	-	-	-	-	-	-	80	70	65	60	55	50	50
900 ¹	-	-	-	-	-	-	80	75	65	60	55	55	50
1000 ¹	-	-	-	-	-	-	85	75	70	65	60	55	50
1100 ²	-	-	-	-	-	-	-	-	-	85	75	70	65
1200 ²	-	-	-	-	-	-	-	-	-	-	80	75	70
1300 ²	-	-	-	-	-	-	-	-	-	-	85	80	75
1400 ²	-	-	-	-	-	-	-	-	-	-	-	80	75
1500 ²	-	-	-	-	-	-	-	-	-	-	-	85	80

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

Type key page 386 - 390

¹ = Guidance rod 10 x 0.5 mm / ² = Guidance rod 10 x 1.0 mm / ³ = 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

Specific gravity of the liquid [kg/m³]

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

Specific gravity of the liquid [kg/m³]

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

¹ = Guidance rod 10 x 0,5 mm / ² = Guidance rod 10 x 1,0 mm / ³ = 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]:
Design temperature [°C]:
Design pressure [bar]:
Weight [g]:
Flange min.:

72 / 250
-196 ... 200
-1 ... 10
325
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 ¹	-	-	-	-	65	60	55	50	45	40	40	35	35
500 ¹	-	-	-	-	70	60	55	50	45	40	40	35	35
600 ¹	-	-	-	-	70	60	55	50	45	45	40	35	35
700 ¹	-	-	-	-	70	65	55	50	45	45	40	40	35
800 ¹	-	-	-	-	75	65	60	55	50	45	40	40	35
900 ¹	-	-	-	-	75	65	60	55	50	45	45	40	40
1000 ¹	-	-	-	-	75	70	60	55	50	45	45	40	40
1100 ²	-	-	-	-	-	85	75	65	60	55	55	50	50
1200 ²	-	-	-	-	-	-	75	70	65	60	55	50	50
1300 ²	-	-	-	-	-	-	80	70	65	60	55	55	50
1400 ²	-	-	-	-	-	-	80	75	70	65	60	55	50
1500 ²	-	-	-	-	-	-	85	75	70	65	60	55	55
1600 ²	-	-	-	-	-	-	-	80	70	65	60	60	55
1700 ²	-	-	-	-	-	-	-	80	75	70	65	60	55
1800 ²	-	-	-	-	-	-	-	85	75	70	65	60	55
1900 ²	-	-	-	-	-	-	-	-	80	75	65	65	60
2000 ²	-	-	-	-	-	-	-	-	80	75	70	65	60

Cylindrical float

UZVS/82/250

Stainless steel 1.4571 (316Ti)

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

82 / 250
-196 ... 200
-1 ... 16
370
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 ¹	-	-	-	65	60	50	45	40	40	35	35	30	30
500 ¹	-	-	-	70	60	50	45	45	40	35	35	30	30
600 ¹	-	-	-	70	60	55	50	45	40	35	35	35	30
700 ¹	-	-	-	70	60	55	50	45	40	40	35	35	30
800 ¹	-	-	-	75	65	55	50	45	40	40	35	35	30
900 ¹	-	-	-	75	65	55	50	45	45	40	35	35	35
1000 ¹	-	-	-	75	65	60	50	50	45	40	40	35	35
1100 ²	-	-	-	-	80	70	65	55	50	50	45	40	40
1200 ²	-	-	-	-	80	70	65	60	55	50	45	45	40
1300 ²	-	-	-	-	85	75	65	60	55	50	50	45	40
1400 ²	-	-	-	-	-	75	70	60	55	55	50	45	45
1500 ²	-	-	-	-	-	80	70	65	60	55	50	45	45
1600 ²	-	-	-	-	-	80	75	65	60	55	50	50	45
1700 ²	-	-	-	-	-	85	75	70	60	55	55	50	45
1800 ²	-	-	-	-	-	85	75	70	65	60	55	50	50
1900 ²	-	-	-	-	-	-	80	70	65	60	55	55	50
2000 ²	-	-	-	-	-	-	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

¹ = Guidance rod 10 x 0.5 mm / ² = Guidance rod 10 x 1.0 mm / ³ = 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	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 ¹	-	-	-	65	55	50	45	40	35	35	30	30	30
500 ¹	-	-	-	65	55	50	45	40	35	35	30	30	30
600 ¹	-	-	-	65	55	50	45	40	40	35	35	30	30
700 ¹	-	-	-	65	60	50	45	40	40	35	35	30	30
800 ¹	-	-	-	70	60	55	45	45	40	35	35	30	30
900 ¹	-	-	-	70	60	55	50	45	40	35	35	35	30
1000 ¹	-	-	-	70	60	55	50	45	40	40	35	35	30
1100 ²	-	-	-	85	70	65	55	50	50	45	40	40	35
1200 ²	-	-	-	-	75	65	60	55	50	45	40	40	35
1300 ²	-	-	-	-	75	70	60	55	50	45	45	40	40
1400 ²	-	-	-	-	80	70	60	55	50	50	45	40	40
1500 ²	-	-	-	-	80	70	65	60	55	50	45	45	40
1600 ²	-	-	-	-	85	75	65	60	55	50	45	45	40
1700 ²	-	-	-	-	85	75	65	60	55	50	50	45	40
1800 ²	-	-	-	-	-	75	70	65	55	55	50	45	45
1900 ²	-	-	-	-	-	80	70	65	60	55	50	45	45
2000 ²	-	-	-	-	-	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

¹ = Guidance rod 10 x 0,5 mm / ² = Guidance rod 10 x 1,0 mm / ³ = Guidance rod 16 x 1,0 mm

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 ¹	-	-	-	-	75	65	60	55	50	45	45	40	40
500 ¹	-	-	-	-	80	70	65	60	55	50	45	40	40
600 ¹	-	-	-	-	85	75	65	60	55	50	50	45	40
700 ¹	-	-	-	-	-	80	70	65	60	55	50	45	45
800 ¹	-	-	-	-	-	80	75	65	60	55	50	50	45
900 ¹	-	-	-	-	-	85	75	70	65	60	55	50	50
1000 ¹	-	-	-	-	-	-	80	70	65	60	55	55	50
1100 ²	-	-	-	-	-	-	-	-	-	-	80	75	70
1200 ²	-	-	-	-	-	-	-	-	-	-	85	80	75
1300 ²	-	-	-	-	-	-	-	-	-	-	-	85	75
1400 ²	-	-	-	-	-	-	-	-	-	-	-	-	80
1500 ²	-	-	-	-	-	-	-	-	-	-	-	-	85

Cylindrical float

Uztis/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 Uztis/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 ¹	-	-	-	-	70	60	55	50	45	40	40	35	35
500 ¹	-	-	-	-	70	65	55	50	45	45	40	35	35
600 ¹	-	-	-	-	75	65	60	55	50	45	40	40	35
700 ¹	-	-	-	-	80	70	60	55	50	45	45	40	40
800 ¹	-	-	-	-	80	70	65	60	55	50	45	40	40
900 ¹	-	-	-	-	85	75	65	60	55	50	45	45	40
1000 ¹	-	-	-	-	-	75	70	65	55	55	50	45	45
1100 ²	-	-	-	-	-	-	-	85	80	70	65	60	60
1200 ²	-	-	-	-	-	-	-	-	80	75	70	65	60
1300 ²	-	-	-	-	-	-	-	-	-	80	75	70	65
1400 ²	-	-	-	-	-	-	-	-	-	85	75	70	65
1500 ²	-	-	-	-	-	-	-	-	-	-	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

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

Top Mounted Level Indicator-Mini / Cylindrical float

Cylindrical float

Uztis/52/350

Titanium

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

52 / 350
-30 ... 150
-1 ... 16
193
DN 50



Float Uztis/52/350

Specific gravity of the liquid [kg/m³]

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

Cylindrical float

Uztis/76/200

Titanium

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

76 / 200
-30 ... 150
-1 ... 1
148
DN 80



Float Uztis/76/200

Specific gravity of the liquid [kg/m³]

L-Mass [mm]	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Immersion depth [%]													
400 ¹	-	-	-	50	45	40	35	35	30	30	25	25	25
500 ¹	-	-	-	55	50	40	40	35	35	30	30	25	25
600 ¹	-	-	-	55	50	45	40	35	35	30	30	30	25
700 ¹	-	-	-	60	50	45	40	40	35	35	30	30	25
800 ¹	-	-	-	60	55	50	45	40	35	35	30	30	30
900 ¹	-	-	-	65	55	50	45	40	35	35	35	30	30
1000 ¹	-	-	-	65	55	50	45	40	40	35	35	30	30
1100 ²	-	-	-	-	75	70	60	55	50	50	45	40	40
1200 ²	-	-	-	-	80	70	65	60	55	50	45	45	40
1300 ²	-	-	-	-	85	75	65	60	55	50	50	45	45
1400 ²	-	-	-	-	-	80	70	65	60	55	50	45	45
1500 ²	-	-	-	-	-	80	75	65	60	55	50	50	45
1600 ²	-	-	-	-	-	85	75	70	65	60	55	50	50
1700 ²	-	-	-	-	-	-	80	70	65	60	55	55	50
1800 ²	-	-	-	-	-	-	80	75	70	65	60	55	50
1900 ²	-	-	-	-	-	-	85	75	70	65	60	55	55
2000 ²	-	-	-	-	-	-	-	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

¹ = Guidance rod 11 x 0.5 mm / ² = Guidance rod 11 x 1.0 mm / ³ = 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 ¹	-	-	55	45	40	35	35	30	30	25	25	25	20
500 ¹	-	-	55	50	40	40	35	30	30	25	25	25	20
600 ¹	-	-	60	50	45	40	35	30	30	30	25	25	25
700 ¹	-	-	60	50	45	40	35	35	30	30	25	25	25
800 ¹	-	-	65	55	45	40	40	35	30	30	30	25	25
900 ¹	-	-	65	55	50	45	40	35	35	30	30	25	25
1000 ¹	-	-	70	55	50	45	40	35	35	30	30	25	25
1100 ²	-	-	-	75	65	60	50	45	45	40	35	35	35
1200 ²	-	-	-	80	70	60	55	50	45	40	40	35	35
1300 ²	-	-	-	80	70	65	55	50	45	45	40	40	35
1400 ²	-	-	-	85	75	65	60	55	50	45	40	40	35
1500 ²	-	-	-	-	75	70	60	55	50	45	45	40	40
1600 ²	-	-	-	-	80	70	65	55	55	50	45	40	40
1700 ²	-	-	-	-	85	75	65	60	55	50	45	45	40
1800 ²	-	-	-	-	85	75	70	60	55	50	50	45	45
1900 ²	-	-	-	-	-	80	70	65	60	55	50	45	45
2000 ²	-	-	-	-	-	80	70	65	60	55	50	50	45
2100 ³	-	-	-	-	-	-	-	-	-	80	75	70	65
2200 ³	-	-	-	-	-	-	-	-	-	85	80	75	70
2300 ³	-	-	-	-	-	-	-	-	-	-	85	75	70
2400 ³	-	-	-	-	-	-	-	-	-	-	85	75	75
2500 ³	-	-	-	-	-	-	-	-	-	-	85	80	75
2600 ³	-	-	-	-	-	-	-	-	-	-	-	80	75
2700 ³	-	-	-	-	-	-	-	-	-	-	-	85	80
2800 ³	-	-	-	-	-	-	-	-	-	-	-	-	80
2900 ³	-	-	-	-	-	-	-	-	-	-	-	-	85

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

Type key page 386 - 390

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

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 ¹	-	60	50	40	35	35	30	25	25	25	20	20	20
500 ¹	-	65	50	45	40	35	30	30	25	25	20	20	20
600 ¹	-	65	55	45	40	35	30	30	25	25	25	20	20
700 ¹	-	70	55	45	40	35	30	30	25	25	25	20	20
800 ¹	-	70	55	50	40	35	35	30	30	25	25	25	20
900 ¹	-	70	60	50	45	40	35	30	30	25	25	25	20
1000 ¹	-	75	60	50	45	40	35	30	30	30	25	25	25
1100 ²	-	-	80	65	55	50	45	40	40	35	30	30	30
1200 ²	-	-	80	70	60	50	45	45	40	35	35	30	30
1300 ²	-	-	85	70	60	55	50	45	40	40	35	35	30
1400 ²	-	-	-	75	65	55	50	45	40	40	35	35	30
1500 ²	-	-	-	75	65	60	50	50	45	40	40	35	35
1600 ²	-	-	-	80	70	60	55	50	45	40	40	35	35
1700 ²	-	-	-	80	70	65	55	50	45	45	40	40	35
1800 ²	-	-	-	85	75	65	60	55	50	45	40	40	35
1900 ²	-	-	-	-	75	65	60	55	50	45	45	40	40
2000 ²	-	-	-	-	80	70	60	55	50	50	45	40	40
2100 ³	-	-	-	-	-	-	-	80	75	70	65	60	55
2200 ³	-	-	-	-	-	-	-	85	75	70	65	60	55
2300 ³	-	-	-	-	-	-	-	-	80	75	70	65	60
2400 ³	-	-	-	-	-	-	-	-	80	75	70	65	60
2500 ³	-	-	-	-	-	-	-	-	85	80	70	65	65
2600 ³	-	-	-	-	-	-	-	-	-	80	75	70	65
2700 ³	-	-	-	-	-	-	-	-	-	80	75	70	65
2800 ³	-	-	-	-	-	-	-	-	-	85	80	75	70
2900 ³	-	-	-	-	-	-	-	-	-	-	80	75	70
3000 ³	-	-	-	-	-	-	-	-	-	-	85	75	70
3100 ³	-	-	-	-	-	-	-	-	-	-	85	80	75
3200 ³	-	-	-	-	-	-	-	-	-	-	-	80	75
3300 ³	-	-	-	-	-	-	-	-	-	-	-	85	80

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

Type key page 386 - 390

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

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

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

Type key page 386 - 390

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

Top Mounted Level Indicator-Mini / Magnetic roller indicator

Type

**MNA / MNB
MNAN / MNBN**

Electrical connection: Aluminium anodized
Ingress protection class: IP67

MNA / MNB / MNAN / MNBN

Indication

- Material quality / Diameter: Pocan / Ø 10 mm
- Colour: White / Red

End part: Ryton, black

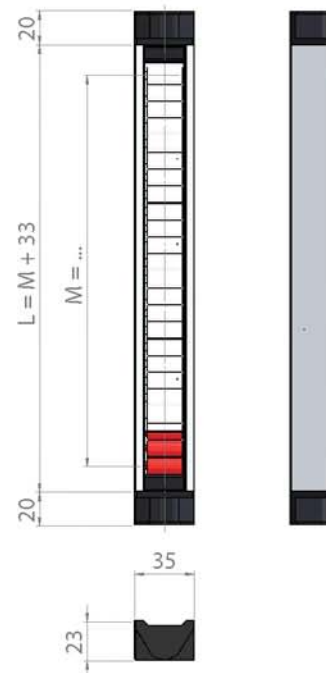
Sight cover - MNA / MNAN: Macrolon
- MNB / MNBN: Glass

Ambient temperature: -40°C ... 200°C

MNAN / MNBN (over-roll-protected): Roller rotation max. 180°

Approvals / Certificates

ABS / ATEX / BV / EAC / GL / LR



Type

**MNAV / MNBV
MNAVN / MNBVN**

Electrical connection: Aluminium with Stainless steel covered
Ingress protection class: IP67

MNAV / MNBV / MNAVN / MNBVN

Indication

- Material quality / Diameter: Pocan / Ø 10 mm
- Colour: White / Red

End part: Ryton, black

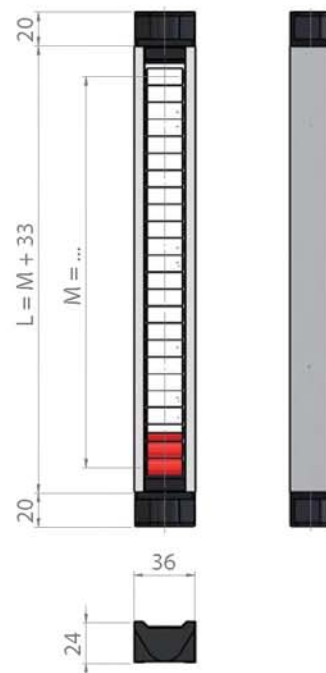
Sight cover - MNAV / MNAVN: Macrolon
- MNBV / MNBVN: Glass

Ambient temperature: -40°C ... 200°C

MNAVN / MNBVN (over-roll-protected): Roller rotation max. 180°

Approvals / Certificates

ABS / ATEX / BV / EAC / GL / LR



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

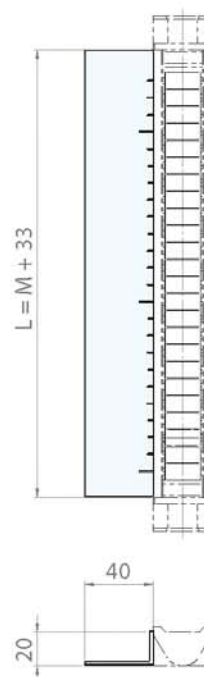
Scale:	Engraved
Angle profile:	Aluminium
Scaling:	Blank / % / cm / inch. / ..
Width:	40 mm
Ambient temperature:	-40°C ... 200°C

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

ABS / ATEX / BV / EAC / GL / LR



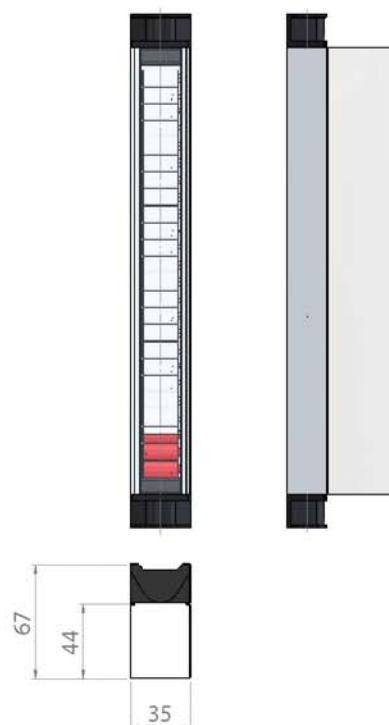
Type

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

ABS / ATEX / BV / EAC / GL / LR

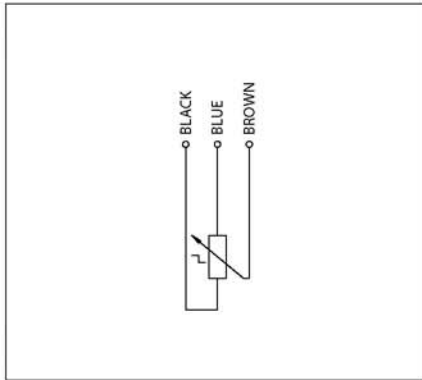


The top mounted level indicator-mini are based on a modular design and can be arranged individually.

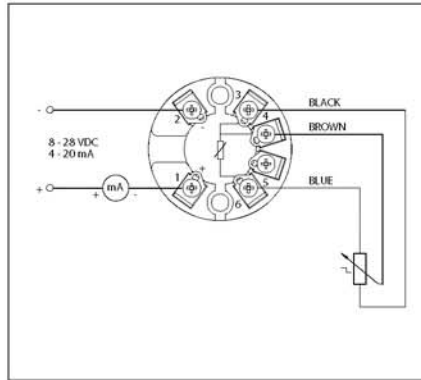
Type key page 386 - 390

Top Mounted Level Indicator-Mini / Level transmitter

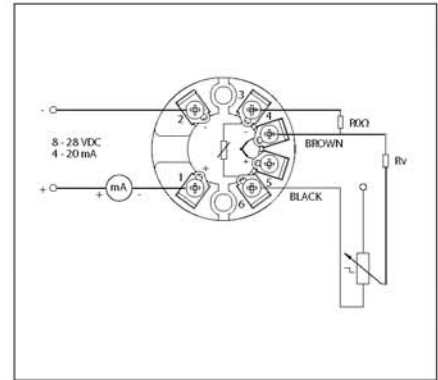
Connection diagram



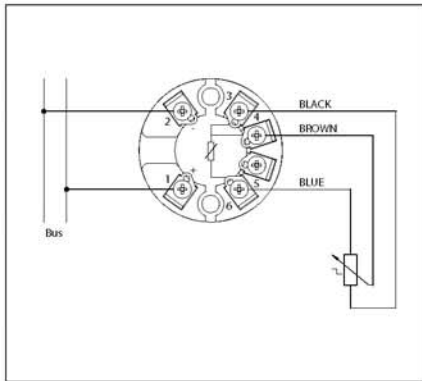
without Control unit



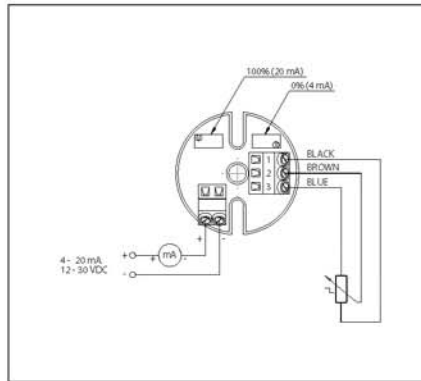
Control unit TP5343..



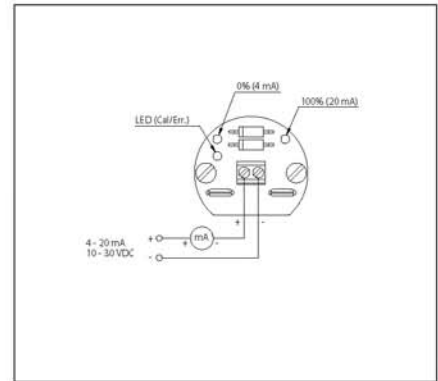
Control unit TD5335..



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 c ia IIC T6 - T3 Ga/Gb
II 1/2G Ex c d ia IIC T6 - T4 Ga/Gb

II 2G Ex c d IIC T6 - T4 Gb

II 2D Ex c tb IIC T80°C - T190°C bzw. T125°C Db IP6X

II 2G Ex c d IIC T6 - T4 Gb

II 2D Ex c tb IIC T80°C - T95°C bzw. T125°C Db IP6X

Type of protection intrinsic safety Ex ia IIC passive multi-pole device

$U_i \leq 30 \text{ V}$

$I_i \leq 150 \text{ mA}$

Type of protection intrinsic safety Ex ia IIC with built-in separately certified measuring transducer

see appropriate special certificate

Type of protection intrinsic safety Ex ia IIC switch or temperature switch

$I_i \leq 100 \text{ mA}$

Type of protection intrinsic safety Ex ia IIC temperature sensor

$U_{Ni} \leq 28 \text{ V}$

$I_i \leq 100 \text{ mA}$ $P_i \leq 700 \text{ mW}$

Type of protection "flameproof enclosure" passive multi-pole device

$U_{Ni} \leq 30 \text{ VDC/AC}$

$I_{Ni} \leq 150 \text{ mA}$

Type of protection "flameproof enclosure" temperature switch / sensor

$U_{Ni} \leq 100 \text{ VDC/AC}$

$I_{Ni} \leq 300 \text{ mA}$ $P_{SN} \leq 1 \text{ W}$

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

ATEX-Approval for accuracy K1..*

II 2G Ex ia IIB/IIC T6 - T1 Gb

II 2G Ex d IIC T4

Type of protection intrinsic safety Ex ia IIC

$U_i \leq 30 \text{ V}$

$I_i \leq 200 \text{ mA}$

$P_i \leq 1000 \text{ mW}$

Temperature class

T6

T5

T4 - T2

Ambient temperature(T_a)

-40°C ... 40°C

-40°C ... 55°C

-40°C ... 85°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

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 / ATEX Exia:

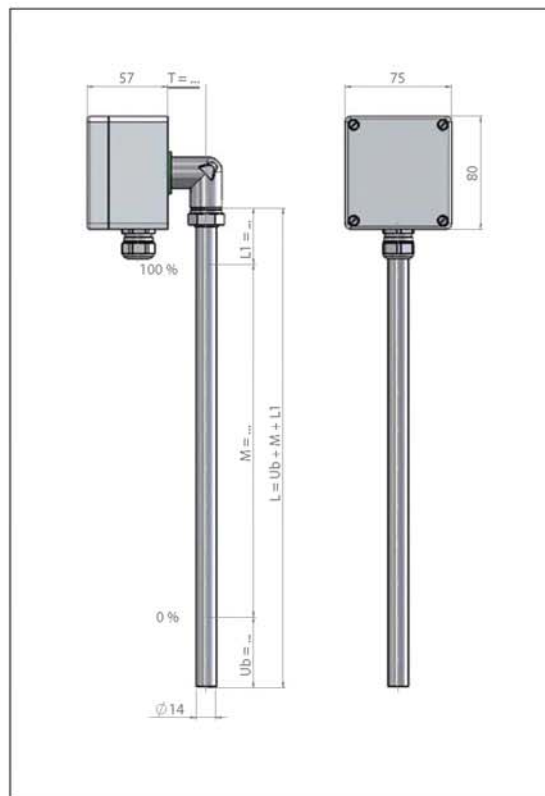
- K5 / K10 / K15:	-30°C ... 130°C
- K5HTF / K10HTF / K15HTF:	-30°C ... 200°C / -30°C ... 180°C
- K5HT / K10HT / K15HT:	-40°C ... 250°C / -40°C ... 180°C

Option control unit / Page 410

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

Approvals / Certificates

ABS / ATEX / BV / EAC / GL / LR



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

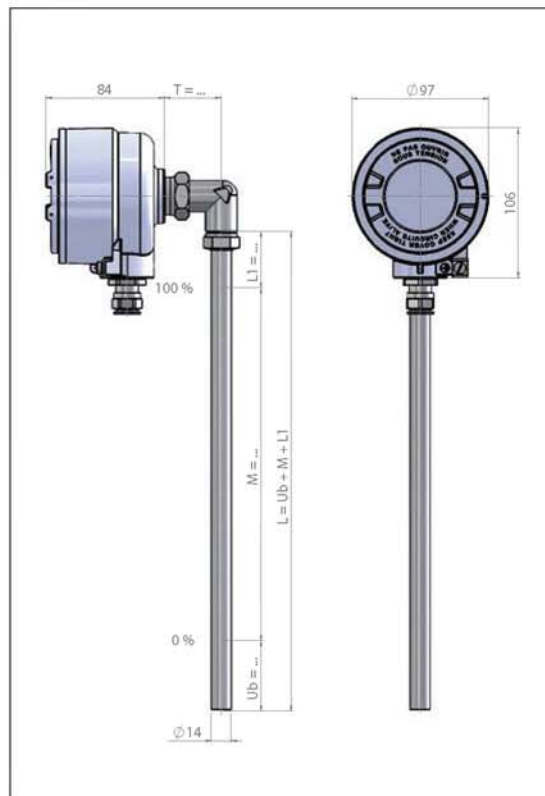
- K5 / K10 / K15:	-30°C ... 130°C
- K5HTF / K10HTF / K15HTF:	-30°C ... 200°C
- K5HT / K10HT / K15HT:	-40°C ... 250°C

Option control unit / Page 410

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

Approvals / Certificates

ABS / ATEX / BV / EAC / GL / LR



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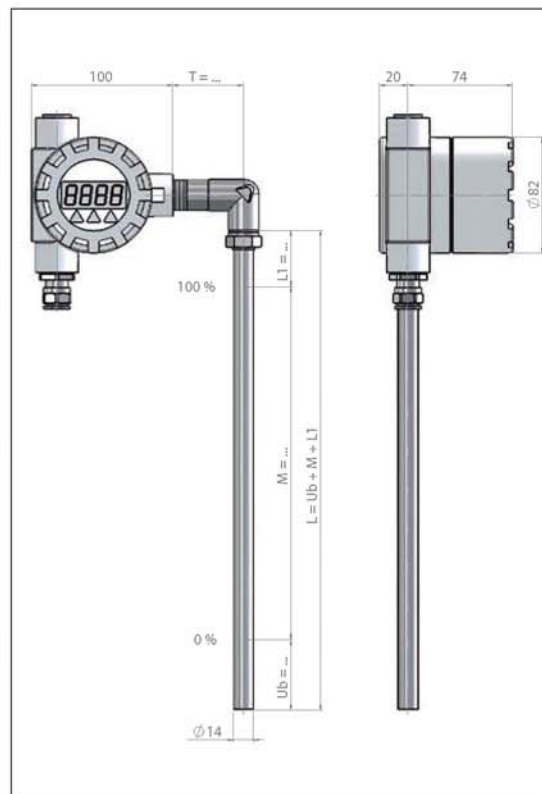
Ambient temperature	
- K5 / K10 / K15:	-30°C ... 130°C
- K5HTF / K10HTF / K15HTF:	-30°C ... 200°C
- K5HT / K10HT / K15HT:	-40°C ... 250°C

Option control unit / Page 410

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

Approvals / Certificates

EAC



Type

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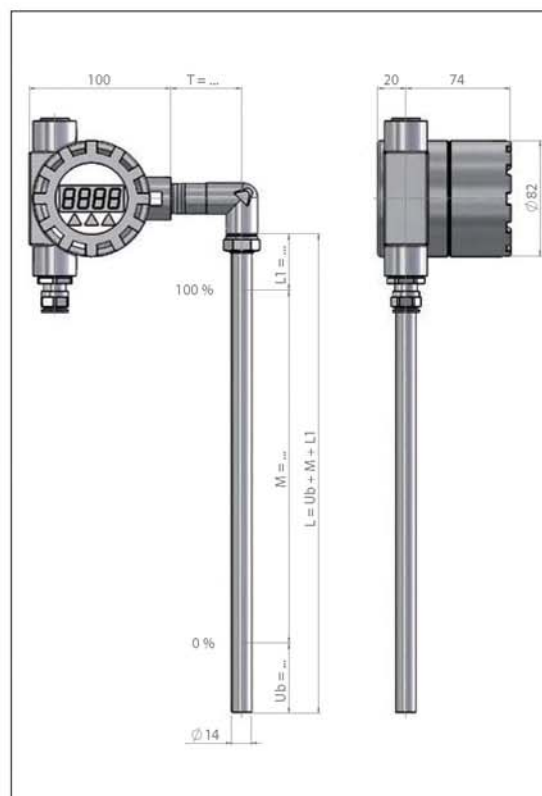
Ambient temperature	
- K5 / K10 / K15:	-30°C ... 130°C (Exd 120°C)
- K5HTF / K10HTF / K15HTF:	-30°C ... 180°C (Exd 120°C)
- K5HT / K10HT / K15HT:	-40°C ... 180°C (Exd 120°C)

Option control unit / Page 410

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

Approvals / Certificates

ATEX / EAC



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 / ATEX Exia:

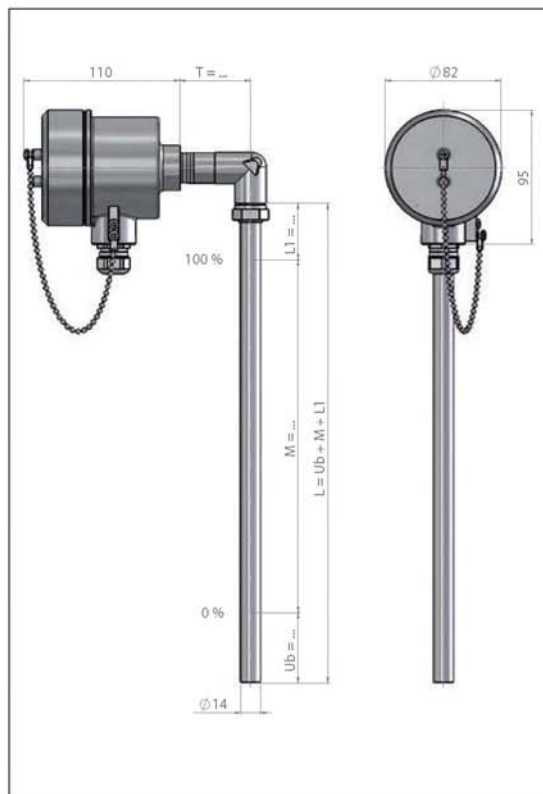
- K5 / K10 / K15:	-30°C ... 130°C
- K5HTF / K10HTF / K15HTF:	-30°C ... 200°C / -30°C ... 180°C
- K5HT / K10HT / K15HT:	-40°C ... 250°C / -40°C ... 180°C

Option control unit / Page 410

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

ABS / ATEX / BV / EAC / GL / LR



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 / ATEX temperature p. 410
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 / ATEX Exia:

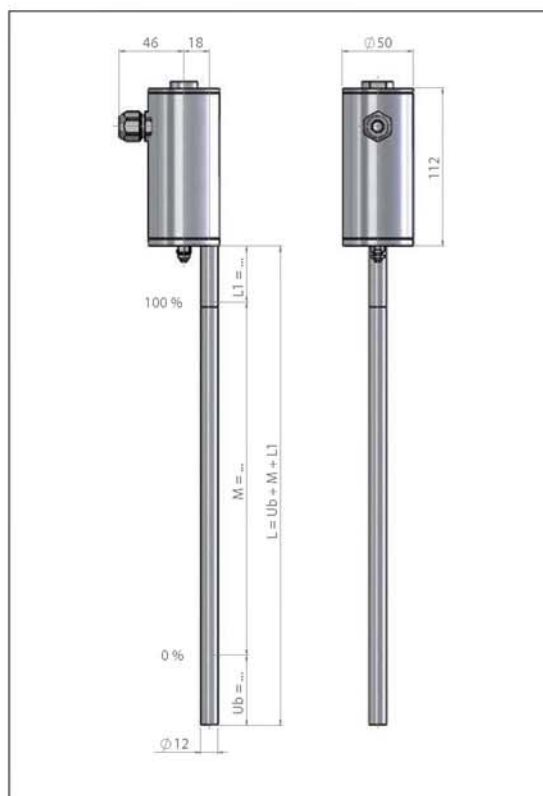
- K1:	-40 ... 125°C / ATEX temperature p. 410
- K1HT:	-40 ... 250°C / ATEX temperature p. 410

Control unit

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

Approvals / Certificates

ATEX / EAC / 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/../EXDG-M..

Electrical connection:	Stainless steel A4 (SS316)
Cable entry:	M20 x 1.5
Ingress protection class:	IP 68
Ambient temperature:	ATEX temperature page 410
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:

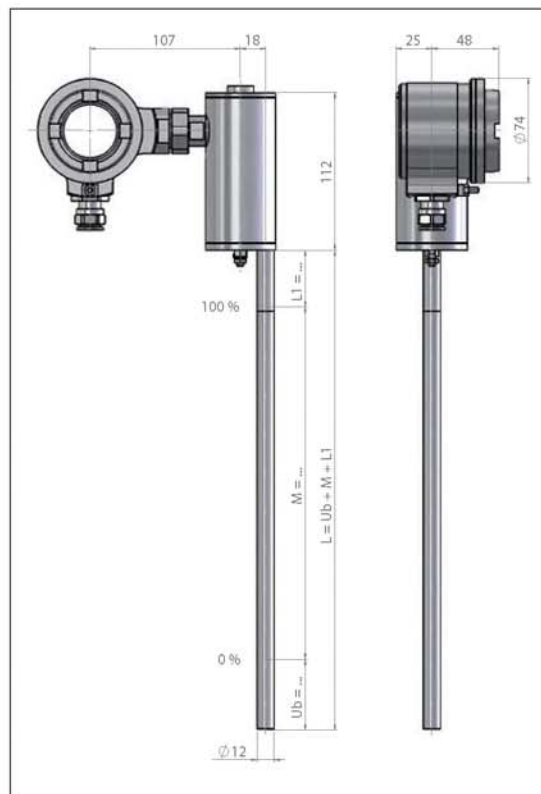
ATEX temperature page 410

Control unit

- MSTB:	- Programmable 4 ... 20 mA, 10 ... 30 VDC
- MSTHB:	- Hart-programmable 4 ... 20 mA, 10 ... 30 VDC

Approvals / Certificates

ATEX / EAC / IECEx / SIL2



Type

DAAVDM/..V/../EXDG-M..

Electrical connection:	Stainless steel A4 (SS316)
Cable entry:	M20 x 1.5
Ingress protection class:	IP 68
Ambient temperature:	ATEX temperature page 410
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:

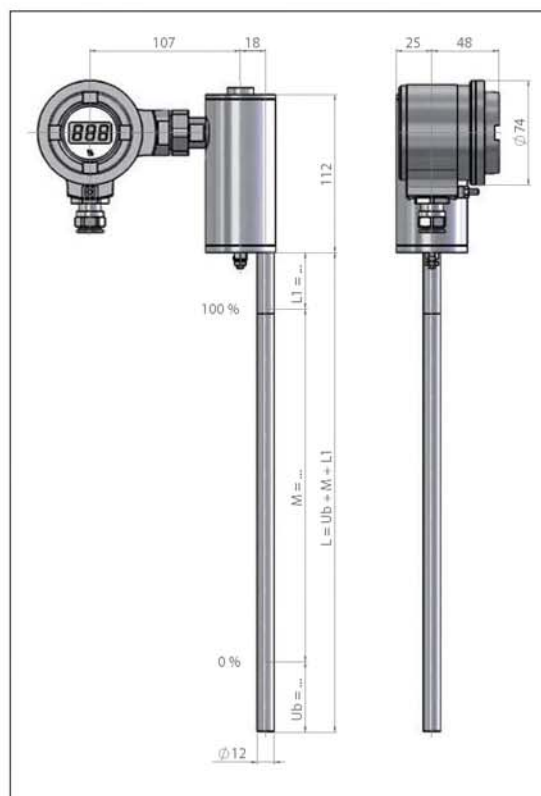
ATEX temperature page 410

Control unit

- MSTB:	- Programmable 4 ... 20 mA, 10 ... 30 VDC
- MSTHB:	- Hart-programmable 4 ... 20 mA, 10 ... 30 VDC

Approvals / Certificates

ATEX / EAC / IECEx / SIL2



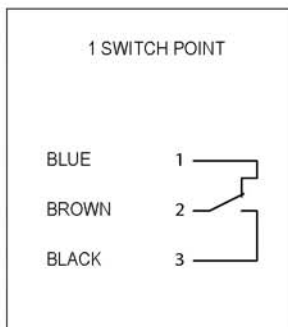
The top mounted level indicator-mini are based on a modular design and can be arranged individually.

Type key page 386 - 390

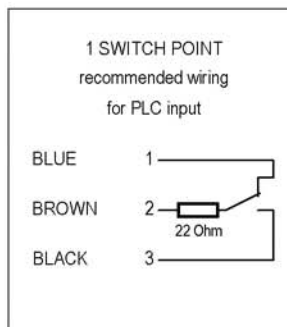
Notes

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

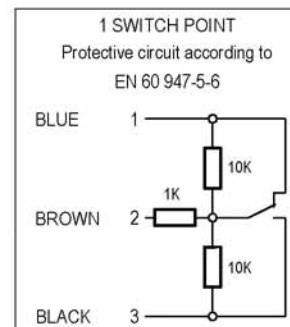
Connection diagram



Change over (SPDT)



Change over (SPDT)
with resistor



Change over (SPDT)
with NAMUR EN 60947

Approvals / Certificates



ATEX*

II 2G Ex ia IIC T6 - T1 Gb

II 2D Ex tb IIIC T80°C - T300°C Db IP6X

II 2G Ex d IIC T6 - T4 Gb

II 2D Ex tb IIIC T80°C - T120°C Db IP6X

Type of protection intrinsic safety Ex ia IIC

$I_i \leq 100 \text{ mA}$

Type of protection intrinsic safety Ex ia IIC with option /R22 (resistor)

$I_i \leq 100 \text{ mA}$

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 „flameproof enclosure“

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

$I_N \leq 100 \text{ mA}$

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

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

$I_N \leq 100 \text{ mA}$

$P_V \leq 0.21 \text{ W}$

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

$U_N \leq 15 \text{ VDC}$

$I_N \leq 60 \text{ mA}$

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

Type
RU40/.../.../.../.../EXIAG

Housing: Aluminium anodized
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

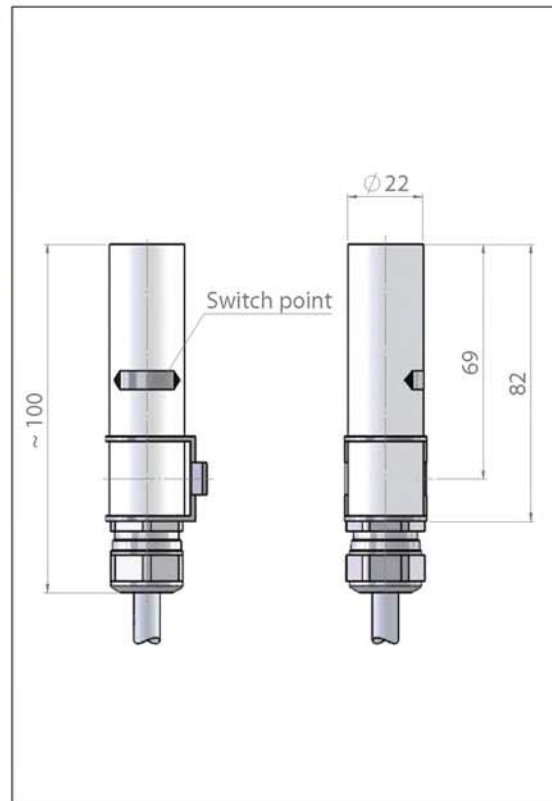
Function: Change over (SPDT)
Switch behaviour: Bistable
Switching capacity: 230 V / 0.5 A / 30 VA
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA
Switching hysteresis: 5 mm ... 7 mm

Options

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

Approvals / Certificates

AABS / ATEX / BV / EAC / GL / LR / SIL1


Type
RUD40/.../.../.../.../EXDGG

Housing: Aluminium anodized
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 ... 120°C
- with PUR connection cable: -40°C ... 80°C
- with Radox connection cable: -35°C ... 120°C

Switch function

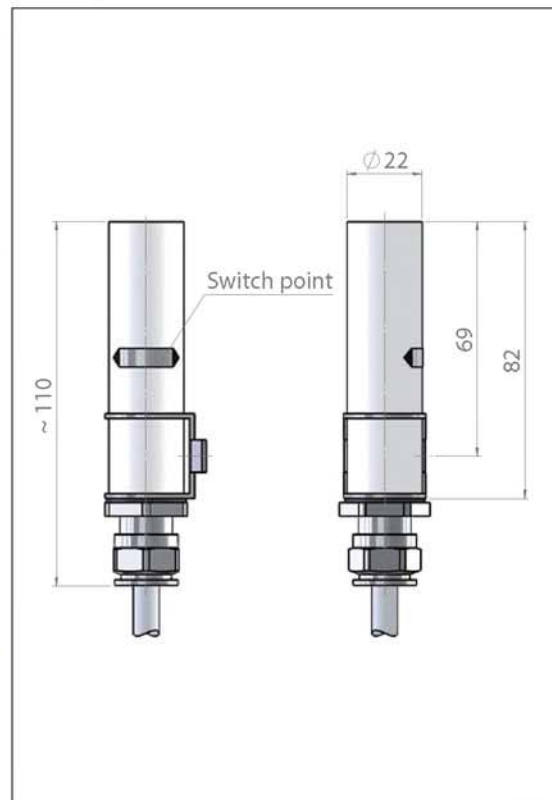
Function: Change over (SPDT)
Switch behaviour: Bistable
Switching capacity: U_N 250 V / P_{RN} 50 W/VA / P_{RN} 700 mW
- NAMUR EN 60947: U_N 15 VDC / I_N 60 mA
- with resistor: U_N 250 V / I_N 100 mA
Switching hysteresis: 5 mm ... 7 mm

Options

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

Approvals / Certificates

AABS / ATEX / BV / EAC / GL / LR / 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

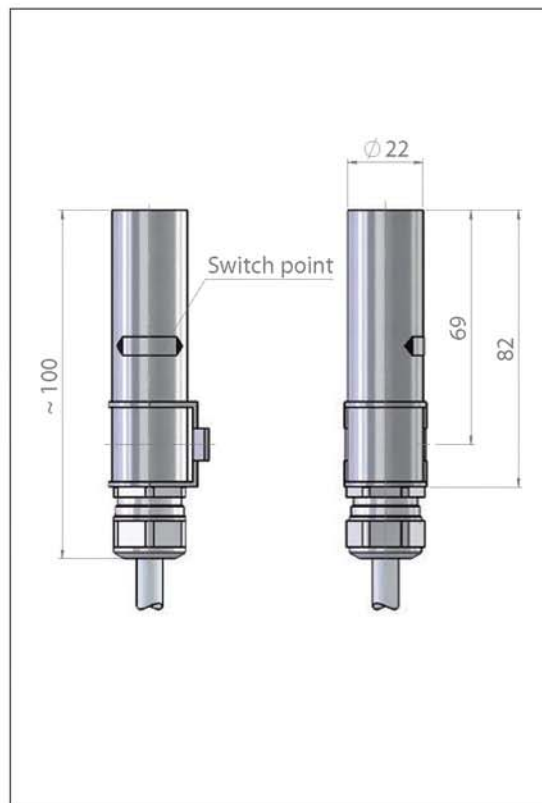
Function: Change over (SPDT)
Switch behaviour: Bistable
Switching capacity: 230 V / 0.5 A / 30 VA
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA
Switching hysteresis: 5 mm ... 7 mm

Options

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

Approvals / Certificates

AABS / ATEX / BV / EAC / GL / LR / SIL1



Type

RUVD40/.../.../.../EXDG

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 ... 120°C
- with PUR connection cable: -40°C ... 80°C
- with Radox connection cable: -35°C ... 120°C

Switch function

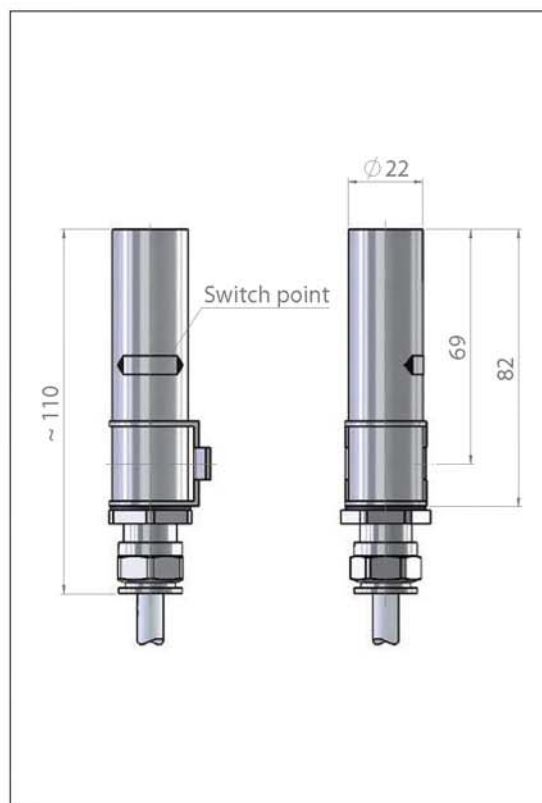
Function: Change over (SPDT)
Switch behaviour: Bistable
Switching capacity: U_N 250 V / P_{SH} 50 W/VA / P_{FN} 700 mW
- NAMUR EN 60947: U_N 15 VDC / I_N 60 mA
- with resistor: U_N 250 V / I_N 100 mA
Switching hysteresis: 5 mm ... 7 mm

Options

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

Approvals / Certificates

AABS / ATEX / BV / EAC / GL / LR / 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

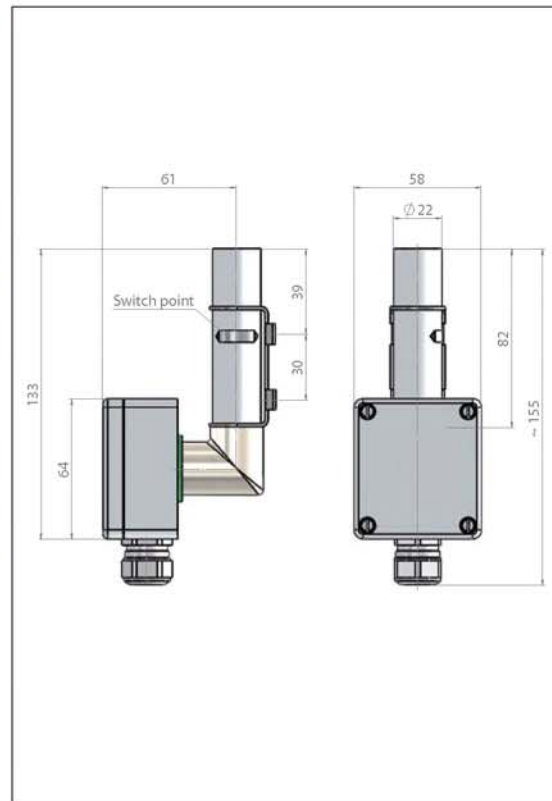
Function: Change over (SPDT)
Switch behaviour: Bistable
Switching capacity: 230 V / 0.5 A / 30 VA
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA
Switching hysteresis: 5 mm ... 7 mm

Options

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

Approvals / Certificates

AABS / ATEX / BV / EAC / GL / LR / 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

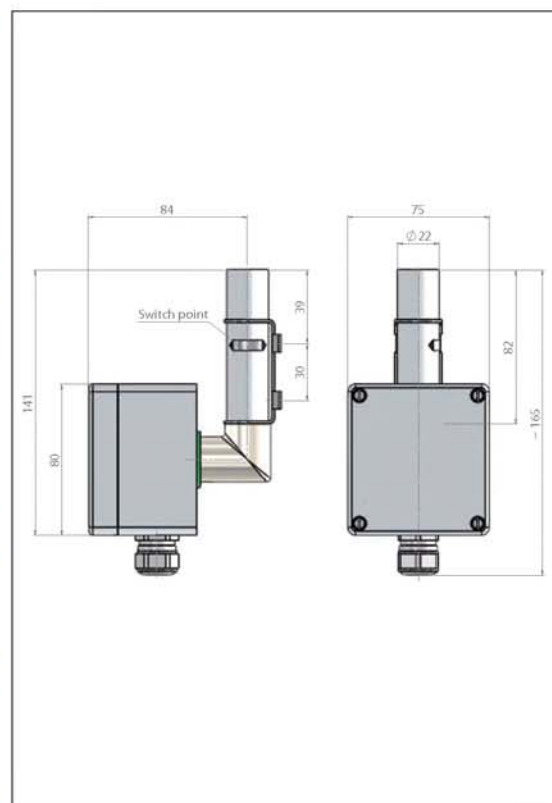
Function: Change over (SPDT)
Switch behaviour: Bistable
Switching capacity: 230 V / 0.5 A / 30 VA
Switching capacity / ATEX Exia: Exia 100 mA / Exia NAMUR 60 mA
Switching hysteresis: 5 mm ... 7 mm

Options

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

Approvals / Certificates

AABS / ATEX / BV / EAC / GL / LR / 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
Approvals:	-

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
Approvals:	-

Type

H..A H..B

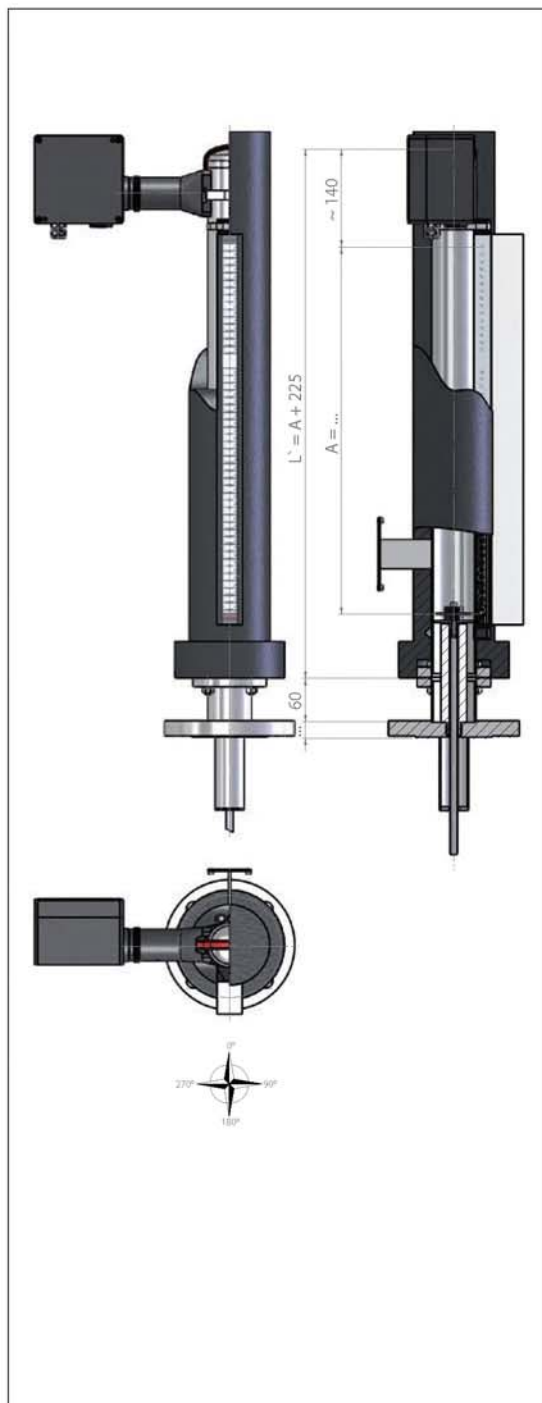
Self-regulating antifreeze heat tracing

Type:	H75A 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 (32 mm Isolation necessary)
Steam-flushing:	No
Ambient temperature:	-40°C ... 75°C
Approvals / Certificates:	ATEX

Self-regulating antifreeze heat tracing

Type:	H150A 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 (32 mm Isolation necessary)
Steam-flushing:	Yes
Ambient temperature:	-40°C ... 150°C
Approvals / Certificates:	ATEX

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

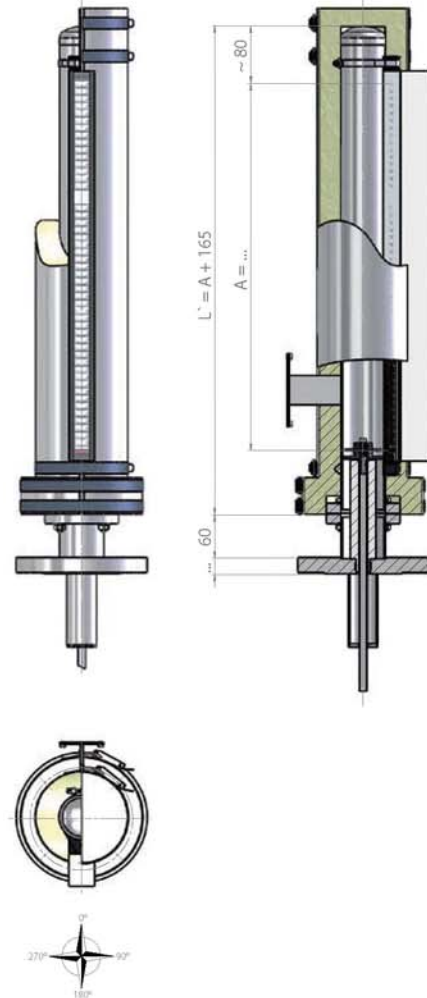
Material quality: Rock-wool with chrome-nickel cover
(Removable)

Nominal thickness: ~50 mm

Ambient temperature: -50°C ... 750°C

UV-resistance: Yes

Approvals: ATEX



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Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
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сайт: www.kuebler.nt-rt.ru || эл. почта: kru@nt-rt.ru