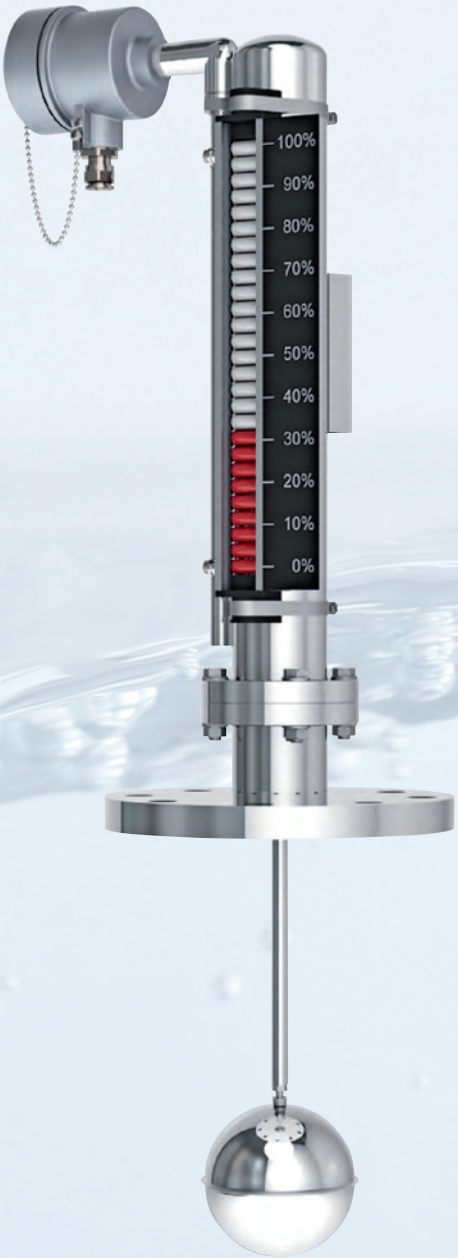
1016

TOP MOUNTED LEVEL INDICATOR



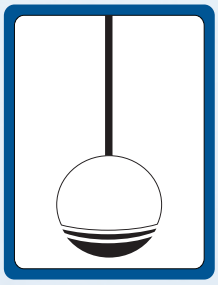


Table of content

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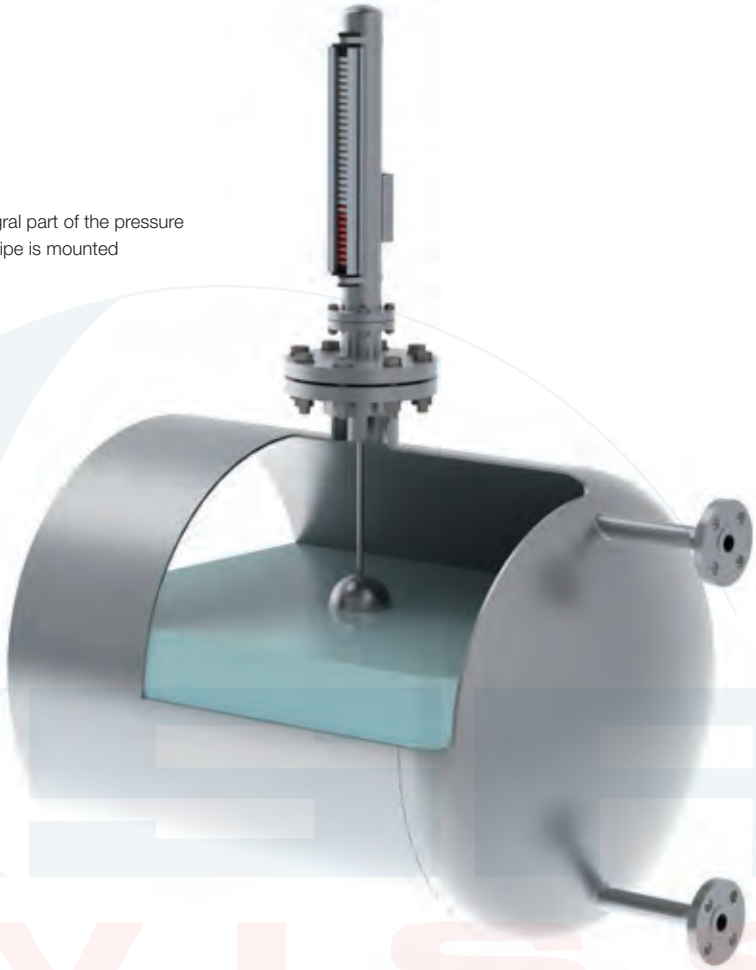
Functional description

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:	≥ 300 kg/m³
Design pressure:	-1 bar ... 100 bar
Design temperature:	-196°C ... 400°C

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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	-	ALE	/	TP43B	/	V	/	K5	/								EXIAG	-	DU	-	L...	/	A...	-	V	/	60	/	2	-

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue[1] = possible according to Atex Exia and Exd / Black[1] = possible according to Atex Exd

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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
		TP43B[1]	TP5343B Ex		
ALF	Aluminium terminal box 80 x 75 x 57 mm	TD35A[1]	TD5335A		
ALDA[1]	Aluminium terminal box Ø 95 x 84 mm	TD35B[1]	TD5335D Ex		
AVA	Stainless steel terminal box Ø 82 x 110 mm	TP50AP[1]	TP5350AP / PROFIBUS® PA		
AVDA[1]	Stainless steel terminal box Ø 82 x 110 mm	TP50BP[1]	TP5350BP Ex / PROFIBUS® PA		
AVM	Stainless steel terminal box Ø 50 x 117 mm	TP50AF[1]	TP5350AF / FOUNDATION™ Fieldbus		
AVDM[1]	Stainless steel terminal box Ø 169 x 117 mm	TP50BF[1]	TP5350BF Ex / FOUNDATION™ Fieldbus		
DAAVDM[1]	Stainless steel terminal box with LED display Ø 169 x 117 mm	TMT181A[1]	TMT181		
		TMT181B[1]	TMT181 Ex		
APA	Polyester terminal box 80 x 75 x 55 mm	ZMU[1]	XT42SI Ex		
APB	Polyester terminal box 80 x 75 x 55 mm / Exm	TAMX[1]	Other control unit		
ABA	ABS terminal box 80 x 82 x 55 mm	MST[1]	Magnetostrictive / 4 ... 20 mA		
K	Connection cable	MSTB[1]	Magnetostrictive / 4 ... 20 mA / Ex		
K68	Connection cable IP 68 (≥ G 3/8")	MSTH[1]	Magnetostrictive / HART®-Protocol		
DAALA	Aluminium terminal box with LED display Ø 82 x 100 mm	MSTHB[1]	Magnetostrictive / HART®-Protocol / Ex		
DAAVDA[1]	Stainless steel terminal box with LED display Ø 82 x 100 mm				

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	14	Code
1	- 1 / 2 / 3	- 1 / 2 / 3 / 4 / 5 / 6 / 7	- 1 / 2 / 3	- 1	- 1 / 2	- 1 / 2 / 3	**Key**
	- MRB / SV	- 3 / BGU / N / 1 / SIL /	EXIAG	- USV / 98	- 60	- EX / PED	**Example**

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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	60[1]	Ø 60.30 mm	...[1]	Chamber wall thickness in mm
VP[1]	Stainless steel electropolished / Ra ca. 0,8µm	61[1]	Ø 60.33 mm		(see the relevant catalog page)
	(not attestable)	63	Ø 63.00 mm		
TI[1]	Titanium				
HC[1]	Alloy C				
MO[1]	6Mo				
VEEC[1]	Stainless steel ECTFE coated				
VPFA[1]	Stainless steel PFA coated				
P	PVC				
PP	Polypropylene				
PF	PVDF				

Code 8

	Key 1 ... - **Chamber additional design**
DK[1]	Differential compensated

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	/	60	/	2	-

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Code 9

	Key 1 ... / ... / ... - **Magnetic roller indicator**		Key 2 ... / ... / ... - **Scale**		Key 3 ... / ... / ... - **Mag. roller indicator sight extension**
MRA	Magnetic roller indicator MRA	SAK	Scale in Aluminium with adhesive foil	PV[1]	Acryl glass extension
MRB[1]	Magnetic roller indicator MRB (Ex)	SA0[1]	Scale in Aluminium without engraving		
MRAN	Mag. roller indicator MRAN over-roll-protected	SA1[1]	Scale in Aluminium with engraving in %		
MRBN[1]	Mag. roller indicator MRBN over-roll-prot. (Ex)	SA2[1]	Scale in Aluminium with engraving in cm		
MRK[1]	Magnetic roller indicator MRK	SA3[1]	Scale in Aluminium with engraving in inch.		
MRKN[1]	Magnetic roller indicator MRKN over-roll-prot.	SA4[1]	Scale in Aluminium with engraving acc. to customized table		
MNA	Magnetic roller indicator MNA	SV0[1]	Scale in Stainless steel without engraving		
MNB[1]	Magnetic roller indicator MNB (Ex)	SV1[1]	Scale in Stainless steel with engraving in %		
MNAN	Magnetic roller indicator MNAN over-roll-prot.	SV2[1]	Scale in Stainless steel with engraving in cm		
MNBN[1]	Mag. roller indicator MNBN over-roll-prot. (Ex)	SV3[1]	Scale in Stainless steel with engraving in inch.		
MNAV	Magnetic roller indicator MNAV	SV4[1]	Scale in Stainless steel with engraving acc. to customized table		
MNBV[1]	Magnetic roller indicator MNBV (Ex)				
MNAVN	Magnetic roller indicator MNAVN over-roll-protected				
MNBVN[1]	Magnetic roller indicator MNBVN over-roll-prot. (Ex)				
MNKV[1]	Magnetic roller indicator MNKV				
MNKVN[1]	Magnetic roller indicator MNKVN over-roll-protected				

Code 10

	Key 1 ... / ... / ... / ... / ... / ... / ... - **Number of magnetic switches**		Key 2 ... / ... / ... / ... / ... / ... / ... - **Magnetic switch**		Key 3 ... / ... / ... / ... / ... / ... / ... - **Magnetic switch option**
...	Number of magnetic switches	BGU	Magnetic switch BGU	R22[1]	Switch protective circuit with 22 ohm / 0.21 W resistor
		BGUD[1]	Magnetic switch BGU	N[1]	Switch protective circuit according to NAMUR EN 60947
		BGUALE	Magnetic switch BGUALE		
		BGUASQ	Magnetic switch BGUASQ		
		BGUASMA	Magnetic switch BGUASMA		
		ALFU	Magnetic switch ALFU		
		ALFI	Magnetic switch ALFI (inductive)		
		ALEU	Magnetic switch ALEU		
		APAVU	Magnetic switch APAVU		
		APBVU	Magnetic switch APBVU		
		RU60	Magnetic switch RU60		
		RUV60	Magnetic switch RUV60		
		RUVD60	Magnetic switch RUVD60		
		ALDAU[1]	Magnetic switch ALDAU		

Code 10

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

Example

8	9							10									11				12		13			14			Code
1	-	1	/	2	/	3	-	1	/	2	/	3	/	4	/	5	/	6	/	7	-	1	/	2	/	3	-	1	-	1	/	2	-	1	/	2	/	3	**Key**
	-	MRB	/	SV			-	3	/	BGU	/	N	/	1	/	SIL	/			EXIAG	-	USV	/	98			-	60	-				-	EX	/	PED			**Example**

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Code 10

	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 11

	Key 1 … / … / … - **Float**		Key 2 … / … / … - **Diameter**		Key 3 … / … / … - **Float length**
USV[1]	Float in Stainless steel (Key 3 not applicable)	…	Acc. to float table on page 348 - 363	…	Acc. to float table on page 348 - 363
UZVS[1]	Float in Stainless steel				
UZTIS[1]	Float in Titanium				
UZTIEECS[1]	Float in Titanium E-CTFE coated				
UZTIPFAS[1]	Float in Titanium PFA coated				
UZPS	Float in PVC (on request)				
UZPPS	Float in Polypropylene (on request)				
UZPFS	Float in PVDF (on request)				

Code 12

	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 13

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

Code 14

	Key 1 … / … / … - **Approvals / 1**		Key 2 … / … / … - **Approvals / 2**		Key 3 … / … / … - **Approvals / 3**
EX	Acc. to Ex	PEDII[1]	Acc. to PED97/23/EC category II	GOST[1]	Approval GOST
		PEDIV[1]	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	/	60	/	2	-

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Notes

Example

8	9					10								11				12	13		14			Code
1	-	1	/	2	/	3	-	1	/	2	/	3	/	4	/	5	/	6	/	7	-	1	/	2	/	3	-	1	-	1	/	2	-	1	/	2	/	3	**Key**
	-	MRB	/	SV			-	3	/	BGU	/	N	/	1	/	SIL	/			EXIAG	-	USV	/	98			-	60	-				-	EX	/	PED			**Example**

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Top Mounted Level Indicator / Stainless steel

Type **UNA-..-../../..-L..-V/60/..-MR..-UZ..S/..**

Material quality:	1.4404 / 1.4435 / 1.4571 (316L / 316Ti)
Length of instrument:	400 ... 6000 mm
Specific gravity:	≥ 400 kg/m³
Design pressure:	-1 bar ... 16 bar
Design temperature:	-10°C ... 400°C (optional -196°C)

Design

Chamber:	Ø 60.30 x 2.00 mm
Process connection:	Type key page 332
Chamber end top:	Tube cap
Chamber end bottom:	-
Float:	Page 351 - 359

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

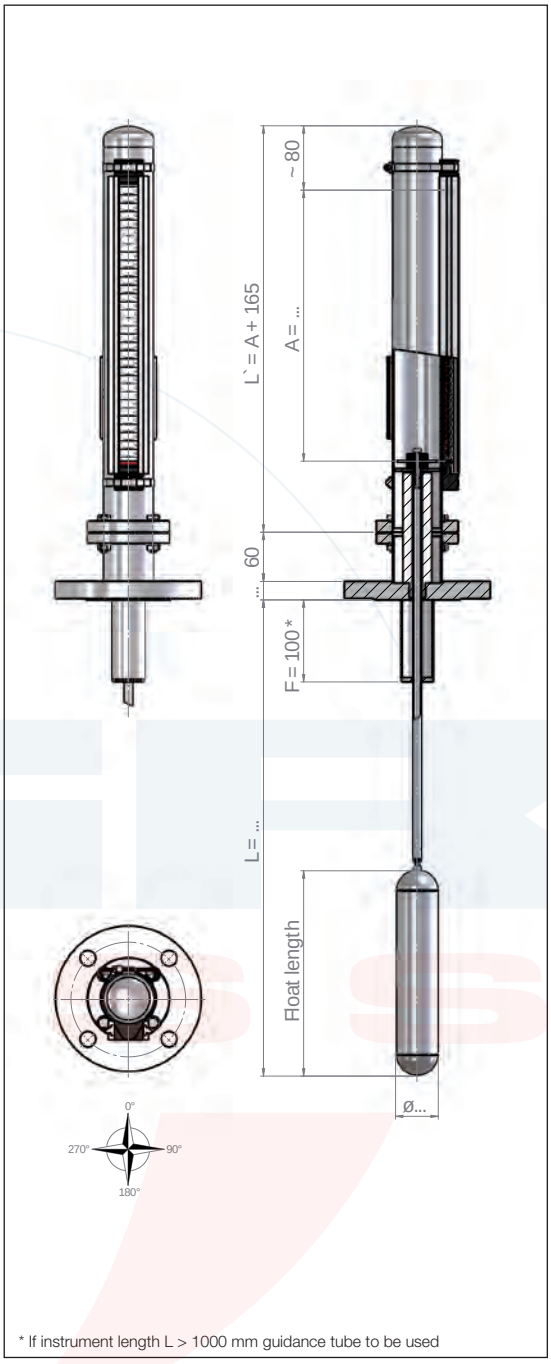
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation Fieldbus

Option electrical heat tracing / Page 380

Holding temperature:	~10°C / Frost protection

Option instrument isolation / Page 380 - 381

Isolation:	Armaflex isolation / Rock-wool isolation



* If instrument length L > 1000 mm guidance tube to be used

Approvals / Certificates

ATEX*

II 1G2D/2GD c II 2GD c

Liquid temperature Ex max. 300°C

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

* = The approval is dependent on the equipment combination

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Type **UNA-..-../../..-L..-V/60/..-MR..-UZ..S/..-..**

Material quality:	1.4404 / 1.4435 / 1.4571 (316L / 316Ti)
Length of instrument:	400 ... 6000 mm
Specific gravity:	≥ 400 kg/m³
Design pressure:	-1 bar ... 16 bar
Design temperature:	-10°C ... 400°C (optional -196°C)

Design

Chamber:	Ø 60.30 x 2.00 mm
Stilling well:	Type key page 336
Process connection:	Type key page 332
Chamber end top:	Tube cap
Chamber end bottom:	-
Float:	Page 351 - 359

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

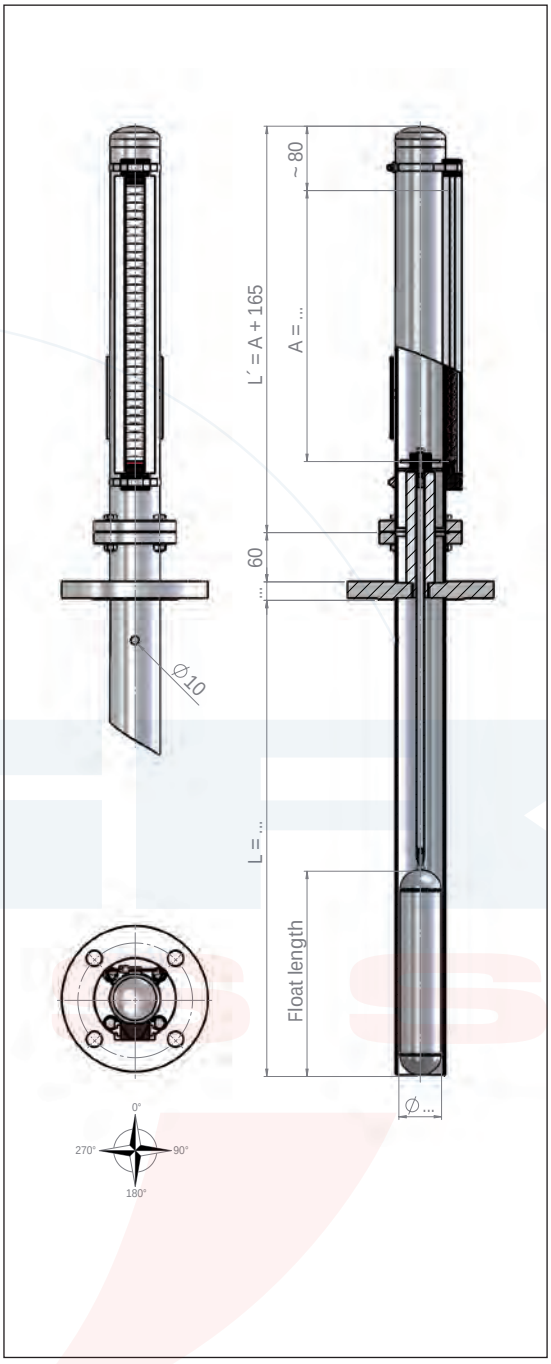
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation Fieldbus

Option electrical heat tracing / Page 380

Holding temperature:	~10°C / Frost protection

Option instrument isolation / Page 380 - 381

Isolation:	Armaflex isolation / Rock-wool isolation



Approvals / Certificates

ATEX*

II 1G2D/2GD c	II 2GD c

Liquid temperature Ex max. 300°C

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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Top Mounted Level Indicator / Stainless steel

Type	**UNA-..-../../..-L..-V/60/..-MR..-USV/..**

Material quality:	1.4404 / 1.4435 / 1.4571 (316L / 316Ti)
Length of instrument:	400 ... 6000 mm
Specific gravity:	≥ 300 kg/m³
Design pressure:	-1 bar ... 16 bar
Design temperature:	-10°C ... 400°C (optional -196°C)

Design

Chamber:	Ø 60.30 x 2.00 mm
Process connection:	Type key page 332
Chamber end top:	Tube cap
Chamber end bottom:	-
Float:	Page 348 - 350

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
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Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

Accuracy / Reed contacts:	5 / 10 / 15 mm
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Option electrical heat tracing / Page 380

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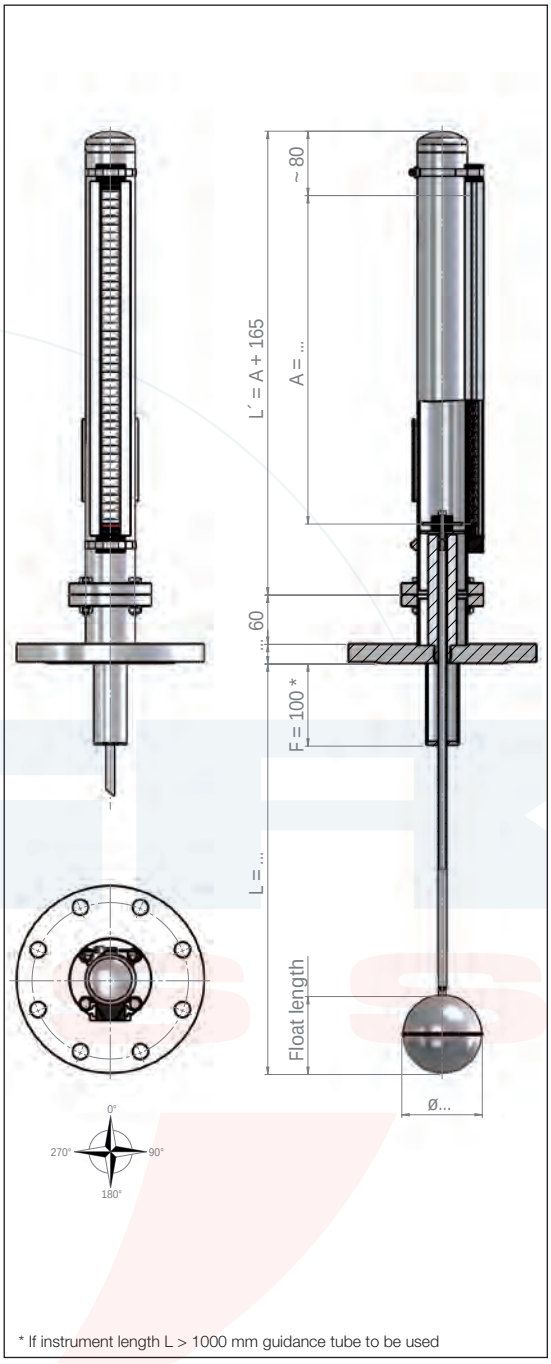
Option instrument isolation / Page 380 - 381

Isolation:	Armaflex isolation / Rock-wool isolation



* If instrument length L > 1000 mm guidance tube to be used

Approvals / Certificates

ATEX*

II 1G2D/2GD c	II 2GD c

Liquid temperature Ex max. 300°C

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

* = The approval is dependent on the equipment combination

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Type **UNA-..-../../..-L..-V/60/..-MR..-USV/..-SR114**

Material quality:	1.4404 / 1.4435 / 1.4571 (316L / 316Ti)
Length of instrument:	400 ... 6000 mm
Specific gravity:	≥ 300 kg/m³
Design pressure:	-1 bar ... 16 bar
Design temperature:	-10°C ... 400°C (optional -196°C)

Design

Chamber:	Ø 60.30 x 2.00 mm
Stilling well:	Type key page 336
Process connection:	Type key page 332
Chamber end top:	Tube cap
Chamber end bottom:	-
Float:	Page 348 - 350

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

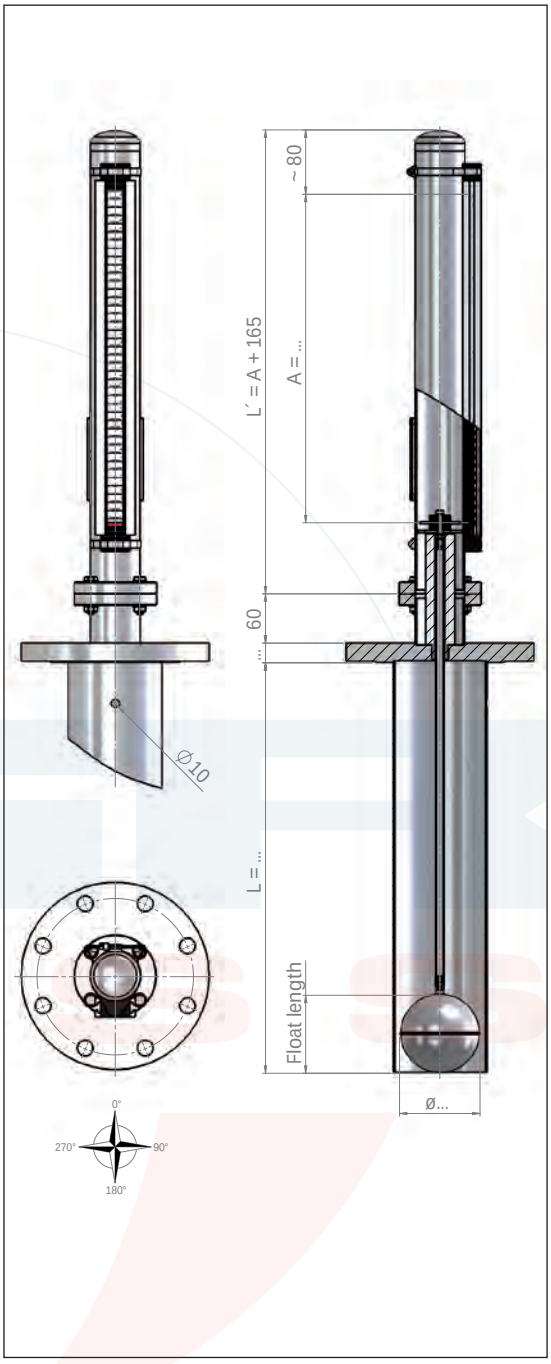
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation Fieldbus

Option electrical heat tracing / Page 380

Holding temperature:	~10°C / Frost protection

Option instrument isolation / Page 380 - 381

Isolation:	Armaflex isolation / Rock-wool isolation



Approvals / Certificates

ATEX*

II 1G2D/2GD c	II 2GD c

Liquid temperature Ex max. 300°C

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

* = The approval is dependent on the equipment combination

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Top Mounted Level Indicator / differential compensated

Type **UNA-..-../../..-L..-V/60/..-DK-MR..-UZ..S/..**

Material quality:	1.4404 / 1.4435 / 1.4571 (316L / 316Ti)
Length of instrument:	400 ... 20000 mm
Specific gravity:	≥ 300 kg/m³
Design pressure:	-1 bar ... 16 - 100 bar
Design temperature:	-10°C ... 400°C (optional -196°C)

Design

Chamber:	Ø 60.30 x 2.00 mm Ø 76.10 x .. mm
Process connection:	Type key page 332
Chamber end top:	Flanged connection with tube cap
Chamber end bottom:	-
Float:	Acc. to protocol

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

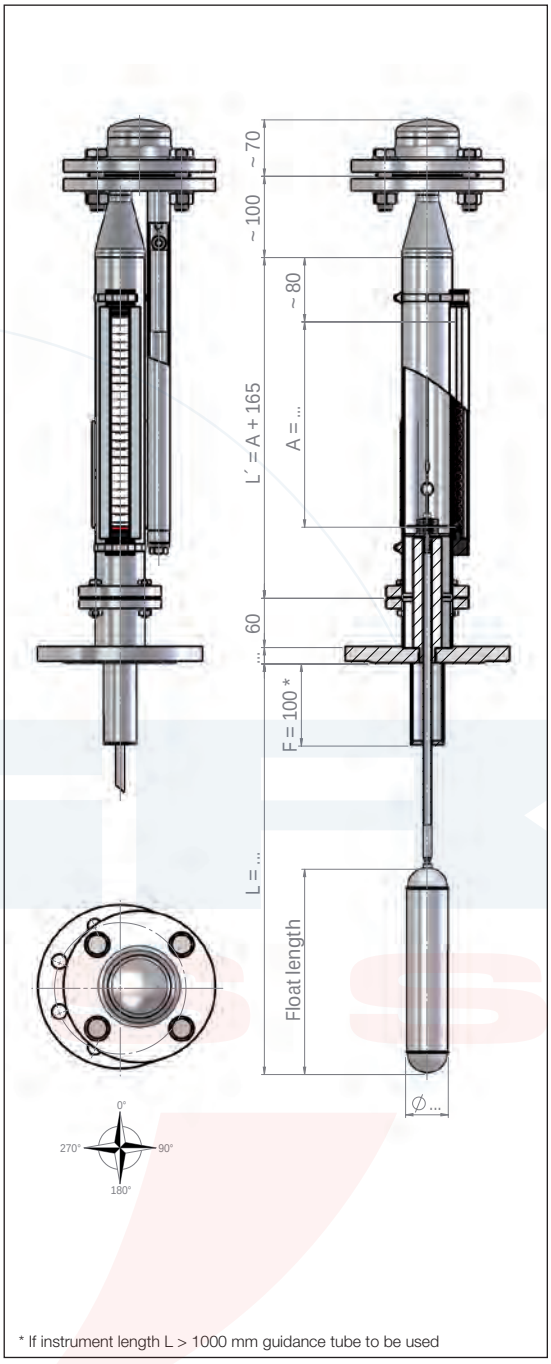
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation Fieldbus

Option electrical heat tracing / Page 380

Holding temperature:	~10°C / Frost protection

Option instrument isolation / Page 380 - 381

Isolation:	Armaflex isolation / Rock-wool isolation



* If instrument length L > 1000 mm guidance tube to be used

Approvals / Certificates

ATEX*

II 1G2D/2GD c	II 2GD c

Liquid temperature Ex max. 300°C

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

* = The approval is dependent on the equipment combination

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Type **UNA-..-../../..-L..-P/63/..-MR..-UZPS/..**

Material quality:	PVC
Length of instrument:	400 ... 5000 mm
Specific gravity:	≥ 800 kg/m³
Design pressure:	-1 bar ... 4 bar
Design temperature:	-15°C ... 40°C

Design

Chamber:	Ø 63.00 x 3.00 mm
Process connection:	Type key page 332
Chamber end top:	Screwed connection
Chamber end bottom:	-
Float:	Acc. to calculation

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

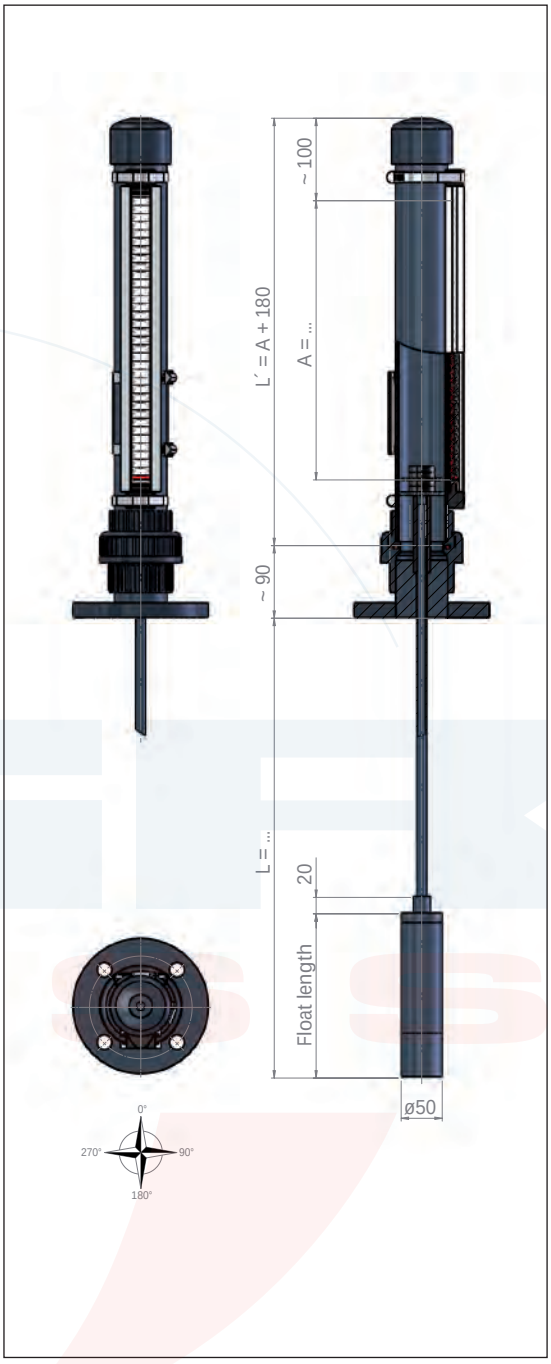
Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

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



Approvals / Certificates

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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Top Mounted Level Indicator / Polypropylene

Type **UNA-..-../../..-L..-PP/63/..-MR..-UZPPS/..**

Material quality:	Polypropylene
Length of instrument:	300 ... 4000 mm
Specific gravity:	≥ 800 kg/m³
Design pressure:	-1 bar ... 4 bar
Design temperature:	-10°C ... 60°C

Design

Chamber:	Ø 63.00 x 3.6 mm
Process connection:	Type key page 332
Chamber end top:	Screwed connection
Chamber end bottom:	-
Float:	Acc. to calculation

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

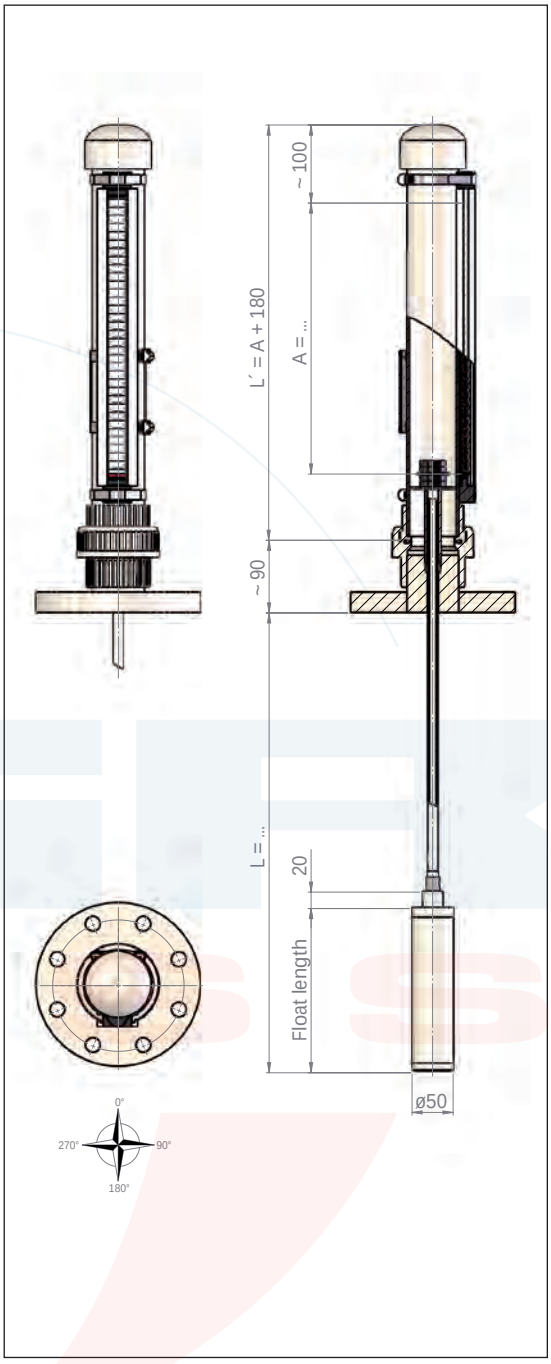
Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

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



Approvals / Certificates

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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Type **UNA-..-../../..-L..-PF/63/..-MR..-UZPFS/..**

Material quality:	PVDF
Length of instrument:	300 ... 4000 mm
Specific gravity:	≥ 800 kg/m³
Design pressure:	-1 bar ... 4 bar
Design temperature:	-10°C ... 80°C

Design

Chamber:	Ø 63.00 x 3.00 mm
Process connection:	Type key page 332
Chamber end top:	Screwed connection
Chamber end bottom:	-
Float:	Acc. to calculation

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

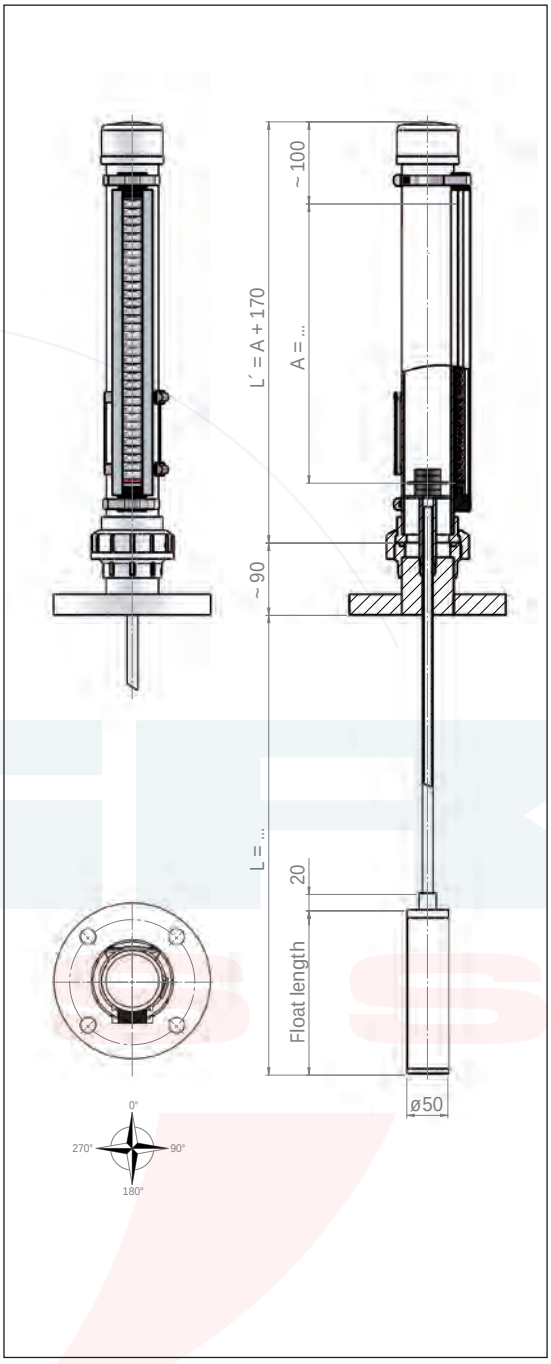
Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

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



Approvals / Certificates

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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Top Mounted Level Indicator / Stainless steel - ECTFE coated

Type **UNA-..-../../..-L..-VEEC/60/..-MR..-UZVEECS/..**

Material quality:	Stainless steel ECTFE coated
Length of instrument:	400 ... 3000 mm
Specific gravity:	≥ 400 kg/m³
Design pressure:	-1 bar ... 16 bar
Design temperature:	-10°C ... 150°C

Design

Chamber:	Ø 60.30 x 2.00 mm
Process connection:	Type key page 332
Chamber end top:	Flanged connection
Chamber end bottom:	-
Float:	Page 360 - 361

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

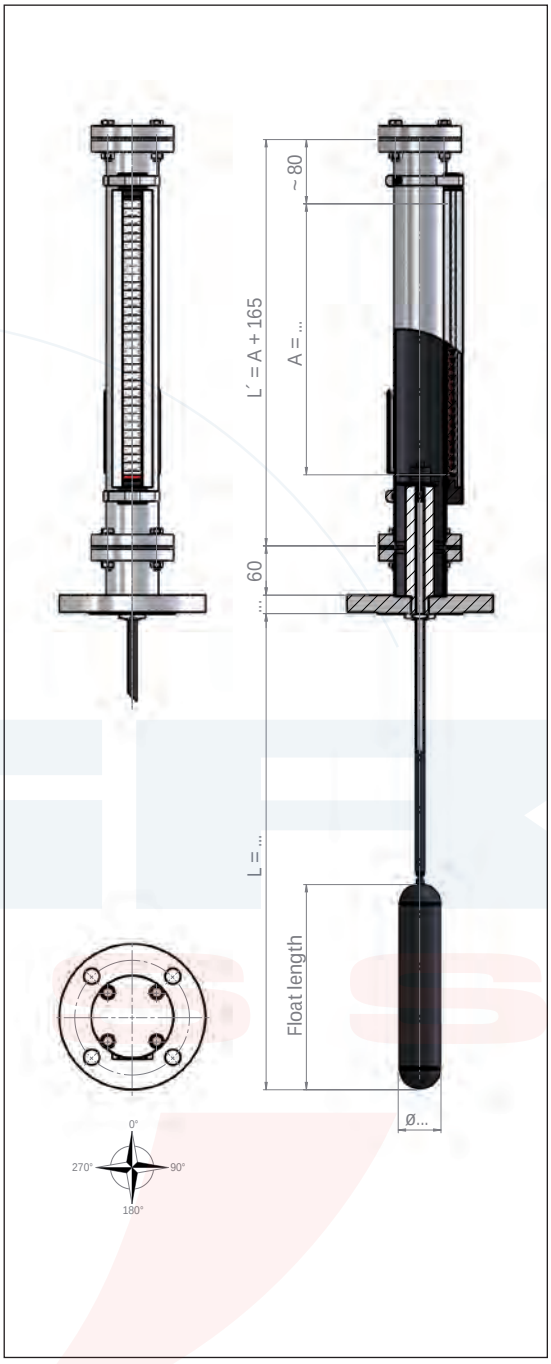
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation Fieldbus

Option electrical heat tracing / Page 380

Holding temperature:	~10°C / Frost protection

Option instrument isolation / Page 380 - 381

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 are based on a modular design and can be arranged individually.
Type key page 332 - 336

* = The approval is dependent on the equipment combination

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Type **UNA-..-../../..-L..-VPFA/60/..-MR..-UZVPFAS/..**

Material quality:	Stainless steel PFA coated
Length of instrument:	400 ... 3000 mm
Specific gravity:	≥ 400 kg/m³
Design pressure:	-1 bar ... 16 bar
Design temperature:	-10°C ... 250°C

Design

Chamber:	Ø 60.30 x 2.00 mm
Process connection:	Type key page 332
Chamber end top:	Flanged connection
Chamber end bottom:	-
Float:	Page 362 - 363

Option magnetic roller indicator / Page 364

Aluminium or Stainless steel / Pocan	-40°C ... 200°C
Aluminium or Stainless steel / Ceramic	-40°C ... 400°C

Option scale / Page 365

Aluminium / Stainless steel	With adhesive foil / Engraving / Blank

Option magnetic switch / Page 372 - 378

Aluminium / Stainless steel	-60°C ... 300°C

Option level transmitter / Page 366 - 370

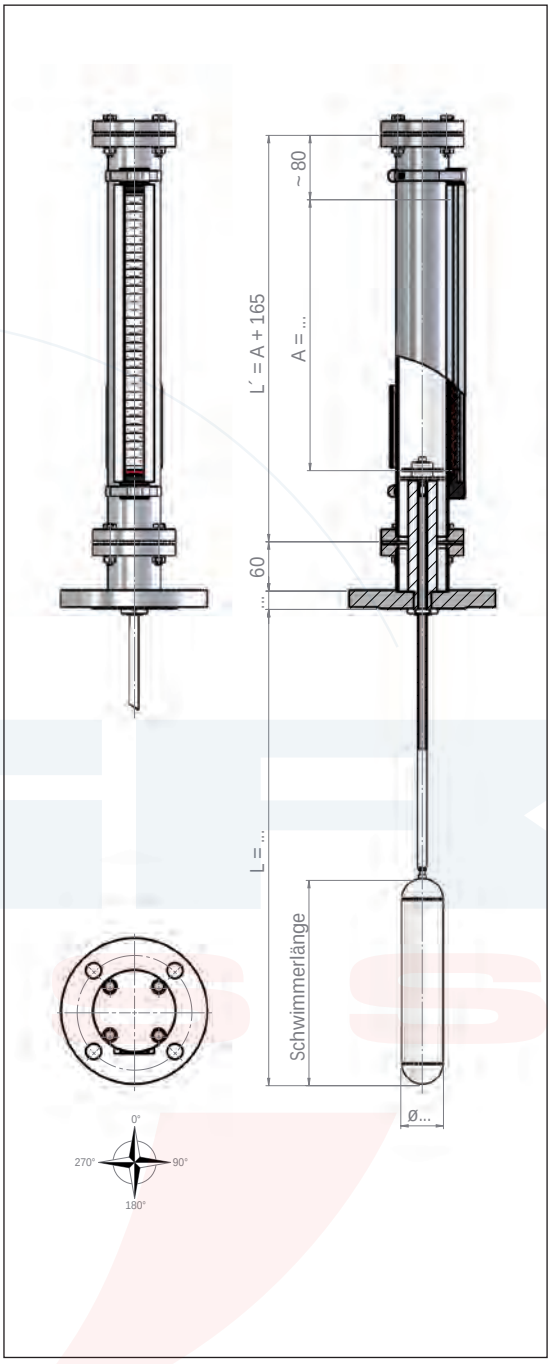
Accuracy / Reed contacts:	5 / 10 / 15 mm
Accuracy / Magnetostrictive:	0.2 mm
Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation Fieldbus

Option electrical heat tracing / Page 380

Holding temperature:	~10°C / Frost protection

Option instrument isolation / Page 380 - 381

Isolation:	Armaflex isolation / Rock-wool isolation



Approvals / Certificates

ATEX*

II 1G2D/2GD c II 2GD c

Liquid temperature Ex max. 250°C

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

* = The approval is dependent on the equipment combination

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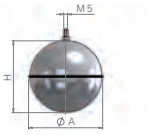
Ball float **USV/98** **Stainless steel 1.4571 (316Ti)**

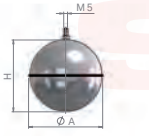
Diameter / hight [mm]:	98 / 95
Design temperature [°C]:	-196 ... 200
Design pressure [bar]:	-1 ... 16
Weight [g]:	180
Flange min.:	DN 100



Float USV/98													
Specific gravity of the liquid [kg/m³]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	-	-	80	70	65	60	60	55	55
500¹	-	-	-	-	-	-	85	75	70	65	60	55	55
600¹	-	-	-	-	-	-	-	75	70	65	60	60	55
700¹	-	-	-	-	-	-	-	80	70	65	60	60	55
800¹	-	-	-	-	-	-	-	80	75	70	65	60	55
900¹	-	-	-	-	-	-	-	85	75	70	65	60	60
1000¹	-	-	-	-	-	-	-	-	80	70	65	65	60
1100²	-	-	-	-	-	-	-	-	-	-	-	80	75
1200²	-	-	-	-	-	-	-	-	-	-	-	85	80
1300²	-	-	-	-	-	-	-	-	-	-	-	-	80
1400²	-	-	-	-	-	-	-	-	-	-	-	-	85
1500²	-	-	-	-	-	-	-	-	-	-	-	-	-

Ball float **USV/105** **Stainless steel 1.4571 (316Ti)**

Diameter / hight [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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	-	-	80	70	65	60	55	55	50
500¹	-	-	-	-	-	-	80	70	65	60	55	55	55
600¹	-	-	-	-	-	-	85	75	70	65	60	55	55
700¹	-	-	-	-	-	-	-	75	70	65	60	55	55
800¹	-	-	-	-	-	-	-	80	70	65	60	60	55
900¹	-	-	-	-	-	-	-	80	70	65	65	60	55
1000¹	-	-	-	-	-	-	-	80	75	70	65	60	55
1100²	-	-	-	-	-	-	-	-	-	-	80	75	70
1200²	-	-	-	-	-	-	-	-	-	-	85	75	70
1300²	-	-	-	-	-	-	-	-	-	-	-	80	75
1400²	-	-	-	-	-	-	-	-	-	-	-	80	75
1500²	-	-	-	-	-	-	-	-	-	-	-	85	80

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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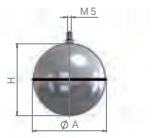
Ball float **USV/120** **Stainless steel 1.4571 (316Ti)**

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



Float USV/120													
Specific gravity of the liquid [kg/m³]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	70	65	55	55	50	45	45	40	40	40
500¹	-	-	-	75	65	60	55	50	45	45	40	40	40
600¹	-	-	-	75	65	60	55	50	50	45	45	40	40
700¹	-	-	-	80	70	60	55	50	50	45	45	40	40
800¹	-	-	-	80	70	65	55	55	50	45	45	45	40
900¹	-	-	-	85	70	65	60	55	50	50	45	45	40
1000¹	-	-	-	-	75	65	60	55	50	50	45	45	40
1100²	-	-	-	-	-	85	75	65	60	60	55	50	50
1200²	-	-	-	-	-	-	75	70	65	60	55	55	50
1300²	-	-	-	-	-	-	80	70	65	60	55	55	50
1400²	-	-	-	-	-	-	80	75	65	60	60	55	55
1500²	-	-	-	-	-	-	85	75	70	65	60	55	55
1600²	-	-	-	-	-	-	-	80	70	65	60	60	55
1700²	-	-	-	-	-	-	-	80	75	70	65	60	55
1800²	-	-	-	-	-	-	-	85	75	70	65	60	60
1900²	-	-	-	-	-	-	-	-	80	70	65	65	60
2000²	-	-	-	-	-	-	-	-	80	75	70	65	60

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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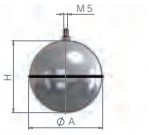
Ball float **USV/205** **Stainless steel 1.4571 (316Ti)**

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]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	70	55	45	40	40	35	35	30	30	30	25	25	25
600¹	70	55	50	45	40	35	35	30	30	30	25	25	25
800¹	70	55	50	45	40	35	35	30	30	30	25	25	25
1000¹	75	60	50	45	40	35	35	30	30	30	30	25	25
1200²	85	65	55	50	45	40	35	35	35	30	30	30	30
1400²	-	65	55	50	45	40	40	35	35	30	30	30	30
1600²	-	70	55	50	45	40	40	35	35	35	30	30	30
1800²	-	70	60	50	45	45	40	35	35	35	30	30	30
2000²	-	70	60	55	45	45	40	40	35	35	35	30	30
2200³	-	-	75	65	55	50	45	45	40	40	40	35	35
2400³	-	-	75	65	60	55	50	45	45	40	40	35	35
2600³	-	-	80	65	60	55	50	45	45	40	40	40	35
2800³	-	-	85	70	60	55	50	50	45	45	40	40	35
3000³	-	-	-	70	65	55	55	50	45	45	40	40	40
3200³	-	-	-	75	65	60	55	50	45	45	40	40	40
3400³	-	-	-	75	65	60	55	50	50	45	45	40	40
3600³	-	-	-	80	70	60	55	55	50	45	45	40	40
3800³	-	-	-	85	70	65	60	55	50	50	45	45	40
4000³	-	-	-	-	75	65	60	55	50	50	45	45	40
4200³	-	-	-	-	75	65	60	55	55	50	45	45	45
4400³	-	-	-	-	80	70	60	60	55	50	50	45	45
4600³	-	-	-	-	80	70	65	60	55	50	50	45	45
4800³	-	-	-	-	85	70	65	60	55	55	50	50	45
5000³	-	-	-	-	-	75	65	60	55	55	50	50	45

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZVS/52/200** **Stainless steel 1.4571 (316Ti)**

Diameter / length [mm]:	52 / 200
Design temperature [°C]:	-196 ... 250
Design pressure [bar]:	-1 ... 16
Weight [g]:	154
Flange min.:	DN 50

Float UZVS/52/200

Specific gravity of the liquid [kg/m³]	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	-	-	-	-	80	75	65	65	60
500¹	-	-	-	-	-	-	-	-	-	75	70	65	60
600¹	-	-	-	-	-	-	-	-	-	80	70	65	65
700¹	-	-	-	-	-	-	-	-	-	80	75	70	65
800¹	-	-	-	-	-	-	-	-	-	-	75	70	65
900¹	-	-	-	-	-	-	-	-	-	-	80	75	70
1000¹	-	-	-	-	-	-	-	-	-	-	-	75	70
1100²	-	-	-	-	-	-	-	-	-	-	-	-	-
1200²	-	-	-	-	-	-	-	-	-	-	-	-	-
1300²	-	-	-	-	-	-	-	-	-	-	-	-	-
1400²	-	-	-	-	-	-	-	-	-	-	-	-	-
1500²	-	-	-	-	-	-	-	-	-	-	-	-	-

Cylindrical float **UZVS/52/250** **Stainless steel 1.4571 (316Ti)**

Diameter / length [mm]:	52 / 250
Design temperature [°C]:	-196 ... 250
Design pressure [bar]:	-1 ... 16
Weight [g]:	191
Flange min.:	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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	-	-	85	75	70	65	60	55	50
500¹	-	-	-	-	-	-	-	80	70	65	60	55	55
600¹	-	-	-	-	-	-	-	80	75	70	65	60	55
700¹	-	-	-	-	-	-	-	85	75	70	65	60	55
800¹	-	-	-	-	-	-	-	-	80	70	65	60	60
900¹	-	-	-	-	-	-	-	-	80	75	70	65	60
1000¹	-	-	-	-	-	-	-	-	80	75	70	65	60
1100²	-	-	-	-	-	-	-	-	-	-	-	80	75
1200²	-	-	-	-	-	-	-	-	-	-	-	-	80
1300²	-	-	-	-	-	-	-	-	-	-	-	-	85
1400²	-	-	-	-	-	-	-	-	-	-	-	-	-
1500²	-	-	-	-	-	-	-	-	-	-	-	-	-

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZVS/52/350** **Stainless steel 1.4571 (316Ti)**

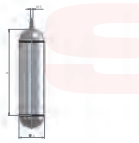
Diameter / length [mm]:	52 / 350
Design temperature [°C]:	-196 ... 250
Design pressure [bar]:	-1 ... 16
Weight [g]:	270
Flange min.:	DN 50

Float UZVS/52/350

Specific gravity of the liquid [kg/m³]	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	-	80	70	65	60	55	50	45	45
500¹	-	-	-	-	-	80	70	65	60	55	50	45	45
600¹	-	-	-	-	-	85	75	65	60	55	50	50	45
700¹	-	-	-	-	-	85	75	70	65	60	55	50	45
800¹	-	-	-	-	-	-	80	70	65	60	55	50	50
900¹	-	-	-	-	-	-	80	70	65	60	55	50	50
1000¹	-	-	-	-	-	-	80	75	70	60	60	55	50
1100²	-	-	-	-	-	-	-	-	80	75	70	65	60
1200²	-	-	-	-	-	-	-	-	85	80	70	65	65
1300²	-	-	-	-	-	-	-	-	-	80	75	70	65
1400²	-	-	-	-	-	-	-	-	-	85	75	70	65
1500²	-	-	-	-	-	-	-	-	-	85	80	75	70
1600²	-	-	-	-	-	-	-	-	-	-	80	75	70
1700²	-	-	-	-	-	-	-	-	-	-	85	80	75
1800²	-	-	-	-	-	-	-	-	-	-	85	80	75
1900²	-	-	-	-	-	-	-	-	-	-	-	85	80
2000²	-	-	-	-	-	-	-	-	-	-	-	85	80

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]	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	70	65	55	50	45	45	40	40	35
500¹	-	-	-	-	75	65	60	55	50	45	40	40	35
600¹	-	-	-	-	75	70	60	55	50	45	45	40	40
700¹	-	-	-	-	80	70	65	55	50	50	45	40	40
800¹	-	-	-	-	-	70	65	60	55	50	45	45	40
900¹	-	-	-	-	-	75	65	60	55	50	45	45	40
1000¹	-	-	-	-	-	75	70	60	55	50	50	45	45
1100²	-	-	-	-	-	-	-	80	70	65	60	55	55
1200²	-	-	-	-	-	-	-	-	75	70	65	60	55
1300²	-	-	-	-	-	-	-	-	75	70	65	60	60
1400²	-	-	-	-	-	-	-	-	80	75	70	65	60
1500²	-	-	-	-	-	-	-	-	-	75	70	65	60
1600²	-	-	-	-	-	-	-	-	-	80	75	70	65
1700²	-	-	-	-	-	-	-	-	-	-	75	70	65
1800²	-	-	-	-	-	-	-	-	-	-	80	75	70
1900²	-	-	-	-	-	-	-	-	-	-	80	75	70
2000²	-	-	-	-	-	-	-	-	-	-	-	80	75

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	-	75	70	60	55	50	45	45	40	40
500¹	-	-	-	-	80	70	60	55	50	50	45	40	40
600¹	-	-	-	-	80	70	65	60	55	50	45	45	40
700¹	-	-	-	-	-	75	65	60	55	50	45	45	40
800¹	-	-	-	-	-	75	65	60	55	50	50	45	40
900¹	-	-	-	-	-	75	70	60	55	50	50	45	45
1000¹	-	-	-	-	-	75	70	65	60	55	50	45	45
1100²	-	-	-	-	-	-	-	75	70	65	60	55	50
1200²	-	-	-	-	-	-	-	75	70	65	60	55	55
1300²	-	-	-	-	-	-	-	80	75	65	60	60	55
1400²	-	-	-	-	-	-	-	-	75	70	65	60	55
1500²	-	-	-	-	-	-	-	-	75	70	65	60	60
1600²	-	-	-	-	-	-	-	-	80	75	70	65	60
1700²	-	-	-	-	-	-	-	-	80	75	70	65	60
1800²	-	-	-	-	-	-	-	-	-	75	70	65	65
1900²	-	-	-	-	-	-	-	-	-	80	75	70	65
2000²	-	-	-	-	-	-	-	-	-	80	75	70	65

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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	75	65	60	50	50	45	40	40	35	35
500¹	-	-	-	80	65	60	55	50	45	40	40	35	35
600¹	-	-	-	80	70	60	55	50	45	40	40	35	35
700¹	-	-	-	80	70	60	55	50	45	45	40	40	35
800¹	-	-	-	-	70	65	55	50	45	45	40	40	35
900¹	-	-	-	-	75	65	60	55	50	45	40	40	35
1000¹	-	-	-	-	75	65	60	55	50	45	40	40	35
1100²	-	-	-	-	-	75	70	65	60	55	50	45	45
1200²	-	-	-	-	-	80	70	65	60	55	50	50	45
1300²	-	-	-	-	-	80	75	65	60	55	50	50	45
1400²	-	-	-	-	-	-	75	70	60	60	55	50	45
1500²	-	-	-	-	-	-	75	70	65	60	55	50	50
1600²	-	-	-	-	-	-	80	70	65	60	55	55	50
1700²	-	-	-	-	-	-	80	75	65	60	60	55	50
1800²	-	-	-	-	-	-	-	75	70	65	60	55	50
1900²	-	-	-	-	-	-	-	75	70	65	60	55	55
2000²	-	-	-	-	-	-	-	80	70	65	60	60	55

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	70	60	55	50	45	40	40	35	35	30
500¹	-	-	-	75	65	55	50	45	40	40	35	35	30
600¹	-	-	-	75	65	55	50	45	40	40	35	35	30
700¹	-	-	-	75	65	60	50	45	45	40	35	35	35
800¹	-	-	-	75	65	60	55	50	45	40	40	35	35
900¹	-	-	-	80	70	60	55	50	45	40	40	35	35
1000¹	-	-	-	80	70	60	55	50	45	40	40	35	35
1100²	-	-	-	-	80	70	65	55	50	50	45	40	40
1200²	-	-	-	-	80	70	65	60	55	50	45	45	40
1300²	-	-	-	-	85	75	65	60	55	50	45	45	40
1400²	-	-	-	-	-	75	70	60	55	50	50	45	40
1500²	-	-	-	-	-	75	70	65	60	55	50	45	45
1600²	-	-	-	-	-	80	70	65	60	55	50	45	45
1700²	-	-	-	-	-	80	75	65	60	55	50	50	45
1800²	-	-	-	-	-	85	75	65	60	55	55	50	45
1900²	-	-	-	-	-	-	75	70	65	60	55	50	45
2000²	-	-	-	-	-	-	80	70	65	60	55	50	50

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIS/52/200** **Titanium**

Diameter / length [mm]:	52 / 200
Design temperature [°C]:	-30 ... 150
Design pressure [bar]:	-1 ... 16
Weight [g]:	109
Flange min.:	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-Measure [mm]	Immersion depth [%]												
400	-	-	-	-	-	-	80	75	65	60	55	55	50
500	-	-	-	-	-	-	-	75	70	65	60	55	50
600	-	-	-	-	-	-	-	80	70	65	60	60	55
700	-	-	-	-	-	-	-	80	75	70	65	60	55
800	-	-	-	-	-	-	-	-	75	70	65	60	55
900	-	-	-	-	-	-	-	-	80	75	70	65	60
1000	-	-	-	-	-	-	-	-	-	75	70	65	60
1100	-	-	-	-	-	-	-	-	-	-	-	-	80
1200	-	-	-	-	-	-	-	-	-	-	-	-	-
1300	-	-	-	-	-	-	-	-	-	-	-	-	-
1400	-	-	-	-	-	-	-	-	-	-	-	-	-
1500	-	-	-	-	-	-	-	-	-	-	-	-	-

Cylindrical float **UZTIS/52/250** **Titanium**

Diameter / length [mm]:	52 / 250
Design temperature [°C]:	-30 ... 150
Design pressure [bar]:	-1 ... 16
Weight [g]:	138
Flange min.:	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-Measure [mm]	Immersion depth [%]												
400	-	-	-	-	85	80	70	65	55	55	50	45	45
500	-	-	-	-	-	80	70	65	60	55	50	50	45
600	-	-	-	-	-	80	75	70	60	55	55	50	45
700	-	-	-	-	-	85	75	70	65	60	55	50	50
800	-	-	-	-	-	-	80	70	65	60	55	55	50
900	-	-	-	-	-	-	85	75	70	65	60	55	50
1000	-	-	-	-	-	-	-	75	70	65	60	55	50
1100	-	-	-	-	-	-	-	-	-	-	80	75	70
1200	-	-	-	-	-	-	-	-	-	-	80	75	70
1300	-	-	-	-	-	-	-	-	-	-	-	80	75
1400	-	-	-	-	-	-	-	-	-	-	-	80	75
1500	-	-	-	-	-	-	-	-	-	-	-	85	80

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIS/52/350** **Titanium**

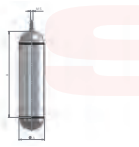
Diameter / length [mm]:	52 / 350
Design temperature [°C]:	-30 ... 150
Design pressure [bar]:	-1 ... 16
Weight [g]:	193
Flange min.:	DN 50

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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	85	70	65	55	50	45	45	40	35	35
500¹	-	-	-	85	75	65	60	55	50	45	40	40	35
600¹	-	-	-	85	75	65	60	55	50	45	40	40	35
700¹	-	-	-	85	80	70	60	55	50	45	45	40	40
800¹	-	-	-	-	80	70	65	60	55	50	45	40	40
900¹	-	-	-	-	85	75	65	60	55	50	45	45	40
1000¹	-	-	-	-	85	75	70	60	55	50	50	45	40
1100²	-	-	-	-	-	-	85	75	70	65	60	55	50
1200²	-	-	-	-	-	-	-	80	70	65	60	55	55
1300²	-	-	-	-	-	-	-	80	75	70	65	60	55
1400²	-	-	-	-	-	-	-	85	80	70	65	60	60
1500²	-	-	-	-	-	-	-	-	80	75	70	65	60
1600²	-	-	-	-	-	-	-	-	85	75	70	65	60
1700²	-	-	-	-	-	-	-	-	85	80	75	70	65
1800²	-	-	-	-	-	-	-	-	-	80	75	70	65
1900²	-	-	-	-	-	-	-	-	-	85	80	75	70
2000²	-	-	-	-	-	-	-	-	-	-	80	75	70

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-Measure [mm]	Immersion depth [%]												
400¹	-	-	-	65	60	50	45	40	40	35	35	30	30
500¹	-	-	-	70	60	55	50	45	40	35	35	35	30
600¹	-	-	-	70	60	55	50	45	40	40	35	35	30
700¹	-	-	-	75	65	55	50	45	45	40	35	35	35
800¹	-	-	-	75	65	60	50	50	45	40	40	35	35
900¹	-	-	-	75	65	60	55	50	45	40	40	35	35
1000¹	-	-	-	80	70	60	55	50	45	45	40	40	35
1100²	-	-	-	-	-	-	70	65	60	55	50	50	45
1200²	-	-	-	-	-	-	75	65	60	55	55	50	45
1300²	-	-	-	-	-	-	75	70	65	60	55	50	50
1400²	-	-	-	-	-	-	-	70	65	60	55	55	50
1500²	-	-	-	-	-	-	-	75	70	65	60	55	50
1600²	-	-	-	-	-	-	-	-	70	65	60	55	55
1700²	-	-	-	-	-	-	-	-	75	65	65	60	55
1800²	-	-	-	-	-	-	-	-	75	70	65	60	55
1900²	-	-	-	-	-	-	-	-	-	70	65	60	60
2000²	-	-	-	-	-	-	-	-	-	75	70	65	60

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIS/76/250** **Titanium**

Diameter / length [mm]:	76 / 250
Design temperature [°C]:	-30 ... 150
Design pressure [bar]:	-1 ... 1
Weight [g]:	186
Flange min.:	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-Measure [mm]	Immersion depth [%]												
400¹	-	-	70	60	50	45	40	35	35	30	30	30	25
500¹	-	-	70	60	50	45	45	40	35	30	30	30	25
600¹	-	-	75	60	55	45	45	40	35	35	30	30	30
700¹	-	-	75	65	55	50	45	40	35	35	30	30	30
800¹	-	-	75	65	55	50	45	40	40	35	35	30	30
900¹	-	-	80	65	60	50	45	40	40	35	35	30	30
1000¹	-	-	80	70	60	55	45	45	40	35	35	30	30
1100²	-	-	-	-	75	65	60	55	50	45	40	40	35
1200²	-	-	-	-	75	70	60	55	50	45	45	40	40
1300²	-	-	-	-	80	70	65	60	55	50	45	45	40
1400²	-	-	-	-	-	75	65	60	55	50	45	45	40
1500²	-	-	-	-	-	75	70	60	55	50	50	45	45
1600²	-	-	-	-	-	80	70	65	60	55	50	45	45
1700²	-	-	-	-	-	80	75	65	60	55	50	50	45
1800²	-	-	-	-	-	-	75	70	60	60	55	50	45
1900²	-	-	-	-	-	-	75	70	65	60	55	50	50
2000²	-	-	-	-	-	-	80	70	65	60	55	55	50
2100³	-	-	-	-	-	-	-	-	-	-	80	75	70
2200³	-	-	-	-	-	-	-	-	-	-	-	75	70
2300³	-	-	-	-	-	-	-	-	-	-	-	80	75
2400³	-	-	-	-	-	-	-	-	-	-	-	-	75
2500³	-	-	-	-	-	-	-	-	-	-	-	-	80
2600³	-	-	-	-	-	-	-	-	-	-	-	-	80

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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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-Measure [mm]	Immersion depth [%]												
400¹	-	75	60	50	45	40	35	30	30	30	25	25	25
500¹	-	75	65	55	45	40	35	35	30	30	25	25	25
600¹	-	80	65	55	45	40	40	35	30	30	25	25	25
700¹	-	80	65	55	50	45	40	35	30	30	30	25	25
800¹	-	85	70	55	50	45	40	35	35	30	30	25	25
900¹	-	-	70	60	50	45	40	35	35	30	30	30	25
1000¹	-	-	70	60	50	45	40	40	35	30	30	30	25
1100²	-	-	-	75	65	55	50	45	40	40	35	35	30
1200²	-	-	-	75	65	60	55	50	45	40	40	35	35
1300²	-	-	-	80	70	60	55	50	45	40	40	35	35
1400²	-	-	-	85	70	65	55	50	45	45	40	40	35
1500²	-	-	-	-	75	65	60	55	50	45	40	40	35
1600²	-	-	-	-	75	65	60	55	50	45	45	40	40
1700²	-	-	-	-	80	70	60	55	50	50	45	40	40
1800²	-	-	-	-	80	70	65	60	55	50	45	45	40
1900²	-	-	-	-	85	75	65	60	55	50	45	45	40
2000²	-	-	-	-	-	75	70	60	55	50	50	45	40
2100³	-	-	-	-	-	-	-	-	80	75	65	65	60
2200³	-	-	-	-	-	-	-	-	80	75	70	65	60
2300³	-	-	-	-	-	-	-	-	85	75	70	65	65
2400³	-	-	-	-	-	-	-	-	-	80	75	70	65
2500³	-	-	-	-	-	-	-	-	-	80	75	70	65
2600³	-	-	-	-	-	-	-	-	-	85	80	75	70
2700³	-	-	-	-	-	-	-	-	-	-	80	75	70
2800³	-	-	-	-	-	-	-	-	-	-	85	75	70
2900³	-	-	-	-	-	-	-	-	-	-	-	80	75
3000³	-	-	-	-	-	-	-	-	-	-	-	80	75
3100³	-	-	-	-	-	-	-	-	-	-	-	85	80
3200³	-	-	-	-	-	-	-	-	-	-	-	-	80
3300³	-	-	-	-	-	-	-	-	-	-	-	-	80

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIS/76/350** **Titanium**

Diameter / length [mm]:	76 / 350
Design temperature [°C]:	-30 ... 150
Design pressure [bar]:	-1 ... 1
Weight [g]:	258
Flange min.:	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-Measure [mm]	Immersion depth [%]												
400¹	-	70	55	50	40	35	35	30	30	25	25	20	20
500¹	-	70	60	50	40	40	35	30	30	25	25	25	20
600¹	-	75	60	50	45	40	35	30	30	25	25	25	20
700¹	-	75	60	50	45	40	35	30	30	30	25	25	25
800¹	-	75	65	55	45	40	35	35	30	30	25	25	25
900¹	-	80	65	55	45	40	35	35	30	30	25	25	25
1000¹	-	80	65	55	50	40	40	35	30	30	25	25	25
1100²	-	-	80	65	60	50	45	40	40	35	35	30	30
1200²	-	-	80	70	60	55	45	45	40	35	35	30	30
1300²	-	-	85	70	60	55	50	45	40	40	35	35	30
1400²	-	-	-	75	65	55	50	45	40	40	35	35	30
1500²	-	-	-	75	65	60	50	45	45	40	35	35	35
1600²	-	-	-	80	70	60	55	50	45	40	40	35	35
1700²	-	-	-	80	70	60	55	50	45	45	40	35	35
1800²	-	-	-	85	70	65	55	50	45	45	40	40	35
1900²	-	-	-	85	75	65	60	55	50	45	40	40	35
2000²	-	-	-	-	75	65	60	55	50	45	45	40	40
2100³	-	-	-	-	-	-	85	75	70	65	60	55	50
2200³	-	-	-	-	-	-	85	80	70	65	60	55	55
2300³	-	-	-	-	-	-	-	80	75	70	65	60	55
2400³	-	-	-	-	-	-	-	85	75	70	65	60	55
2500³	-	-	-	-	-	-	-	85	80	70	65	60	60
2600³	-	-	-	-	-	-	-	-	80	75	70	65	60
2700³	-	-	-	-	-	-	-	-	80	75	70	65	60
2800³	-	-	-	-	-	-	-	-	85	80	70	65	65
2900³	-	-	-	-	-	-	-	-	85	80	75	70	65
3000³	-	-	-	-	-	-	-	-	-	80	75	70	65
3100³	-	-	-	-	-	-	-	-	-	85	80	70	70
3200³	-	-	-	-	-	-	-	-	-	85	80	75	70
3300³	-	-	-	-	-	-	-	-	-	-	80	75	70
3400³	-	-	-	-	-	-	-	-	-	-	85	80	75
3500³	-	-	-	-	-	-	-	-	-	-	85	80	75
3600³	-	-	-	-	-	-	-	-	-	-	85	80	75
3700³	-	-	-	-	-	-	-	-	-	-	-	85	75
3800³	-	-	-	-	-	-	-	-	-	-	-	85	80
3900³	-	-	-	-	-	-	-	-	-	-	-	85	80
4000³	-	-	-	-	-	-	-	-	-	-	-	-	80
4100³	-	-	-	-	-	-	-	-	-	-	-	-	85
4200³	-	-	-	-	-	-	-	-	-	-	-	-	85

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIEECS/77/250** **Titanium ECTFE coated**

Diameter / length [mm]:	77 / 250
Design temperature [°C]:	-10 ... 150
Design pressure [bar]:	-1 ... 1
Weight [g]:	237
Flange min.:	DN 80

Float UZTIEECS/77/250													
Specific gravity of the liquid [kg/m³]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	75	65	55	50	45	40	35	35	30	30	30
500¹	-	-	80	65	55	50	45	40	40	35	35	30	30
600¹	-	-	80	65	60	50	45	40	40	35	35	30	30
700¹	-	-	-	70	60	55	50	45	40	35	35	35	30
800¹	-	-	-	70	60	55	50	45	40	40	35	35	
900¹	-	-	-	75	65	55	50	45	40	40	35	35	30
1000¹	-	-	-	75	65	55	50	45	45	40	35	35	35
1100²	-	-	-		80	70	65	55	50	50	45	40	40
1200²	-	-	-	-	-	75	65	60	55	50	45	45	40
1300²	-	-	-	-	-	75	65	60	55	50	50	45	40
1400²	-	-	-	-	-	75	70	65	60	55	50	45	45
1500²	-	-	-	-	-	80	70	65	60	55	50	50	45
1600²	-	-	-	-	-	-	75	65	60	55	55	50	45
1700²	-	-	-	-	-	-	75	70	65	60	55	50	50
1800²	-	-	-	-	-	-	80	70	65	60	55	50	50
1900²	-	-	-	-	-	-	80	75	65	60	55	55	50
2000²	-	-	-	-	-	-	-	75	70	65	60	55	50
2100³	-	-	-	-	-	-	-	-	-	-	80	75	70
2200³	-	-	-	-	-	-	-	-	-	-	-	80	75
2300³	-	-	-	-	-	-	-	-	-	-	-	80	75
2400³	-	-	-	-	-	-	-	-	-	-	-	-	80
2500³	-	-	-	-	-	-	-	-	-	-	-	-	80

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIEECS/77/350** **Titanium ECTFE coated**

Diameter / length [mm]:	77 / 350
Design temperature [°C]:	-10 ... 150
Design pressure [bar]:	-1 ... 1
Weight [g]:	329
Flange min.:	DN 80

Float UZTIEECS/77/350													
Specific gravity of the liquid [kg/m³]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	-	80	65	55	45	40	35	35	30	30	25	25	25
500¹	-	80	65	55	50	40	40	35	30	30	25	25	25
600¹	-	85	65	55	50	45	40	35	35	30	30	25	25
700¹	-	85	70	60	50	45	40	35	35	30	30	25	25
800¹	-	85	70	60	50	45	40	35	35	30	30	25	25
900¹	-	-	70	60	50	45	40	40	35	30	30	30	25
1000¹	-	-	75	60	55	45	40	40	35	35	30	30	25
1100²	-	-	85	75	65	55	50	45	40	40	35	35	30
1200²	-	-	-	75	65	55	50	45	45	40	35	35	30
1300²	-	-	-	80	65	60	55	50	45	40	40	35	35
1400²	-	-	-	80	70	60	55	50	45	40	40	35	35
1500²	-	-	-	80	70	65	55	50	45	45	40	35	35
1600²	-	-	-	85	75	65	60	50	50	45	40	40	35
1700²	-	-	-	-	75	65	60	55	50	45	40	40	35
1800²	-	-	-	-	75	70	60	55	50	45	45	40	40
1900²	-	-	-	-	80	70	60	55	50	50	45	40	40
2000²	-	-	-	-	80	70	65	60	55	50	45	40	40
2100³	-	-	-	-	-	-	85	80	70	65	60	55	55
2200³	-	-	-	-	-	-	-	80	75	70	65	60	55
2300³	-	-	-	-	-	-	-	85	75	70	65	60	55
2400³	-	-	-	-	-	-	-	85	80	70	65	60	60
2500³	-	-	-	-	-	-	-	-	80	75	70	65	60
2600³	-	-	-	-	-	-	-	-	80	75	70	65	60
2700³	-	-	-	-	-	-	-	-	85	80	70	65	65
2800³	-	-	-	-	-	-	-	-	85	80	75	70	65
2900³	-	-	-	-	-	-	-	-	-	80	75	70	65
3000³	-	-	-	-	-	-	-	-	-	85	75	70	70
3100³	-	-	-	-	-	-	-	-	-	85	80	75	70
3200³	-	-	-	-	-	-	-	-	-	-	80	75	70
3300³	-	-	-	-	-	-	-	-	-	-	85	75	70
3400³	-	-	-	-	-	-	-	-	-	-	85	80	75
3500³	-	-	-	-	-	-	-	-	-	-	85	80	75
3600³	-	-	-	-	-	-	-	-	-	-	-	80	75
3700³	-	-	-	-	-	-	-	-	-	-	-	85	80
3800³	-	-	-	-	-	-	-	-	-	-	-	85	80
3900³	-	-	-	-	-	-	-	-	-	-	-	-	80
4000³	-	-	-	-	-	-	-	-	-	-	-	-	85
4100³	-	-	-	-	-	-	-	-	-	-	-	-	85
4200³	-	-	-	-	-	-	-	-	-	-	-	-	85

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIPFAS/77/250** **Titanium PFA coated**

Diameter / length [mm]:	77 / 250
Design temperature [°C]:	-10 ... 250
Design pressure [bar]:	-1 ... 1
Weight [g]:	251
Flange min.:	DN 80

Float UZTIPFAS/77/250													
Specific gravity of the liquid [kg/m³]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	-	-	80	65	60	50	45	40	40	35	35	30	30
500¹	-	-	80	70	60	50	45	45	40	35	35	30	30
600¹	-	-	-	70	60	55	50	45	40	35	35	35	30
700¹	-	-	-	70	60	55	50	45	40	40	35	35	30
800¹	-	-	-	75	65	55	50	45	40	40	35	35	30
900¹	-	-	-	75	65	55	50	45	45	40	35	35	35
1000¹	-	-	-	75	65	60	55	50	45	40	40	35	35
1100²	-	-	-	-	80	70	65	60	55	50	45	45	40
1200²	-	-	-	-	-	75	65	60	55	50	50	45	40
1300²	-	-	-	-	-	75	70	60	55	55	50	45	45
1400²	-	-	-	-	-	80	70	65	60	55	50	45	45
1500²	-	-	-	-	-	80	75	65	60	55	50	50	45
1600²	-	-	-	-	-	-	75	70	60	60	55	50	45
1700²	-	-	-	-	-	-	75	70	65	60	55	50	50
1800²	-	-	-	-	-	-	80	70	65	60	55	55	50
1900²	-	-	-	-	-	-	80	75	70	65	60	55	50
2000²	-	-	-	-	-	-	-	75	70	65	60	55	50
2100³	-	-	-	-	-	-	-	-	-	-	-	75	70
2200³	-	-	-	-	-	-	-	-	-	-	-	80	75
2300³	-	-	-	-	-	-	-	-	-	-	-	80	75
2400³	-	-	-	-	-	-	-	-	-	-	-	-	80
2500³	-	-	-	-	-	-	-	-	-	-	-	-	80

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Cylindrical float **UZTIPFAS/77/350** **Titanium PFA coated**

Diameter / length [mm]:	77 / 350
Design temperature [°C]:	-10 ... 250
Design pressure [bar]:	-1 ... 1
Weight [g]:	348
Flange min.:	DN 80

Float UZTIPFAS/77/350													
Specific gravity of the liquid [kg/m³]	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
L-Measure [mm]	Immersion depth [%]												
400¹	-	80	65	55	50	45	40	35	30	30	30	25	25
500¹	-	85	70	55	50	45	40	35	35	30	30	25	25
600¹	-	85	70	60	50	45	40	35	35	30	30	25	25
700¹	-	-	70	60	50	45	40	35	35	30	30	30	25
800¹	-	-	75	60	55	45	40	40	35	30	30	30	25
900¹	-	-	75	60	55	50	45	40	35	35	30	30	25
1000¹	-	-	75	65	55	50	45	40	35	35	30	30	30
1100²	-	-	-	75	65	55	50	45	40	40	35	35	30
1200²	-	-	-	75	65	60	55	50	45	40	40	35	35
1300²	-	-	-	80	70	60	55	50	45	40	40	35	35
1400²	-	-	-	80	70	60	55	50	45	45	40	35	35
1500²	-	-	-	85	75	65	55	50	50	45	40	40	35
1600²	-	-	-	85	75	65	60	55	50	45	40	40	35
1700²	-	-	-	-	75	70	60	55	50	45	45	40	40
1800²	-	-	-	-	80	70	60	55	50	45	45	40	40
1900²	-	-	-	-	80	70	65	60	55	50	45	40	40
2000²	-	-	-	-	85	75	65	60	55	50	45	45	40
2100³	-	-	-	-	-	-	-	80	70	65	60	60	55
2200³	-	-	-	-	-	-	-	80	75	70	65	60	55
2300³	-	-	-	-	-	-	-	85	75	70	65	60	55
2400³	-	-	-	-	-	-	-	85	80	75	65	65	60
2500³	-	-	-	-	-	-	-	-	80	75	70	65	60
2600³	-	-	-	-	-	-	-	-	85	75	70	65	60
2700³	-	-	-	-	-	-	-	-	85	80	75	70	65
2800³	-	-	-	-	-	-	-	-	-	80	75	70	65
2900³	-	-	-	-	-	-	-	-	-	85	75	70	65
3000³	-	-	-	-	-	-	-	-	-	85	80	75	70
3100³	-	-	-	-	-	-	-	-	-	85	80	75	70
3200³	-	-	-	-	-	-	-	-	-	-	80	75	70
3300³	-	-	-	-	-	-	-	-	-	-	85	80	75
3400³	-	-	-	-	-	-	-	-	-	-	85	80	75
3500³	-	-	-	-	-	-	-	-	-	-	-	80	75
3600³	-	-	-	-	-	-	-	-	-	-	-	85	80
3700³	-	-	-	-	-	-	-	-	-	-	-	85	80
3800³	-	-	-	-	-	-	-	-	-	-	-	85	80
3900³	-	-	-	-	-	-	-	-	-	-	-	-	85
4000³	-	-	-	-	-	-	-	-	-	-	-	-	85
4100³	-	-	-	-	-	-	-	-	-	-	-	-	85

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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

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Type	MRA / MRB / MRAN / MRBN MRK / MRKN
Housing:	Aluminium anodized
Ingress protection class:	IP 67

MRA / MRB / MRAN / MRBN

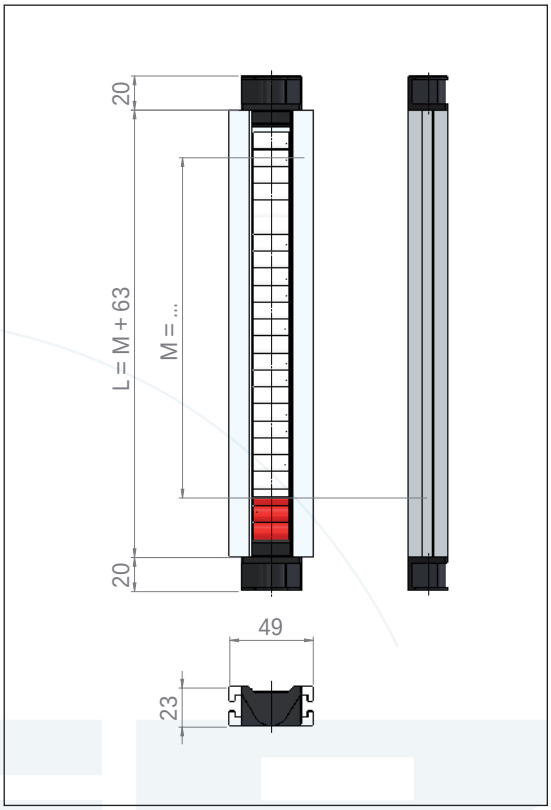
Indication		
- Material quality:		Pocan
- Colour:		White / Red
End part:		Ryton, black
Sight cover	- MRA / MRAN:	Macrolon
	- MRB / MRBN:	Glass
Ambient temperature:		-40°C ... 200°C
MRAN / MRBN (over-roll-protected):		Roller rotation max. 180°

MRK / MRKN

Indication	
- Material quality:	Ceramic
- Colour:	White / Blue
End part:	Aluminium
Sight cover:	Glass
Ambient temperature:	-20°C ... 400°C
MRKN (over-roll-protected):	Roller rotation max. 180°

Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



Type	MNAV / MNBVN / MNAVN / MNBVN MNKV / MNKVN
Housing:	Aluminium with Stainless steel covered
Ingress protection class:	IP 67

MNAV / MNBV / MNAVN / MNBVN

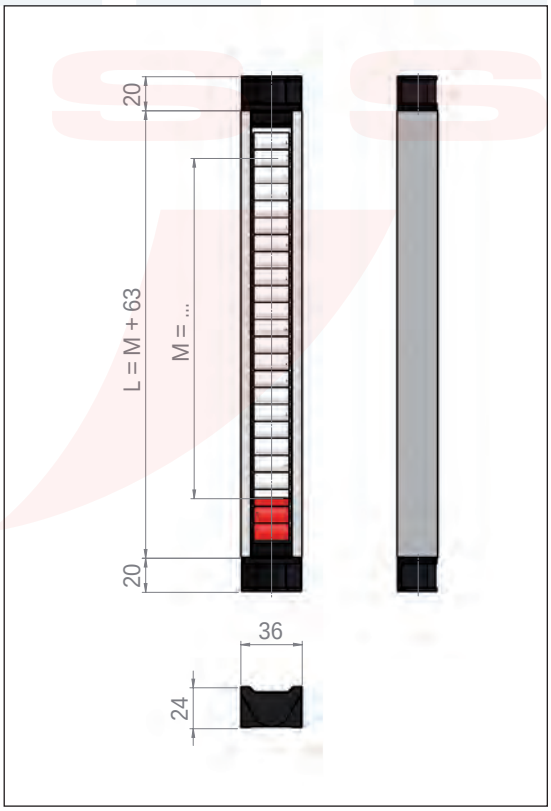
Indication		
- Material quality:		Pocan
- Colour:		White / Red
End part:		Ryton, black
Sight cover	- MNAV / MNAVN:	Macrolon
	- MNBV / MNBVN:	Glass
Ambient temperature:		-40°C ... 200°C
MNAVN / MNBVN (over-roll-protected):		Roller rotation max. 180°

MNKV / MNKVN

Indication	
- Material quality:	Ceramic
- Colour:	White / Blue
End part:	Aluminium
Sight cover:	Glass
Ambient temperature:	-20°C ... 400°C
MNKVN (over-roll-protected):	Roller rotation max. 180°

Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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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

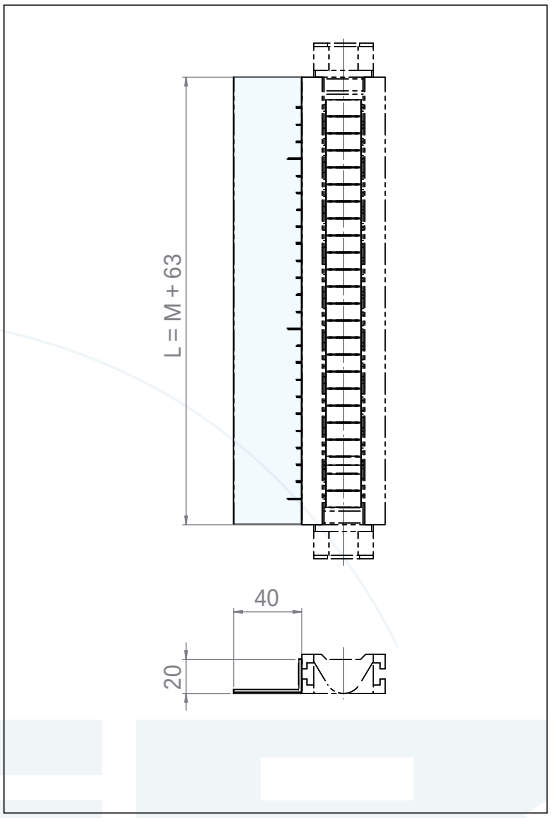
Scale:	Engraved
Angle profile:	Aluminium
Scaling:	Blank / % / cm / inch. / ..
Width:	40 mm
Ambient temperature:	-40°C ... 200°C

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

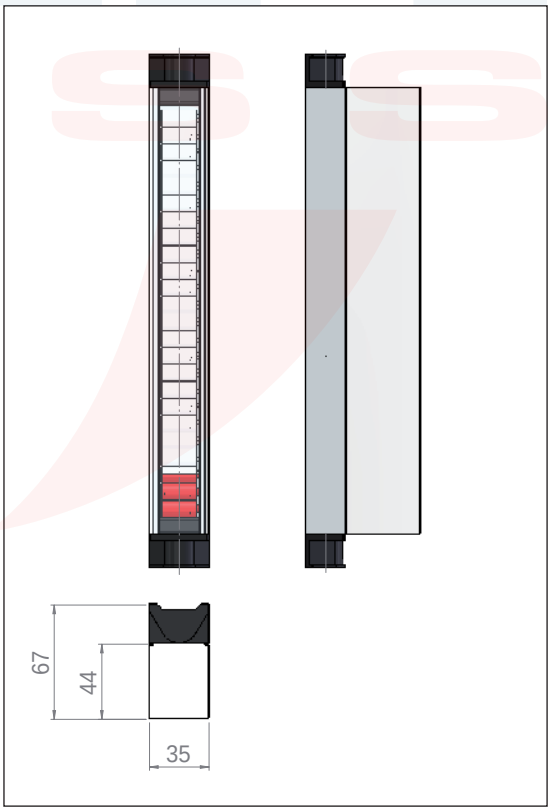


Type	Magnetic roller indicator sight extension PV

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



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Type key page 332 - 336

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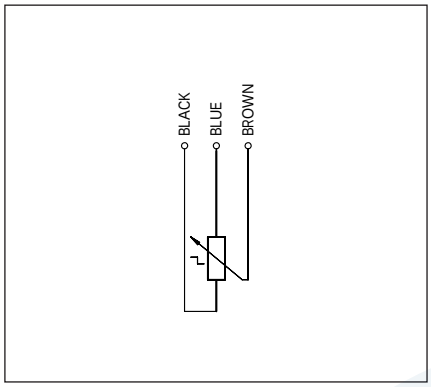
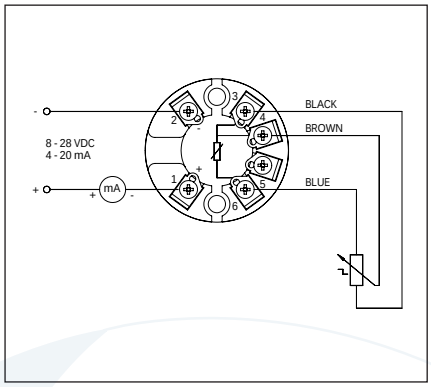
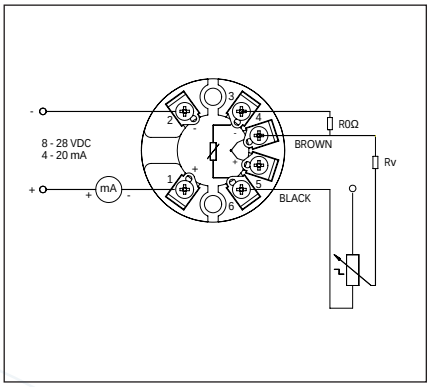
Connection diagram



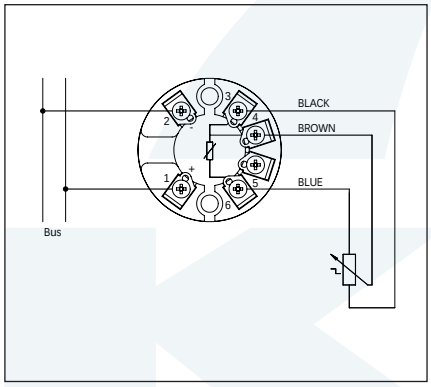
without Control unit



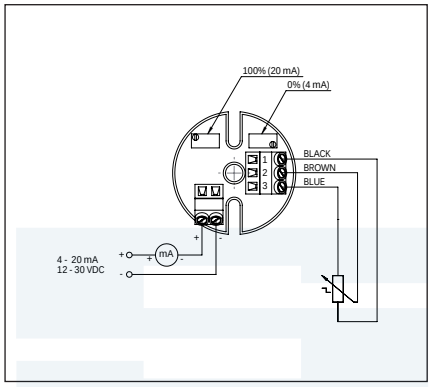
Control unit TP5343..



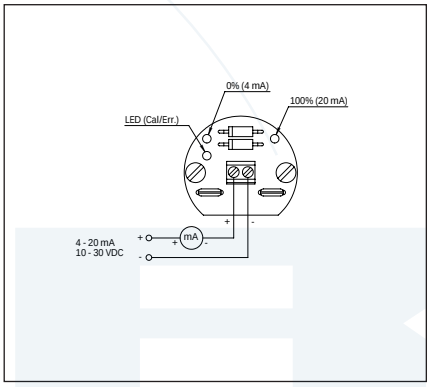
Control unit TD5335..



Control unit TP5350..



Control unit XT42SI Ex



Control unit magnetostrictive

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 ia c IIC T6 - T3 bzw. Ex d ia c IIC T6 - T4	II 2G	Ex d c IIC T6 - T4
II 1/2G	Ex d ia c IIC T6 - T4	II 2D	Ex tD A21 c IP6* T80°C - T190°C bzw. T125		

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

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

ATEX-Approval for accuracy K1..*

II 1/2G	Ex ia c IIC T6 - T2	II 1G	Ex ia IIC T4 - T2
II 1/2G	Ex ia IIC T6 - T2	II 2G	Ex d IIC T4

Type of protection intrinsic safety Ex ia IIC	U_i ≤ 30 V	I_i ≤ 200 mA	P_i ≤ 1000 mW
Temperature class	T6	T5	T4 - T2
Ambient temperature(T_a)	-20°C ... 40°C	-20°C ... 55°C	-20°C ... 85°C
Liquid temperature(T_F)	-20°C ... 60°C	-20°C ... 60°C	-20°C ... 60°C

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Type key page 332 - 336

* = The approval is dependent on the equipment combination

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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:	T-shaped sliding block or tension strap
Minimum measures:	T: 27 mm / L1: 40 mm / Ub: 50 mm

Accuracy

Accuracy:	5 / 10 / 15 mm

Ambient temperature

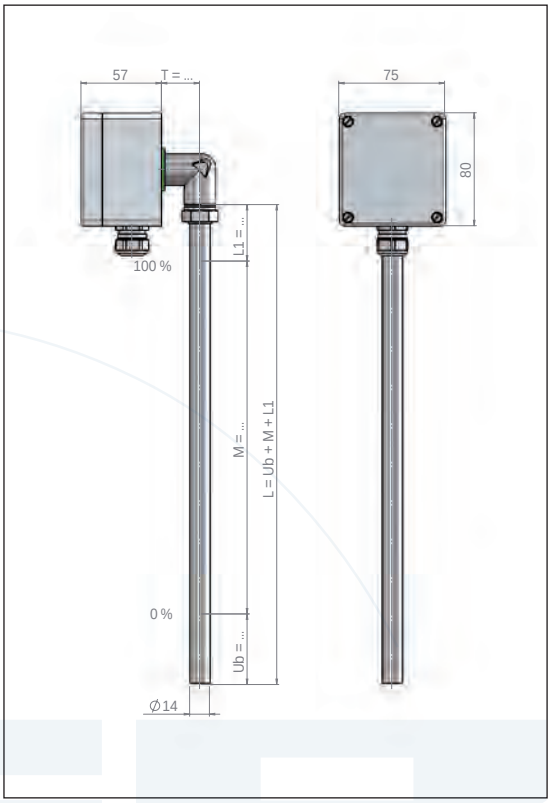
- K5 / K10 / K15:	-30 ... 130°C
- K5HTF / K10HTF / K15HTF:	-30 ... 200°C
- K5HT / K10HT / K15HT:	-40 ... 250°C

Option control unit / Page 366

Control unit:	- Programmable - Hart-programmable / SIL2 - Profibus PA - Fondation 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:	T-shaped sliding block or tension strap
Minimum measures:	T: 50 mm / L1: 40 mm / Ub: 50 mm

Accuracy

Accuracy:	5 / 10 / 15 mm

Ambient temperature

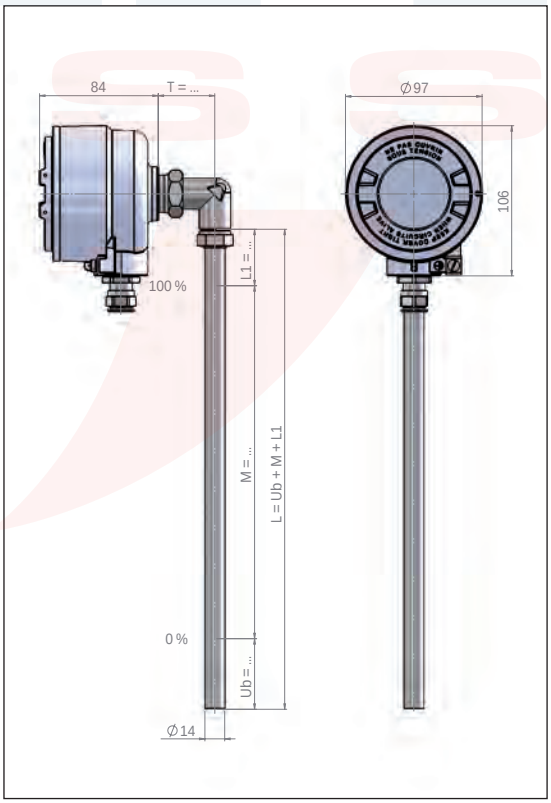
- K5 / K10 / K15:	-30°C ... 120°C
- K5HTF / K10HTF / K15HTF:	-30°C ... 120°C
- K5HT / K10HT / K15HT:	-40°C ... 120°C

Option control unit / Page 366

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

Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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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

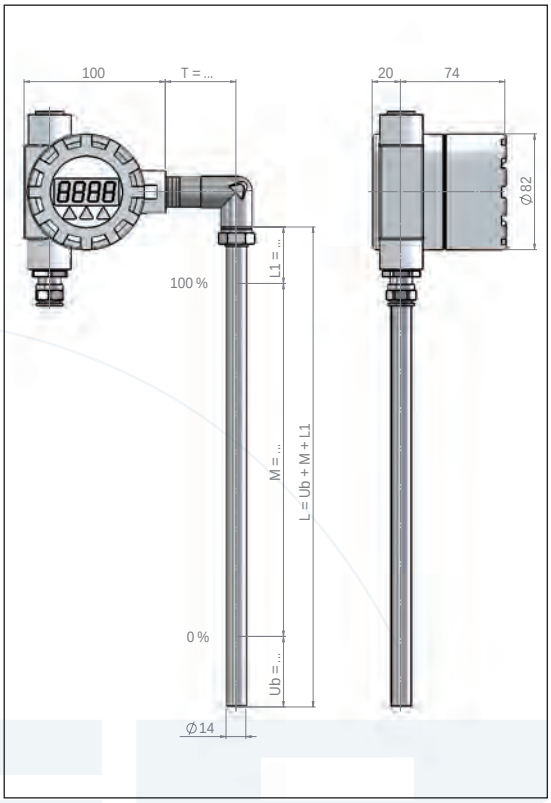
Accuracy:	5 / 10 / 15 mm
Ambient temperature	
- K5 / K10 / K15:	-30°C ... 130°C
- K5HTF / K10HTF / K15HTF:	-30°C ... 200°C
- K5HT / K10HT / K15HT:	-40°C ... 250°C

Option control unit / Page 366

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

Approvals / Certificates

ATEX / GOST



Type **DAAVDA/../V/../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

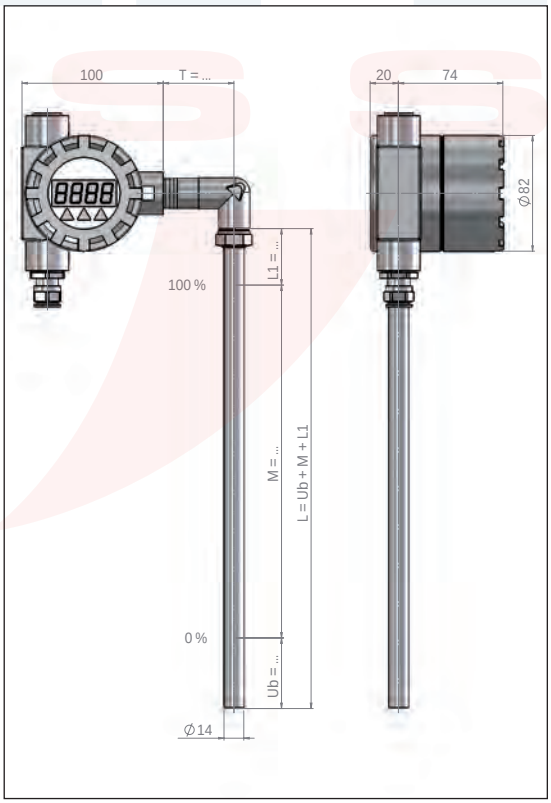
Accuracy:	5 / 10 / 15 mm
Ambient temperature	
- K5 / K10 / K15:	-30°C ... 130°C (Exd 120°C)
- K5HTF / K10HTF / K15HTF:	-30°C ... 180°C (Exd 120°C)
- K5HT / K10HT / K15HT:	-40°C ... 180°C (Exd 120°C)

Option control unit / Page 366

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

Approvals / Certificates

ATEX / GOST



The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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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:	T-shaped sliding block or tension strap
Minimum measures:	T: 50 mm / L1: 40 mm / Ub: 50 mm

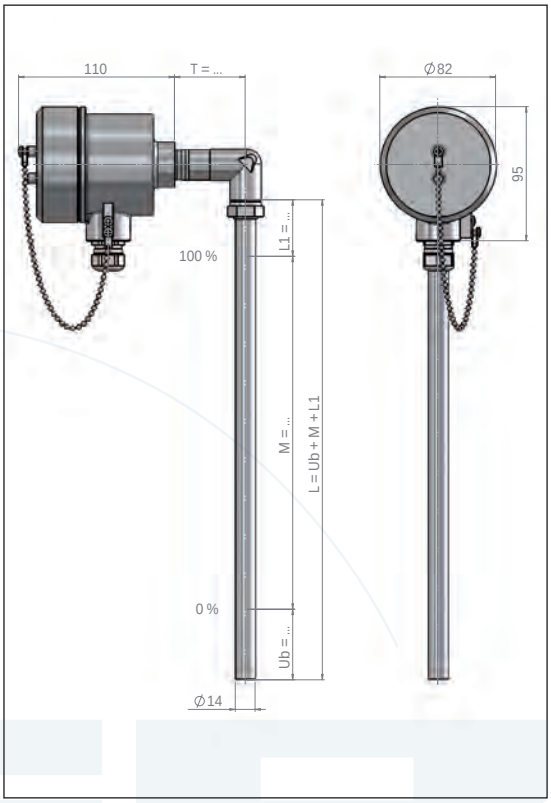
Accuracy	
Accuracy:	5 / 10 / 15 mm
Ambient temperature	
- K5 / K10 / K15:	-30 ... 130°C
- K5HTF / K10HTF / K15HTF:	-30 ... 200°C
- K5HT / K10HT / K15HT:	-40 ... 250°C

Option control unit / Page 366

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

Approvals / Certificates

ATEX / GOST / GL / BV / DNV / ABS



Type **AVM/../V/../..-M..**

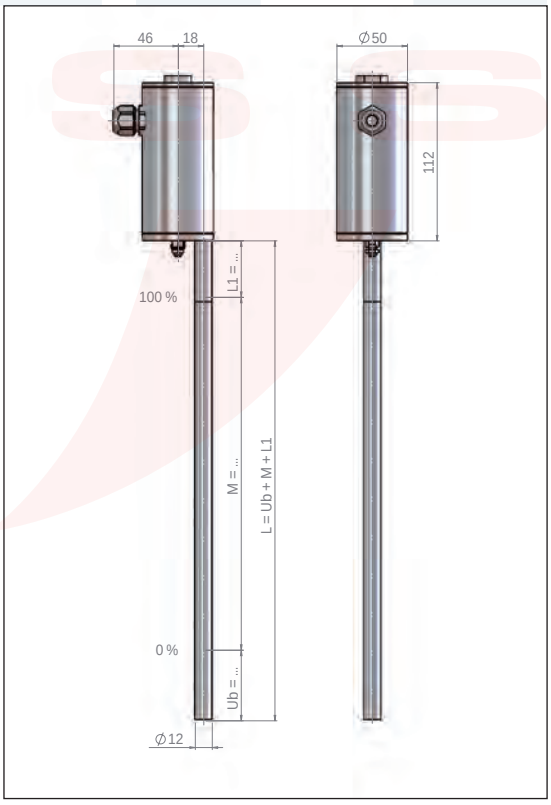
Electrical connection:	Stainless steel A4 (SS316)
Cable entry:	M16 x 1.5
Ingress protection class:	IP 68
Ambient temperature:	-40°C ... 85°C
Level transmitter tube material quality:	Stainless steel
Mounting:	T-shaped sliding block or tension strap
Minimum measures:	L1: 40 mm / Ub: 50 mm

Accuracy	
Accuracy:	0.2 mm
Ambient temperature	
- K1:	-40 ... 125°C
- K1HT:	-40 ... 250°C

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

Approvals / Certificates

ATEX / GOST / IECEX / SIL2



The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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Type **AVDM/../V/../EXIADG-M..**

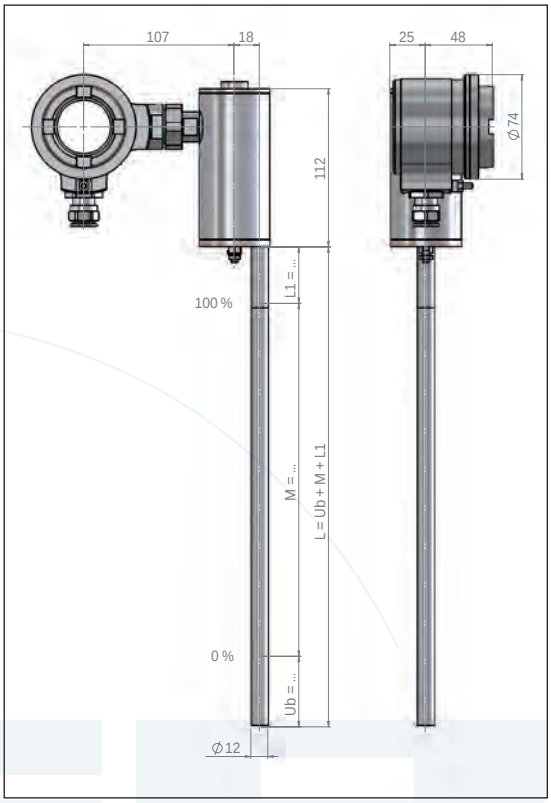
Electrical connection:	Stainless steel A4 (SS316)
Cable entry:	M20 x 1.5
Ingress protection class:	IP 68
Ambient temperature:	-40°C ... 85°C
Level transmitter tube material quality:	Stainless steel
Mounting:	T-shaped sliding block or tension strap
Minimum measures:	L1: 40 mm / Ub: 50 mm

Accuracy	
Accuracy:	0.2 mm
Ambient temperature	
- K1:	ATEX temperature page 366

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..**

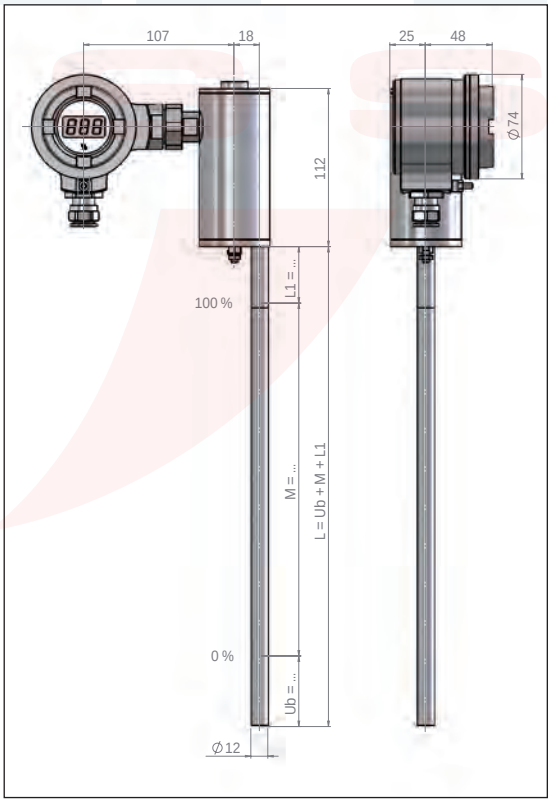
Electrical connection:	Stainless steel A4 (SS316)
Cable entry:	M20 x 1.5
Ingress protection class:	IP 68
Ambient temperature:	-40°C ... 85°C
Level transmitter tube material quality:	Stainless steel
Mounting:	T-shaped sliding block or tension strap
Minimum measures:	L1: 40 mm / Ub: 50 mm

Accuracy	
Accuracy:	0.2 mm
Ambient temperature	
- K1:	ATEX temperature page 366

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 are based on a modular design and can be arranged individually.
Type key page 332 - 336

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Notes

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Type key page 332 - 336

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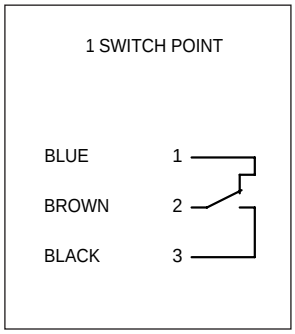
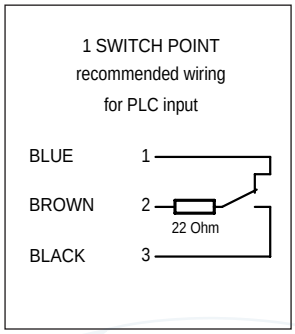
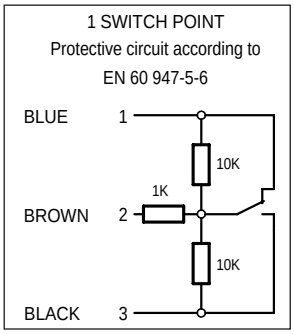
Connection diagram



Change over



Change over
with resistor



Change over
with NAMUR EN 60947

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

The top mounted level indicator are based on a modular design and can be arranged individually.
Type key page 332 - 336

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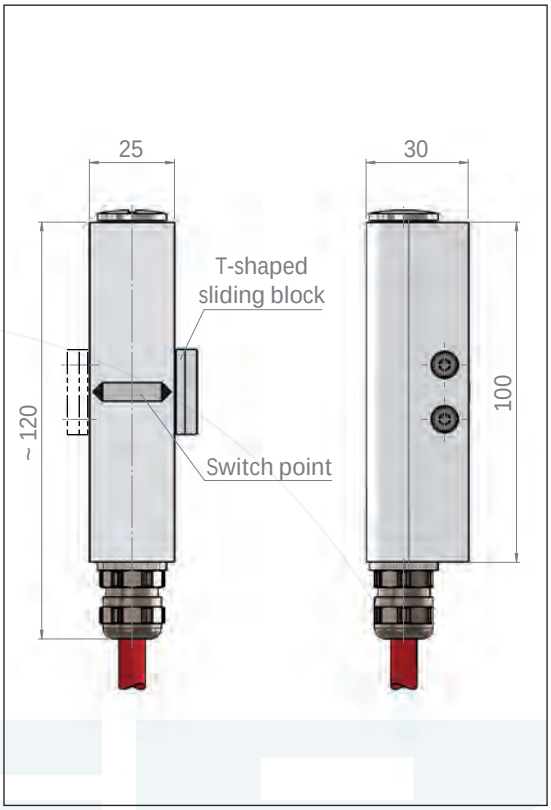
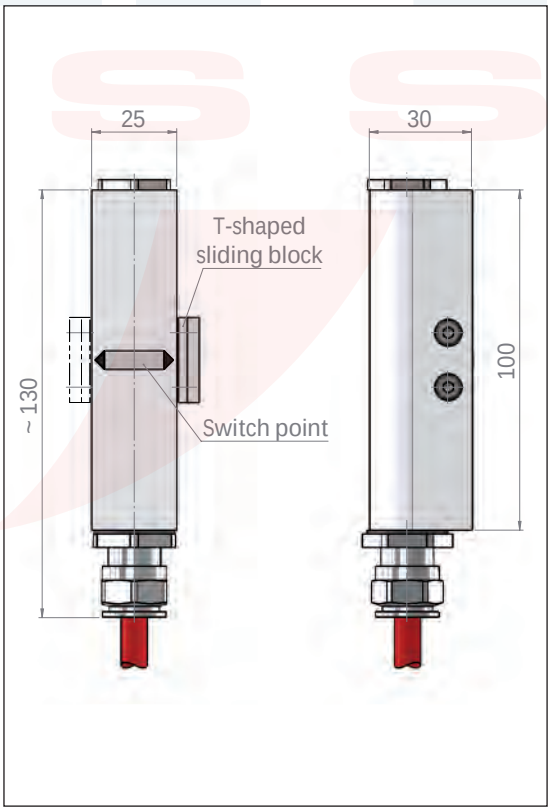
Type	**BGU/../../../..** **BGU/../../../../EXIAG**
Housing:	Aluminium anodized
Ingress protection class:	IP 65
Mounting:	Right or left at the magnetic roller indicator
Ambient temperature / ATEX Exia:	
- with PVC connection cable:	-20°C ... 80°C / -20°C ... 80°C
- with Silikon connection cable:	-60°C ... 180°C / -25°C ... 180°C
- with PUR connection cable:	-40°C ... 80°C / -25°C ... 80°C
- with Radox connection cable:	-35°C ... 120°C / -25°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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947
Approvals / Certificates	
ATEX / GOST / GL / BV / DNV / ABS / SIL1	



Type	**BGUD/../../../../EXDG**
Housing:	Aluminium anodized
Ingress protection class:	IP 65
Mounting:	Right or left at the magnetic roller indicator
Ambient temperature:	
- with PVC connection cable:	-20°C ... 80°C
- with Silikon connection cable:	-25°C ... 120°C
- with PUR connection cable:	-25°C ... 80°C
- with Radox connection cable:	-25°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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947
Approvals / Certificates	
ATEX / GOST / GL / BV / DNV / ABS / SIL1	



The top mounted level indicator are based on a modular design and can be arranged individually.
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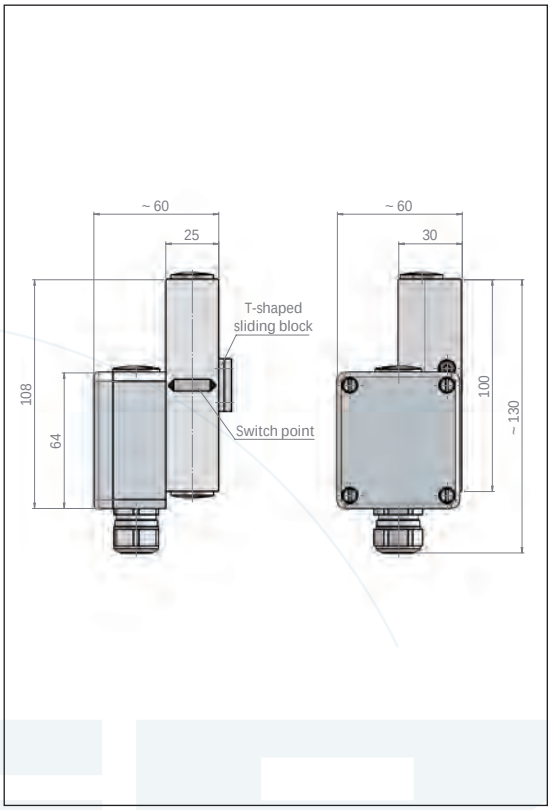
Type	BGUALE/.. BGUALE/../EXIAG
Housing:	Aluminium anodized
Cable entry:	M20 x 1.5
Ingress protection class:	IP 65 (optional IP 66)
Mounting:	Right or left at the magnetic roller indicator
Ambient temperature / ATEX Exia:	-40°C ... 130°C / -25°C ... 130°C

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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

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



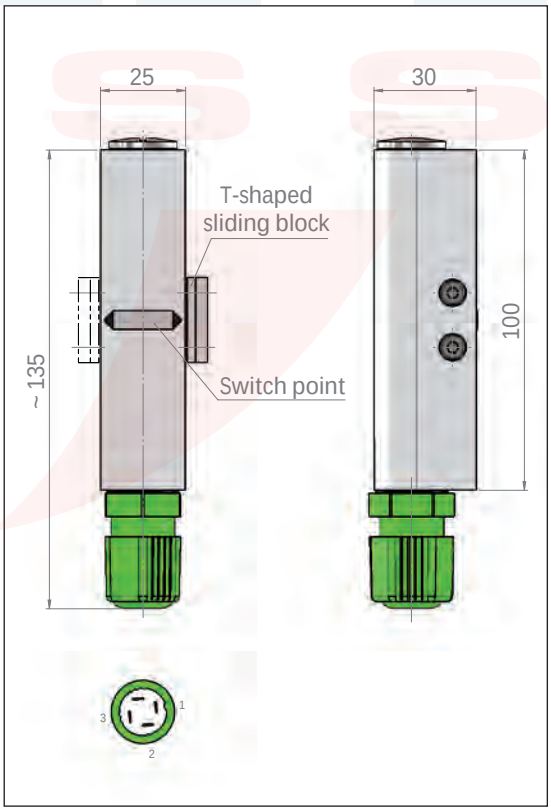
Type	BGUASQ/.. BGUASQ/../EXIAG
Housing:	Aluminium anodized
Ingress protection class:	IP 65
Mounting:	Right or left at the magnetic roller indicator
Ambient temperature:	-25°C ... 85°C

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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

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



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Type	**BGUASMA/../../../..** **BGUASMA/../../../../EXIAG**

Housing:	Aluminium anodized
Connector:	M12
Ingress protection class:	IP 65
Mounting:	Right or left at the magnetic roller indicator
Ambient temperature:	-25°C ... 90°C

Switch function

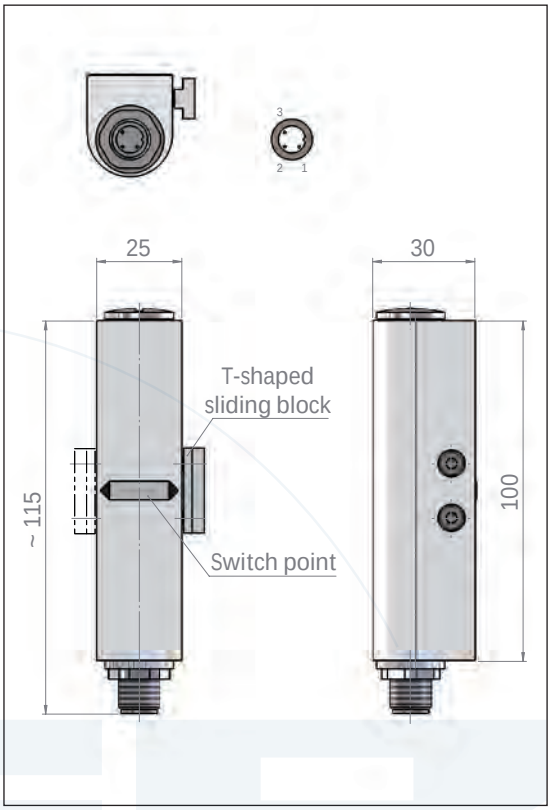
Function:	Change over
Switch behaviour:	Bistable
Switching capacity:	230 V / 0.5 A / 40 VA
Switching capacity / ATEX Exia:	Exia 100 mA / Exia NAMUR 60 mA
Switching hysteresis:	5 mm ... 7 mm

Options

- Switch option .. /R22:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

ATEX / GOST / SIL1



Type	**RU60/../../../..** **RU60/../../../../EXIAG**

Housing:	Aluminium anodized
Ingress protection class:	IP 65
Mounting:	Free positionable on the chamber
Ambient temperature / ATEX Exia:	
- with PVC connection cable:	-20°C ... 80°C
- with Silikon connection cable:	-40°C ... 180°C
- with PUR connection cable:	-40°C ... 80°C
- with Radox connection cable:	-35°C ... 120°C

Switch function

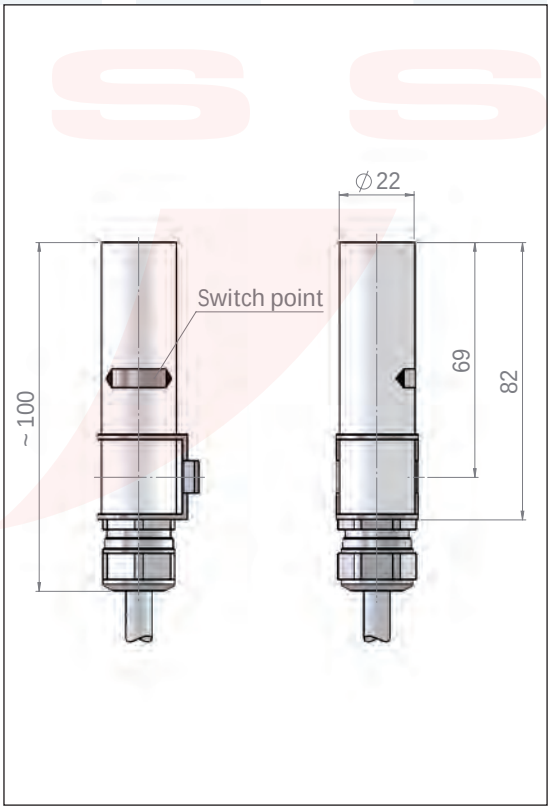
Function:	Change over
Switch behaviour:	Bistable
Switching capacity:	230 V / 0.5 A / 40 VA
Switching capacity / ATEX Exia:	Exia 100 mA / Exia NAMUR 60 mA
Switching hysteresis:	5 mm ... 7 mm

Options

- Switch option .. /R22:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

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



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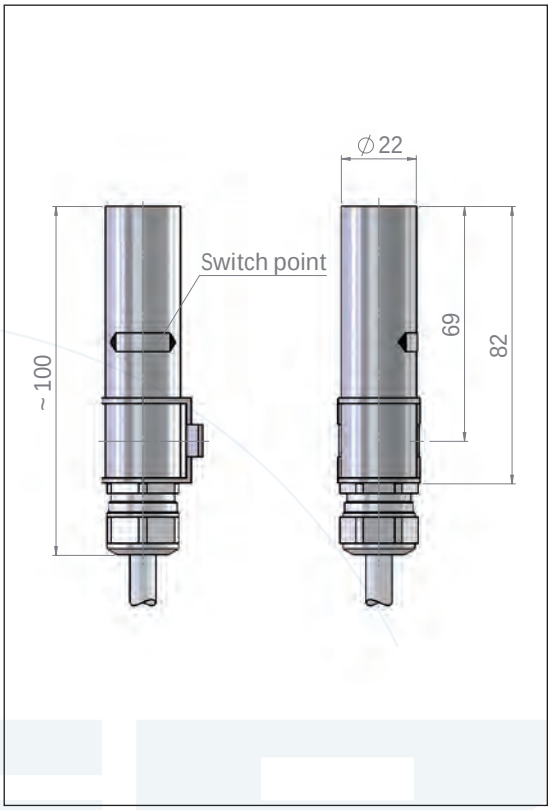
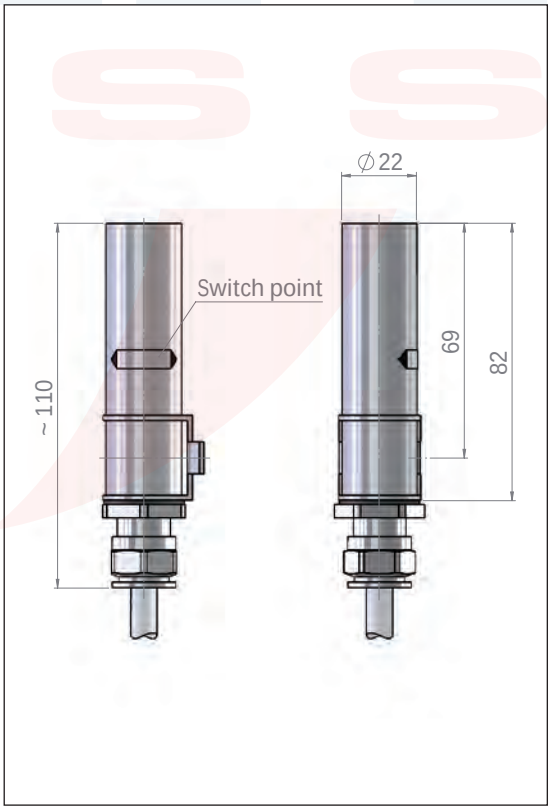
Type	**RUV60/../../../..** **RUV60/../../../../EXIAG**
Housing:	Stainless steel
Ingress protection class:	IP 68
Mounting:	Free positionable on the chamber
Ambient temperature / ATEX Exia:	
- with PVC connection cable:	-20°C ... 80°C
- with Silikon connection cable:	-40°C ... 180°C
- with PUR connection 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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947
Approvals / Certificates	
ATEX / GOST / GL / BV / DNV / ABS / SIL1	



Type	**RUVD60/../../../../EXDG**
Housing:	Stainless steel
Ingress protection class:	IP 68
Mounting:	Free positionable on the chamber
Ambient temperature / ATEX Exia:	
- 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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947
Approvals / Certificates	
ATEX / GOST / GL / BV / DNV / ABS / SIL1	



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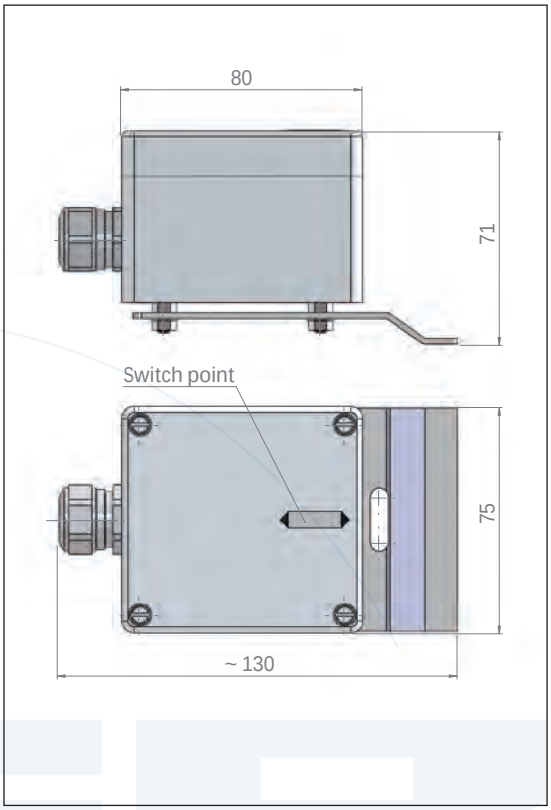
Type	ALFU/.. ALFU/../EXIAG
Housing:	Aluminium anodized
Cable entry:	M20 x 1.5
Ingress protection class:	IP 65 (optional IP 66)
Mounting:	Free positionable on the chamber
Ambient temperature:	-40°C ... 300°C
- with 22 Ohm Resistor:	-40°C ... 220°C
- with NAMUR EN 60947:	-40°C ... 220°C

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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

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



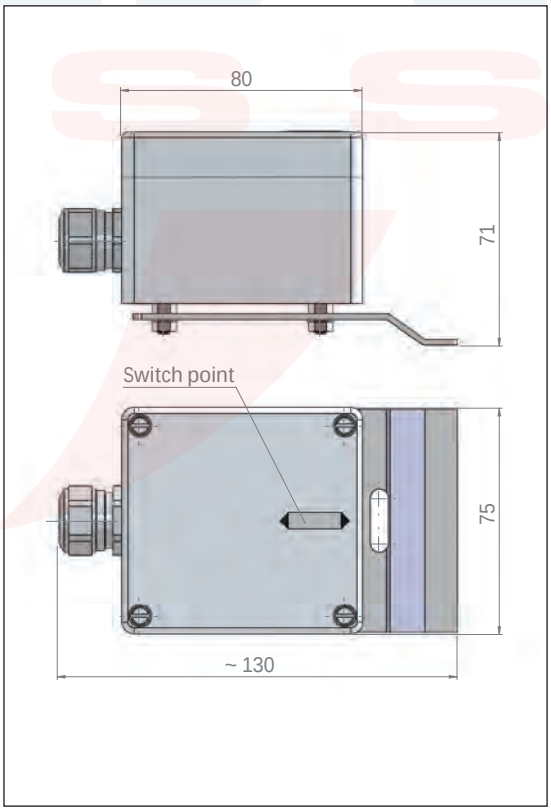
Type	ALFI ALFI/EXIAG
Housing:	Aluminium coated RAL 9006
Cable entry:	M20 x 1.5
Ingress protection class:	IP 65
Mounting:	Free positionable on the chamber
Ambient temperature / ATEX Exia:	-40°C ... 100°C / -40°C ... 73°C
Power supply:	5.0 ... 25 VDC
Nominal voltage:	8.0 VDC (R_i ~ 1 Ohm)
Self inductance:	100 mH
Self capacitance:	30 nF

Switch function	
Function:	NAMUR normally closed (Proximity switch)
Switch behaviour:	Bistable

Intrinsic safety data:	U_i = 16 VDC I_i = 25 mA P_i = 34 mW

Approvals / Certificates

ATEX / GOST / SIL1



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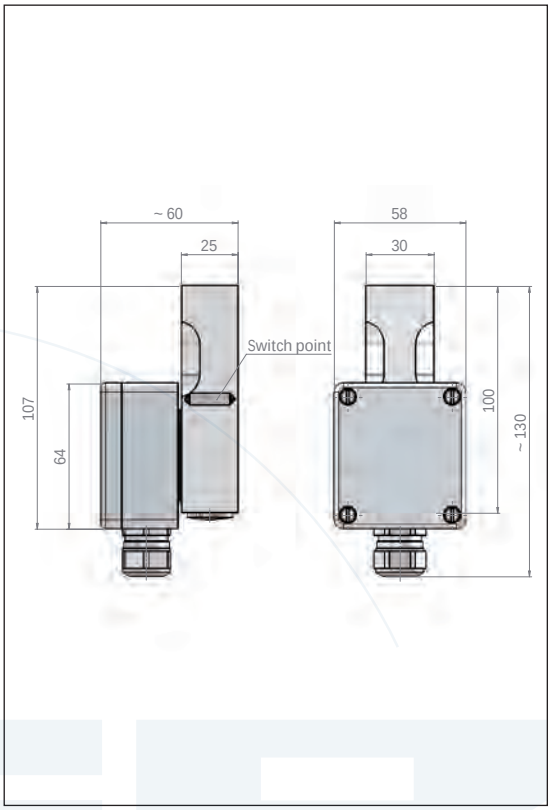
Type	ALEU/.. ALEU/../EXIAG
Housing:	Aluminium anodized
Cable entry:	M20 x 1.5
Ingress protection class:	IP 65
Mounting:	Free positionable on the chamber
Ambient temperature:	-40°C ... 130°C

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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

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



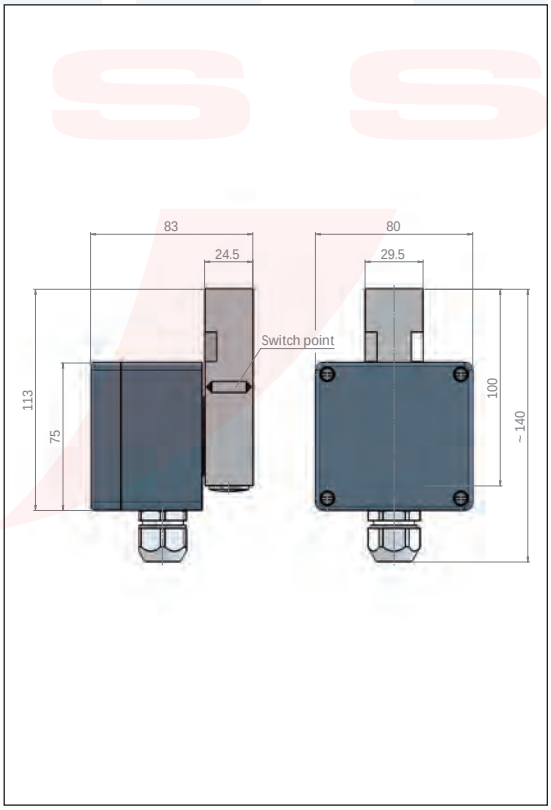
Type	APAVU/.. APBVU/../EXIAG
Housing:	Polyester / Stainless steel
Cable entry:	M20 x 1.5
Ingress protection class:	IP 65
Mounting:	Free positionable on the chamber
Ambient temperature:	-10°C ... 100°C

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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

ATEX / GOST / SIL1



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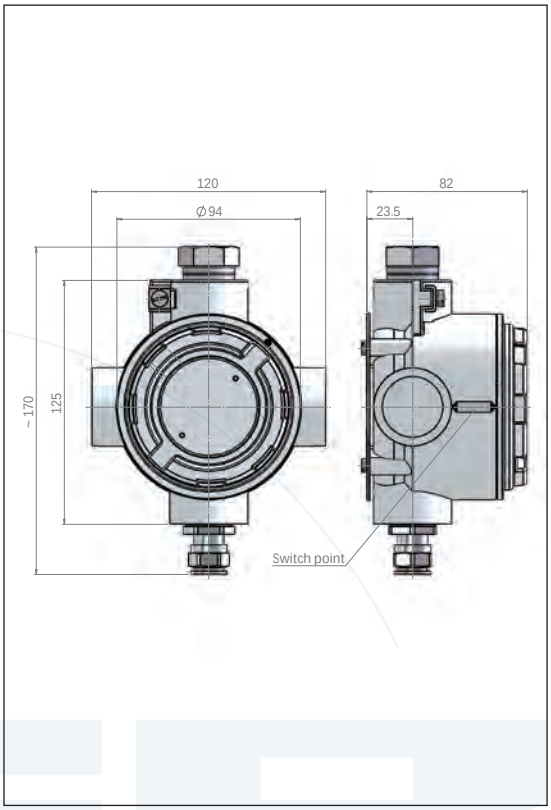
Type	**ALDAU/../../../../EXDG**
Housing:	Aluminium coated RAL 9006
Cable entry:	M20 x 1.5
Ingress protection class:	IP 65
Mounting:	Free positionable on the chamber
Ambient temperature:	-40°C ... 100°C

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:	Resistor 22 Ohm / 0.21 W
- Switch option .. /N:	NAMUR EN 60947

Approvals / Certificates

ATEX / GOST / SIL1



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Type	**AIT** **AHT**

Armaflex isolation AIT

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

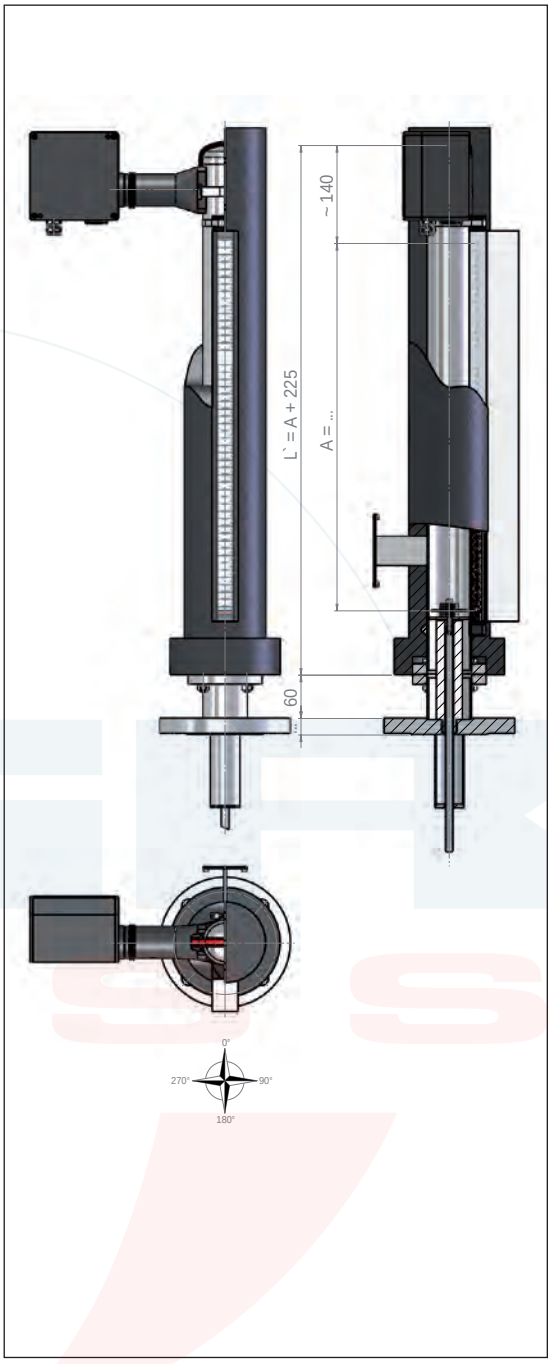
Type	**H..A** **H..B**

Self-regulating antifreeze heat tracing

Type:	H75A H75B acc. to EExe / T4
Terminal box:	GFK black with cable entry M25
Protective shell:	Fluorpolymer
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 / DNV

Self-regulating antifreeze heat tracing

Type:	H150A H150B acc. to EExe / T2
Terminal box:	GFK black with cable entry M25
Protective shell:	Fluorpolymer
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
Minimale Ambient temperature:	-40°C ... 150°C
Approvals / Certificates:	ATEX / DNV



Approvals / Certificates

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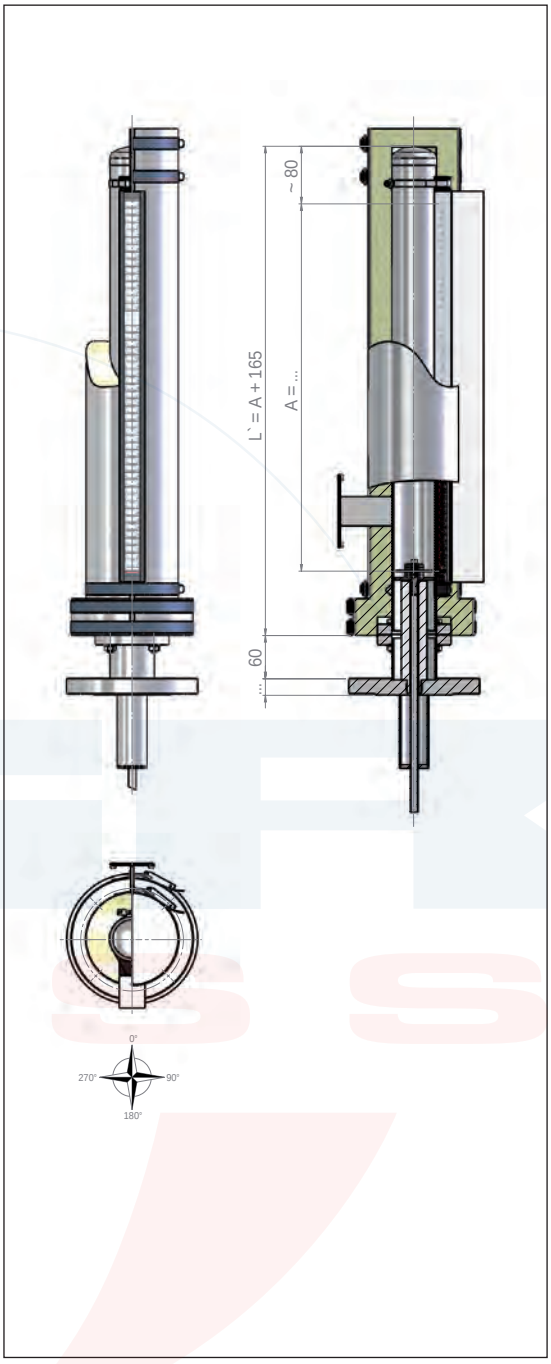
Type	SW
Rock-wool isolation SW	
Material quality:	Rock-woll with crome-nickel cover (Removable)
Nominal thickness:	~50 mm
Ambient temperature:	-50°C ... 750°C
UV-resistance:	Yes



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