### **Level Switches**

The multi Level Switch Series UNS2000 can be supplied with up to 6 switchpoints (see max. switchpoints) and with a length of max 3000 mm.

Besides the float operated reed contacts to detect liquid levels, the UNS 2000 can be supplied also with a temperature sensor and/ or temperature contact(s), which are to handle as switchpoint(s) - please note max. switchpoints! A wide selection of mounting elements, electrical connections, various materials and options allow you to "design" your own switch, within the given dimension limits, for your particular application. Very long units or large flanges can cause high shipping and installation costs and "split" versions might be the answer. Consult us for the best combination. The min. dimensions are based upon the medium water.

Depending on the density of other fluids this dimension can vary several millimetres. The contact modes (NO or NC) are defined on the basis of an empty tank and for installation through the top or through the bottom (when specified as "-U"). When not specified otherwise we will set the switch position for density 1 (water) and the switch action to be on moving upward. Temperature sensor (PT100) and/ or the temperature switch, a Bi-metall hermetically sealed element, are installed only in the bottom of the stem. That means:

Dimensions B + 10 mm with temperature sensor PT100) =  $B_{PT}$ Dimensions B + 40 mm temperature switch (TP) =  $B_{TP}$ 

40 bar, depends on mounting

-10 °C...+105 °C, PVC-cable -40 °C...+150 °C, Silicone cab.(-HT)

See specifications below

IP67, IP68 on request IP54 for K-design

See order code

Vertical, ±30°, through top or

IP65 for ST-, KL- and PG-design,

Depends on length and design

element and float

and KL6 / KL12

bottom



#### **Contact Wiring**

Group 1 SPST	parallel o white blue pink grey yellow green brown	circuit Terminal 1 (common) 7 6 5 4 3 2	↓ <u>L4</u> ↓ <u>L3</u> ↓ <u>L2</u> ↓ <u>L2</u>	parallel white black red blue pink grey yellow green brown	circuit Terminal 1 (common) 9 8 7 6 5 5 4 3 2
Group 3 (SPST)	single circo T	uit erminal	Group 4 (SPDT)	single	circuit Terminal
<u>↓ L4</u> <u>↓ L3</u> <u>↓ L2</u>	red 8 blue 7 pink 6 grey 5 yellow 2 green 3 brown 2 white 1	3 7 5 5 4 3 2		black red blue pink grey yellow green brown white	9 8 7 6 5 4 3 2 1

**Technical Data** 

Max. Operating Pressure:

Max. Temperature Range:

Min. Fluid Specific Gravity:

**Mounting Position:** 

Protection Class:

Weight:

**Options:** 

Max. Switchpoints										
	KL6	KL12	ST1	ST2	Pg Cable connect.					
Connect. group 1	5	6	2	5	6					
Connect. group 2	2	4	1	2	4					
Connect. group 3	3	4	1	3	4					
Connect. group 4	2	3	1	2	3					

(not valid for "HT" option)

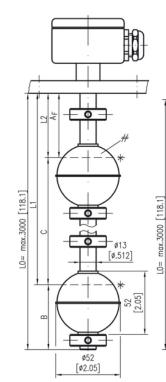
### **UNS2000**

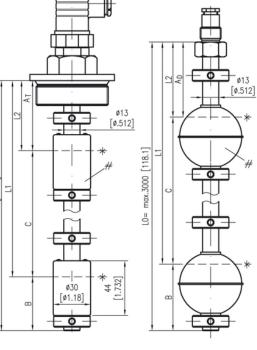
#### **Barksdale**<sup>®</sup>

## **Level Switches**

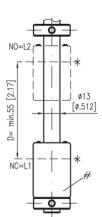
**UNS2000** 

#### **Dimensions** (mm / inch)





Dual switching (1 float for 2switchpoints)



L0 = max. 3000 mm For NPT thread tank fittings all lengths from bottom edge.

* Immersion depth at densityc 1:	
VA52 = 36 ±2 mm	
BN30 = 20 ±2 mm	
VA44 = 36 ±2mm (52 mm high)	
$VA80 = 36 \pm 2 \text{ mm} (80 \text{ mm high})$	

# Float position VA52 = NO/NO ⇔see float marking WE BN30 = NO NC WE

⇔NO-function ⇔compound points at bottom ⇔compound points at top ⇒compound points at bottom

#### **Switch Point Dimensions**

Dimensions		Min.								
Float type	AF	AT	BDR	С	D					
VA52, VA44	32	52	44	55	65	95	75	85	55	
BN30	30	60	52	39	49	79	59	77	55	
VA80	63	83	75	60	70	100	80	115	55	
BPT = first switch point with option PT100 (mounting on bottom)										
BTP = first sv	vitch p	oint v	vith op	tion T	Pxx/2	(mour	nting o	n bot	tom)	

Index: C / 923-1815

**UNS2000** 

# **Level Switches**

#### **Brass Version**

#### **Order Code**

Order	Code	e													
Туре:															
UNS2000															
	Material of Stem and Mounting Element:														
	MS	= Bras	Brass, CW614N / CW508L (former Ms58 / Ms63)												
		Mounti	ting Element (other on request)												
		3/8	- G3/8" n	- G3/8" mounting thread for inside mounting: only with PG											
		T1	- G1" Tank screw (only with BN30 float)												
		T2	- G2" Tar	nk screw (not	with VA8	0 float)									
		T2NPT		IPT-Tank screw (not with VA80 float)											
			ST1												
			ST2	- Angle Plug											
			M12x1			oin, IP65 without matin	g plug								
			KL6			Box, 6 Terminals, IP65									
			KL12 PG		um Terminal Box, 9 Terminals, IP65 Gland with 1 m PVC-cable, -HT with silicon cabel, other length on request, IP65										
			РG K					other length of	n request, 1Pob						
			ĸ	(Others on r		specify length at order,	1603								
				Float	min.Den	sitv	Material		Form	Dia-	max.	ma	a v		
				type	Medium	-	Material			meter	Temp.	Pres	sure		
												(+2	20° C)		
				BN30	0,6 g/cm	3	NBR foamed		Cylinder	30 mm	100 °C (		-, 15		
				Dittoo	0,0 g/011		n Britoulliou		oyinidoi	00 11111	80 °C (w	'	bar		
					Number	of Switchpoints									
					L1	= 1 Switchpoint									
					L2	= 2 Switchpoint									
					L3	= 3 Switchpoint		See also "Co	onnections Groups	" in table					
					L4	= 4 Switchpoint		"Max. Switcl							
					L5	= 5 Switchpoint									
					L6	= 6 Switchpoint									
						Contact Modes	Co	ntact Rating		Order:L1,	L2, L3, L4	1, L5, I	_6		
						1 - SPST (NO)	250 V AC / DO	C, 3 A, 100 VA	/ W						
						2 - SPST (NC)	250 V AC / DO	C, 3 A, 100 VA	/ W	Basic: en	npty tank				
						3 - SPDT (WE)	140 V AC / D0	C, 1 A, 60 VA /	W						
						Total Length: L0 =	mm (max. 3000	mm)							
						Specify with your or	der: L1 =mm	, L2 =mm,	etc						
UNS2000	- MS/	T1	-KL6	-BN30	-L2/	2.1		(Example)							
								()							
Options:															
U =		-	gh botton						er information e.g.:						
HT =	0	•	ire Applica	ation (-40 °C.	+150 °C)	, cable and wires in sil	icone	L0 = 200 mm							
DR =	•	ng Tube						L1 = 161 mm							
VV =			nent (max	. 5 bar)				L2 = 85 mm							
PT100 =	Pt100-9							Connection	group: 3 nax. Switching poir	nt/Connecti	on code")				
TPxx/2 =	•		-	Contact Ratin	•										
			+50 °C, +6	60 °C, +70 °C	, +80 °C,	+90 °C									
<b>-</b> ·	/2 = NC			<pre>c \ .</pre>											
Exi =	ATEX E	x ia (intr	insically s	ate) Approva	I, see ww	w.barksdale.de									

# **Level Switches**

#### **VA Version Order Code**

### Ту

order	oou	<b>~</b>														
Type: UNS2000																
	Materi	al of Stem a	and Mount	ting Element:												
	VA :	= stainless s	steel 1.45	71 (316 Ti)												
		Mounting	Element	(other on req	uest)											
		3/8	- G3/8" ı	mounting thre	ead for ins	ide mounting: only with	h PG									
		T1	- G1" Ta	nk screw (on	y with BN	30 float)										
		Т2	- G2" Ta	nk screw (no	t with VA8	0 float)										
		FL4	- Flange	DIN 2527, D	N 65/PN16	6 (not with VA80 float)										
		FL5	- Flange	DIN 2527, D	DIN 2527, DN 80/PN16											
		FL6	- Flange	Flange DIN 2527, DN 100/PN16												
		FLA3	- Flange	Flange ASME B16.5, 2" 150lbs, RF (not with VA80)												
		FLA5	- Flange	Flange ASME B16.5, 3" 150lbs, RF (not with VA80)												
		FLA6	- Flange	ASME B16.5	, 4" 150lb	s, RF										
		T2NPT	- 2"NPT-	Tank screw (	not with V	A80 float)										
			Electrica	al Connection	(see table	e max. Switchpoints)										
			ST1	- Cube Plug	) DIN EN 1	75301-803-A (former E	DIN 43650), 3-pi	n + ground, l	P65 with mating pl	ug						
			ST2	- Angle Plug	g DIN 436	51, 6-pin + ground, IP5	4 with mating p	lug								
			M12x1	- M12x1 mr	n plug, 4-j	pin, IP65 without matin	ıg plug									
			KL6	- Aluminum	Terminal	Box, 6 Terminals, IP65										
			KL12	- Aluminum	Terminal	Box, 9 Terminals, IP65										
			PG	- Cable Gla	nd with 1	m PVC-cable, -HT with	i silicon cable, c	other length o	on request, IP65							
			к	- PVC-Cabl	e sealed, s	specify length at order,	IP65									
				(Others on	request)											
				Float	min.Den		Material	Material Form			max.	max.				
				type	Medium	l					meter Temp.	Pressure (+20°				
												C)				
				VA44	0,84 g/c	m <sup>3</sup>	SS 1.4571 (31	6 Ti)	Cylinder	44 mm	150 °C	15 bar				
				VA52	0,78 g/c	m <sup>3</sup>	SS 1.4571 (31	SS 1.4571 (316 Ti) Ball		52 mm	150 °C	40 bar				
				VA80	0,54 g/c	m <sup>3</sup>	SS 1.4571 (316 Ti) Ball 80 mm					17 bar				
					Number	of Switchpoints										
					L1	= 1 Switchpoint										
					L2	= 2 Switchpoint										
					L3	= 3 Switchpoint		Soo also "C	onnections Group	" in tabla						
					L4	- = 4 Switchpoint		"Max. Swite		s in table						
					L5	= 5 Switchpoint			•							
					L6	= 6 Switchpoint										
						Contact Modes	Cor	ntact Rating		Order:L1	, L2, L3, L4	1, L5, L6				
						1 - SPST (NO)	250 V AC / DO	-	A/W							
						2 - SPST (NC)	250 V AC / DC			Basic: er	npty tank					
						3 - SPDT (WE)	140 V AC / DC									
						Total Length: L0 =										
						Specify with your ord	·	'	etc							
UNS2000	- VA/	T2	-KL6	-VA52	-L2/	2.1		(Example)								
Options:																
U =	Mount	ing through	bottom					Needed or	ler information e.g.							
HT =				on (-40 °C+	150 °C). ci	able and wires in silico	ne	L0 = 200  m	•	-						
DR =	-	ng Tube	ppilouit					L1 = 145  m								
VV =	-	al Adjustmer	nt (max 5	bar)				L2 = 60  mm								
PT100 =		Sensor	(					Connection								
				ntact Rating:	36 10 ~~ "				max. Switching po	int/Connect	ion code")					
1 = XX/2 =	•		-	•												
			0 '0, +60	°C, +70 °C, +	ou °C, +90											
<b>.</b>	/2 = N0	<i>.</i>				- de de la de										

Exi = 4

ATEX Ex ia (intrinsically safe) Approval, see www.barksdale.de Subject to technical changes.

