



# ENAPART



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## Multi Level Switch

## UNS-2000 Series

Formerly Series BLS 800

### Features

- ▶ Fully customizable
- ▶ Up to 6 independent switch points
- ▶ Reversible switch logic
- ▶ Suitable for high viscosity liquids
- ▶ Optional integral temperature switch
- ▶ Hermetically sealed reed switches

### Applications

- ▶ Sump tanks
- ▶ Hydraulic power units
- ▶ Storage tanks
- ▶ Solvent recovery systems
- ▶ Lube oil console systems
- ▶ Marine applications



### General Specifications\*

<b>Max. Operating Pressure:</b>	580 PSI (40 bar), depends on mounting element and float
<b>Minimum Specific Gravity:</b>	
NBR (BUNA):	0.6 g/cm <sup>3</sup>
S.S:	0.78 g/cm <sup>3</sup>
<b>Mounting Position:</b>	Vertical, ±30°, through top or bottom
<b>Protection Class:</b>	IP65 for ST-, KL- and PG-design IP67, IP68 on request IP54 for K-design

\* See Product Configurator for additional options.

<b>Operating Temperature:</b>	+14 °F to +221 °F (-10 °C to +105 °C), PVC-cable
<b>Special Design Options: (On Request)</b>	DR - Damping Tube HT - High Temperature Application - (-40 °C up to +150 °C) F- Silicone Cable U - Mounting location through bottom PT100 - PT100-Element TP - Temperature switch V V - Vertical Adjustment EXi - ATEX-approval EEx ia
<b>Contact Mode:</b>	NO or NC are defined on the basis of an empty tank and for installation through the top
<b>Weight:</b>	Depends on length and design

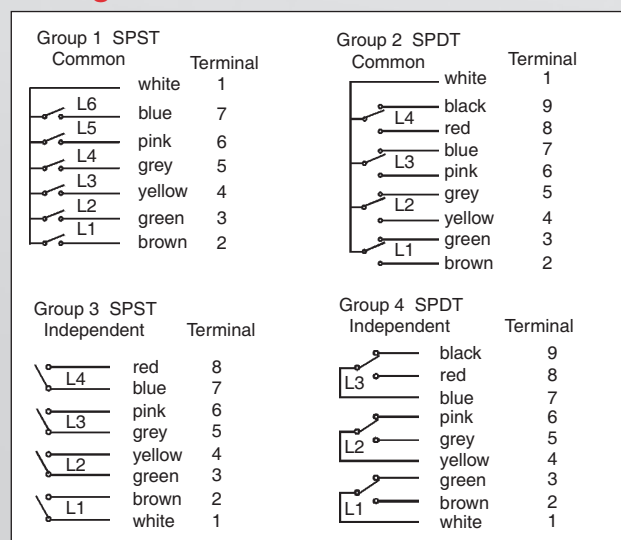
### Max. Switchpoints

	KL6C AL Terminal Box	KL12C AL Terminal Box	ST1 DIN Connector	ST2 DIN Connector	PG Cable gland
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

### Combinations

Material	Mounting	Electrical Connection	Float
Stainless Steel (VA)	T1-1/4 NPT T2 NPT FLAS	DIN Connector (ST1 & ST2) Terminal box (KL6C or KL12C) Cable gland (PG) PVC Cable (K)	Stainless Steel (VA52)
	1/2 NPT	Cable gland (PG) PVC Cable (K)	
Brass (MS)	T1-1/4 NPT T2 NPT	DIN Connector (ST1 & ST2) Terminal box (KL6C or KL12C) Cable gland (PG) PVC Cable (K)	NBR (Buna-N) (BN30)
	1/2 NPT	Cable gland (PG) PVC Cable (K)	

### Wiring Color / Code



**Barksdale®**

CONTROL PRODUCTS

Barksdale, Inc./Barksdale GmbH  
A Subsidiary of Crane Co.



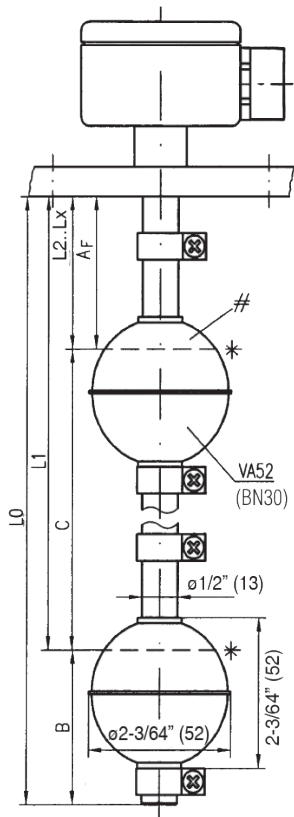
# Multi Level Switch

# UNS-2000 Series

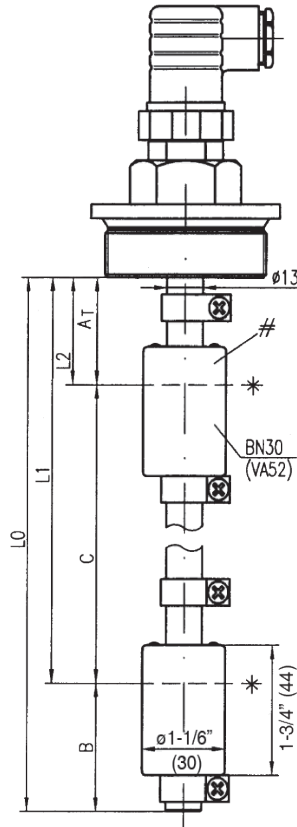
## Technical Drawing

## Formerly Series BLS 800

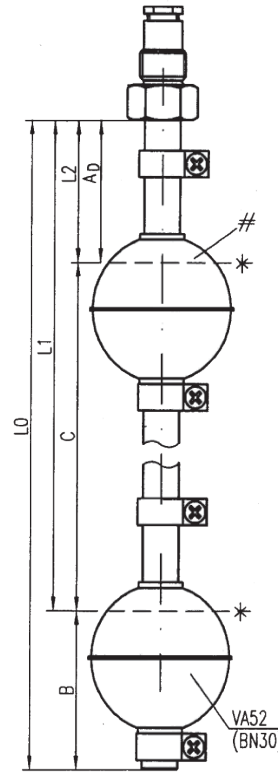
Dimensions in inch (mm)



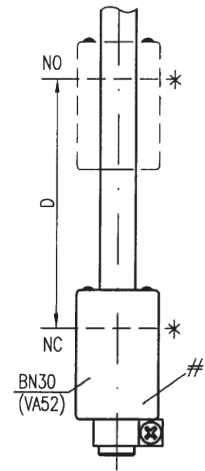
With Aluminum Junction Box and 1/2" NPT female conduit (KL6C or KL12C)



With DIN Connector (ST1)



With Cable gland (PG)



Dual switching (1 float for 2 switchpoints)

1. Length tolerance  $\pm 3$  mm
2. L0 = max. 3000 mm (118 inches)

\* Immersion depth at density 1:  
VA52 =  $36 \pm 2$  mm  
BN30 =  $20 \pm 2$  mm

# Float position:

- VA52 = NO/NC  $\Rightarrow$  see float marking
- SPDT  $\Rightarrow$  NO-function
- BN30 = NO  $\Rightarrow$  compound points at bottom
- NC  $\Rightarrow$  compound points at top
- SPDT  $\Rightarrow$  compound points at bottom

Dimensions	Min. distances in mm					
	AF	AT	AD	B*	C	D
Float type						
VA52	32	32	32	55	85	55
BN30	40	40	40	39	77	55

- \*When using -DR: Dimension B + 20 mm!
- \*When using -PT100: Dimension is B + 10 mm
- \*When using -TPxx/2: Dimension is B + 40 mm

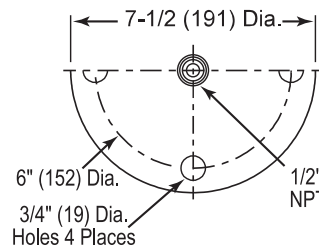
### Mounting Types:



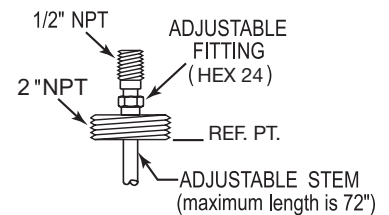
1/2" NPT



T1-1/4" or T2" NPT



**FLA5**  
3" 150# Flange  
with 1/2" NPT Male Fitting  
(per applicable ANSI specifications)  
Flange only available in stainless steel.



**Adjustable Stem**  
Only available with flange and 'T' type connections

## Multi Level Switch

**UNS-2000 Series**

Formerly Series BLS-800

### UNS-2000 Series Order Form

Check Boxes to Select Specification Requirements

Description:

UNS 2000 - \_\_\_\_\_ / \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ / \_\_\_\_\_ - \_\_\_\_\_

#### Product Configurator

Example	UNS 2000	-VA	/ T2NPT	-KL6C	-VA52	L2	/ 2.1	-(DR)-(VV)-HT-U-PT100-TP/XX.X-Exi
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#### Basic Configuration

UNS 2000 Level switches type

Check Required Specs

#### Material of Stem

- VA SS316  
 MS Brass

#### Mounting Element

- 1/2NPT 1/2" NPT mounting (inside tap)  
 T1-1/4NPT 1-1/4" NPT tank screw  
 T2NPT 2" NPT tank screw  
 FLA5 3" Blind flange (150#)

#### Electrical Connection<sup>1</sup>

- ST1 Cube plug DIN 43650, 3-pin + GND  
 ST2 Angle plug DIN 43651, 6-pin + GND  
 KL6C Aluminum terminal box, 6 terminals with 1/2" NPT conduit  
 KL12C Aluminum terminal box, 9 terminals with 1/2" NPT conduit  
 PG PG-cable gland with 1 m PVC-cable  
 K PVC-cable sealed, specify length at order  
 KXP Explosion proof junction box with 1/2" conduit  
 C 1/2" NPT male conduit (VA only)

<sup>1</sup> See "Combinations" section on page 1 for mounting and electrical connection options.

#### Float Type

	Min. Density	Material	Form	Ø	Max. Temp.	Max. Bar
<input type="checkbox"/> BN30	0.6 g/cm <sup>3</sup>	NBR	Cylinder	30 mm 1-3/16	212 °F (100 °C) - Oil 176 °F (80 °C) - Water	15
<input type="checkbox"/> VA52	0.78 g/cm <sup>3</sup>	Stainless steel, 316	Ball	52 mm 2-1/16	302 °F (150 °C)	40

#### No. of Switchpoints<sup>2</sup>

L=Level, T=Temperature

- L1 1 Switchpoint @ \_\_\_\_\_ in/mm  
 L2 2 Switchpoints @ \_\_\_\_\_ in/mm  
 L3 3 Switchpoints @ \_\_\_\_\_ in/mm  
 L4 4 Switchpoints @ \_\_\_\_\_ in/mm  
 L5 5 Switchpoints @ \_\_\_\_\_ in/mm  
 L6 6 Switchpoints @ \_\_\_\_\_ in/mm

See also Connection Groups in table "Max. Switchpoints"

#### Options, please specify when needed

- DR Damping tube  
 HT High temperature silicone cable (max 6 wires), (up to +150 °C) 302°F  
 U Mounting through bottom  
 PT100 PT100-element  
 VV Vertical adjustment  
 Exi ATEX approval EEx ia  
 TP 3A, 12 or 24V DC  
 X Contact mode 2 (NC)  
 XX Setpoint at rising in °C

Standard +122 °F / +158 °F / +194 °F (+50 °C / +70 °C / +90 °C)  
Others on request

#### Contact Type of Float

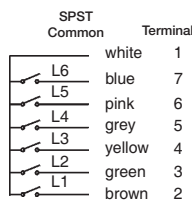
	Contact Mode	Contact Rating
<input type="checkbox"/>	1-SPST (NO)	250 V AC / DC, 3 A, 100 VA / W
<input type="checkbox"/>	2-SPST (NC)	250 V AC / DC, 3 A, 100 VA / W
<input type="checkbox"/>	3-SPDT	140 V AC / DC 1 A, 60 VA / W

#### Must specify with your orders

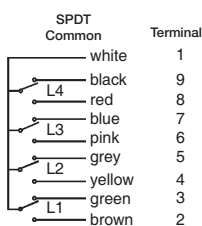
Check List:

- Overall stem length: L0= \_\_\_\_\_ (in/mm) (Upto 3000mm std.)
- Add dimensional position of float
- Pick wiring code:

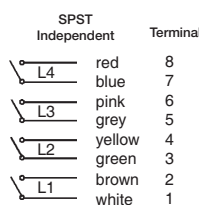
##### Group 1



##### Group 2



##### Group 3



##### Group 4

