Barksdale®
CONTROL PRODUCTS

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*

Max. Operating Pressure:	580 PSI (40 bar), depends on mounting element and float
Minimum Specific Gravity: NBR (BUNA): S.S:	 0.6 g/cm³ 0.78 g/cm³
Mounting Position:	Vertical, ±30°, through top or bottom
Protection Class:	IP65 for ST-, KL- and PG-design IP67, IP68 on request IP54 for K-design

* See Product Configurator for additional options.

Operating Temperature:	+14 °F to +221 °F (-10 °C to +105 °C), PVC-cable
Special Design Options: (On Request)	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
Contact Mode:	NO or NC are defined on the basis of an empty tank and for installation through the top
Weight:	Depends on length and design

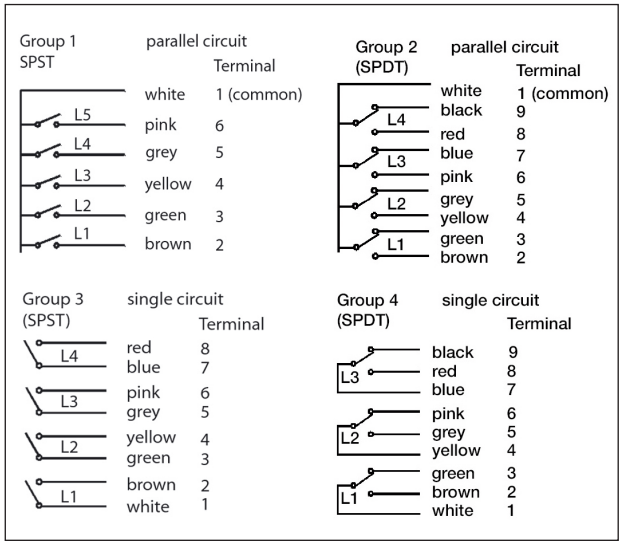
Max. Switchpoints

	KL6 / KL6C / ST2 / KXP / KX8	KL12 / KL12C	PG / K / C	KX4 / M12x1	ST1
Connect Group 1	5	6	6	3	2
Connect Group 2	2	4	4	1	1
Connect Group 3	3	4	4	2	1
Connect Group 4	2	3	3	1	1

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)	

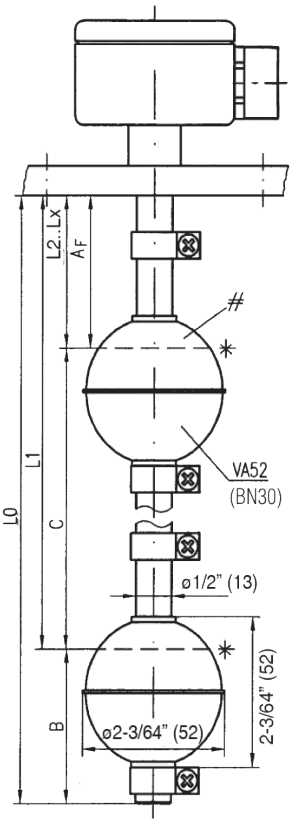
Wiring Color / Code



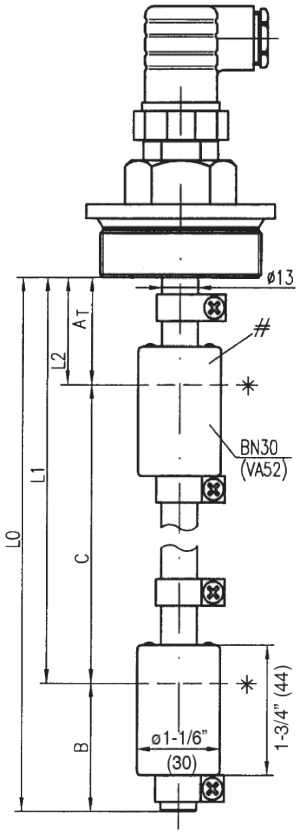
Technical Drawing

Formerly Series BLS 800

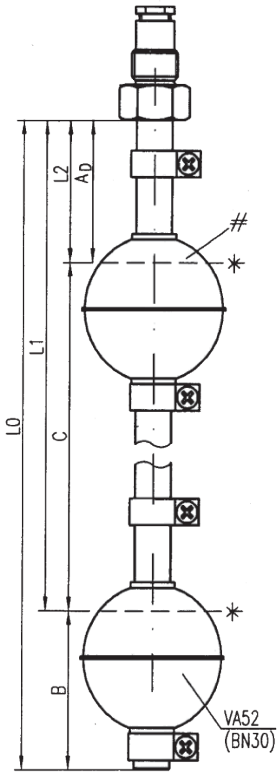
Dimensions in inch (mm)



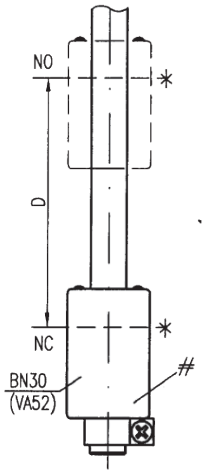
With Aluminum Junction Box and 1/2" NPT female conduit (KL6C or KL12C)



With DIN Connector (ST1)



With Cable gland (PG)



Dual switching (1 float for 2 switchpoints)

1. Length tolerance ±3 mm
2. L0 = max. 3000 mm (118 inches)

* Immersion depth at density 1:
VA52 = 36 ±2 mm
BN30 = 20 ±2 mm

# Float position:
VA52 = NO/NC ⇒ see float marking
SPDT ⇒ NO-function
BN30 = NO ⇒ compound points at bottom
NC ⇒ compound points at top
SPDT ⇒ compound points at bottom

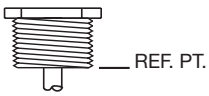
Dimensions / Float type	Min. distances in mm					
	A_F	A_T	A_D	B*	C	D
VA52	32	32	32	55	85	55
BN30	40	40	40	39	77	55

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

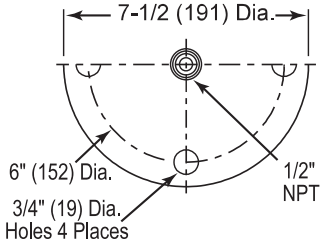
Mounting Types:



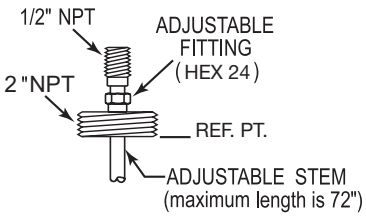
1/2" NPT



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

Formerly Series BLS-800

Product Configurator

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

Basic Configuration

UNS 2000	Level switches type

Material of Stem

Check Required Specs

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[1]

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 (T2NPT and FLA5 only) Not ATEX approved. For ATEX approval, select Exi option.
C	1/2" NPT male conduit (VA only)

[1] See "Combinations" section on page 1 for mounting and electrical connection options.

No. of Switchpoints[2] 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

2. See also Connection Groups in table "Max. Switchpoints"

L0 = 30000 mm (118 in) max
L0 = L1 + B*
B* = 1.54 in (39 mm) for BN30
2.17 in (55 mm) for VA52

Options

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

Float Type

		Min. Density	Material	Form	i	Max. Temp.	Max. Bar
	BN30	0.6 g/cm3	NBR	Cylinder	30 mm 1-3/16	212 °F (100 °C) - Oil 176 °F (80 °C) - Water	15
	VA52	0.78 g/cm3	Stainless steel, 316	Ball	52 mm 2-1/16	302 °F (150 °C)	40

Contact Type of Float[3]

	Contact Mode	Contact Rating
	1-SPST (NO)	250 V AC / DC, 3 A, 100 VA / W
	2-SPST (NC)	250 V AC / DC, 3 A, 100 VA / W
	3-SPDT	140 V AC / DC 1 A, 60 VA/ W

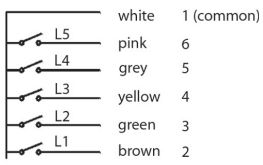
3. Up to 6 contact types can be selected if 6 switchpoints are selected. Order type: L1, L2, L3, L4, L5 & L6.

Must specify with your orders

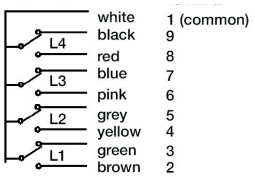
Check List:

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

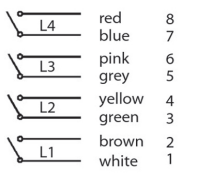
q Group 1



q Group 2



q Group 3



q Group 4

