

Multi Level Switch

UNS-1000 Series

Formerly Series BLS 700

Features

- ▶ Fully customizable
- ▶ Up to 5 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:	220 psig (15 bar), NBR (BUNA), and SS float
Minimum Specific Gravity:	NBR (BUNA) - .57 g/cm ³ SS - .71 g/cm ³
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.

Max. Switchpoints

	KL6 / KL6C / ST2 / KXP	KL12 / KL12C	PG / K / C	KX4 / KX8 / M12x1	ST1
Connect Group 1	5	5	3	3	2
Connect Group 2	2	4	1	1	1
Connect Group 3	3	4	2	2	1
Connect Group 4	2	3	1	1	1
HT (High Temperature) Option Only	KL6 / KL6C / ST2 / KXP	KL12 / KL12C	PG / K / C	KX4 / KX8 / M12x1	ST1
Connect Group 1	3	3	3	3	2
Connect Group 2	1	1	1	1	1
Connect Group 3	3	2	2	2	1
Connect Group 4	1	1	1	1	1

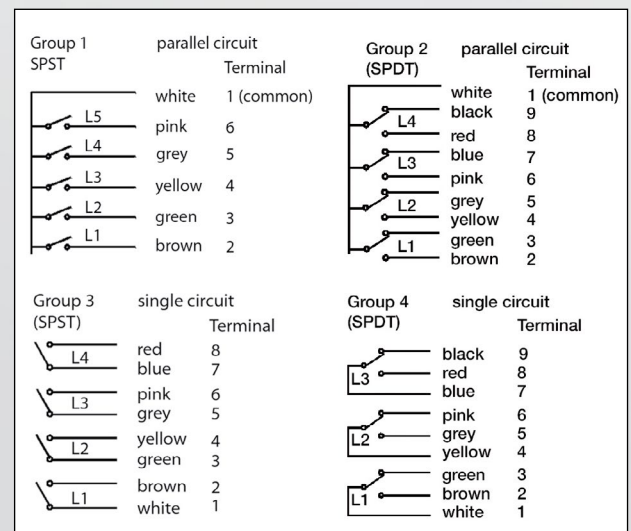
Combinations

Material	Mounting	Electrical Connection	Float
Stainless Steel (VA)	T1 NPT T2 NPT FLA3	DIN Connector (ST1 or ST2) Terminal box (KL6C or KL12C) Cable gland (PG) PVC Cable (K)	316 Stainless Steel (VA27)
	1/8 NPT	Cable gland (PG)	
	1/2 NPT	PVC Cable (K) Cable gland (PG)	
Brass (MS)	T1 NPT T2 NPT	DIN Connector (ST1 or ST2) Terminal box (KL6C or KL12C) Cable gland (PG) PVC Cable (K)	NBR BUNA-N (BN25)
	1/8 NPT	Cable gland (PG)	
	1/2 NPT	PVC Cable (K) Cable gland (PG)	



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 silicone-cable -40 °F to +302 °F (-40 °C to +150 °C) U - Mounting location through bottom PT100 - Pt100-element VV - 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:	Dependent on length and design

Wiring Color / Code



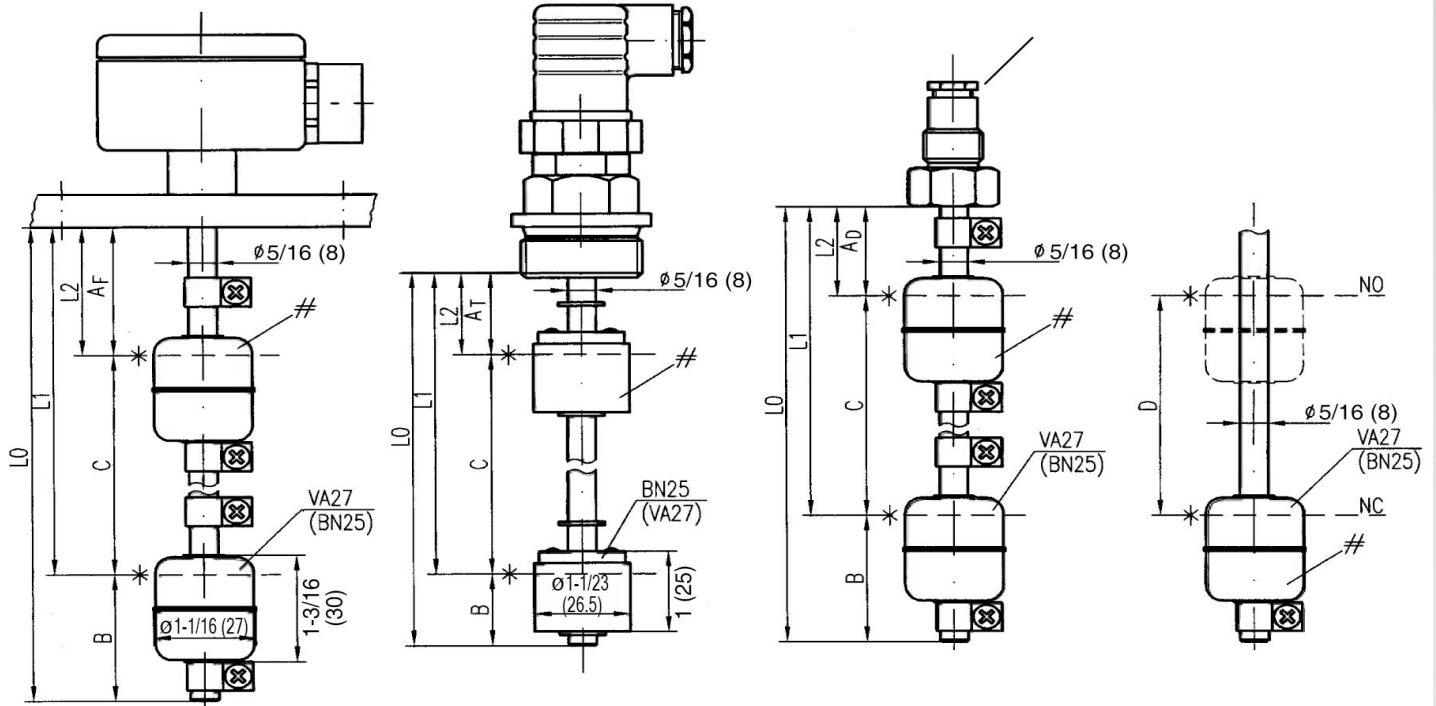
Multi Level Switch

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Technical Drawing

Formerly Series BLS 700

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)

- Length tolerance $\pm 1/8"$ (± 3 mm)
- L0 = max. 40 in. (1000 mm)

* Immersion depth at density 1:

VA27 = 13/16 in ± 0.1 in (21 ± 2 mm)

BN25 = 1/2 in ± 0.1 in (13 ± 2 mm)

Temperature sensor PT100=dimension B+10mm

Float position:

VA27 = NO/NC \Rightarrow see float marking

SPDT \Rightarrow NO-function

BN25 = NO \Rightarrow compound points at bottom

NC \Rightarrow compound points at top

SPDT \Rightarrow compound points at bottom

Dimensions	Min. distances in inch/mm					
	A _F	A _T	A _D	B	C	D
Float type						
VA27	1/26	1/26	1/26	1.6/40	2.56/65	1.25/32
BN25	.86/22	.86/22	.86/22	1/25	1.78/45	1.25/32

(When using -DR: Dimension B + 3/4" (20 mm)!) on request

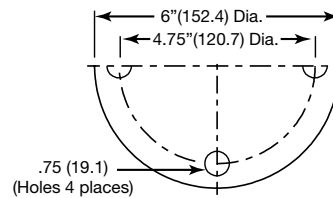
Mounting Types:



1/8" or 1/2" NPT Male



T1" NPT
T2" NPT



FLA3

2" 150# Flange
Flange DJN2527
DN50/PN16

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UNS-1000 Series Order Form

Check Boxes to Select Specification Requirements

Description:

UNS 1000 - _____ / _____ - _____ - _____ - _____ / _____ - _____

Special P/N to be assigned once order is received: L700XXX

Product Configurator

Example	UNS 1000	-VA	/ T1NPT	-KL6C	-VA27	-L2	/ 2.1	-U-HT-(DR)-(VV)-PT100-Exi
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Basic Configuration

UNS-1000 Series Multi Level switch type

Check Required Specs

Material of Stem

VA 316 SS

MS Brass

Mounting Element

1/8NPT 1/8" NPT, mounting thread (inside tap)

1/4NPT 1/4" NPT, mounting thread (inside tap)

1/2NPT 1/2" NPT, mounting thread (inside tap)

T1NPT 1" NPT tank screw

T2NPT 2" NPT tank screw

FLA3 Blind flange, 2" 150 lbs RF (ANSI) (VA only)

Electrical Connection¹

ST1 Cube plug DIN 43650, 3-pin + ground

ST2 Angle plug DIN 43651, 6-pin + ground

KL6C Aluminum terminal box, 6 terminals w/ 1/2" NPT conduit

KL12C Aluminum terminal box, 9 terminals w/ 1/2" NPT conduit

PG PG-cable gland with 1 m PVC-cable (22 AWG)

K PVC-cable sealed std 1 meter (22 AWG)

KXP Explosion proof junction box with 1/2" conduit female. (Only available with 1" NPT 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***

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

Contact Type of Float(s)

	Contact Mode	Contact Rating
<input type="checkbox"/>	1-SPST (NO)	230 V AC / DC, 2 A, 40 VA / W
<input type="checkbox"/>	2-SPST (NC)	230 V AC / DC, 2 A, 40 VA / W
<input type="checkbox"/>	3-SPDT	150 V AC / 100 V DC, 0.2 A, 3 VA / W

Float Type

	Min. Density	Material	Form	Dia. (Ø)	Max. Temp.	Pressure (+20 °C)
<input type="checkbox"/> BN25	0.57 g/cm ³	BUNA NBR	Cylinder	1" / 25 mm	212 °F (100 °C)	15 bar
<input type="checkbox"/> VA27	0.71 g/cm ³	Stainless steel, 316	Cylinder	1-1/16" / 27 mm	302 °F (150 °C)	15 bar

Options

Please specify when needed

DR Damping tube (2" NPT mounting element required)

HT High temperature silicone-cable (-40 °F to +302 °F (-40 °C to +150 °C))

U Mounting through bottom

PT100 Pt100-element

VV Vertical adjustment

Exi ATEX approval EEx ia (Enclosure)

TS/xx/2 Temperature Sensor, xx = °C: +60 °C, +70 °C, +80 °C, +90 °C, /2=NC

IMPORTANT

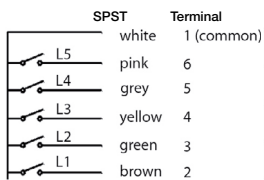
Must specify with your orders

1 - Overall stem length: L0= _____ in/mm max. 40" (1000 mm)

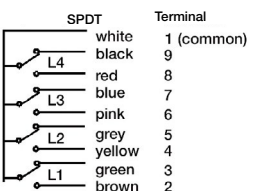
2 - Dimensional position of float***

3 - Pick wiring code:

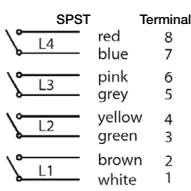
Group 1



Group 2



Group 3



Group 4

