

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.

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

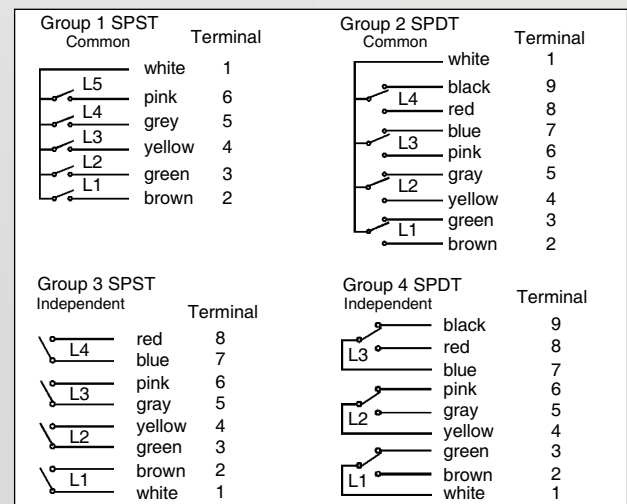
Max. Switchpoints

	KL6C AL Terminal Box	KL12C AL Terminal Box	ST1 DIN Connector	ST2 DIN Connector	PG Cable gland
Connect Group 1	5	5	2	5	3
Connect Group 2	2	4	1	2	1
Connect Group 3	3	4	1	3	2
Connect Group 4	2	3	1	2	1

Combinations

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

Wiring Color / Code



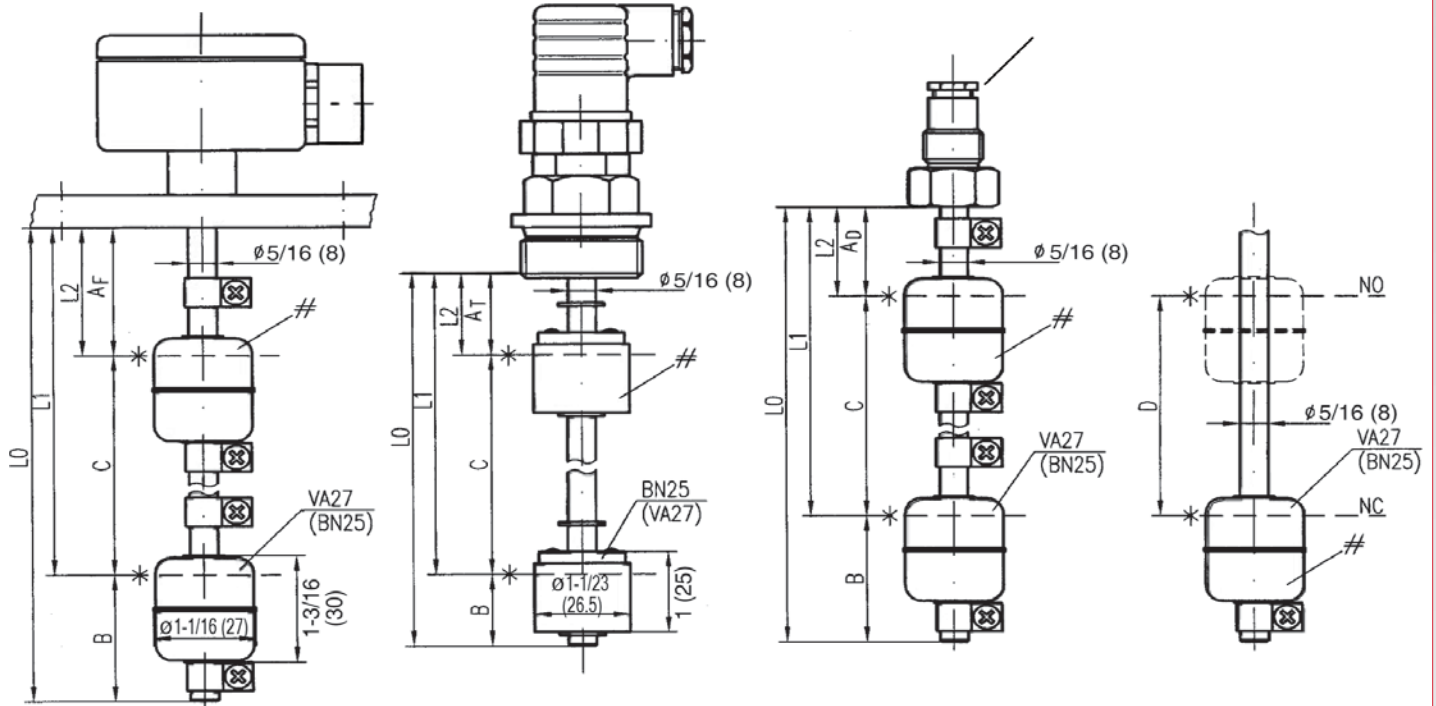
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Technical Drawing

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)

1. Length tolerance $\pm 1/8"$ (± 3 mm)
2. 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

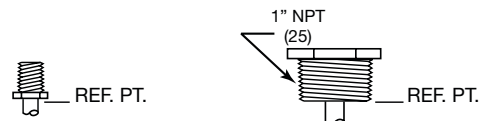
NC \Rightarrow compound points at top

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

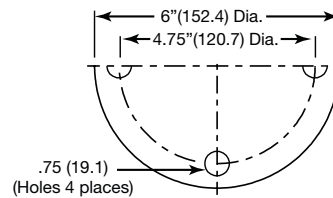
(When using -DR: Dimension B + 3/4" (20 mm)!) on request

Mounting Types:



1/8" or 1/2" NPT Male

T1" NPT



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 Level switch type

Check Required Specs

Material of Stem

<input type="checkbox"/>	VA	316 SS
<input type="checkbox"/>	MS	Brass

Mounting Element

<input type="checkbox"/>	1/8NPT	1/8" NPT, mounting thread (inside tap)
<input type="checkbox"/>	1/4NPT	1/4" NPT, mounting thread (inside tap)
<input type="checkbox"/>	1/2NPT	1/2" NPT, mounting thread (inside tap)
<input type="checkbox"/>	T1NPT	1" NPT tank screw
<input type="checkbox"/>	FLA3	Blind flange, 2" 150 lbs RF (ANSI) (VA only)

Electrical Connection¹

<input type="checkbox"/>	ST1	Cube plug DIN 43650, 3-pin + earth
<input type="checkbox"/>	ST2	Angle plug DIN 43651, 6-pin + earth
<input type="checkbox"/>	KL6C	Aluminum terminal box, 6 terminals w/ 1/2" NPT conduit
<input type="checkbox"/>	KL12C	Aluminum terminal box, 9 terminals w/ 1/2" NPT conduit
<input type="checkbox"/>	PG	PG-cable gland with 1 m PVC-cable (22 AWG)
<input type="checkbox"/>	K	PVC-cable sealed std 1 meter (22 AWG)
<input type="checkbox"/>	KXP	Explosion proof junction box with 1/2" conduit female. (Only available with 1" NPT option)
<input type="checkbox"/>	C	1/2" NPT male conduit (VA only)

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

No. of Switchpoints***

<input type="checkbox"/>	L1	1 Switchpoint @ _____ in / mm
<input type="checkbox"/>	L2	2 Switchpoints @ _____ in / mm
<input type="checkbox"/>	L3	3 Switchpoints @ _____ in / mm
<input type="checkbox"/>	L4	4 Switchpoints @ _____ in / mm
<input type="checkbox"/>	L5	5 Switchpoints @ _____ in / mm

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

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

Options

Please specify when needed

<input type="checkbox"/>	DR	Damping tube
<input type="checkbox"/>	HT	High temperature silicone-cable (-40 °F to +302 °F (-40 °C to +150 °C))
<input type="checkbox"/>	U	Mounting through bottom
<input type="checkbox"/>	PT100	Pt100-element
<input type="checkbox"/>	VV	Vertical adjustment
<input type="checkbox"/>	Exi	ATEX approval EEx ia (Enclosure)
<input type="checkbox"/>	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	
SPST Common	Terminal	SPDT Common	Terminal	SPST Independent	Terminal	SPDT Independent	Terminal
	white 1		white 1		red 8		black 9
	pink 6		black 9		blue 7		red 8
	grey 5		red 8		pink 6		blue 7
	yellow 4		blue 7		grey 5		pink 6
	green 3		pink 6		yellow 4		grey 5
	brown 2		grey 5		green 3		yellow 4
			yellow 4		brown 2		green 3
			green 3		white 1		brown 2
			brown 2				white 1