

Level switch NS OM



Fluidcontrol

The level switches are used to monitor liquid levels in tanks. They were designed specifically to be installed on tank tops. The liquid level can be read on the scale. Up to four switching contacts or a Reed-contact also enable electronic liquid level monitoring.

Different versions also allow for use in aggressive mediums.

NS OM-61/63

Visual and electrical liquid level monitoring

max. switching voltage 230 V

Variable lengths

Version NS OM-63 with 4-20 mA analog output for continuous liquid level monitoring

NS OM-64

Visual and electric liquid level monitoring

Easy Just System: User-friendly adjustment of the position and function of the level contacts

Fixed lengths of 270, 370, 500 mm (11, 14.6, 19.7")

NS OM-VA

Visual and electrical liquid level monitoring

Max. Supply voltage 230 V

Stainless steel model for sophisticated applications

Externally installed level contacts



Technical Data NS-OM

Basic unit

Operating pressure:	max. 1 bar (14.5 psi)
Operating temperature:	-20 °C to +80 °C (-4 °F to 176 °F)
Min. fluid density:	0.80 kg/dm ³ (0.029 lb/in ³)

Material

Float:	hard PU
Guide bar:	Aluminium
Switching tube:	Brass
Flange (DIN 24557)	PA
SSR (optional):	Brass

Model 61

Lengths:	L = 280, 370, 500 mm (11", 14.6", 19.7") (standard) variable to max. 1000 mm (39.4")
----------	---

Level contacts

K10

W11

Function:	NO / NC*	Changeover contact
Max. voltage:	230 V	48 V
Max. switching current:	0.5 A	0.5 A
Max. contact load:	10 VA	20 VA
Min. contact spacing	40 mm (1.6")	40 mm (1.6")

*NO = falling NC / NC = falling NO

Model 64

Lengths:	L = 280, 370, 500 mm (11", 14.6", 19.7")
----------	--

Level contacts

Function:	K = NO / NC* or W = changeover
Max. voltage:	30 V
Max. switching current:	0.5 A
Max. contact load:	10 VA
Min. contact spacing	40 mm (1.6")

*NO = falling NC / NC = falling NO

Model 63 (continuous level)

Lengths:	Lengths = 280, 370, 500, 670, 820 and 970 mm* (11", 14.6", 19.7", 26.4", 32.3" and 38.2"*)
----------	---

Measurement principle Reed-contact

Resolution 5 mm (0.2")

Operating voltage (U_B): 10 – 30 V DC

Output 4 – 20 mA

Max. burden Ω: = U_B – 7.5 V (0.02 A)

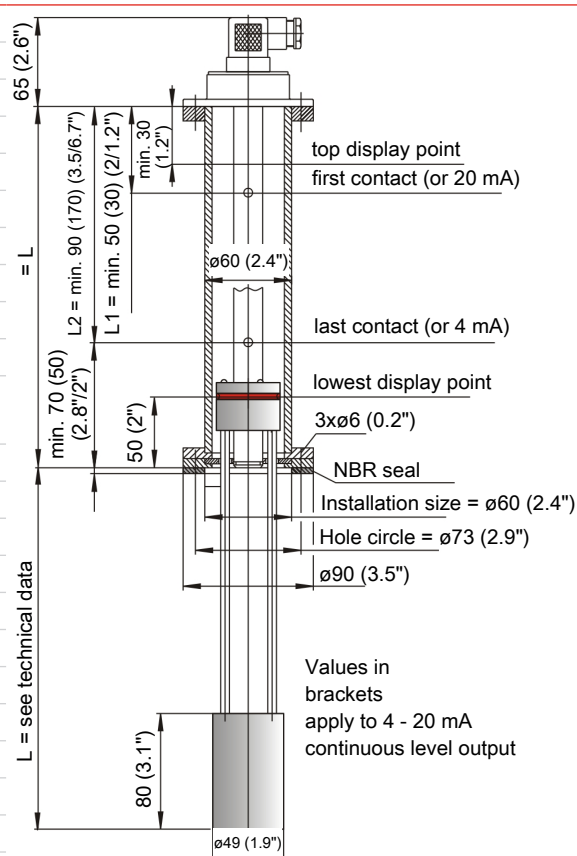
*Other lengths on request

Optional SSR - stilling tube

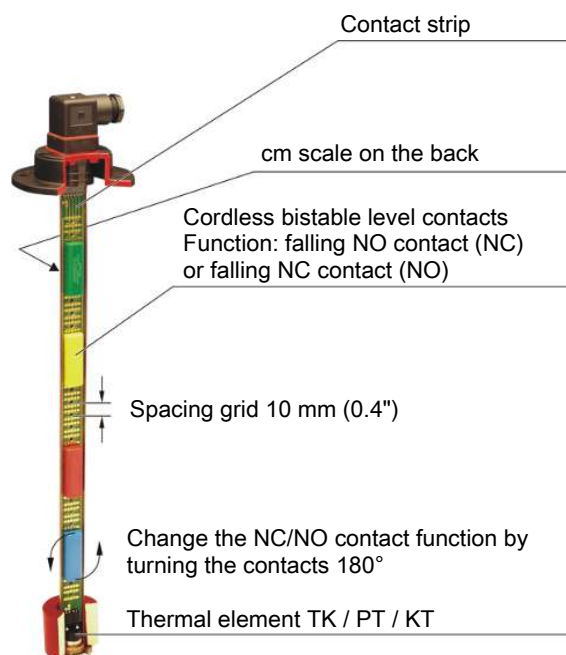
Included

Mounting screws (6 count) and Rubber cork seal

Dimensions



The easyjust system



Pin Assignment

Connector	M3	S6	M12 (base)	2xM12 (base)
Dimensions				
Number of pins	3-pin + PE	6-pin + PE	4-pin	4-pin / 4-pin
DIN EN	175301-801		61076-2-101	61076-2-101
Voltage max.	230 V AC/DC*	230 V AC/DC*	30 V DC	30 V DC
IP rating	IP 65	IP 65	IP 67**	IP 67** IP65 (NS OM-61 only)
Cable fitting	PG 11	M20 x 1.5		
Level contact(s) NO/NC				
Level contact(s) changeover				
NS OM-63-KN (continuous level)				

Model key NS OM-61, 64

NS OM-XX-XX-XX-XX-XX-XX		Optional	
Type designation		SSR	Stilling tube
Model		Level measurement	
61		1- 4 contacts	
64	Easy Just	Level contact	
Connector		K	Model K10 (NC/NO)
M3	1x M3, 3-pin	W	Model W11 (change-over contact)
S6	1x S6, 7-pin	Length (mm/inch)	
M12	1x M12, 4-pin	280 (11")	
2M12	2x M12, 2x 4-pin	370 (14.6")	
		500 (19.7")	
		variable	(max. 1000 mm (39.4"), model 61 only)

Model key NS OM-63

NS OM-XX-XX-XX-XX-XX		Optional	
Type designation		SSR	Stilling tube
Model		Length (mm/inch)	
63 (continuous level)		280 (11")	
Resolution		370 (14.6")	
5 mm (0.2")		500 (19.7")	
Connector		820 (32.3")	
M3	1x M3, 4-pin	900 (35.4")	
M12	1x M12, 4-pin		

Ordering example

You require: Visual and electric level monitoring length 600 mm (32.6") with 2 contacts K10, 1. Contact 100 mm (3.9") falling NO contact, 2. Contact 420 mm (16.5") falling NC contact.

Order: NS OM 61-S6-/ 600 – 2K L1=100 NC, L2 = 420 NO

Technical Data NS-OM-VA

Base unit

Operating pressure:	max. 1 bar (14.5 psi)
Operating temperature:	-20 °C to +80 °C (-4 °F to 176 °F)
Min. fluid density:	0.8 kg/dm ³ (0.029 lb/in ³)

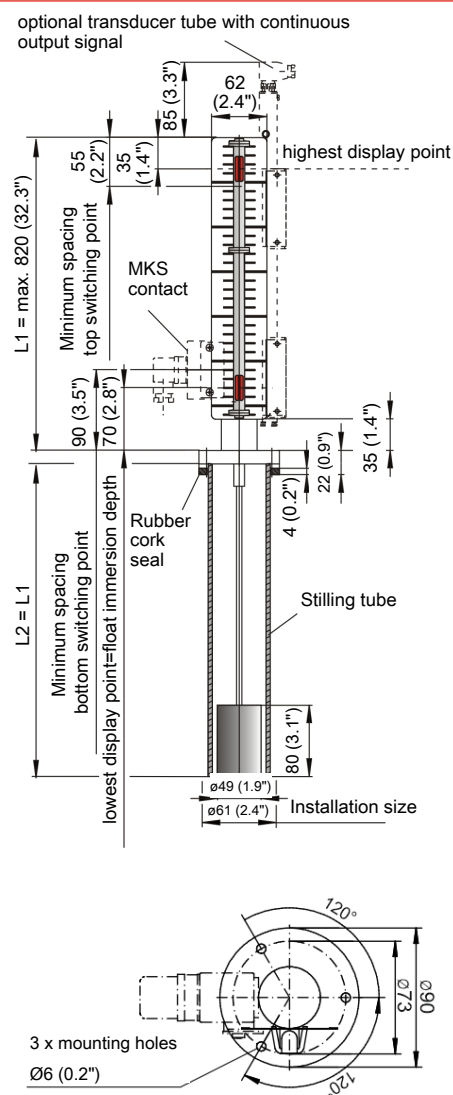
Material

SK 903 float:	PU/AI/PP
Immersion tube:	1.4571
Flange:	1.4571
Stilling tube:	1.4571 (included)
Sight glass:	PC

Options

Continuous BLT-OM liquid level measurement or MKS switching contacts, see below.

Dimensions



Model key NS OM-VA

NS OM-VA-MKS/XX		
Type designation		Length L1 max 820 mm (32.3")
Material		280 (11")
		370 (14.6")
		500 (19.7")
Optional MKS switching contact		nnn variable, please specify value

NS OM-VA-KXX/XX		
Type designation		Length L1 (mm)
Material		280 (11")
		370 (14.6")
		500 (19.7")
		670 (26.4")
		820 (32.3")
Optional Continuous BLT-OM liquid level measurement		
K5 continuous resolution 5 mm (0.2")		
K10 continuous resolution 10 mm (0.4")		

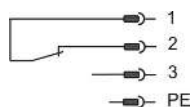
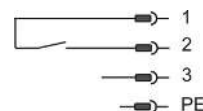
Ordering example

You need: Visual and electric level monitoring, VA version length 600 mm (23.6") and 2 x contacts MKS 1/W-M3.

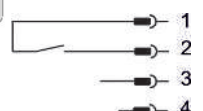
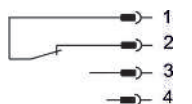
You order: NS OM-VA-MKS/600 + 2 x contact MKS-1W-M3 (item no.: 2889999)

Contacts for NS OM-VA
Pin assignment (Contact position empty tank)

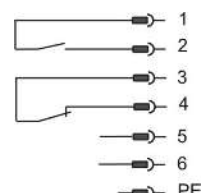
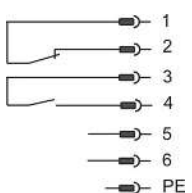
Type	MKS-1/K-M3
Function	NC contact/NO contact
Max. voltage	230 VAC/DC
Max. switching current	1 A
Max. contact load	50 VA
Connector	M3 (DIN EN 175301-803)
	3-pin + PE
IP class	IP 65
Item no.	2888999

Mounted left

Mounted right


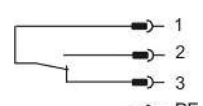
Type	MKS-1/K-M12
Function	NCC/NOC
Max. voltage	24 V DC
Max. switching current	1 A
Max. contact load	50 VA
Connector	M12 (DIN EN 61076-2-101)
	4 pol.
IP class	IP65*
Item no.	2893999



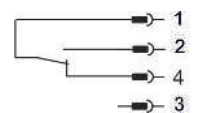
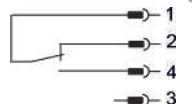
Type	MKS-2/K-S6
Function	2 x NC contact/NO contact
Max. voltage	230 VAC/DC
Max. switching current	1 A
Max. contact load	50 VA
Connector	S6
	6-pin + PE
IP class	IP 65
Item no.	2891999



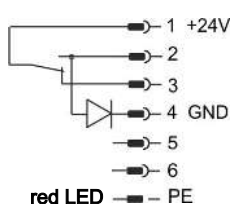
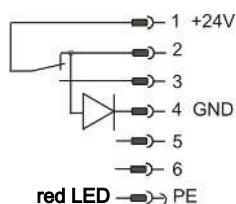
Type	MKS-1/W-M3
Function	Changeover switch
Max. voltage	230 V AC/DC
Max. switching current	1 A
Max. contact load	50 VA
Connector	M3 (DIN EN 175301-803)
	3 pol. + PE
IP class	IP65
Item no.	2889999



Type	MKS-1/W-M12
Function	Changeover switch
Max. voltage	24 V DC
Max. switching current	1 A
Max. contact load	50 VA
Connector	M12 (DIN EN 61076-2-101)
	4 pol.
IP class	IP65*
Item no.	2889899



Type	MKS-1/W-L 24V-S6
Function	Changeover switch with LED
Max. voltage	24 V DC
Max. switching current	1 A
Max. contact load	25 VA
Connector	S6
	6 pol. + PE
IP class	IP65
Item no.	2890999



*IP65 with cable box attached.

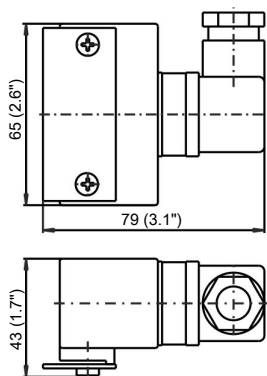
When installing a BLT transducer tube with continuous output signal, the contacts can only be mounted on the left.

Other contacts available upon request

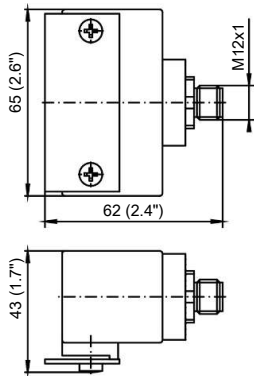
For applications in high shock and vibration environments we recommend using the contacts MKS-1/K-M3, MKS-1/K-M12 or MKS-2/K-S6.

Dimensions for contacts for NS OM-VA

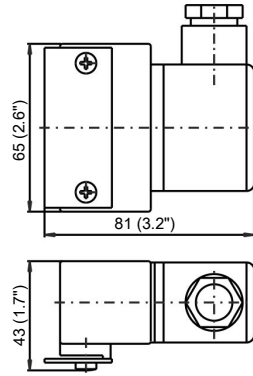
MKS-1/K-M3, MKS-1/W-M3



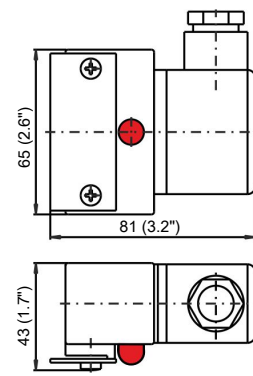
MKS-1/K-M12, MKS-1/W-M12



MKS-2/K-S6



MKS-1/W-L24V-S6



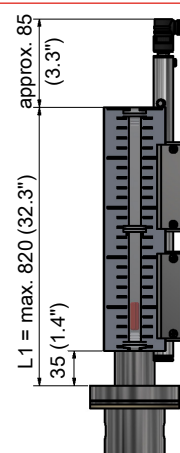
BLT-OM Technical Data

BLT-OM1-LA-1A-5/VAR with 4-20 mA output and 5 mm (0.2") resolution.

BLT-OM1-LA-1A-10/VAR with 4-20 mA output and 10 mm (0.4") resolution.

	1A
Transducer tube material:	Nickel-plated brass
Ambient temperature:	-20 °C to +70 °C (-4 °F to 158 °F)
Lengths:	L1 = 280, 370, 500, 670, 820 mm* (11", 14.6", 19.7", 26.4", 32.3"*)
Input value	
Sensor element:	Reed chain 5 (0.2") or 10 mm (0.4") resolution
Tolerance:	±1% FS**
Operating voltage (UB):	10–30 V DC
Measuring range:	4-20 mA > 0–100%
Output:	4-20 mA
max. load	(UB-7.5 V)/0.02 A
*Other lengths on request	
** FS = 16 mA	

Dimensions



BLT-OM default pin assignment

Connector	M12 (base)
Number of pins	4-pin
DIN EN 61076-2-101	30 V DC
IP rating with IP67 cable box attached	IP67
Version	1A
Connection schematic	
	1A (4-20 mA)
1	+24 V DC
2	OUT 4-20 mA
3	GND
4	NC