

Float switch

Float with lever for horizontal operation.
Configurable with magnetic switch modules in terminal box as Reed-switch, electronic Triac-relay, normal switch contacts, Proximity switches DIN 50227 (NAMUR) and fail-safe.
Product and switch separated by flange.

Product group **719**

Type **010X**

Sheet: 1/2 Revision: 12

Date: 10/05



Product example
Flange
DN65 PN16
Switch module
BG19.0065XX
in a terminal box

Field of application

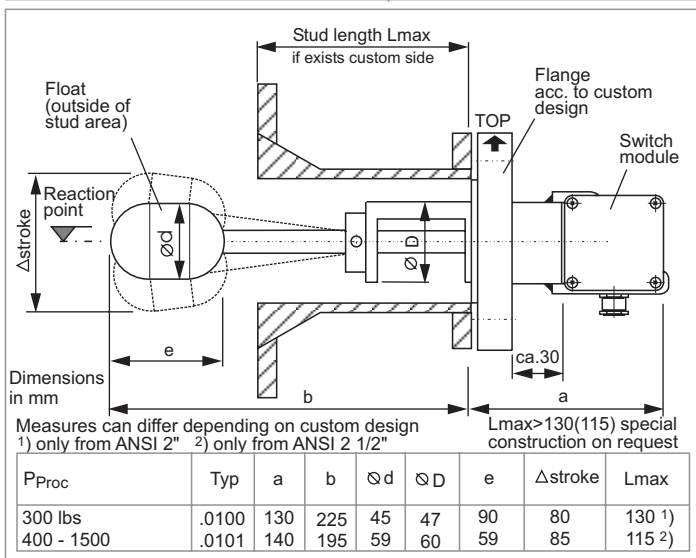
This float switch Type 719.0100 is for signalling liquid level limits and can be mounted horizontally into a tank or a reference vessel. It is designed to work with a broad range of pressure and densities.

General Data

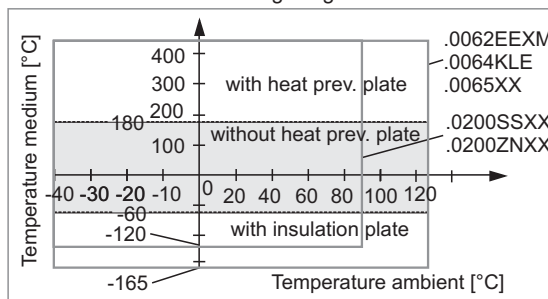
Hysteresis: $\lt; \pm 14 \text{ mm}$
Flange: from ANSI 2" 150 lbs to 300 lbs,
from ANSI 2 1/2" 400 to 1500 lbs
Weight: 2,5 kg + flange weight

Design Data

Operating temperature: s. Derating Diagramm
Ambient temperature: s. switch module table
Operating pressure: up to 1500 lbs
Density level 1): from 0,6 g/cm³
Material float 2): 1.4571/Titanium
Parts immersed from medium, flange: 1.4571/other
1) Interface on request
2) Low density on request
Other materials (**only non-magnetic**) on request
At application in steam-boilers must boiler water for L switches freely of magnetic particles be!



Derating-Diagram



Switch module BG19...	Medium temp.[°C] *	Ambient temp.[°C]	Ingress protection
.0062EEXM	-60 (-165)...+180 (+400)	125	IP 67
.0064KLE	-60 (-165)...+180 (+400)	125	IP 67
.0065LO/HI	-60 (-165)...+180 (+400)	125	IP 67
.0200SSLO/HI	-60 (-165)...+180 (+400)	90	IP 67
.0200ZNLO/HI	-60 (-165)...+180 (+400)	90	IP 67

*) Values in () with heat prev. plate only

Electrical Data

see sheet 2

Certificates

Acc. to ATEX 94/9/EG see page 2
Acc. to PED 97/23/EG
SIL level acc. to IEC 61508: SIL1

Subject to alterations

Ordering no.

7 1 9 . 0 1 0 X - X X X X X X X X X

P _{proc}	150 - 300 lbs	0	X X X X X X X X X	process flange	see 710.VAR
	400 - 1500 lbs	1			
Material*)	1.4571 (316 Ti)	4		X	Switch module
	316L (1.4404)	5			
T _{proc}	<-25 °C	A			
	-25...+180 °C	B	H	High	Density level **)
	>180 °C	C	L	Low	Switch direction

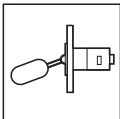
*) Other materials on request (code X)

**) Interface and lower density on request (code X)

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Float switch

Mounting hints, switch behaviour, electrical data, ordering-no. switch module

Product group **719**

Type **010X**

Sheet: 2/2 Revision: 12

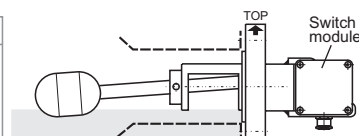
Date: 10/05

Switch behaviour

High alarm when level increases (H)

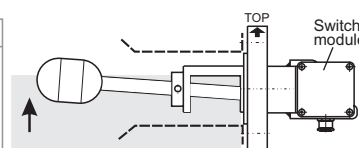
Normal position

Switch mod.	Output
BG190064KLE	brown-blue closed
BG190062EEXM	brown-blue closed
BG190065HI	Reed switch closed
BG190200SSHI	Prox. switch conducting
BG190200ZNHI	Prox. switch conducting



Alarm position

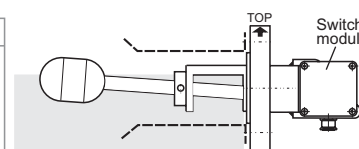
Switch mod.	Output
BG190064KLE	black-blue closed
BG190062EEXM	black-blue closed
BG190065HI	Reed switch open
BG190200SSHI	Prox. switch currentless
BG190200ZNHI	Prox. switch currentless



Low alarm when level decreases (L)

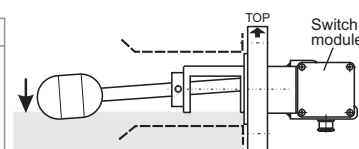
Normal position

Switch mod.	Output
BG190064KLE	brown-blue closed
BG190062EEXM	brown-blue closed
BG190065LO	Reed switch closed
BG190200SSLO	Prox. switch conducting
BG190200ZNLO	Prox. switch conducting



Alarm position

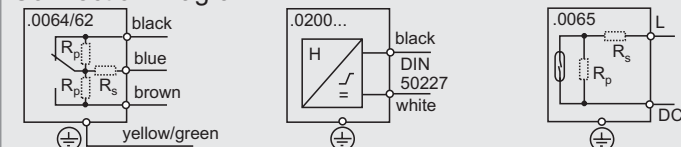
Switch mod.	Output
BG190064KLE	black-blue closed
BG190062EEXM	black-blue closed
BG190065LO	Reed switch open
BG190200SSLO	Prox. switch currentless
BG190200ZNLO	Prox. switch currentless



Switch module	Ex	Fail safe techn.	Switch type
BG190064KLE	ja*	no	SPDT
BG190062EEXM	EEx m	no	SPDT
BG190065HI/LO	ja*	no	Reed
BG190200ZNHI/LO	EEx ib	no	Initiator .N
BG190200SSHI/LO	EEx ia	yes	Initiator .S

*=passive components, may be operated in Zone 1

Connection Diagram



Mounting Hints

If installation is planned in a flange stud, the length should not be larger than Lmax (s. sheet 1). Minimal diameter is 2". When mounting pay attention for the 'TOP' marking. Pay attention to H / L or min / max absolutely at the order.

Electrical Data

Switch module	Switch voltage [V=~/~]	Switch current [A=~/~]	Switch power [W/VA]	Switch time [ms]
740				
.0064	200/250	2/2	40/100	50
.0062	200/250	2/2	40/100	50
.0065	200/230	0,5/0,5	10/-	10
.0200...	8,2/- *)	0,4...2,5 mA/- *)	-/- *)	< 1 *)

*) Namur current loop acc. to DIN 50227

For more details see data sheets for Magnetically operated Switches

Ex protection

.0200N (prox. switch): II 2G EEx ib IIC, T4, T5, T6
 U_i /I_i /P_i/C_i/L_i: 18 VDC/86 mA/95 mW/230 nF/1 uH
 .0200S (prox. switch): II 2G EEx ia IIC, T4, T6
 U_i /I_i /P_i/C_i/L_i: 16 VDC/25 mA/34 mW/30 nF/100 uH
 .0062: II 2G EEx m II, T4, T5, T6

Certificates

Acc. to ATEX 94/9/EG

BG.0200NXX (prox. switch): ZELM 02 ATEX 0083
 BG.0200SXX (prox. switch): PTB 00 ATEX 2049 X
 BG.0062EEXM: ZELM 02 ATEX 0079

Subject to alterations

Ordering-no. switch module

Switch module	Ordering-no.
BG190062EEXM	A
BG190064KLE	B
BG190065LO	C
BG190065HI	D
BG190200SSLO	E
BG190200SSHI	F
BG190200ZNLO	G
BG190200ZNHI	H

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