PHÖNIX CONTROL Founded 1981

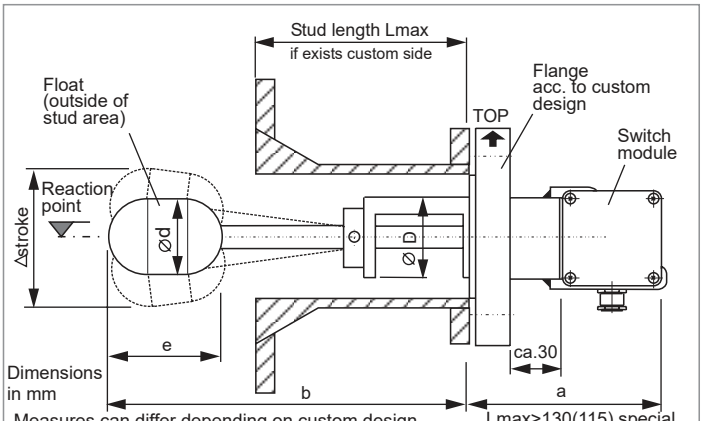
PHÖNIX CONTROL Méréstechnikai és Alkatrészgyártó Kft.

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: 6
Date:	04/22

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



Measures can differ depending on custom design
[1]) only from ANSI 2" [2]) only from ANSI 2 1/2"
Lmax>130(115) special construction on request

PProc	Typ	a	b	⦰d	⦰D	e	Δstroke	Lmax
300 lbs	.0100	130	225	45	47	90	80	130 [1])
400 - 1500	.0101	140	195	59	60	59	85	115 [2])

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

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.

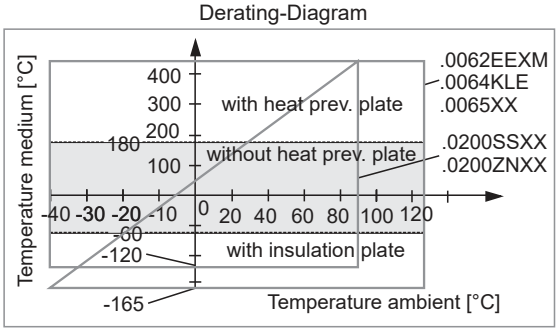
General Data

Hysteresis: < ±14 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/cm^3
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



Electrical Data

see sheet 2

Certificates

Acc. to ExNB 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
(5. 6. 7. 8.)

P_{proc}	150 - 300 lbs	0		
	400 - 1500 lbs	1		
Material*)	1.4571 (316 Ti)	4		
	316L (1.4404)	5		
T_{proc}	<-25 °C	A		
	-25...+180 °C	B		
	>180 °C	C		
			X X X	see 710.VAR (process flange)
			X	Switch module (s. sheet 2)
			A	≥0,90 g/cm^3 only for .0100
			B	≥0,60 g/cm^3 only for .0100
			C	≥0,60 g/cm^3 only for .0101 (Density level **))
		H		High
		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

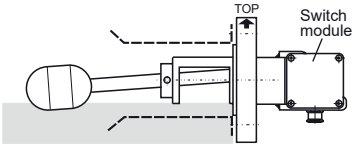
Product group	**719**
Type	**010X**
Sheet: 2/2	Revision: 6
Date:	04/22

Switch behaviour

High alarm when level increases (H)

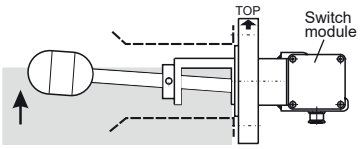
Normal position

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



Alarm position

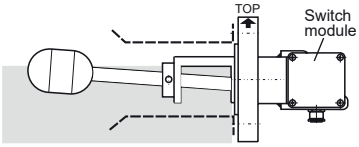
Switch mod.	Output
BG190064KLE BG190062EEXM BG190065HI BG190200SSHI BG190200ZNHI	black-blue closed black-blue closed Reed switch open Prox.switch currentless Prox.switch currentless



Low alarm when level decreases (L)

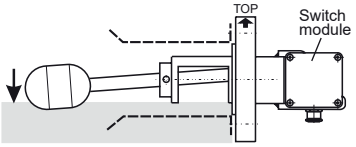
Normal position

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



Alarm position

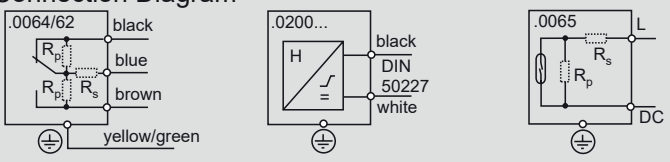
Switch mod.	Output
BG190064KLE BG190062EEXM BG190065LO BG190200SSLO BG190200ZNLO	black-blue closed black-blue closed Reed switch open Prox.switch currentless Prox.switch currentless



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 740	Switch voltage [V=/~]	Switch current [A=/~]	Switch power [W/VA]	Switch time [ms]
.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, 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 ExNB 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

... 5. X

Switch module	BG190062EEXM	A
	BG190064KLE	B
	BG190065LO	C
	BG190065HI	D
	BG190200SSLO	E
	BG190200SSHI	F
	BG190200ZNLO	G
	BG190200ZNHI	H

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