



measuring • monitoring • analysing





- Pressure: max. 25 bar
- Medium temperature to 250 °C
- Density: > 0.7 kg/dm<sup>3</sup>
- High switch capacity
- ATEX design
- Approval by "Germanischer Lloyd"
- Connection: square flange, DIN flange, BSP, NPT
- Material: stainless steel, 1.4571



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#### **Method of Operation**

As the level rises and falls the inclination of the float is changed causing a permanent magnet in the float to be deflected which in turn repels a rotatable opposing magnet. This forced snap-action-contact effect operates a microswitch with a plunger. Even very small changes in level can be detected in this way.

#### **Special advantages**

- Secure and wear-free sensitive switching by repelling magnets
- High switch capacity up to 10 A with microswitch
- Very rugged for tough environments
- No regular maintenance necessary
- Medium temperature up to 250°C
- Wetted parts made of high-quality stainless steel
- No auxiliary power necessary

### Application

Control and monitoring liquid levels in open and closed vessels, especially:

- Min. or Max. monitoring of liquid levels
- Monitoring and controlling a continuous liquid level
- when only side installation is possible due to lack of space or considerations of cost
- when a very rugged monitoring device is needed for tough environments
- when hazardous areas or shipbuilding approval is required.

### **Technical Details**

#### NGS-\_1, horizontal mounting

Max. pressure:	25 bar		
Installation position:	from side		
Differential:	fixed, see diagram		
NGS3, vertical mount	ing		
Max. pressure:	16 bar		
Installation position:	from above		
Differential:	adjustable		
General			
Medium temperature:	-20°C+250°C*		
Ambient temperature:	-20°C+80°C*		
Min. medium density:	> 0.7 kg/dm <sup>3</sup>		
Wetted parts:	stainless steel, 1.4571		
Switch housing:	aluminium casting, colour coated		
Flat gasket:	Klingerit		
Process connection:	square flange,		
	DIN Flange, 2" BSP or NPT		
Switching element:	1 microswitch with 2 switch contacts, changeover function		
Switch capacity:	250 V <sub>AC</sub> , 10 A		
	$220 V_{DC}, 0.6 A$		
ATEX:	250 V <sub>AC</sub> , 2.5 A		
	220 V <sub>DC</sub> , 0.3 A		
Electrical connection:	M20x1.5		
Protection:	Standard version: NGS-2: IP 65		
	Underwater version: NGS-4: IP 68 (max. 20 m WC)		
ATEX-approval:	€ II 1⁄2G EEx dme IIC T6T2		
Weight:	approx. 2.5 kg		

#### \*Temperature details of ATEX variants

Class	Т6	Т5	Τ4	Т3	T2
Process temperature	80°C	95°C	130 °C	200°C	250°C
Ambient temperature	-20+60°C	-20+70°C	-20+80°C	-20+80°C	-20+80°C



### Dimensions

Fixed switch hysteresis, side installation



### Switching data model NGS-21...

LK = linkage length	0	100	200	300
L = Installation length	202	321	421	521
Lmax = Total swing	118	180	234	286
x1 = upper switch point	7	27	45	81
x1 = lower switch point	16	30	47	43

Note: The data apply to water at 20  $^\circ\mathrm{C}$ 

### Process connection: BSP or NPT



### L arm, installation from above



### Z arm, side installation



## Adjustable hysteresis, installation from above



Underwater version



### Counter flange NGS-MFF\_





#### Square flange





# Order Details (Example: NGS-2 1 0 0)

Model	Housing	Installation type	Process connection	Arm length	Approval
NGS-	2 = standard 4 = unterwater	1 = side installation, fixed hysteresis	<ul> <li>0 = 92 mm square flange PN 25</li> <li>B = BSP 2"</li> <li>N = 2 NPT</li> <li>1 = DN 80, PN 40, steel</li> <li>2 = DN 100, PN 40, steel</li> <li>5 = DN 80, PN 40, st. steel 1.4571</li> <li>6 = DN 100, PN 40, st. steel 1.4571</li> </ul>	<ul> <li>0 = 0 mm</li> <li>5 = 100 mm</li> <li>6 = 200 mm</li> <li>7 = 300 mm</li> <li>8* = Z arm, length depending on customer specification</li> </ul>	<i>without</i> = GL-approval <b>Ex</b> =
	<b>2</b> = standard	<ul> <li><b>3</b> = installation from obove, adjustable hysteresis</li> </ul>	<b>0</b> = 92 mm square flange PN 25	<ul> <li>5 = 1000 mm</li> <li>6 = 2000 mm</li> <li>7 = 3000 mm</li> <li>8*= L arm, length depending on customer specification</li> </ul>	GL-approval

\* In case of L- or Z arm: please specify dimensions and switchpoint (Lsh or Lsl) in writing

## Accessory: Counter flange

Model	Material
NGS-MFF1	Counter flange, steel 1.7218
NGS-MFF2	Stainless steel, 1.4404