

Level switch

HD NS 250/HD NS 360-AM-G1-V

Forging and press technology require large fluid volumes to be moved very rapidly under high overpressure. For this purpose, hydraulic accumulators are charged with the fluid up to the required operating pressure and pressurised to release the desired volume at the correct pressure at the defined time.

The NS 250 and NS 360 series are suitable for monitoring variable fill volumes in these types of systems. Available with up to 250 or 360 bar pressure ratings, they indicate the desired liquid level via clearly visible sight glass float, as well as via variable switching contacts and/or continuous output position encoder. A magnetic field generated by the interior unsinkable main float moves the sight glass float. The same magnetic field also triggers the electric contacts and the position encoder.

Level switch HD NS for external installation

Visual and electric liquid level monitoring

Operating pressure up to 360 bar

TÜV (Technical Inspection Agency) approval

Lengths up to 5000 mm

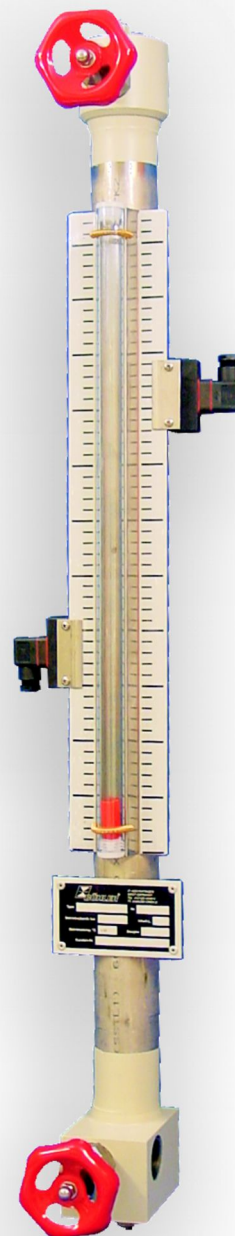
Adjustable level contacts

Optional 4-20 mA analogue output

Display with scale

Compact design

Special versions available upon request



Technical Data HD NS 250 ..-AM

Basic Unit

Max. operating pressure	250 bar
Max. operating temperature	50 °C
spec. min. fluid weight	0.80 kg/dm ³
L1 max.	5000 mm
Weight at L1=500 mm	approx. 15 kg
Weight L1+100 mm	approx. 0.65 kg

Longer version available upon request

Material

Float SK597	Solid plastic
Riser	1.4571
Upper end piece	Steel
Bottom end piece	Steel
Check valve	1.4571
Bleeder valve	1.4571
Sight glass	PC

Connection

Air end	G1
Water end	G1

Options

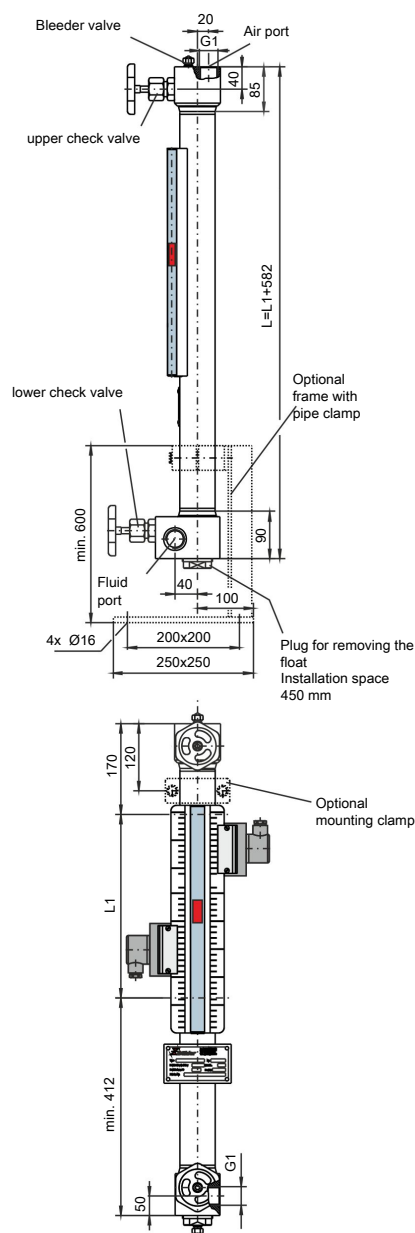
Transducer tube	-K continuous level
Measurement principle	Reed contact
Resolution	5 or 10 mm
Operating voltage (U _B)	10 - 30 VDC
Output	(nominal voltage 24 VDC) 4 - 20 mA
Load Ω max.	(U _B - 7.5 V) / 0.02 A

Accessories

Item no.:	Description:
20 51 002	Mounting clamp heavy series SPAL 6060
22 54 999	Frame for level switch ground anchoring with pipe clamp SPAL 6060
22 74 999	Masonry screws 4x DIN529-M12x300 with nuts

Note

These level switches include TÜV-approval.
Tested to Pressure Equipment Directive 2014/68/EU (Module G).



Model key HD NS 250

Model key

HD NS250-AM-G1-V-XX-SK597/-XX	
Model designation, high pressure level switch	Length L1 = mm
External installation	Float
Connection G1	Option Transducer tube - continuous level measurement (K)
Valve	K5 continuous resolution 5 mm
	K10 continuous resolution 10 mm

Ordering example

You require: Level switch for external installation, operating pressure 250 bar, measuring length L1 = 2400 mm, with continuous level output, 10 mm resolution and 2 changeover contacts

Order HD NS 250-AM-G1-V-K5-SK597 / L1 = 2400
2 x item no. 28 89 999 contact MKS 1/W

Technical Data HD NS 360 ..-AM

Basic Unit

Max. operating pressure	360 bar
Max. operating temperature	50 °C
spec. min. fluid weight	0.80 kg/dm ³
L1 max.	5000 mm
Weight at L1=500 mm	approx. 20 kg
Weight L1+100 mm	approx. 1.0 kg
Longer version available upon request	

Material

Float SK597	Solid plastic
Riser	1.4571
Upper end piece	Steel
Bottom end piece	Steel
Check valve	1.4571
Bleeder valve	1.4571
Sight glass	PC

Connection

Air end	G1
Water end	G1

Options

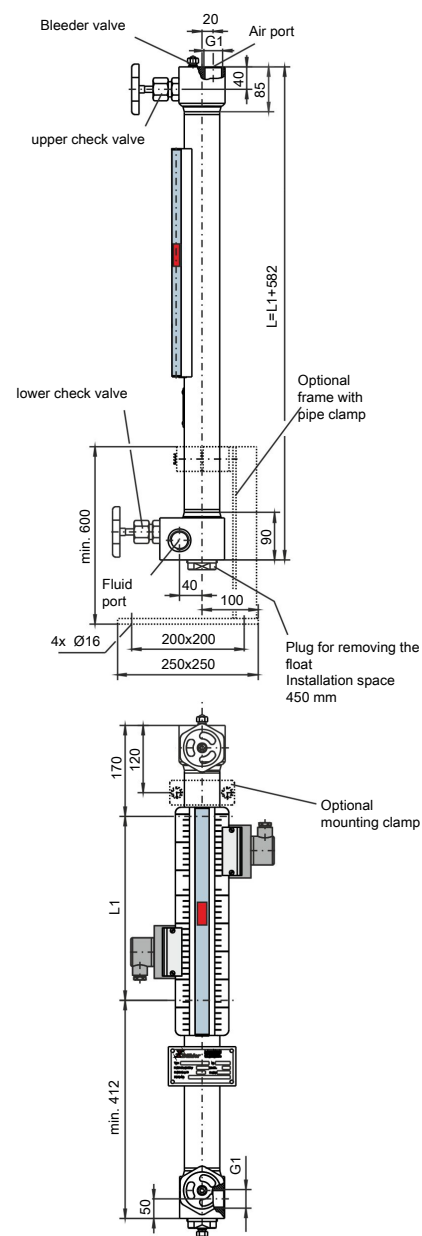
Transducer tube	-K continuous level
Measurement principle	Reed contact
Resolution	5 or 10 mm
Operating voltage (U _B)	10 - 30 VDC
Output	(nominal voltage 24 VDC) 4 - 20 mA
Load Ω max.	(U _B – 7.5 V) / 0.02 A

Accessories

Item no.:	Description:
20 51 003	Mounting clamp heavy series SPAL 6063.5
20 55 999	Frame for level switch ground anchoring with pipe clamp SPAL 6063.5
22 74 999	Masonry screws 4x DIN529-M12x300 with nuts

Note

These level switches include TÜV-approval.
Tested to Pressure Equipment Directive 2014/68/EU (Module G).



Model key HD NS 360

Model key

HD NS360-AM-G1-V-XX-SK597/-XX	
Model designation, high pressure level switch	Length L1 = mm
External installation	Float
Connection G1	Option Transducer tube - continuous level measurement (K)
Valve	K5 continuous resolution 5 mm
	K10 continuous resolution 10 mm

Ordering example

You require: Level switch for external installation, max. operating pressure 360 bar, measuring length L1 = 3200 mm, with 2 changeover contacts

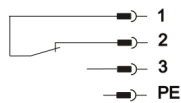
Order HD NS 360-AM-G1-V-SK597 / L1=3200
2 x item no. 28 89 999 contact MKS 1/W

Contacts for NS ...AM

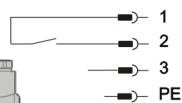
Pin assignment (Contact position empty tank)

Type	MKS-1/K (-60)
Function	NC contact/NO contact
Max. voltage	230 V AC/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.	28 88 999

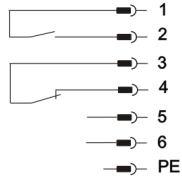
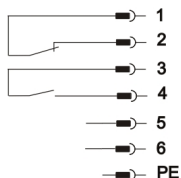
Mounted left



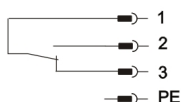
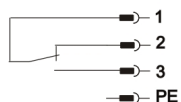
Mounted right



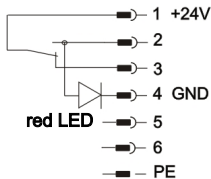
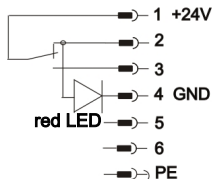
Type	MKS-2/K
Function	2 x NC contact/NO contact
Max. voltage	230 V AC/DC
Max. switching current	1 A
Max. contact load	50 VA
Connector	S6 (DIN EN 175291-804)
	6-pin + PE
IP class	IP 65
Item no.	28 91 999



Type	MKS-1/W (-60)
Function	Change-over contact
Max. voltage	230 V AC/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.	28 89 999



Type	MKS-1/W-L 24 V (-60)
Function	Change-over contact with LED
Max. voltage	24 V DC
Max. switching current	1 A
Max. contact load	25 VA
Connector	S6 (DIN EN 175291-804)
	6-pin + PE
IP class	IP 65
Item no.	28 90 999



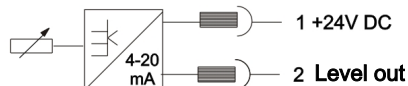
Other contacts available upon request

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

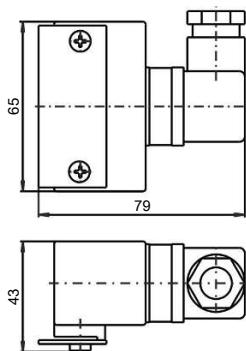
Versions ending in -60 are for switch type NS 3/20 AM and have a pipe clamp for mounting to the level switch tube.

When installing a transducer tube with continuous output signal the contact can only be installed on the left side.

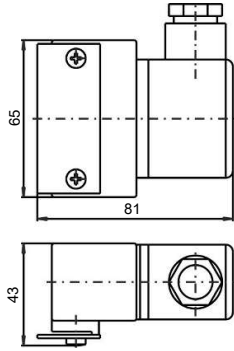
Pin assignment for AM-K with S3 connector



MKS 1/K, MKS 1/W



MKS 2/K



MKS 1/W-L24V

