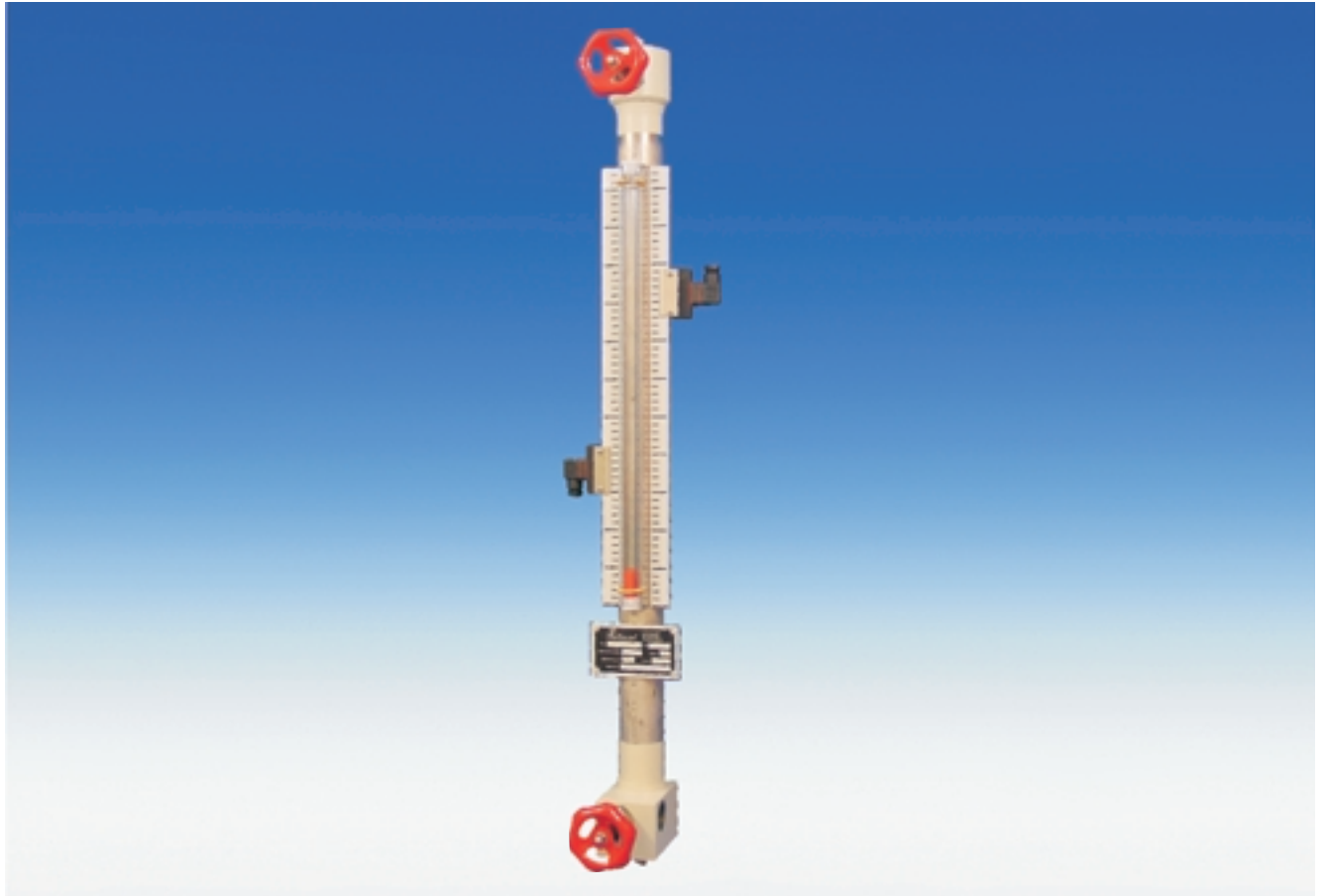


Liquid-level control HD-NS 160 - 360 AM G1 V -K for external mounting



The liquid-level switch for external mounting is used for monitoring and control of liquid level in closed pressurized containers. The lowest determinable level position is at the upper edge of the lower connecting tube. As the unit is designed without glands any leakage problems are eliminated. Each level switch is equipped with a visual indicator which is moved by the float and covered by a transparent polycarbonate tube. The lower edge of the red visual indicator indicates the actual fluid level. The adjustable contacts are fixed to the visual indicator scale. The contacts are actuated magnetically by the main float. The contacts (see details overleaf) can be attached to the left hand side of the indicator scale only, whereas a continuous level transmitter may be attached to the right hand side. The transmitter delivers an **analog signal of 4-20 mA**.

- **includes check valve**
- **optical indicator**
- **field-proven contacts**
- **robust construction**
- **optional continuous analog signal (4-20mA)**
- **up to 320 bar pressure rating available**

technical data

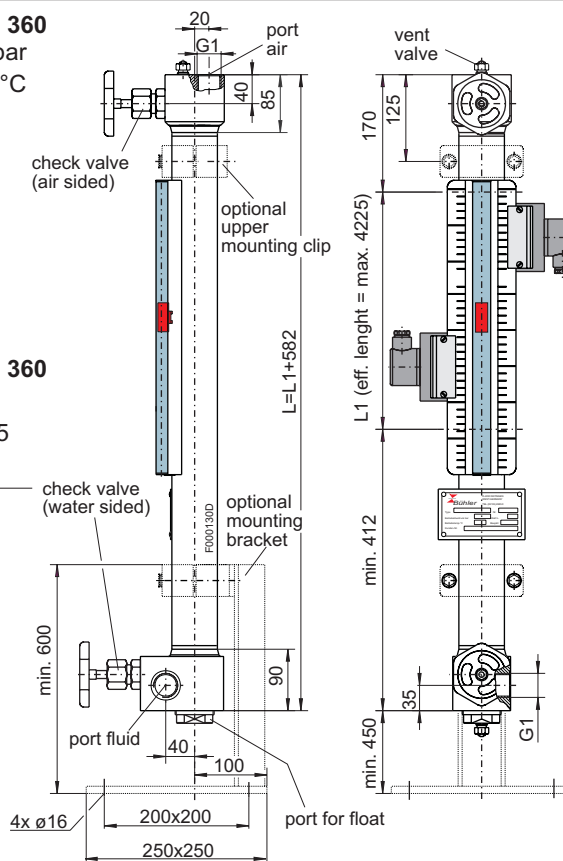
type	HD-NS 160	HD-NS 250	HD-NS 320	HD-NS 360
max. operating pressure	160 bar	250 bar	320 bar	360 bar
max. operat. temperature	+ 50 °C	+ 50 °C	+ 50 °C	+ 50 °C

spec. gravity of fluid $\geq 0,8 \text{ kg/dm}^3$

material

float SK 597	compact plastic
stand pipe	1.4571
level indicator tube	PC

weight (kg)	HD-NS 160	HD-NS 250	HD-NS 320	HD-NS 360
when L1 = 500 mm	10	12,5	15	15
per 100 mm	0,41	0,65	0,83	0,95
bracket (accessories)	10	10	10	10

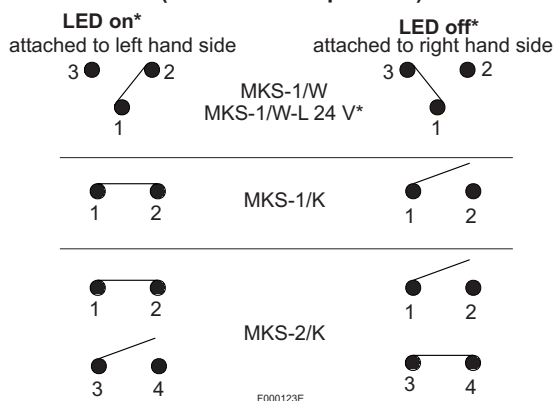


contacts

type	MKS-1/K	MKS-2/K	MKS-1/W	MKS-1/W-L 24 V
function (bistable)	NC / NO *	NC / NO *	change over	change over
max. operating voltage	230 V AC/DC	230 V AC/DC	230 V AC/DC	24 V DC
max. contact load	50 VA	50 VA	50 VA	50 VA
max. current	1 A	1 A	1 A	1 A
connector	3 pol. + PE DIN 43650 (M3)	6 pol. + PE DIN 43651 (S6)	3 pol. + PE DIN 43650 (M3)	6 pol. + PE DIN 43651 (S6)
protection class	IP 65	IP 65	IP 65	IP 65
part-no.	28 88 999	28 91 999	28 89 999	28 90 999

*NC=normally closed, NO=normally open
under rough working conditions with heavy vibrations we recommend MKS-1/K and MKS-2/K contacts.

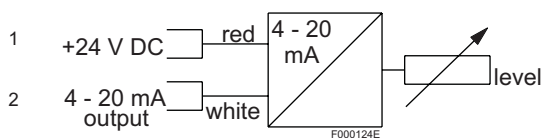
circuit diagram of contacts (float in lowest position)



level transmitter (-K)

analog output	4 - 20 mA
resolution	7,5 mm
max. load resistance	$R = (U_B - 7,5 \text{ V}) / 0,02 \text{ A}$
measuring resistor	reed contact
operating voltage (UB)	24 V DC $\pm 10\%$
ripple	< 1%

wiring diagram for NS-.../AM-K with connector S3



accessories / part-no.	HD-NS 160 AM G1 V	HD-NS 250 AM G1 V	HD-NS 320 AM G1 V	HD-NS 360 AM G1 V
mounting bracket	2051999	2054999	2055999	2055999
add. contact support	28533999	see HD-NS 160...	see HD-NS 160...	see HD-NS 160...
upper mounting clip	2051001	2051002	2051003	2051003
mounting screws 4x DIN529-M12x320	2274999	see HD-NS 160...	see HD-NS 160...	see HD-NS 160...

ordering information

please indicate with order: dimension L1 (max. 4225), type and number of contacts.

HD-NS...AM G1 V	HD-NS160 AM G1 V	HD-NS 250 AM G1 V	HD-NS 320 AM G1 V	HD-NS 360 AM G1 V
part-no.	2011999	2012999	2013999	2029999
HD-NS...AM G1 V-K	HD-NS160 AM G1 V-K	HD-NS 250 AM G1 V-K	HD-NS 320 AM G1 V-K	-
part-no.	2011199	2012199	2013199	-