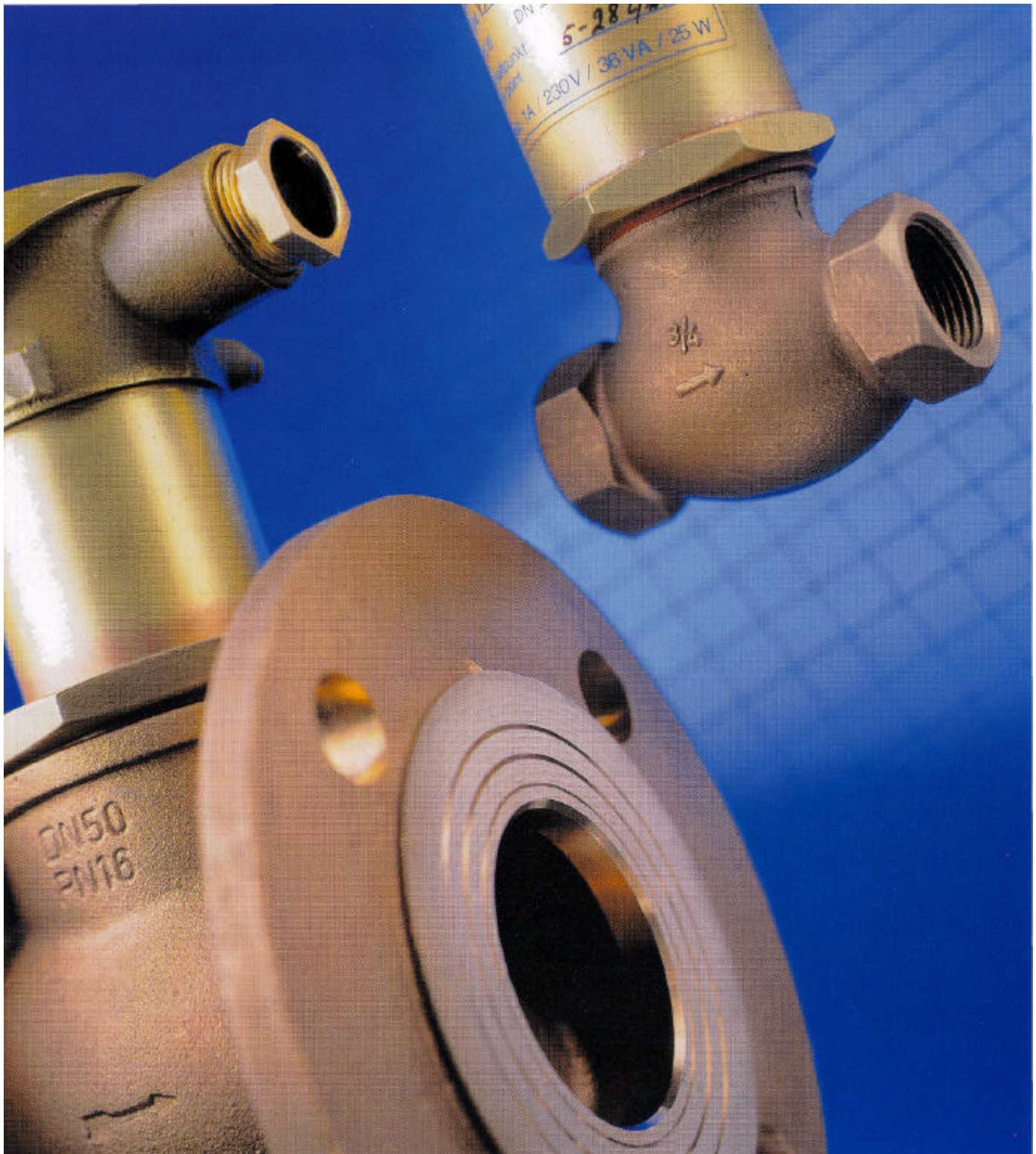


# SIKA - Flow Switches

## Paddle and Piston Types

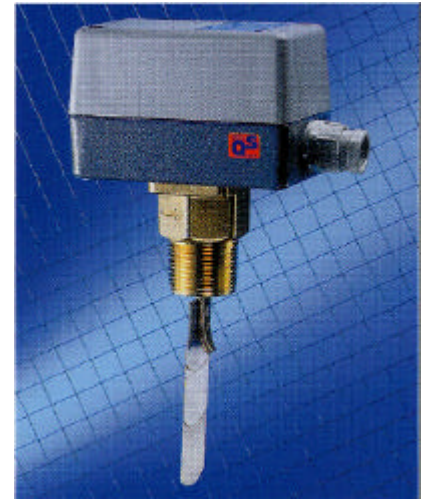
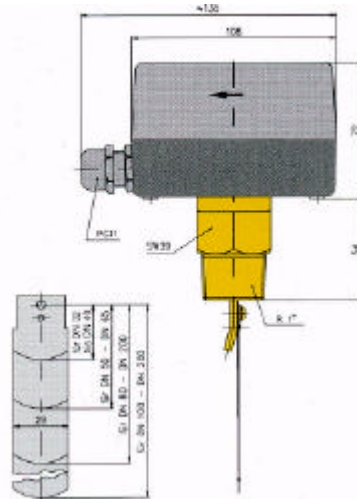


# SIKA-Flow Switch

## Consistent performance - robust - universally insertable

### Paddle-Flow Switch VH 780 for Liquids

- Easy installation through direct installation into existing pipe
- One unit useable for a wide range of pipe sizes (diameter 32...200)
- Two versions (set point ranges)
- Adjustable set point
- Micro switch for high contact rating
- Max. pressure rating 20 bar (st. steel)
- Max. pressure rating 11 bar (brass)



### Set point ranges and technical data

Pipe size	Target plate to select *	Set point ranges H <sub>2</sub> O [ m <sup>3</sup> /h ]*			
		ON		OFF	
		VH 780 NI	VH 780 NIF	VH 780 NI	VH 780 NIF
DN32	29x34	1,3... 3,0	0,9... 1,6	0,8 ... 2,8	0,25... 1,4
DN40	29x34	1,7 ...4,0	1,2 ... 2,2	1,1 ... 3,7	0,5... 1,9
DN50	29x60	3,1 ...6,1	2,3 ... 4,1	2,2 ... 5,7	
DN65	29x60	4,0 ...7,0	3,1 ...5,5	2,7... 6,5	
DN80	29x89	6,2... 11,4	4,9 ... 8,2	4,3... 10,7	2,1 ...7,4
DN 100	29 x 167, shortened	8,0... 18,4	7,7... 13,0	6,1 ... 17,3	3,3... 11,6
DN125	29 x 167, shortened	12,9 ...26,8	11,5... 19,6	9,3 ... 25,2	5,0 ... 17,5
DN150	29 x 167, shortened	16,8... 32,7	14,1 ...23,9	12,3 ... 30,6	6,1 ... 21,4
DN200	29x167	46,1 ... 94,2	36,5...61,8	38,6 ... 90,8	21,7 ... 55,3

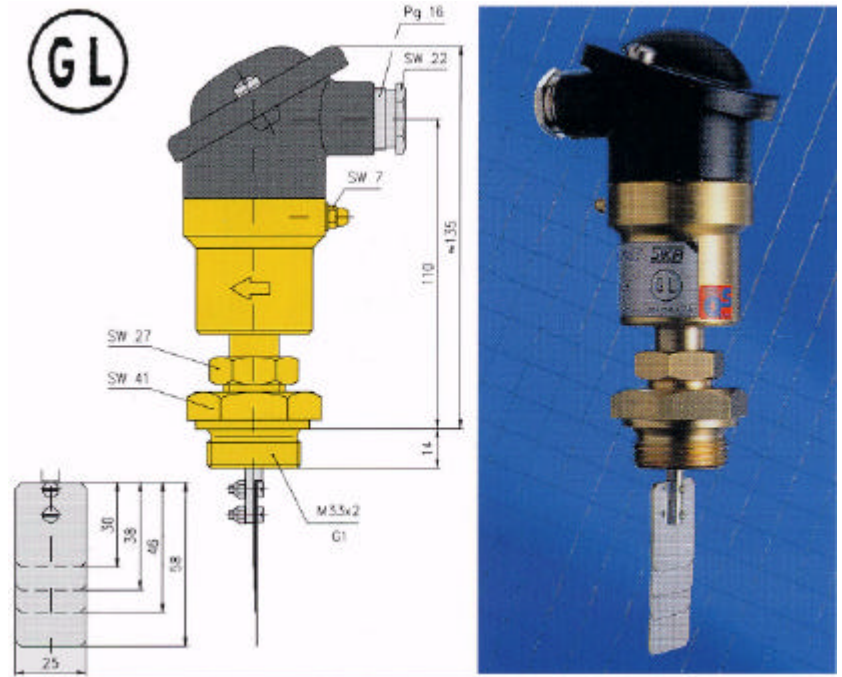
\*Higher set points selectable by use of smaller paddle sizes.

Technical data	
Max. pressure rating	11 bar (brass), 20 bar (st. steel)
Max. medium temperature	120°C
Max. ambient temperature	85°C
Change over contact max. contact rating	250 VAC, max. 15 A, 8 A inductive load
Protection class	IP 65

Material	set point	order code
Brass	standard	VH 780 NI
	low	VH780NIF
Stainless steel	standard	VH 780 EI
	low	VH 780 EIF

## Paddle-Flow Switch VH 500 for Liquids, Marine version

- Approved by German Lloyd, certificat No.: 89 824-94 HH
- Suitable for water, oil, etc.
- Insert installation into pipe or T-piece DN 25...DN 50 or bigger
- Four paddles in different sizes included selection in accordance to the pipe size
- Robust construction
- Vibration proof to 4 g
- Wide set point ranges universally insertable
- Setpoint adjustment by paddle size selection and by adjustment screw
- Micro switch with high contact rating



## Set point ranges and technical data

1

Size of pipe section	Target plate to select	Set point ranges H <sub>2</sub> O to 2 bar [ m <sup>3</sup> /h ]	
		ON	OFF
DN25	25 x 30 mm	1,10 ... 1,25	1,05... 1,20
DN32	25 x 38 mm	1,70 ...2,05	1,60... 1,95
DN40	25 x 46 mm	2,20 ...2,55	2,10. ...2,45
DN50	25 x 58 mm	3,25 ... 3,85	3,15. ...3,75

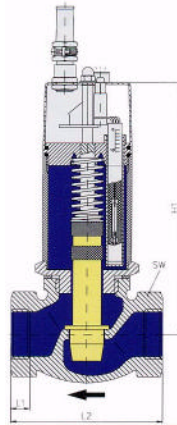
\*Higher set points selectable by use of smaller paddle sizes.  
Tolerance of the set point ranges: ± 15 %, set points for bigger pipe sizes on request

Technical data	
Max. pressure rating	6 bar
Max. test pressure	10 bar
Max. medium temperature	100°C
Max. ambient temperature	85°C
Change over contact, max. contact rating	24 VDC, 8 A resistance load, 7 A inductive load 60 VDC, 1 A resistance load, 0,5 A inductive load 250 VAC, 10 A resistance load, 10 A inductive load
Protection class	IP 54
Material	brass

Thread connection	Order code
1" BSP male	VH 500 NI
M 32x2	VH 500 NM

## Flow Switch , Piston Type V 1000

- Optical flow indication (only at 230 VAC) by glow lamp
- Various fitting positions
- High repeatability
- Reed contact output
- Wide set point ranges
- Inline installation
- Special version for oil available



### Set point ranges and technical data

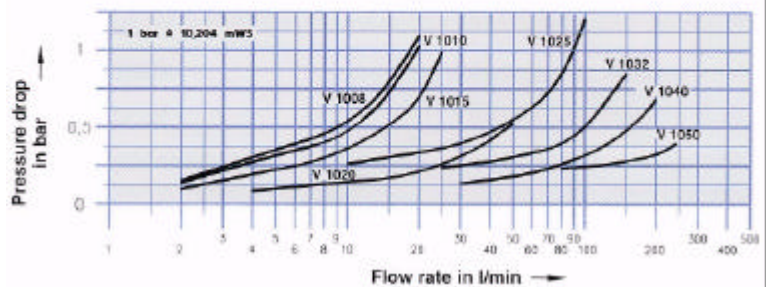
Type/order code**	Pipe size	Thread connection	Set point ranges at decreasing flow, H <sub>2</sub> O, 20°C [l/min ]	Dimensions [ mm ]				Weight [kg ]
				SW	L <sub>1</sub>	L <sub>2</sub>	H <sub>1</sub>	
V 1008	DN08	1/4" BSP	2...10	27/22*	81	10	136	1,0
V 1010	DN 10	3/8" BSP	2...10	27/22*	81	11	136	1,0
V 1015	DN 15	1/2" BSP	2...13	27	67	11	140	0,9
V 1020	DN20	3/4" BSP	5...28	33	80	14	143	1,1
V 1025	DN25	1" BSP	20...110	41	95	17	150	1,3
V 1032	DN32	1 1/4" BSP	23...140	52	98	14	150	1,7
V 1040	DN40	1 1/2" BSP	50...220	58	130	17	144	2,2
V 1050	DN50	2" BSP	130...400	72	137	20	150	3,3

\* Nut size of thread reductions (included)

\*\* Version is suitable for oil , please indicate when ordering

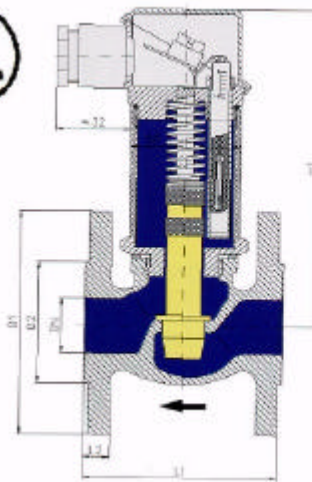
Technical data	
Pressure rating	PN 16
Max. medium temperature	100°C
Change over contact, max. contact rating	230 V AC/DC; 1 A 25 W; 36 VA
Protection class	IP 54
Hysteresis	< 10 % of set point range
Rep. set point accuracy	< 2 % of set point range
Material: Pipe section	Gun metal RG 5
Upper section	Brass
Piston	PPN (Hostalen)
Magnet	Hard ferrite

### Pressure drop diagram



## Flow Switch for Marine Applications, Piston Type VM 100

- Approved by German Lloyd, certificate No.: 54627-71 HH
- Inline installation, DN 15...DN 20 female threaded, DN 25...DN 80 flanged
- Wide set point range
- Various fitting positions
- High repeatability
- Reed contact output
- Special version for oil available



### Set point ranges and technical data

Type / order code	Pipe size		Set point ranges at decreasing flow, H <sub>2</sub> O, 20°C [ l/min ]	Dimensions [ mm ]				
				D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	H <sub>1</sub>
VM 115	DN 15	G ½	2 ... 13	-	-	81	-	136
VM 120	DN20	G <sup>3</sup> / <sub>4</sub>	5... 28	-	-	81	-	136
VM 125	DN25		15...75	115	68	90	12	151
VM 132	DN32	Flange drilled in accordance to DIN 2527	20 ... 125	140	78	95	13	161
VM 140	DN 40		30 ... 200	150	88	110	14	165
VM 150	DN 50		85 ... 280	165	102	125	14	165
VM 165	DN 65		65 ... 410	185	122	150	15	179
VM 180	DN 80		150 ... 550	200	138	170	16	185

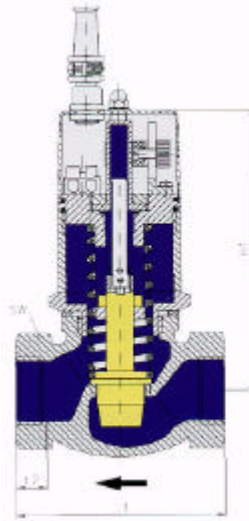
\* Version suitable for oil, please indicate when ordering

Technical data	
Pressure rating	PN 16
Max. medium temperature	100°C
Change over contact max. contact rating	24 V DC; 230 V AC 0,5 A DC; 1 A AC 25 W; 36 VA
PG - screwing	M 24 x 1,5 acc. to DIN 89280
Protection class	IP 44
Hysteresis	< 15 % of set point range
Accuracy	< 2 % of set point range

Materials	
Pipe section	Gun metal RG 5
Upper section	Brass
Piston	PPN Hostalen
Magnet	Hard ferrite

## Flow Switch Piston Type with Proximity Switch V 3000

- Magnet free construction
- Monitoring of extremely low flow rates e.g. 0,5 l/min
- Various fitting positions
- High repeatability
- Low hysteresis [ 1%
- Wear resistant proximity switches
- Stainless steel version available



### Set point ranges and technical data

Type / order code	Pipe size	Female thread connections	Set point ranges at decreasing flow, H <sub>2</sub> O, 20°C [ l/ min ]	Dimensions [ mm]				Weight [ kg ]
				SW	L	L	H	
V 3 0 1 0 - ...	DN 10	3/8" BSP	0,5 ... 50	33/28*	96	19	113	1,1
V 3 0 1 5 - ...	DN 15	1/2" BSP	0,5 ... 50	33/28*	96	19	113	1,1
V 3 0 2 0 - ...	DN 20	3/4" BSP	0,5 ... 50	33	80	13	113	1,0
V 3 0 2 5 - ...	DN 25	1" BSP	2 ... 105	41	95	14	120	1,2
V 3 0 3 2 - ...	DN 32	1 1/4" BSP	2 ... 235	52	98	14	120	1,6
V 3 0 4 0 - ...	DN 40	1 1/2" BSP	3,5 ... 342	58	130	17	125	2,1
V 3 0 5 0 - ...	DN 50	2" BSP	5 ... 417	72	137	20	131	3,2

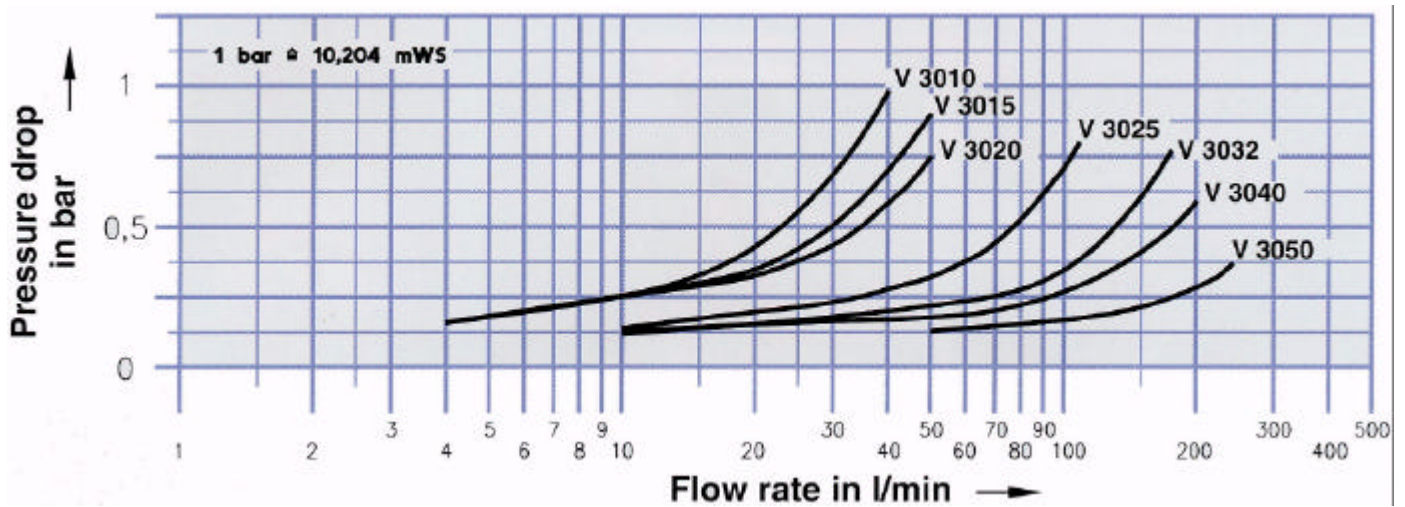
Bigger pipe sizes on request.  
\* Nut size of thread reductions (include)

Technical data	
Pressure rating	PN 16
Max. medium temperature	100°C
Output signal	Namur*
Protection class	IP 54
Tolerance of set point ranges	± 1.5 %

\*To converts the NAMUR signal to a potential free c/o contact the transistor relays R 401 and R 402 are available.

Materials		Order codes
Pipe section	Gun metal RG 5	V 3 0 1 5 - MS (sample for DN 15)
Upper section	brass	
Piston	PPN ( Hostalen)	
Actuator guide	PEI (Ultem)	
Pipe section	St. steel	V 3 0 4 0 - VA (sample for DN 40)
Upper section	St. steel	
Piston	PPN ( Hostalen)	
Actuator guide	PEI (Ultem)	

## Pressure Drop Diagram Piston Type Flow Switch V 3000



## Transistor relay for Piston Flow Type Switch V 3000

To read out of the NAMUR signal of the piston type flow switch there are two transistor relays available:

- Type R 401 for rail mounting
- Type R 402 for local installation at the flow switch

As an option to c/o contact can be time delayed (40 ms, 90 ms or 210 ms).  
Please indicate when ordering.

	R 401	R 402
Protection class	Casing IP 40 Terminals IP 00	IP 65
Input	NAMUR-Signal from flow switch V 3000	
Output	change over contact potential free	
Contact rating	250 VAC; 8 A, 2000 VA	
Power supply	230 VAC ± 5%, 45 ... 60 Hz	
Temperature	0 ... +60°C	