

## VHS06, VK306 // for insertion installation



### Your advantages

Series	VHS06 / VK306
	<ul style="list-style-type: none"> <li>• Universal flow switches for DN 20...200</li> <li>• Adjustable for pipe size and setpoint by trimming the paddle</li> <li>• Threaded adapters for tees or for direct insertion into pipes</li> </ul>

Technical data	VHS06	VK306
<b>Switching function</b>	Contact → closes at increasing flow → opens at decreasing flow Reversing possible	Contact → closes at increasing flow → opens at decreasing flow
<b>Pressure rating</b>	PN 25	PN 10
<b>Temperature ranges</b>		
<b>Medium</b>	-25...110 °C	-25...100 °C
<b>Ambient</b>	-25...80 °C	-25...70 °C
<b>Electrical data</b>		
<b>Electrical connection</b>	Plug connector DIN EN 175301-803-A incl. cable socket	1.5 m PVC jacket cable
<b>Max. Switching current</b>	1 A	
<b>Max. Switching voltage</b>	230 VAC, 48 VDC	
<b>Max. Rating</b>	26 VA, 20 W	
<b>Degree of protection EN 60529</b>	IP65	
<b>Protection class EN 60730-1</b>	Class II	

### Approvals\*



\* Only for flow switches with plastic paddle

Options	
For type	See order code
VHS06	→ Plug connector DIN EN 175301-803-A incl.cable socket with two LED for switching voltages 24 V...230 V AC/DC ±20 %, ambient temperature -20...70 °C → or 4-pin-sensor plug M12 x 1
For type	On request
VK306	→ Reversed switching function
VK306 with plastic paddle	→ Recognized component ETL according to UL & CSA standards

**VHS06 / VK306 with plastic paddle, installation into pipe tees according to EN 10242**

Paddle to be trimmed to						
	Paddle mark	9	15	20	30	40
	Installation length L <sub>1</sub> [mm]	40	46	51	61	71
Setpoints* / Max. flow rate [m <sup>3</sup> /h]						
DN 20	Increasing flow ON**	1.1				
	Decreasing flow OFF	0.9				
	Max. flow rate	4				
DN 25	Increasing flow ON**	1.7	1,3			
	Decreasing flow OFF	1.5	1.1			
	Max. flow rate	8.5	5			
DN 32	Increasing flow ON**	2.9	2.2	1.9		
	Decreasing flow OFF	2.6	1.9	1.6		
	Max. flow rate	15	10	8		
DN 40	Increasing flow ON**	4.2	3.2	2.8	2.1	
	Decreasing flow OFF	3.8	2.8	2.4	1.8	
	Max. flow rate	25	18	14	10	
DN 50	Increasing flow ON**	6.5	4.9	4.4	3.3	2.7
	Decreasing flow OFF	6	4.5	4	3	2.4
	Max. flow rate	41	29	24	17	13

**VHS06 / VK306 with plastic paddle, installation by welded socket according to EN 10241, G<sup>1</sup>/<sub>2</sub> female, length 15 mm**

Paddle to be trimmed to									
	Paddle mark	15	20	30	40	50	60	70	80
	Installation length L <sub>1</sub> [mm]	46	51	61	71	81	91	101	111
Setpoints* / Max. flow rate [m <sup>3</sup> /h]									
DN 65	Increasing flow ON**	8.8	7.4	5.6	4.5				
	Decreasing flow OFF	8.5	7	5.2	4.2				
	Max. flow rate	50	45	34	27				
DN 80	Increasing flow ON**	13.8	11.7	9.2	7.5	6.5	5.1		
	Decreasing flow OFF	11.3	9.6	7.7	6.3	5.3	4.7		
	Max. flow rate	80	65	50	40	33	28		
DN 100	Increasing flow ON**		18.8	14.6	12.3	10.2	8	6.9	6.2
	Decreasing flow OFF		16.3	12	10	8	7.1	6.3	5.9
	Max. flow rate		110	80	65	55	50	40	36
DN 150	Increasing flow ON**				27	22.8	19.5	18	15.7
	Decreasing flow OFF				25	19.8	17.8	16	14.3
	Max. flow rate				150	130	110	100	90
DN 200	Increasing flow ON**					45	38	33.5	30
	Decreasing flow OFF					43.5	36	32	29
	Max. flow rate					230	200	175	160

\* Water, 20 °C, horizontal pipe, tolerance ±15 %

\*\* Typical value

**VHS06 / VK306 with stainless steel paddle, installation into pipe tees according to EN 10242****Paddle to be trimmed to**

	Paddle mark	15	20	30	40
	Installation length L <sub>1</sub> [mm]	46	51	61	71

**Setpoints\* / Max. flow rate [m<sup>3</sup>/h]**

<b>DN 25</b>	Increasing flow ON**	1.2	1		
	Decreasing flow OFF	1	0.9		
	Max. flow rate	10	6		
<b>DN 32</b>	Increasing flow ON**	2	1.7		
	Decreasing flow OFF	1.7	1.5		
	Max. flow rate	20	15		
<b>DN 40</b>	Increasing flow ON**	3.3	2.7	2	
	Decreasing flow OFF	3	2.5	1.8	
	Max. flow rate	34	26	18	
<b>DN 50</b>	Increasing flow ON**	4.8	4	3.2	2.6
	Decreasing flow OFF	4.6	3.8	2.9	2.4
	Max. flow rate	55	45	32	24

**VHS06 / VK306 with stainless steel paddle, installation by welded socket according to EN 10241, G½ female, length 15 mm****Paddle to be trimmed to**

	Paddle mark	15	20	30	40	50	60	70	80
	Installation length L <sub>1</sub> [mm]	46	51	61	71	81	91	101	111

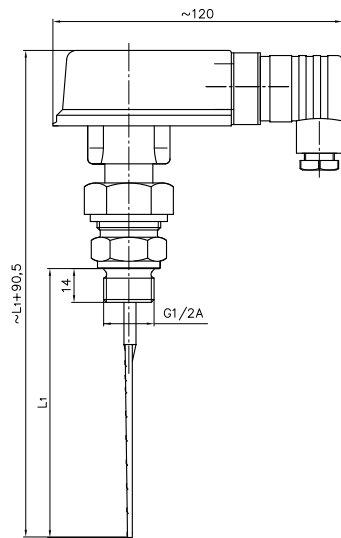
**Setpoints\* / Max. flow rate [m<sup>3</sup>/h]**

<b>DN 65</b>	Increasing flow ON**	7.2	6.0	4.5	3.6				
	Decreasing flow OFF	6.8	5.7	4.2	3.3				
	Max. flow rate	100	80	65	50				
<b>DN 80</b>	Increasing flow ON**	11.7	10	7.7	6.4	5.3	4.6		
	Decreasing flow OFF	11.4	9.6	7.5	6	4.9	4.2		
	Max. flow rate	150	125	95	75	60	50		
<b>DN 100</b>	Increasing flow ON**		16	12.4	10.3	8.7	7.7	6.7	6.1
	Decreasing flow OFF		15.9	11.9	9.8	8.1	7.1	6.3	5.6
	Max. flow rate		200	150	120	105	90	75	70
<b>DN 150</b>	Increasing flow ON**				24	20.3	18	16.3	14.7
	Decreasing flow OFF				22.7	19	17.3	15.3	13.8
	Max. flow rate				290	250	210	190	170
<b>DN 200</b>	Increasing flow ON**					41	35.7	31.7	26.7
	Decreasing flow OFF					38.7	34	29.7	23.3
	Max. flow rate					450	390	350	310

\* Water, 20 °C, horizontal pipe, tolerance ±15 %

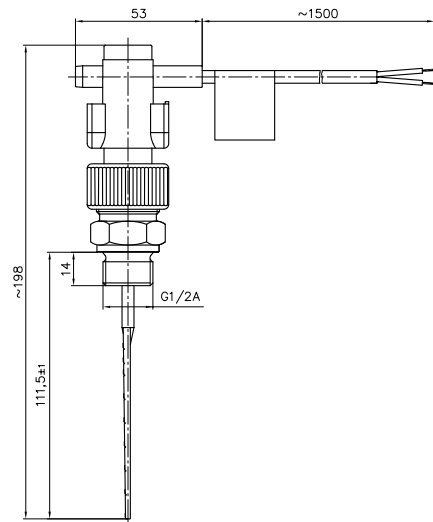
\*\* Typical value

VHS06 with plastic paddle



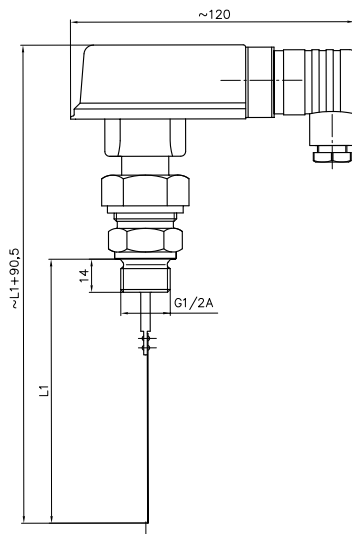
Flow direction

VK306 with plastic paddle



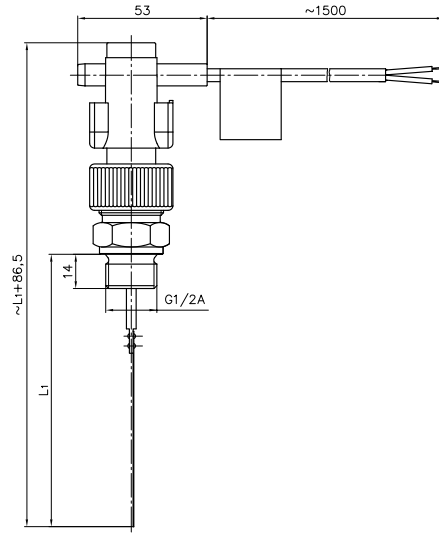
Flow direction

VHS06 with stainless steel paddle



Flow direction

VK306 with stainless steel paddle



Flow direction

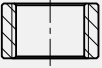
**Materials in contact with fluid**

Type	VHS06	VK306
Body	Brass CW614N	PPE+PS Noryl™ 30 % glass fibre reinforced
Paddle	Plastic paddle: PPE+PS Noryl™ 30 % glass fibre reinforced / stainless steel Stainless steel paddle: Stainless steel 1.4310 / brass	
Pin	Stainless steel 1.4571	
Process connection	Brass CW614N	
Magnet	Hard ferrite	
O-ring	NBR	

Order code			
Type			
<b>VHS06</b>			
Plug connector incl. cable socket (standard)	VHS06M2		171R21
Plug connector incl. cable socket with LED (option)	VHS06M2		191R21
4-pin-sensor plug M12 x 1 (option)	VHS06M2		181R21
<b>VK306</b>			
1.5 m PVC jacket cable	VK306M2		10PR21
Paddle			
Plastic		P	
Stainless steel		5	
<b>Example order number</b>		<b>VHS06M2</b>	<b>P</b> <b>171R21</b>

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Type		Order number		
<b>VHS06</b>	Plug connector (standard), paddle plastic	<b>VHS06M2</b>	<b>P</b>	<b>171R21</b>
<b>VHS06</b>	Plug connector (standard), paddle stainless steel	<b>VHS06M2</b>	<b>5</b>	<b>171R21</b>

Order code		
Accessories		Order number
	Welding socket according to EN 10241, G½ female thread, length 15 mm, steel S 235 JR	XVH1470

