

**Product Information**

**Flow Indicator/  
Switch NJ / NJV**



- Scale for various viscosities or viscosity stabilised from 30 to 200 mm<sup>2</sup>/s
- Also for dark or dirty media
- Robust construction

**Characteristics**

Mechanical flow meter with spring-supported piston for fluid media. The measured value is transferred to a display ring via a magnetic coupling. Because of this separation, the display cannot become dirty. Robust construction in brass or stainless steel.

**Technical data**

<b>Switch</b>	optional reed switch	
<b>Nominal width</b>	DN 8..25	
<b>Process connection</b>	female thread G 1/4..G 1 (further process connections available on request)	
<b>Display range</b>	2..80 l/min	for details see table "Ranges"
<b>Q<sub>max.</sub></b>	to 80 l/min	
<b>Tolerance</b>	±8 % of the full scale value, minimum 1 l/min	
<b>Pressure resistance</b>	PN 100 bar	
<b>Media temperature</b>	-20..+100 °C	
<b>Ambient temperature</b>	-20..+70 °C	
<b>Media</b>	water (NJ only), oils (aggressive media available on request)	
<b>Wiring</b>	for options, see "Switch contact options"	
<b>Switching voltage</b>		
<b>Switching current</b>		
<b>Switch performance</b>		
<b>Protection class</b>		
<b>Protection class</b>		
<b>Electrical connection</b>		
<b>Materials medium-contact</b>		
<b>Non-medium-contact materials</b>	Acrylic HS	

<b>Weight</b>	see table "Dimensions and weights"
<b>Installation location</b>	Standard: Vertical inwards flow from below; other installation positions are possible; the installation position affects the switching point and range.

**Ranges**

Details in the table correspond to horizontal inwards flow with increasing flow rate.

**Standard NJ**

G	Display range l/min H <sub>2</sub> O	Q <sub>max.</sub> recommended	Types
G 1/4	2 - 10	10	NJ-008G.010
			NJ-010G.010
G 3/8	4 - 20	20	NJ-010G.020
			NJ-015G.010
			NJ-015G.020
G 1/2	2 - 10	40	NJ-015G.040
			NJ-020G.010
			NJ-020G.020
G 3/4	2 - 10	60	NJ-020G.040
			NJ-025G.010
			NJ-025G.020
G 1	2 - 10	80	NJ-025G.040
			NJ-025G.080
			NJ-025G.010
			NJ-025G.020

Special ranges are available.

**Multi-scale display ranges**

1	20-45	75-120	180-250	mm <sup>2</sup> /s
2 - 10	0.6 - 8	0.2 - 7	0.1 - 4	l/min
4 - 20	2.0 - 19	1.0 - 17	0.5 - 15	
10 - 40	7.0 - 38	6.0 - 37	4.0 - 36	
20 - 80	19.0 - 73	17.0 - 68	13.0 - 63	

**Viscosity stabilised NJV**

Viscosity compensated devices are measured in the factory as per ISO VG100.

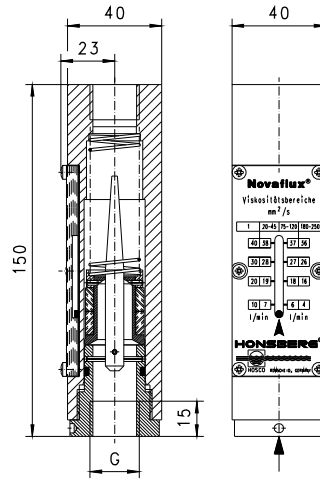
G	Display range l/min oil 30..200 mm <sup>2</sup> /s	Q <sub>max.</sub> recommended	Types
G 1/4	2 - 10	10	NJV-008G.010
			NJV-010G.010
G 3/8	4 - 20	20	NJV-010G.020
			NJV-015G.010
			NJV-015G.020
G 1/2	2 - 10	40	NJV-015G.040
			NJV-020G.010
			NJV-020G.020
G 3/4	2 - 10	60	NJV-020G.040
			NJV-020G.080
			NJV-025G.010
			NJV-025G.020
G 1	2 - 10	80	NJV-025G.040
			NJV-025G.060
			NJV-025G.010
			NJV-025G.020

Special ranges are available.

**Product Information**

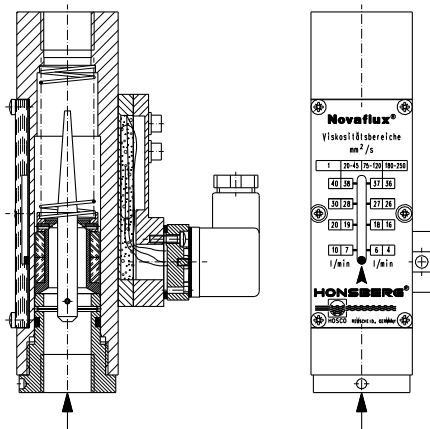
**Dimensions and weights**

G	Types	Weight kg		
		without switching head NJ- / NJV-	With switching head Plastic NJK / NJVK	with metal switching head NJM / NJVM
G 1/4	...-008G...	1.5	1.65	1.95
G 3/8	...-010G...	1.4	1.55	1.85
G 1/2	...-015G...	1.3	1.45	1.75
G 3/4	...-020G...			
G 1	...-025G...	1.2	1.35	1.65



**Switch contact options**

**Plastic switch contacts**



**Switch contact K2**

<b>Wiring</b>	normally open ( n.o.) no. 0.445	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 0.5 A	
<b>Switching capacity</b>	max. 10 VA	
<b>Protection class</b>	2 - safety insulation	
<b>Ingress protection</b>	IP 65	
<b>Electrical connection</b>	DIN 43650-A plug	
<b>Non-medium-contact materials</b>	PA	
<b>Additional Weight</b>	0.2 kg	

**Switch contact K1**

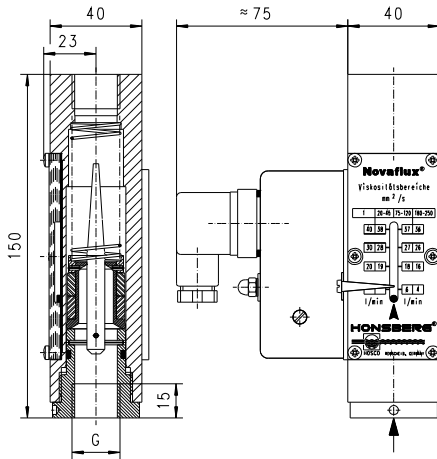
<b>Wiring</b>	maker no. 0.338 diode green	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 0.5 A	
<b>Switch performance</b>	max. 10 VA	
<b>Protection class</b>	2 - safety insulation	
<b>Ingress protection</b>	IP 65	
<b>Electrical connection</b>	DIN 43650-A plug	
<b>Non-medium-contact materials</b>	PA	
<b>Additional weight</b>	0.2 kg	

**Switch contact K3**

<b>Wiring</b>	changeover no. 0.347	
<b>Switching voltage</b>	max. 24 V DC	
<b>Protection class</b>	2 - safety insulation	
<b>Ingress protection</b>	IP 65	
<b>Electrical connection</b>	plug Hirschmann G 4	
<b>Non-medium-contact materials</b>	PA	
<b>Additional weight</b>	0.2 kg	

**Product Information**

**Switching contacts made of metal**



**Switch contact M1**

<b>Wiring</b>	no. 0.333  yellow beige blue brown black Attention! Only hood is earthed, not the body of the flow indicator
<b>Switching voltage</b>	max. 250 V AC
<b>Switching current</b>	max. 5 A
<b>Supply voltage</b>	230 V AC, optionally 125 V AC, 24 V DN (10 mA)
<b>Protection class</b>	1 - PE connection
<b>Ingress protection</b>	IP 65
<b>Electrical connection</b>	cable 2.5 m
<b>Non-medium-contact materials</b>	steel, rilsan-coated, PA
<b>Additional weight</b>	0.35 kg

**Switch contact M2**

<b>Wiring</b>	normally open (n.o.) no. 0.215  blue brown
	Attention! Only hood is earthed, not the body of the flow indicator
<b>Switching voltage</b>	max. 250 V AC
<b>Switching current</b>	max. 0.5 A
<b>Switch performance</b>	max. 10 VA
<b>Protection class</b>	1 - PE connection
<b>Ingress protection</b>	IP 65
<b>Electrical connection</b>	cable 2.5 m
<b>Non-medium-contact materials</b>	steel, rilsan-coated, PA
<b>Additional weight</b>	0.3 kg

**Product Information**

**Handling and Operation**

**Note**

- Include straight calming section of 5 x DN in inlet and outlet.
- If the media are dirty, install a filter (use magnetic filter for ferritic components).
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switch on, a load must be connected in series.
- The electrical details apply to ohmic loads. Capacitive, inductive and lamp loads must be operated using a protective circuit.

**Adjustment**

If it is necessary to set the switching value, the switching head can be adjusted lengthways. When the switching value is reached, the switch contact is fixed in place by fastening bolts.

**Ordering code**

1. 2. 3. 4. 5. 6.

○=Option

<b>1. Construction</b>		
NJ	standard	
NJV	viscosity compensated	
<b>2. Switching contact</b>		
-	without switch contact	
K1-	with switch contact K1 - wiring 0.338	
K2-	○ with switch contact K2 - wiring 0.445	
K3-	○ with switch contact K3 - wiring 0.347	
M1-	○ with switch contact M1 - wiring 0.333	
M2-	○ with switch contact M2 - wiring 0.215	
<b>3. Nominal width</b>		
008	DN 8 - G 1/4	
010	DN 10 - G 3/8	
015	DN 15 - G 1/2	
020	DN 20 - G 3/4	
025	DN 25 - G 1	
<b>4. Process connection</b>		
G	female thread	
<b>5. Connection material</b>		
M	brass	
K	○ stainless steel	
<b>6. NJ - display range H<sub>2</sub>O for vertical inwards flow</b>		
010	2 - 10 l/min	●
020	4 - 20 l/min	●
040	10 - 40 l/min	●
080	20 - 80 l/min	●
<b>NJV - display range oil 30..200 mm<sup>2</sup>/s for vertical inwards flow</b>		
010	2 - 10 l/min	●
020	4 - 20 l/min	●
040	10 - 40 l/min	●
060	20 - 60 l/min	●

**Options**

- Special quantities/special scaling

**Ordering information**

- Specify direction of flow, medium, and display range.
- For viscous media specify viscosity, temperature, and medium (e.g. ISO VG 68) (enquire about display range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (request display range).