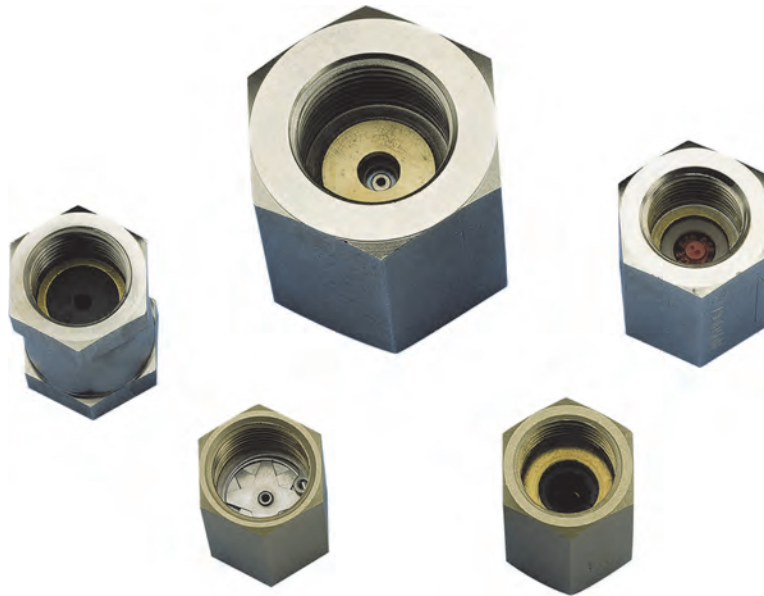


## Flow - diaphragm / limiter



### Characteristics

<b>System</b>	Flow Diaphragm limiter
<b>Nominal widths</b>	DN 15 - 80
<b>Controlled quantity</b>	0.5..210 l/min
<b>Media</b>	Water Oils
<b>Pressure resistance</b>	Max. 200 bar
<b>Temperature</b>	0..300 °C

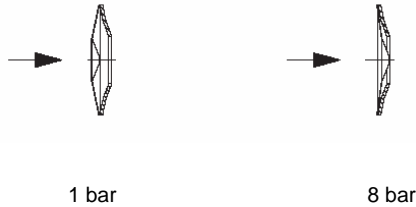
### Applications

- Central feed
- Water treatment
- Irrigation
- Sanitation installations

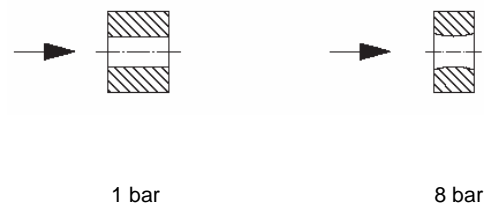
## Function and benefits

The medium creates a differential pressure on the diaphragm which causes metal or elastomer elements to be pressed together. This creates a reduction in cross-section which restricts the flow to a fixed value.



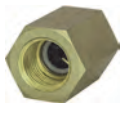


**Stainless steel diaphragm**



**Elastomer diaphragm**



## Device overview

Device	Nominal width	Connection	Controlled value l/min	Materials		Pressure resistance	Medium temperature	Medium	Page	
				Housing	Diaphragm					
<b>KM-...G</b>		DN 15..20	Female thread G 1/2..G 3/4	1..30	Brass or stainless steel	stainless steel	PN 200	0..300 °C	Water, oils	<b>3</b>
<b>KM-...A</b>		DN 20 - 80	Male thread G 3/4 A..G 3 A	1..210	Brass or stainless steel	stainless steel	-	0..200 °C	Water	<b>4</b>
<b>WK</b>		DN 15..25	Female thread G 1/2, G 1	3..15	Brass or stainless steel	Elastomer	PN 100	0..65 °C	Water	<b>5</b>
<b>WP</b>		DN 15	Female thread G 1/2	0.5..20	Brass	Elastomer	PN 16	0..70 °C	Water	<b>6</b>
<b>WT</b>		DN 15	Female thread G 1/2	5..13.5	Brass	Elastomer	PN 100	0..100 °C	Water	<b>7</b>

Errors and technical modifications reserved.

**Product Information**

**Sensors and Instrumentation**

**Flow limiter KM-...G**

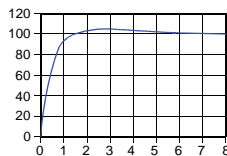


- Metal construction
- Installation location as desired
- No need for auxiliary power

**Characteristics**

The constant flow is created by two crossways stainless steel spring plates which close or open an annular gap located behind them to a greater or lesser degree, according to the flow value.

Flow value%  
of controlled value

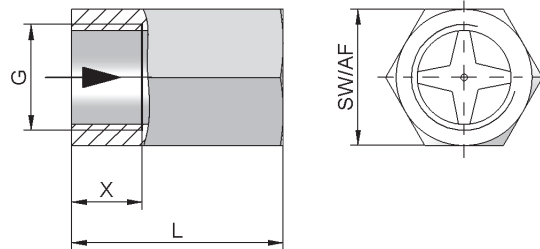


**Technical data**

<b>Nominal width</b>	DN 15..20			
<b>Process connection</b>	female thread G 1/2..G 3/4			
<b>Controlled values Tolerance</b>	Controlled value	G 1/2	G 3/4	Tolerance
	1 l/min	●		±0.2 l/min
	2 l/min	●		±0.2 l/min
	3 l/min	●		±0.4 l/min
	4 l/min	●	●	±0.4 l/min
	6 l/min	●	●	±0.5 l/min
	8 l/min	●	●	±0.5 l/min
	10 l/min	●	●	±0.7 l/min
	12 l/min	●	●	±0.7 l/min
	16 l/min	●	●	±1.2 l/min
	20 l/min		●	±1.2 l/min
	25 l/min		●	±1.5 l/min
30 l/min		●	±1.5 l/min	
<b>Differential pressure</b>	1.5..10 bar			
<b>Pressure resistance</b>	PN 200			
<b>Media temperature</b>	0..300 °C			
<b>Ambient temperature</b>	0..300 °C			
<b>Medium</b>	water, viscous media up to 30 mm <sup>2</sup> /s			
<b>Materials medium-contact</b>	<i>Brass construction:</i>		<i>Stainless steel construction:</i>	
	CW614N nickelled, 1.4310, 1.4122		1.4301, 1.4310, 1.4122	
<b>Weight</b>	see table "Dimensions and weights"			
<b>Installation location</b>	as desired			

**Dimensions and weights**

G	Nominal width	Type	L	SW	X	Weight kg
G 1/2	DN 15	KM-015G.	40	27	14	0.13
G 3/4	DN 20	KM-020G.	50	36	16	0.30



**Ordering code**

KM -  1.  2.  3.  4.  
 KM -  **G**

For combination option, see table "Technical data"

1. Nominal width		
015	DN 15 - G 1/2	
020	DN 20 - G 3/4	
2. Process connection		
G	female thread	
3. Connection material		
M	brass	
K	stainless steel	
4. Controlled value H <sub>2</sub> O		
001	1 l/min	●
002	2 l/min	●
003	3 l/min	●
004	4 l/min	● ●
006	6 l/min	● ●
008	8 l/min	● ●
010	10 l/min	● ●
012	12 l/min	● ●
016	16 l/min	● ●
020	20 l/min	●
025	25 l/min	●
030	30 l/min	●

**Options**

- Inlet side, female thread / outlet side male thread
- Special values
- Selection
- Bypass

**Ordering information**

- Specify direction of flow, medium, and controlled value.
- For viscous media specify viscosity, temperature, and medium (e.g. ISO VG 10) (enquire about controlled value).

**Product Information**

**Sensors and Instrumentation**

**Flow limiter KM-...A**

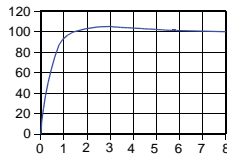


- Male thread
- Metal construction
- Installation location as desired
- No need for auxiliary power

**Characteristics**

The constant flow is created by two crossways stainless steel spring plates which close or open an annular gap located behind them to a greater or lesser degree, according to the flow value. The controlled value results from the addition of the individual control inputs.

Flow value%  
of controlled value

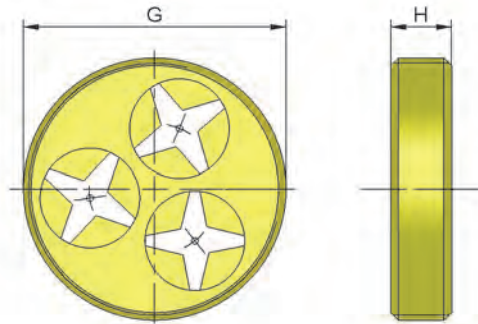


**Technical data**

<b>Nominal width</b>	DN 32..80		
<b>Process connection</b>	male thread G 3/4 A..G 3 A		
<b>Controlled values</b>	Connection	Controlled value	Control inputs
	G 3/4 A	1.. 30 l/min	1
	G 1 1/2 A	2.. 90 l/min	2..3
	G 2 A	3..120 l/min	3..4
	G 2 1/2 A	5..150 l/min	5
	G 3 A	6..210 l/min	6..7
	Example: The controlled value of 55 l/min is achieved using a limiter with two control inputs of 30 l/min + 25 l/min.		
<b>Control inputs</b>	individual controlled values for the control inputs		
	1 l/min	6 l/min	16 l/min
	2 l/min	8 l/min	20 l/min
	3 l/min	10 l/min	25 l/min
	4 l/min	12 l/min	30 l/min
<b>Tolerance</b>	to 2 l/min: ±15 % of nominal value from 3 l/min: ±10 % of nominal value		
<b>Differential pressure</b>	2..10 bar		
<b>Media temperature</b>	0..200 °C		
<b>Ambient temperature</b>	0..200 °C		

<b>Medium</b>	water	
<b>Materials medium-contact</b>	Brass construction: CW614N nickelled, 1.4310, 1.4301; 1.4121	Stainless steel construction: 1.4571, 1.4310, 1.4301; 1.4121
<b>Weight</b>	see table "Dimensions and weights"	
<b>Installation location</b>	as desired	

**Dimensions and weights**



G	Nominal width	Type	H	Control inputs	Weight kg
G 3/4 A	DN 20	KM-020A.	12	1	0.04
G 1 1/2 A	DN 40	KM-040A.	12	2..3	0.11
G 2 A	DN 50	KM-050A.	15	3..4	0.20
G 2 1/2 A	DN 65	KM-065A.	15	5	0.30
G 3 A	DN 80	KM-080A.	15	6..7	0.38

**Ordering code**

1. 2. 3. 4.  
 KM -   A

1. Nominal width		
020	DN 20 - G 3/4 A	
040	DN 40 - G 1 1/2 A	
050	DN 50 - G 2 A	
065	DN 65 - G 2 1/2 A	
080	DN 80 - G 3 A	
2. Process connection		
A	male thread	
3. Connection material		
M	brass	
K	stainless steel	
4. Controlled value H <sub>2</sub> O		
001	001..030 l/min	●
	002..090 l/min	●
	003..120 l/min	●
	005..150 l/min	●
..		
210	006..210 l/min	●

**Options**

- Special values

**Ordering information**

- Specify direction of flow, medium, and controlled value.
- For viscous media specify viscosity, temperature, and medium (e.g. ISO VG 10) (enquire about controlled value).

**Product Information**

**Sensors and Instrumentation**

**Flow limiter WK**

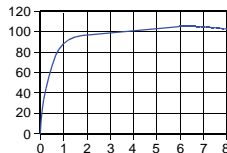


- Installation location as desired
- No need for auxiliary power

**Characteristics**

Mechanical flow limiter for fluid media. If the volume flow is tending to increase, an elastomer is compressed. This achieves an almost constant flow value.

Flow value%  
of controlled value

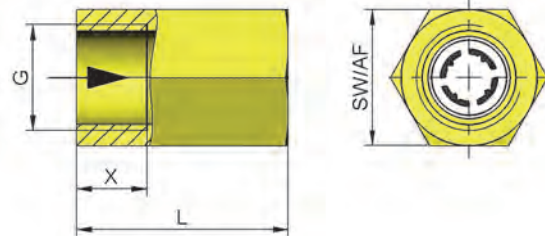


**Technical data**

<b>Nominal width</b>	DN 15..25		
<b>Connection type</b>	internal thread G 1/2..G 1		
<b>Controlled values</b>	3 l/min	6 l/min	10 l/min 15 l/min
	5 l/min	8 l/min	12 l/min
<b>Differential pressure</b>	2..10 bar		
<b>Tolerance</b>	±15 %		
<b>Pressure resistance</b>	PN 100		
<b>Media temperature</b>	0..65 °C		
<b>Ambient temperature</b>	0..65 °C		
<b>Medium</b>	water		
<b>Materials media-contact</b>	<i>Brass construction:</i> CW614N, POM, NBR, 1.4571	<i>Stainless steel construction:</i> 1.4305, POM, NBR, 1.4571	
<b>Weight</b>	see table "Dimensions and weights"		
<b>Installation location</b>	as desired		

**Dimensions and weights**

G	Nominal width	Type	L	SW	X	Weight kg
G 1/2	DN 15	WK-015G.	40	30	12	0.18
G 3/4	DN 20	WK-020G.	40	36	12	0.18
G 1	DN 25	WK-025G.	60	46	20	0.70



**Ordering code**

1. 2. 3. 4.  
 WK -  G

<b>1. Nominal width</b>	
015	DN 15 - G 1/2
020	DN 20 - G 3/4
025	DN 25 - G 1
<b>2. Process connection</b>	
G	female thread
<b>3. Connection material</b>	
M	brass
K	stainless steel
<b>4. Controlled value H<sub>2</sub>O</b>	
003	3 l/min
005	5 l/min
006	6 l/min
008	8 l/min
010	10 l/min
012	12 l/min
015	15 l/min

**Options**

- Inlet side, internal thread / outlet side external thread
- Special values
- Selection
- Bypass

**Ordering information**

- Specify direction of flow, medium, and controlled value

**Product Information**

**Sensors and Instrumentation**

**Flow limiter WP**

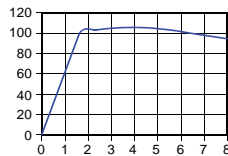


- Installation location as desired
- No need for auxiliary power

**Characteristics**

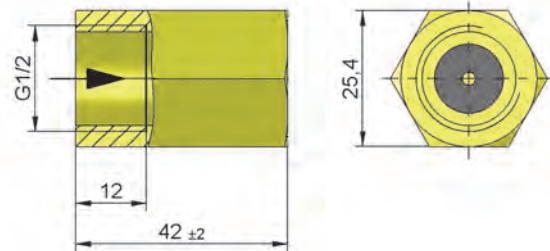
Mechanical flow limiter for fluid media. If the volume flow is tending to increase, an elastomer is compressed. This achieves an almost constant flow value.

Flow value%  
of controlled value

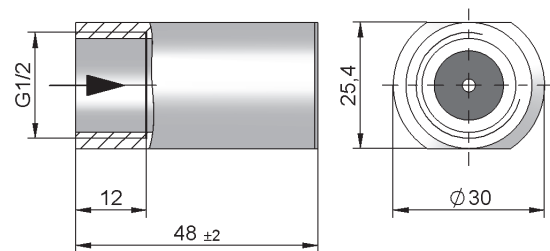


**Dimensions**

Brass



Stainless steel



**Technical data**

<b>Nominal width</b>	DN 15		
<b>Process connection</b>	female thread G 1/2		
<b>Controlled values</b>	0.5 l/min	4.0 l/min	12.0 l/min
	1.0 l/min	5.0 l/min	15.0 l/min
	1.5 l/min	7.0 l/min	18.0 l/min
	2.0 l/min	8.0 l/min	20.0 l/min
	3.2 l/min	10.0 l/min	
<b>Differential pressure</b>	1..10 bar		
<b>Tolerance</b>	± 10 %		
<b>Pressure resistance</b>	PN 16		
<b>Media temperature</b>	0..70 °C		
<b>Ambient temperature</b>	0..70 °C		
<b>Medium</b>	water		
<b>Materials medium-contact</b>	CW614N, NBR		
<b>Weight</b>	0.2 kg		
<b>Installation location</b>	as desired		

**Ordering code**

1. 2. 3. 4.  
 WP - 015 G

= Special option

<b>1. Nominal width</b>	015	DN 15 - G 1/2
<b>2. Process connection</b>	G	female thread
<b>3. Connection material</b>	M	brass
	K	<input type="checkbox"/> stainless steel
<b>4. Controlled value H<sub>2</sub>O</b>	005	0.5 l/min
	010	1.0 l/min
	015	1.5 l/min
	020	2.0 l/min
	032	3.2 l/min
	040	4.0 l/min
	050	5.0 l/min
	070	7.0 l/min
	080	8.0 l/min
	100	10.0 l/min
	120	12.0 l/min
	150	15.0 l/min

**Ordering information**

- Specify direction of flow, medium, and controlled value

**Product Information**

**Sensors and Instrumentation**

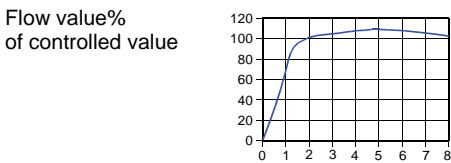
**Flow limiter WT**



- Installation location as desired
- No need for auxiliary power

**Characteristics**

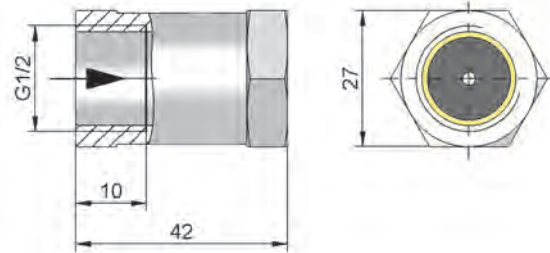
Mechanical flow limiter for fluid media. If the volume flow is tending to increase, an elastomer is compressed. This achieves an almost constant flow value.



**Technical data**

<b>Nominal width</b>	DN 15
<b>Process connection</b>	female thread G 1/2
<b>Controlled values</b>	5.0 l/min 7.5 l/min 13.5 l/min
<b>Differential pressure</b>	1.5..8 bar
<b>Tolerance</b>	±15 %
<b>Pressure resistance</b>	PN 100
<b>Media temperature</b>	0..100 °C
<b>Ambient temperature</b>	0..70 °C
<b>Medium</b>	water
<b>Materials medium-contact</b>	CW614N nickelled NBR
<b>Weight</b>	0.2 kg
<b>Installation location</b>	as desired

**Dimensions**



**Ordering code**

WT -

<b>1. Nominal width</b>	015	DN 15 - G 1/2
<b>2. Process connection</b>	G	female thread
<b>3. Connection material</b>	M	brass
<b>4. Controlled value H<sub>2</sub>O</b>	050	5.0 l/min H <sub>2</sub> O
	075	7.5 l/min H <sub>2</sub> O
	135	13.5 l/min H <sub>2</sub> O

**Ordering information**

- Specify direction of flow, medium, and controlled value.

**Product Information**

**Sensors and Instrumentation**

**Product overview**

**„Industrial Sensors and Instrumentation“**

- Temperature
- Flow
- Level / Filling Height
- Analysis
- Humidity
- Pressure
- Weighing Instruments



**„Process Instrumentation Hygienic Design“**

- GHMadapt
- Temperature
- Flow
- Level / Filling Height
- Analysis



**“Laboratory Instrumentation”**



**„Industrial Electronics“**

- Displays / Controller
- Transmitter / Signal conditioning
- Isolating converters
- Safety and Monitoring Devices
- Power Electronics
- Calibration and Testing



**“Measuring Data Acquisition“**

- Data Logging and Monitoring
- Test Bench Measurement Technology
- Renewable Energies

