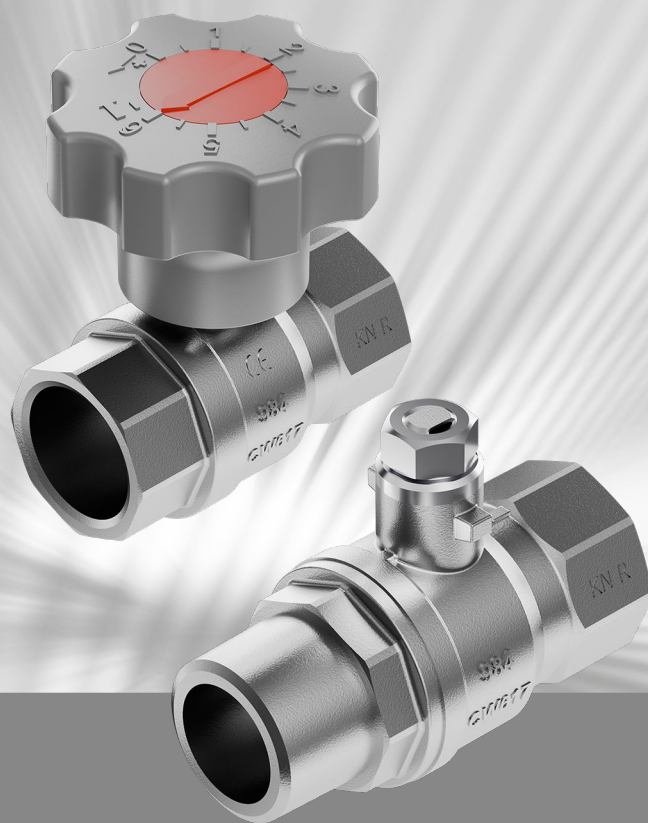




OTHER
LANGUAGES:
DE, EN-GB



HEATING | PROCESS HEAT | GAS ENGINES



**Flow adjustment valves
FAV 50 II and FAV 50 IE**

Technical datasheet

Table of contents

1	Description of functions and assortment.....	3
1.1	Functional description.....	3
1.2	Application example.....	3
1.3	Product overview "Flow adjustment valves".....	3
1.4	Type code.....	4
2	Product description.....	5
3	Guidelines, standards and authorisations.....	6
4	Technical data.....	7
5	Installation dimensions.....	8
6	Mounting position.....	10
7	Order numbers.....	11
8	Further information.....	13
8.1	Conversion of measurement units.....	13
9	Glossary/List of abbreviations.....	14

1 Description of functions and assortment

1.1 Functional description

Flow adjustment valves are used to precisely regulate flow rates and enable optimum adaptation to the desired flow rates.

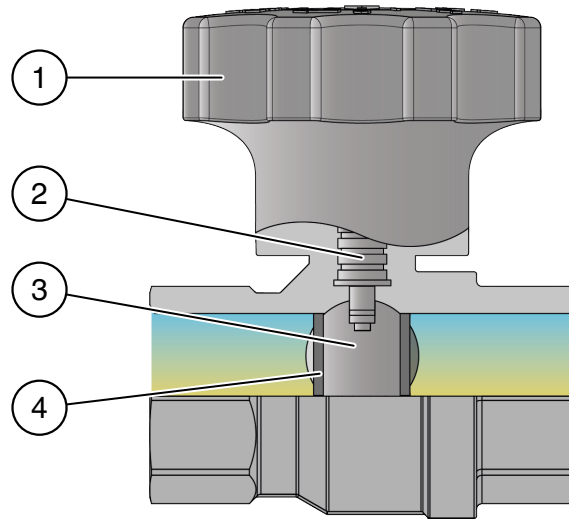


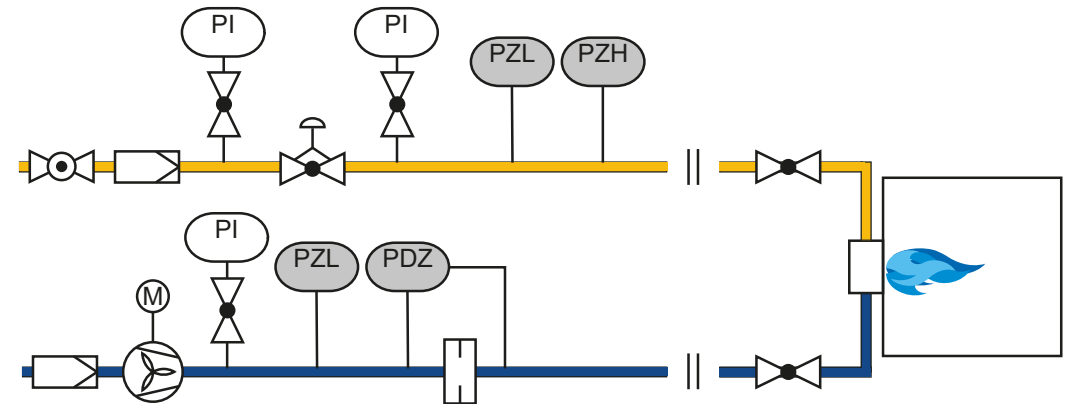
Fig. 1: Functional drawing of flow adjustment valve

- 1 Handwheel
- 2 Switching shaft
- 3 Hollow ball
- 4 Hollow ball seal

There is a rotating hollow ball inside the flow adjustment valve. When open, it ensures a full passage. The hollow ball is twisted by turning the handwheel or using a tool. One complete rotation of the handwheel corresponds to a 90° rotation of the ball, so that it completely closes the passage. The flow rate can be infinitely adjusted in between. The scale on the handwheel shows the current position of the ball.

1.2 Application example

Setting the flow rate in burner applications



The flow adjustment valve is installed directly upstream of the burner application. The flow adjustment valve can be used on both the gas and air sides. It sets the maximum flow rate in the gas and air lines.

When using a flow adjustment valve in the gas line, the maximum output of the burner is limited. When using a flow adjustment valve in the air line, the maximum excess air is set.

1.3 Product overview "Flow adjustment valves"

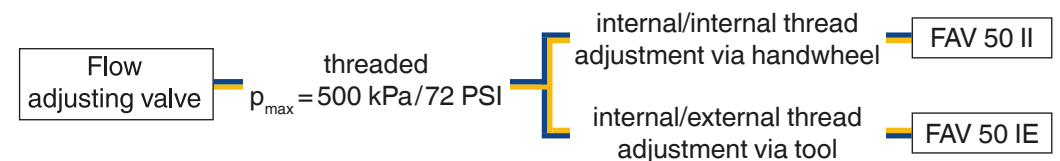


Fig. 2: Product overview flow adjustment valves

- Medium: Flammable gas
- Medium: Non-flammable gases / air

1.4 Type code

Product variant	
FAV 50 II	Flow adjustment taps with threaded connection (female/female thread) for installation in gas and air ducts to adjust volume flows. Adjustment via handwheel. A ball limits the flow according to the adjustment. Suitable for gases of gas families 1, 2, 3, other neutral gaseous media and hydrogen.
FAV 50 IE	Flow adjustment valves with threaded connection (female/male thread) for installation in gas and air ducts to adjust volume flows. Adjustment via tool. A ball limits the flow according to the adjustment. Suitable for gases of gas families 1, 2, 3, other neutral gaseous media and hydrogen.
Features	
FAV	Flow adjusting valve
XX	Maximum operating pressure: 50 = 500 kPa/72 PSI
YYY	Nominal size Rp: 02 = 1/4" 10 = 1" 03 = 3/8" 12 = 1 1/4" 05 = 1/2" 15 = 1 1/2" 07 = 3/4" 20 = 2"
II / IE	Threaded version: II = internal / internal thread IE = internal / external thread
Example type code for flow adjustment valve with internal / internal thread	
FAV XXYY II = FAV 5005 II FAV = flow adjustment valve 50 = maximum operating pressure: 500 kPa/72 PSI 05 = nominal size Rp: 1/2" II = internal / internal thread	
Example type code for flow adjustment valve with internal / external thread	
FAV XXYY IE = FAV 5010 IE FAV = flow adjustment valve 50 = maximum operating pressure: 500 kPa/72 PSI 10 = nominal size Rp/R: 1" IE = internal / external thread	

2 Product description

FAV 50 II

Flow adjustment taps with threaded connection (female/female thread) for installation in gas and air ducts to adjust volume flows. Adjustment via handwheel. A ball limits the flow according to the adjustment. Suitable for gases of gas families 1, 2, 3, other neutral gaseous media and hydrogen.

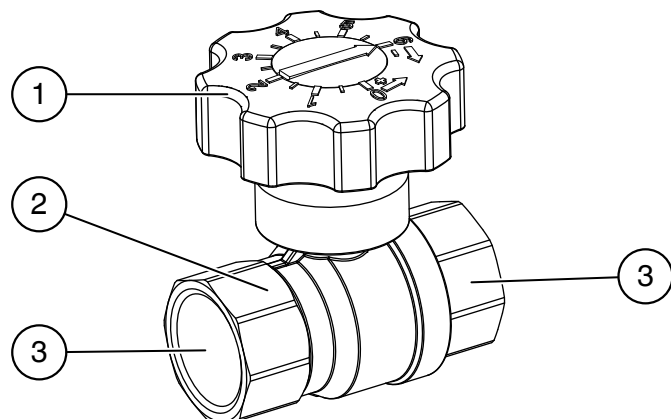


Fig. 3: Example flow adjustment valve with internal / internal thread (description valid for all flow adjustment valves with internal / internal thread)

- 1 Handwheel
- 2 Housing
- 3 Internal thread

Product characteristics:

- Precise setting of gas and air flow rates
- Setting via handwheel (FAV 50 II)
- Setting via tool (FAV 50 IE)
- Blow-out-proof switching shaft
- Suitable for 100 % hydrogen

FAV 50 IE

Flow adjustment valves with threaded connection (female/male thread) for installation in gas and air ducts to adjust volume flows. Adjustment via tool. A ball limits the flow according to the adjustment. Suitable for gases of gas families 1, 2, 3, other neutral gaseous media and hydrogen.

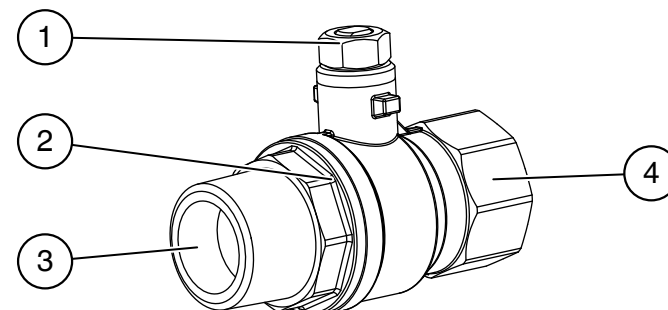


Fig. 4: Example flow adjustment valve with internal / external thread (description valid for all flow adjustment valves with internal / external thread)

- 1 Hexagon nut
- 2 Housing
- 3 External thread
- 4 Internal thread

3 Guidelines, standards and authorisations

CE-certified

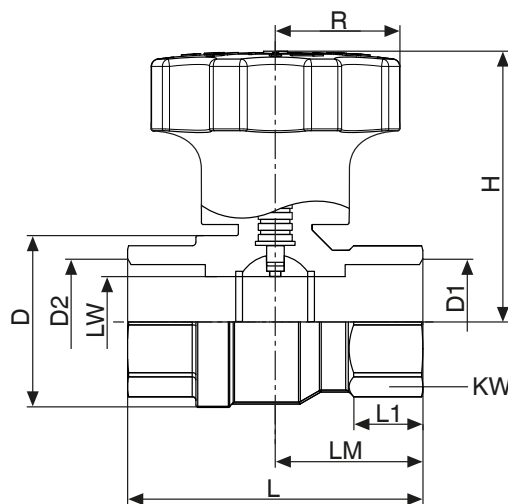
- (EU) 2016/426, Gas Appliances Regulation
- DIN EN 331

4 Technical data

Technical data	FAV 50 II	FAV 50 IE
Connection type	Internal / internal thread as per DIN EN 10226-1	Internal / external thread as per DIN EN 10226-1
Nominal diameters	Rp 1/4" - Rp 2"	
Max. operating pressure	500 kPa / 72 PSI	
Medium	Gas families 1, 2 and 3, hydrogen H ₂ (dry) and other neutral gaseous media	
Max. medium temperature	-20 °C...+60 °C/-4 °F...+140 °F	
Max. ambient temperature during operation	-20 °C...+60 °C/-4 °F...+140 °F	
Setting type	via handwheel	via tool
Materials	Housing: brass, chrome-plated Ball: brass, chrome-plated Ball seal: PTFE Spindle seal: FKM and NBR Handle: polyamide	Housing: brass, chrome-plated Ball: brass, chrome-plated Ball seal: PTFE Spindle seal: FKM and NBR

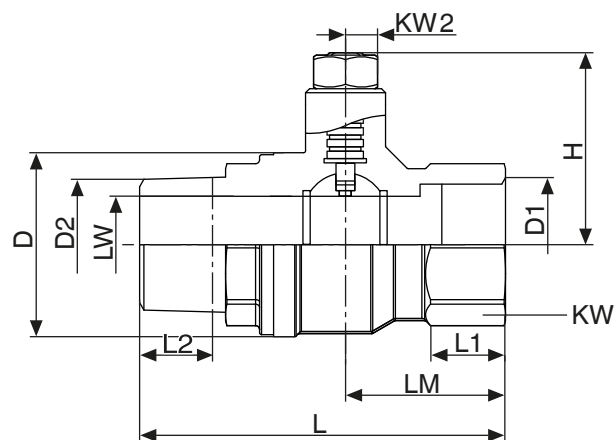
5 Installation dimensions

Flow adjustment valves with internal / internal thread



Version	D1	D2	D	LW	L	L1	LM	KW	R	H
FAV 5002 II	Rp 1/4"	Rp 1/4"	26 mm (1.02")	9 mm (0.35")	45.5 mm (1.79")	11 mm (0.43")	22.5 mm (0.89")	20 mm (0.79")	35 mm (1.38")	58 mm (2.28")
FAV 5003 II	Rp 3/8"	Rp 3/8"	26 mm (1.02")	9 mm (0.35")	46 mm (1.81")	11.5 mm (0.45")	23 mm (0.91")	20 mm (0.79")	35 mm (1.38")	58 mm (2.28")
FAV 5005 II	Rp 1/2"	Rp 1/2"	32 mm (1.26")	14 mm (0.55")	60 mm (2.36")	15 mm (0.59")	30 mm (1.18")	25 mm (0.98")	35 mm (1.38")	63 mm (2.48")
FAV 5007 II	Rp 3/4"	Rp 3/4"	40 mm (1.57")	19 mm (0.75")	70 mm (2.76")	16 mm (0.63")	35 mm (1.38")	31 mm (1.22")	35 mm (1.38")	66 mm (2.60")
FAV 5010 II	Rp 1"	Rp 1"	46 mm (1.81")	24 mm (0.94")	80 mm (3.15")	19 mm (0.75")	40 mm (1.57")	38 mm (1.50")	35 mm (1.38")	73 mm (2.87")
FAV 5012 II	Rp 1 1/4"	Rp 1 1/4"	57 mm (2.24")	30 mm (1.18")	94 mm (3.70")	21 mm (0.83")	47 mm (1.85")	48 mm (1.89")	35 mm (1.38")	77 mm (3.03")
FAV 5015 II	Rp 1 1/2"	Rp 1 1/2"	69 mm (2.72")	38 mm (1.50")	103 mm (4.06")	21 mm (0.83")	51.5 mm (2.03")	54 mm (2.13")	56 mm (2.20")	99 mm (3.90")
FAV 5020 II	Rp 2"	Rp 2"	86 mm (3.39")	47 mm (1.85")	123 mm (4.84")	25 mm (0.98")	61.5 mm (2.42")	66 mm (2.60")	56 mm (2.20")	107 mm (4.21")

Flow adjustment valves with internal / external thread

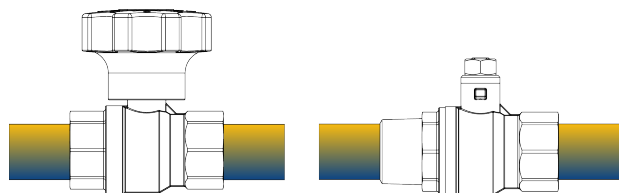


Version	D1	D2	D	LW	L	L1	L2	LM	KW	KW2	H
FAV 5002 IE	Rp 1/4"	R 1/4"	26 mm (1.02")	6 mm (0.24")	55.5 mm (2.19")	11 mm (0.43")	11 mm (0.43")	22.5 mm (0.89")	20 mm (0.79")	10 mm (0.39")	31 mm (1.22")
FAV 5003 IE	Rp 3/8"	R 3/8"	26 mm (1.02")	9 mm (0.35")	56.5 mm (2.22")	11.5 mm (0.45")	11.5 mm (0.45")	23 mm (0.91")	20 mm (0.79")	10 mm (0.39")	31 mm (1.22")
FAV 5005 IE	Rp 1/2"	R 1/2"	32 mm (1.26")	14 mm (0.55")	72 mm (2.83")	15 mm (0.59")	13.2 mm (0.52")	30 mm (1.18")	25 mm (0.98")	13 mm (0.51")	36.5 mm (1.44")
FAV 5007 IE	Rp 3/4"	R 3/4"	40 mm (1.57")	19 mm (0.75")	83 mm (3.27")	16 mm (0.63")	16 mm (0.63")	35 mm (1.38")	31 mm (1.22")	13 mm (0.51")	37.5 mm (1.48")
FAV 5010 IE	Rp 1"	R 1"	46 mm (1.81")	24 mm (0.94")	91.5 mm (3.60")	19 mm (0.75")	19 mm (0.75")	40 mm (1.57")	38 mm (1.50")	16 mm (0.63")	47 mm (1.85")
FAV 5012 IE	Rp 1 1/4"	R 1 1/4"	57 mm (2.24")	30 mm (1.18")	107.5 mm (4.23")	21 mm (0.83")	21 mm (0.83")	47 mm (1.85")	48 mm (1.89")	16 mm (0.63")	52 mm (2.05")
FAV 5015 IE	Rp 1 1/2"	R 1 1/2"	69 mm (2.72")	38 mm (1.50")	115.5 mm (4.55")	21 mm (0.83")	21 mm (0.83")	51.5 mm (2.03")	54 mm (2.13")	18 mm (0.71")	65.5 mm (2.58")
FAV 5020 IE	Rp 2"	R 2"	86 mm (3.39")	47 mm (1.85")	133 mm (5.24")	25 mm (0.98")	25 mm (0.98")	61.5 mm (2.42")	66 mm (2.60")	18 mm (0.71")	73.5 mm (2.89")

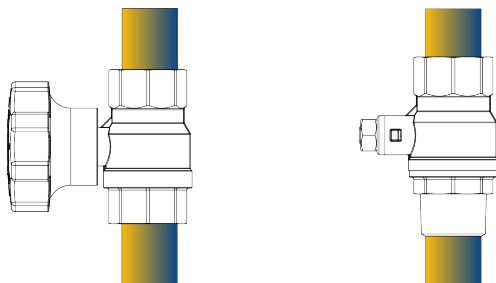
6 Mounting position

The product can be installed in any direction in gas and air lines.

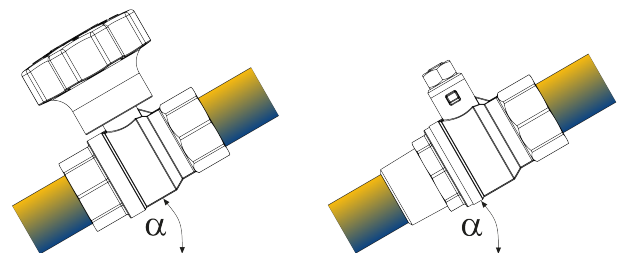
Example: horizontal installation position



Example: vertical installation position



Example: intermediate installation position



7 Order numbers

FAV 50 II

Flow adjustment taps with threaded connection (female/female thread) for installation in gas and air ducts to adjust volume flows. Adjustment via handwheel. A ball limits the flow according to the adjustment. Suitable for gases of gas families 1, 2, 3, other neutral gaseous media and hydrogen.

Version: internal / internal thread, max. operating pressure $P_{\max}$: 500 kPa/72 PSI, setting via handwheel

Version	Order number	Nominal size		Weight
FAV 5002 II	293785	Rp 1/4"	Rp 1/4"	0.2 kg 0.44 lbs
FAV 5003 II	293786	Rp 3/8"	Rp 3/8"	0.2 kg 0.44 lbs
FAV 5005 II	274356	Rp 1/2"	Rp 1/2"	0.2 kg 0.66 lbs
FAV 5007 II	274357	Rp 3/4"	Rp 3/4"	0.4 kg 0.88 lbs
FAV 5010 II	274358	Rp 1"	Rp 1"	0.5 kg 1.1 lbs
FAV 5012 II	274359	Rp 1 1/4"	Rp 1 1/4"	0.8 kg 1.76 lbs
FAV 5015 II	274360	Rp 1 1/2"	Rp 1 1/2"	1.3 kg 2.87 lbs
FAV 5020 II	274361	Rp 2"	Rp 2"	1.8 kg 3.97 lbs

FAV 50 IE

Flow adjustment valves with threaded connection (female/male thread) for installation in gas and air ducts to adjust volume flows. Adjustment via tool. A ball limits the flow according to the adjustment. Suitable for gases of gas families 1, 2, 3, other neutral gaseous media and hydrogen.

Version: internal / external thread, max. operating pressure $P_{\max}$: 500 kPa/72 PSI, setting via tool

Version	Order number	Nominal size		Weight
FAV 5002 IE	293787	Rp 1/4"	R 1/4"	0.2 kg 0.44 lbs
FAV 5003 IE	293788	Rp 3/8"	R 3/8"	0.2 kg 0.44 lbs
FAV 5005 IE	274362	Rp 1/2"	R 1/2"	0.2 kg 0.44 lbs
FAV 5007 IE	274363	Rp 3/4"	R 3/4"	0.4 kg 0.88 lbs
FAV 5010 IE	274364	Rp 1"	R 1"	0.6 kg 1.32 lbs
FAV 5012 IE	274365	Rp 1 1/4"	R 1 1/4"	0.9 kg 1.98 lbs
FAV 5015 IE	274366	Rp 1 1/2"	R 1 1/2"	1.2 kg 2.65 lbs
FAV 5020 IE	274367	Rp 2"	R 2"	1.8 kg 3.97 lbs

8 Further information

Further information

➔ www.dungs.com

Technical changes reserved.

8.1 Conversion of measurement units

Base unit		Target unit
1 bar	=	1000 mbar
1 mbar	=	0.001 bar
1 mbar	=	100 Pa
1 Pa	=	0.01 mbar
1 mbar	=	0.40 in.W.C.
1 in.W.C.	=	2.49 mbar
1 Pa	=	0.0040 in.W.C.
1 in.W.C.	=	249 Pa
1 PSI	=	27.7 in.W.C.
1 in.W.C.	=	0.036 PSI
1 PSI	=	0.069 bar
1 bar	=	14.5 PSI
1 mm	=	0.04"
1"	=	25.4 mm
1 lb-in	=	0.11 Nm
1 Nm	=	8.85 lb-in
1 m ³ /h	=	35.31 ft ³ /h
1 ft ³ /h	=	0.028 m ³ /h
1 l	=	0.035 ft ³
1 ft ³	=	28.31 l
1 kg	=	2.20 lbs
1 lbs	=	0.45 kg

9 Glossary/List of abbreviations

FAV	Flow adjusting valve
Gases of the gas families 1, 2, 3	Gas family 1: Hydrogen-rich gases, e.g. town and district gas Gas family 2: Methane-rich gases, e.g. natural gas Gas family 3: Liquid gases, e.g. propane and butane
PDZ	Pressure switch (safety-relevant) for measuring differential pressure.
PI	Pressure Indicator
PZH	Pressure switch for upper limit (safety-relevant)
PZL	Pressure switch for lower limit (safety-relevant)

Karl Dungs GmbH & Co. kg

Karl-Dungs-Platz 1
73660 Urbach
Germany

Telephone: +49 7181-804-0

Fax: +49 7181-804-166

Email: info@dungs.com

© 2025



www.dungs.com