

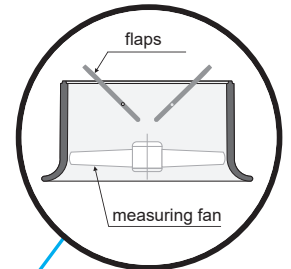
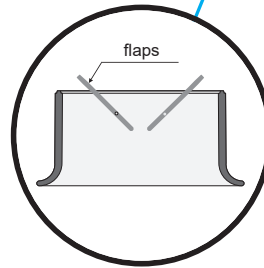


Munters Shutter module MVSK

Exhaust air systems

The shutter module can be used in the following different ways:

As a measuring and throttle unit in the exhaust air duct, as a blower unit in the wall, as well as a suction module from the compartment into the main ventilation duct. Made of insulating PU reinforced integral foam with integrated intake nozzle, which results in an air flow increase of up to 10 %. Flow optimised, this offers an even and linear air flow performance. Supplied as a module with installed servomotor, ready to connect and available in these sizes: Ø 420, 470, 520, 580, 650, 730, 820, 920, 1,090 and 1,270 mm. Suitable for the air duct system »Agroflex« and »vario-clip« ; with an adapter, it is also suitable for air ducts 50 mm.



Advantages MVSK

- Ready to install
- Very robust and durable servomotor with superior protective system (IP66 via the enclosure)
- Insulated, flow-optimised module

Advantages MVSK with measuring fan

- Optimisation of exhaust air rate based on actual transfer
- Optimisation of heating control and higher savings
- More climate control options

Shutter module with actuator and integrated measuring fan:

Shutter module as described, but with a smooth-running measuring fan. The measuring fan helps determine the exact amount of exhaust air actually transferred, even at a minimal air rate (>0.5m/s). This way, for example, exhaust air flow, which exists as a result of the difference in temperature between the stable air and the outside air (thermals), can also be measured. The measuring fan can be deployed anywhere with any suitable climate computer and measures the precise airflow of any exhaust air unit.

Different variants of shutter modules

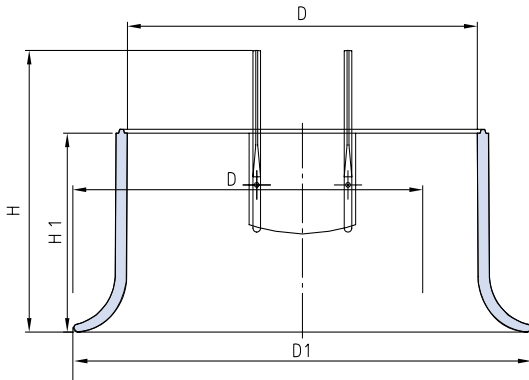
Shutter module with servomotor	Shutter module with measuring fan and servomotor
24 Volt / 0...10 V signal (constant)	24 Volt / 0...10 V signal (constant)
230 Volt / 0...10 V signal (constant)	230 Volt / 0...10 V signal (constant)
24 Volt / open/close (2/3 point)	-
230 Volt / open/close (2/3 point.)	-

Turning moment: 5 Nm: Ø 420, 520 mm / 10 Nm: Ø 580, 650, 730, 820, 920 mm / 20 Nm: Ø 1,090 and 1,270 mm

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Exhaust air systems

Dimensions



D	D1	H 1	H
420 mm	566 mm	350 mm	398 mm
520 mm	704 mm	400 mm	470 mm
580 mm	776 mm	400 mm	500 mm
650 mm	861 mm	400 mm	513 mm
730 mm	971 mm	500 mm	620 mm
820 mm	1,091 mm	500 mm	658 mm
920 mm	1,201 mm	500 mm	708 mm
1,090 mm	1,464 mm	685 mm	857 mm
1,270 mm	1,658 mm	795 mm	968 mm

Height of the shutter module fully opened (H) or with closed (H 1) shutter.

Measurement data measuring fan ProVent

Speed	Ø 420	Ø 520	Ø 580	Ø 650	Ø 730	Ø 820	Ø 920	Ø 1.090	Ø 1.270
rpm	[m ³ /h]	[m ³ /h]	[m ³ /h]	[m ³ /h]	[m ³ /h]	[m ³ /h]	[m ³ /h]	[m ³ /h]	[m ³ /h]
100	532	897	1,107	1,560	2,130	2,760	3,520	4,930	6,710
200	1,064	1,794	2,213	3,120	4,260	5,520	7,040	9,860	13,420
300	1,595	2,690	3,320	4,680	6,390	8,280	10,560	14,790	20,130
400	2,127	3,587	4,427	6,240	8,520	11,040	14,080	19,720	26,840
500	2,659	4,484	5,533	7,800	10,650	13,800	17,600	24,650	33,550
600	3,191	5,381	6,640	9,360	12,780	16,560	21,120	29,580	40,260
700	3,723	6,278	7,747	10,920	14,910	19,320	24,640	34,510	46,970
800	4,255	7,174	8,853	12,480	17,040	22,080	28,160	39,440	53,680
900	4,786	8,071	9,960	14,040	-	-	-	-	-
1,000	5,318	8,968	-	-	-	-	-	-	-
*	5.3	9.1	11	15.6	21.3	27.6	35.2	49.3	67.1

* Conversion factors air flow / speed

Shutter module measurement range

Type	Minimum (m ³ /h)	Maximum (m ³ /h)
MVSK Ø 370	200	4,600
MVSK Ø 420	200	6,200
MVSK Ø 520	300	9,200
MVSK Ø 580	400	11,500
MVSK Ø 650	500	14,500
MVSK Ø 730	800	18,500
MVSK Ø 820	1,000	23,300
MVSK Ø 920	1,500	29,000
MVSK Ø 1,090	2,100	40,700
MVSK Ø 1,270	3,000	55,600

The measurements were performed in a shutter module with fully opened shutter segments.

Measuring fan connection

Sensor/ measurement fan	Supply voltage + 10 to 30V DC	BN brown
	Supply voltage (GND) -	BU blue
	NPN impulse (sensor) \neg	BK black
	PNP impulse (sensor) \neg	WH white

Cable assignment

Measuring fan connection data:

Pulse/revolution:	4
Operating voltage:	10 – 30V DC
Max. current capacity:	200 mA
Current consumption:	<15 mA (24V)
Housing:	Plastic
Connection:	PVC cable/2 m/4-core
Protective class:	IP54
Switch outputs:	NPN, PNP

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