

Valve series MN-06

acc. to NAMUR, 3/2-way
G1/4 • 750 NI/min (0.762 Cv)



Order code

MN-06-310-HN-442

Series and function

Coil options

<p>Standard coil¹⁾ 441 = 12 V DC, 4.2 W 442 = 24 V DC, 4.2 W 452 = 24 V AC, 7/4 VA 456 = 115 V AC, 7/4 VA 457 = 230 V AC, 7/4 VA 461 = 12 V DC, 2.2 W²⁾ 462 = 24 V DC, 2.2 W²⁾</p> <p>Without coil and plug socket 570 = Power consumption 4.2 W, 7/4 VA 560 = Power consumption 2.2 W²⁾</p>	<p>Coils with M12 connector and LED O42 = 24 V DC, 4.8 W O62 = 24 V DC, 2.5 W²⁾</p> <p>Coils with higher humidity resistance 742 = 24 V DC, 4.2 W without plug socket 757 = 230 V AC, 7/4 VA without plug socket 842 = 24 V DC, 4.2 W (with plug socket 28-ST-01) 857 = 230 V AC, 7/4 VA (with plug socket 28-ST-01)</p>
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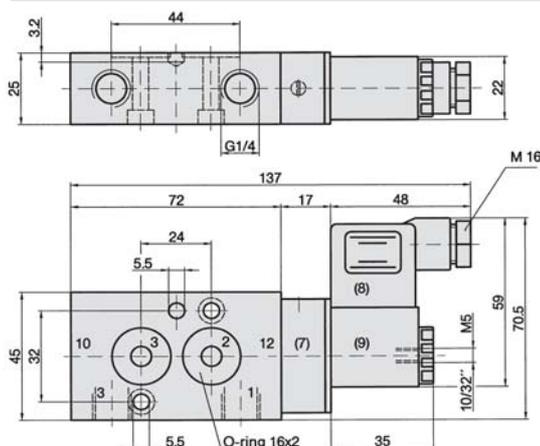
¹⁾ Plug socket see page 5.042.

Design, function and technical data

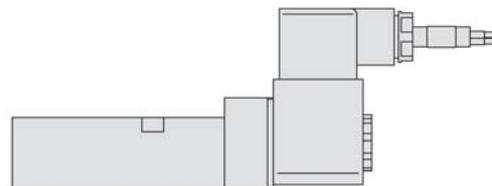
Spool valve for single acting actuators switched by an electrical signal.
 For outdoor applications or in areas with high humidity use coil 23-SP-011-1 or 23-SP-012-1 (see page 4.280).
 Please specify required control voltage when ordering.

Valves of this series are available in explosion proof design in accordance with 2014/34/EU (ATEX). For further details see chapter 13 of this catalogue.

MN-06-310-HN, MN-06-311-HN



Due to the bigger dimension of the ATEX coils, the MN-valves with ATEX specification are delivered with a bigger end cover.



For further details see chapter 13 of this catalogue.

- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust
- (7) = manual override (detent) can be repositioned by 180°
- (8) = plug socket can be repositioned by 180°
- (9) = solenoid coil can be repositioned 4 x 90°

Order number	MN-06-310-HN	MN-06-311-HN
Please complete according to order code.		
Function	3/2-way, normally closed single solenoid, air spring return	3/2-Wege single solenoid, spring return
Connection	G 1/4 at 1 and 3; flange to NAMUR at 2	
Nominal size	6 mm	
Flow rate	750 NI/min (0.762 Cv)	
Pressure range	2 ... 10 bar ²⁾ (29 ... 145 psi) ²⁾	3 ... 10 bar ²⁾ (43 ... 145 psi) ²⁾
Response time at 6 bar	on 13 ms off 16 ms	
Temperature range	- 10 °C ... + 70 °C (+ 14 °F ... + 158 °F)	
Materials	Body: Al (anodized), Seals: NBR and POM, Inner parts: Al, stainless steel, brass	
Medium	Compressed air in accordance with ISO 8573-1: 2010, Class 7:2:4 – and free of aggressive additives.	
Degree of protection	IP 65 according to EN 60529	
Weight	0,320 kg (0.705 lb.)	

²⁾ max. 8 bar (max. 116 psi) at 2.2 W and 2.5 W.

Valve series MN-06

acc. to NAMUR, 5/2- and 5/3-way

G1/4 • 650 and 750 NI/min (0.661 and 0.762 Cv)



Order code

MN-06-510-HN-442

Series and function

Coil options

Standard coil¹⁾

- 441 = 12 V DC, 4,2 W
- 442 = 24 V DC, 4,2 W
- 452 = 24 V AC, 7/4 VA
- 456 = 115 V AC, 7/4 VA
- 457 = 230 V AC, 7/4 VA
- 461 = 12 V DC, 2,2 W²⁾
- 462 = 24 V DC, 2,2 W²⁾

Without coil and plug socket

- 570 = Power consumption 4,2 W, 7/4 VA
- 560 = Power consumption 2,2 W²⁾

Coils with M12 connector and LED

- O42 = 24 V DC, 4,8 W
- O62 = 24 V DC, 2,5 W²⁾

Coils with higher humidity resistance

- 742 = 24 V DC, 4,2 W without plug socket
- 757 = 230 V AC, 7/4 VA without plug socket
- 842 = 24 V DC, 4,2 W (with plug socket 28-ST-01)
- 857 = 230 V AC, 7/4 VA (with plug socket 28-ST-01)

¹⁾ Plug socket page 5.042.

Design, function and technical data

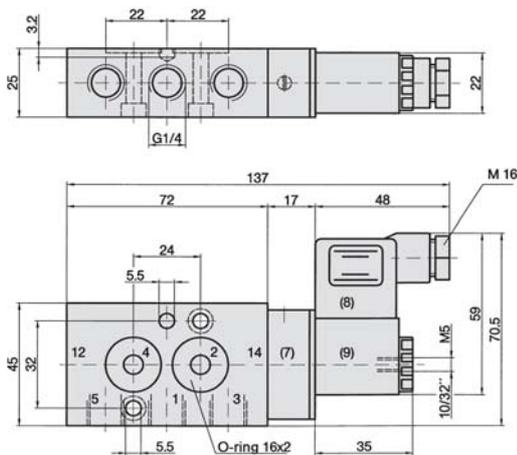
Spool valve for double acting actuators switched by an electrical signal. The locating pin, screws and seals are included.

For outdoor applications or in areas with high humidity use coil 23-SP-011-1 or 23-SP-012-1 (see page 4.280).

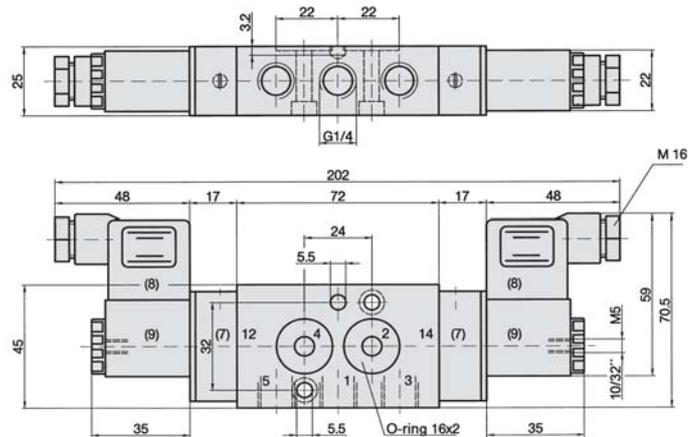
Please specify required control voltage when ordering.

Valves of this series are available in explosion proof design in accordance with 2014/34/EU (ATEX). For further details see chapter 13 of this catalogue.

MN-06-510-HN, MN-06-511-HN



MN-06-520-HN, MN-06-530-HN



- 1 = pressure inlet
- 2, 4 = outlets
- 3, 5 = exhaust

- (7) = manual override (detent) can be repositioned by 180°
- (8) = plug socket can be repositioned by 180°
- (9) = solenoid coil can be repositioned 4 x 90°

Order number	MN-06-510-HN	MN-06-511-HN	MN-06-520-HN	MN-06-530-HN
Please complete according to order code.				
Function	5/2-way air spring return	5/2-way spring return	5/2-way double solenoid	5/3-way center position closed
Connection	G1/4 at 1, 3, 5; flange to NAMUR at 2 and 4			
Nominal size	6 mm			
Flow rate	750 NI/min (0.762 Cv)			650 NI/min (0.661 Cv)
Pressure range	2 ... 10 bar ²⁾ (29 ... 145 psi)	3 ... 10 bar ²⁾ (43 ... 145 psi)	2 ... 10 bar ²⁾ (29 ... 145 psi)	3 ... 10 bar ²⁾ (43 ... 145 psi)
Response time at 6 bar	on 13 ms off 16 ms		12 ms	on 13 ms off 15 ms
Temperature range	- 10 °C ... + 70 °C (+ 14 °F ... + 158 °F)			
Materials	Body: Al (anodized), Seals: NBR and POM, Inner parts: Al, stainless steel, brass			
Medium	Compressed air in accordance with ISO 8573-1:2010, Class 7:2:4 – and free of aggressive additives.			
Degree of protection	IP 65 according to EN 60529			
Weight	0.320 kg (0.705 lb.)		0.460 kg (1.014 lbs.)	

²⁾ max. 8 bar (max. 116 psi) at 2.2 W and 2.5 W.

Solenoid coils, actuators

Solenoid coils	23-SP-011-...	Standard coil	page 4.280
	23-SP-012-...	Coil with 2,2 W power consumption	page 4.280
	23-SP-011-5-012	Coil with M12 plug connection, 4,8 W, LED and circuit protection	page 4.282
	23-SP-012-5-032	Coil with M12 plug connection, 2,5 W, LED and circuit protection	page 4.282
	☉-explosion proof	Valves with explosion proof actuator see chapter 13	
Actuators	23-R-011	Standard actuator	
	23-R-012	Low power actuator	
Plug sockets	28-ST-01	Standard plug socket	page 4.283
	28-ST-04-...	Plug socket with LED	page 4.283
	28-ST-06-...	Plug socket with LED and circuit protection	page 4.283
	28-ST-06-K3-...	Plug socket with LED, circuit protection and cable	page 4.283

User information

Low power consumption coils (2.2 W or 2.5 W) are for pressures up to 8 bar (116 psi) only. Valve actuator 23-R-012 is required. The actuator 23-R-012 is nickel plated. Make sure that the coils with the right power consumption are used.

For outdoor applications or in areas with high humidity use coil 23-SP-011-1-... or 23-SP-012-1-... (see page 4.280).

The following types are available on request

Coils and sockets with contacts according to DIN EN 175301-803 type B (U-form).

Plug sockets with molded cable.

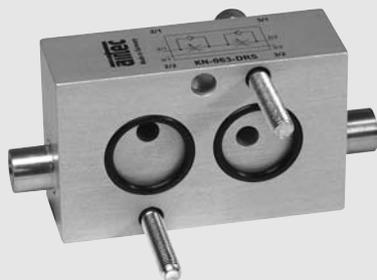
Speed regulation plates



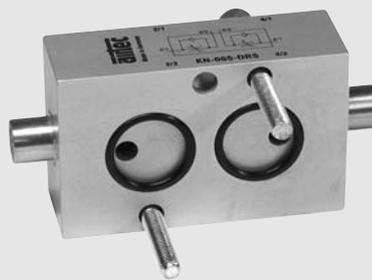
Speed regulator plate for single acting actuators (manually adjustable)
KN-063-DRH
Page 5.043



Speed regulator plate for double acting actuators (manually adjustable)
KN-065-DRH
Page 5.043



Speed regulator plate for single acting actuators (adjustable with screwdriver)
KN-063-DRS
Page 5.044



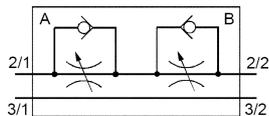
Speed regulator plate for double acting actuators (adjustable with screwdriver)
KN-065-DRS
Page 5.044

Accessories for NAMUR valves

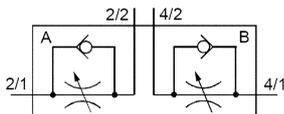
Speed regulation plates KN-063-DRH, KN-065-DRH



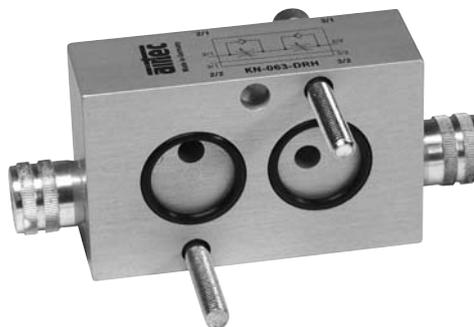
Manually adjustable speed regulation plates



KN-063-DRH



KN-065-DRH



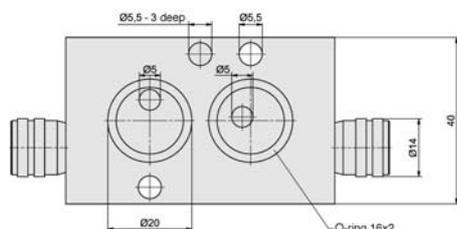
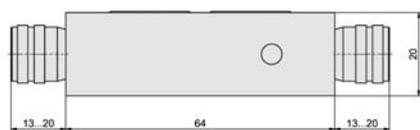
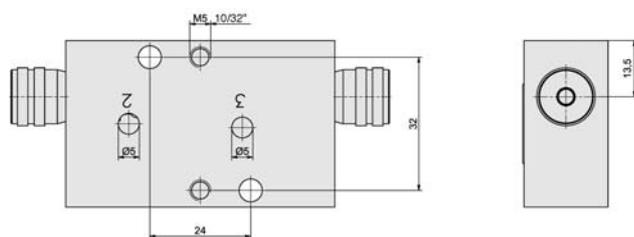
Design, function and technical data

The locating pin, screws and seals are included.

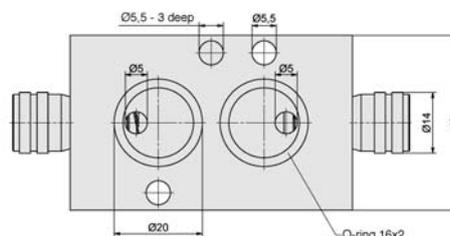
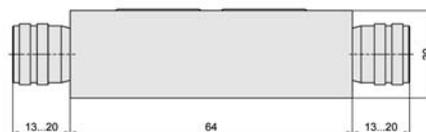
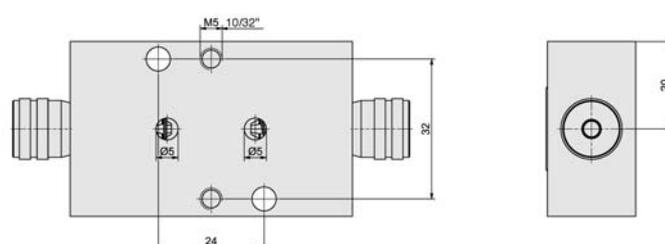
Valves of this series are available in explosion proof design in accordance with 94/9/EG (ATEX). For further details see chapter 13 of this catalogue.

Order number	KN-063-DRH	KN-065-DRH
Function	Speed regulator plate for single acting actuators (manually adjustable)	Speed regulator plate for double acting actuators (manually adjustable)
Nominal size	5 mm	
Nominal flow	210 NI/min (0.204 Cv)	290 NI/min (0.295 Cv)
Temperature range/environment	- 25 °C ... + 70 °C (-13 °F ... + 158 °F) (below - 15 °C (+5 °F) the leakages increase up to 100 ml/min)	
Materials	Body: Al, Inner parts: brass, Seals: NBR	
Weight	0.170 kg (0.375 lb.)	0.170 kg (0.375 lb.)
Medium	Filtered, oil free and dried compressed air according to ISO 8573-1: 2001, class 74-, Instrument air, each free of corrosive components.	

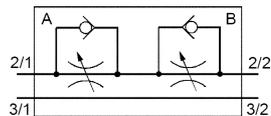
KN-063-DRH



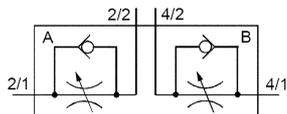
KN-065-DRH



Speed regulation plates adjustable with screwdriver



KN-063-DRS



KN-065-DRS



Design, function and technical data

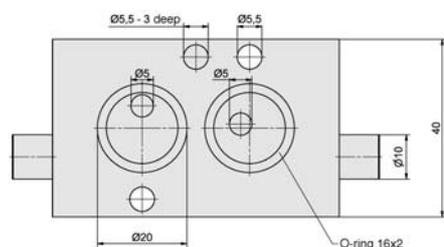
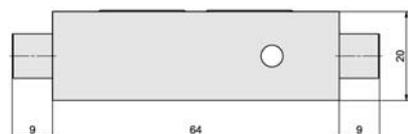
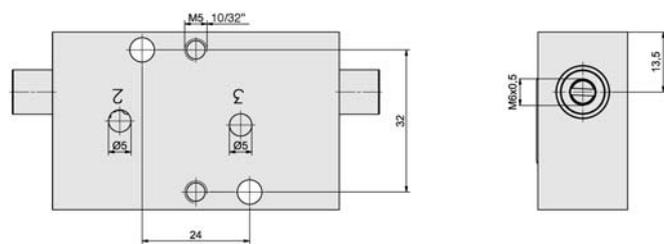
The locating pin, screws and seals are included.

Valves of this series are available in explosion proof design in accordance with 94/9/EG (ATEX). For further details see chapter 13 of this catalogue.

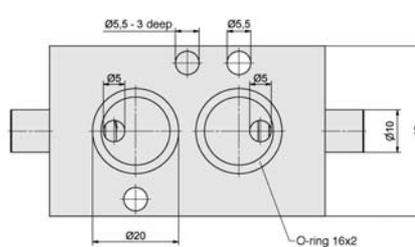
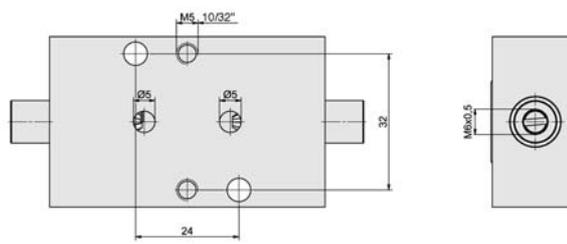
The unit can only be adjusted with a screwdriver.

Order number	KN-063-DRS	KN-065-DRS
Function	Speed regulator plate for single acting actuators (adjustable with screwdriver)	Speed regulator plate for double acting actuators (adjustable with screwdriver)
Nominal size	5 mm	
Nominal flow	210 NI/min (0.204 Cv)	290 NI/min (0.295 Cv)
Temperature range/environment	- 25 °C ... + 70 °C (-13 °F ... + 158 °F) (below - 15 °C (+5 °F) the leakages increase up to 100 ml/min)	
Materials	Body: Al, Inner parts: brass, Seals: NBR	
Weight	0.170 kg (0.375 lb.)	0.170 kg (0.375 lb.)
Medium	Filtered, oil free and dried compressed air according to ISO 8573-1: 2001, class 74-, Instrument air, each free of corrosive components.	

KN-063-DRS

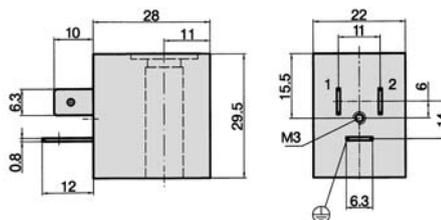


KN-065-DRS



Accessories for electrically operated valves

Solenoid coils



Solenoid coils with connection pattern pursuant to DIN EN 175301-803 Shape B

Order number	23-SP-011-411	23-SP-011-412	23-SP-011-422	23-SP-011-426	23-SP-011-427	23-SP-012-431	23-SP-012-432
Standard voltage	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC	12 V DC	24 V DC
Power consumption DC	4.2 W	4.2 W				2.2 W	2.2 W
Power consumption 50 Hz			4 VA	4 VA	4 VA		
Degree of protection	IP 65 according to EN 60529 with connected plug socket						
Duty cycle	100 %						
Temperature range	- 20 °C ... + 50 °C (- 4 °F ... + 122 °F)						
Voltage tolerance	± 10 %						
Standard for series	MS-18, M-04, M-05, M-07, M-22, KM-09, KM-10, MF-05, MF-07, MN-06, KN-05, MI-01, MI-02, MI-03						

Other voltages on request.

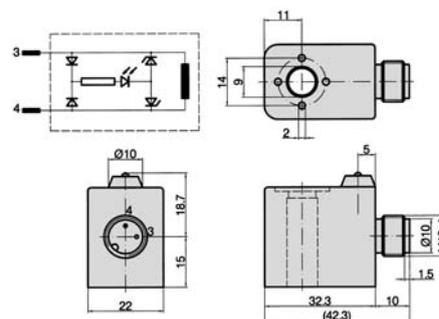
Solenoid coils with connection pattern pursuant to DIN EN 175301-803 Shape B

(with enhanced humidity resistance)

Order number	23-SP-011-1-711	23-SP-011-1-712	23-SP-011-1-712	23-SP-011-1-722	23-SP-011-1-725	23-SP-011-1-727	23-SP-012-1-732
Standard voltage	12 V DC/24 V AC	24 V DC	48 V AC	12 V DC/24 V AC	110 V AC	230 V AC	24 V DC
Power consumption DC	4.6 W	4.8 W	-	5.5 W	-	-	2.5 W
Power consumption 50 Hz	7.1 VA	-	7.7 VA	8.9 VA	8.5 VA	7.9 VA	
Degree of protection	IP 65 according to EN 60529 with connected plug socket *1						
Duty cycle	100 %						
Temperature range	- 20 °C ... + 50 °C (- 4 °F ... + 122 °F)						
Voltage tolerance	± 10 %						
Standard for series	KMX-09, KMX-10, ICK-09, ICK-10, KN-55, KNX-55, ICKN-55						

*1: IP67 pursuant to EN 60529 with plug socket and sealing set 20-SP-011/012-02

Solenoid coils with M12 connection, with LED and protective circuit.



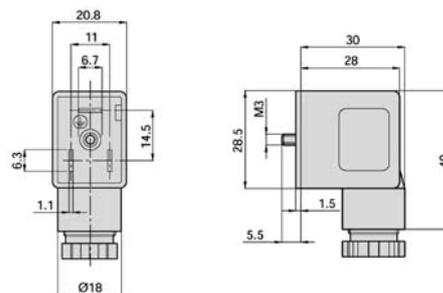
Order number	23-SP-011-5-O12	23-SP-012-5-O32
Standard voltage	24 V DC	24 V DC
Power consumption	4.8 W	2.5 W
Degree of protection	IP 65 according to EN 60529 with connected cable	
Duty cycle	100 %	
Temperature range	- 20 °C ... + 50 °C	
Voltage tolerance	± 10 %	

Accessories for electrically operated valves

Plug sockets for coil



Plug sockets pursuant to DIN EN 175301-803 Shape B
(2pol. + PE, 21 x 28 mm, Contact distance 11 mm)



Order number	28-ST-01	28-ST-04-112	28-ST-04-127	28-ST-06-112	28-ST-06-127	28-ST-06-K3-112	28-ST-06-K3-127
Standard voltage	all	24 V DC	230 V AC	24 V DC	230 V AC	24 V DC	230 V AC
Protective circuit	no	no	no	yes	yes	yes	yes
Status indicator	without	yes	yes	yes	yes	yes	yes
Degree of protection	IP 65 pursuant to EN 60529 requires a flat gasket						
Connecting cable	without					3 m	3m
Ø Connecting cable	6 – 8 mm					–	–
Max. wire cross section	1,5 mm ²					–	–
for coil	23-SP-011, 23-SP-011-1						

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