

# Valve series KN-05

acc. to NAMUR, 3/2-way  
G1/4 • 780 NI/min (0.792 Cv)



## Order code

KN-05-310-HN-442

Series and function

Coil options

### Standard coil<sup>1)</sup>

- 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 W<sup>2)</sup>
- 462 = 24 V DC, 2.2 W<sup>2)</sup>

### Without coil and plug socket

- 570 = Power consumption 4.2 W, 7/4 VA
- 560 = Power consumption 2.2 W<sup>2)</sup>

### Coils with M12 connector and LED

- O42 = 24 V DC, 4.8 W
- O62 = 24 V DC, 2.5 W<sup>2)</sup>

<sup>1)</sup> Plug socket see page 5.042.

In high humidity environments please use the KN-55-... series with special coils and seals.

All dimensions are equal to the KN-05 series.

Information about electrical datas see page 4.280.

### Design, function and technical data

Spool valve for single acting actuators switched by an electrical signal.

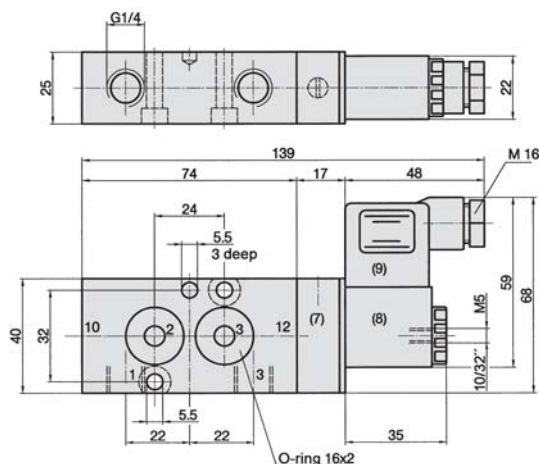
The exhaust air is guided into the spring chamber of the actuator. The locating pin, screws and seals are included.

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

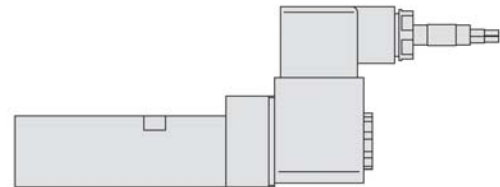
Please specify required control voltage when ordering.

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.

### KN-05-310-HN, KN-05-311-HN



Due to the bigger dimension of the ATEX coils, the KN-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	KN-05-310-HN	KN-55-310-HN	KN-05-311-HN	KN-55-311-HN
Please complete according to order code.				
Function	<p>3/2-way, normally closed single solenoid, air spring return</p>		<p>3/2-Wege single solenoid, spring return</p>	
Connection	G1/4 at 1 and 3; flange to NAMUR at 2 and 3			
Nominal size	6 mm			
Flow rate	780 NI/min (0.792 Cv)			
Pressure range	3 ... 10 bar (8 bar at 2.2 W); 43 ... 145 psi (116 psi at 2.2 W)			
Response time at 6 bar	on 16 ms off 18 ms		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.)			

<sup>2)</sup> max. 8 bar (max. 116 psi) at 2.2 W and 2.5 W.

# Valve series KN-05

acc. to NAMUR, 5/2- and 5/3-way  
G1/4 • 680 to 900 NI/min (0.691 to 0.915 Cv)



## Order code

KN-05-510-HN-442

Series and function

Coil options

### Standard coil<sup>1)</sup>

- 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 W<sup>2)</sup>
- 462 = 24 V DC, 2.2 W<sup>2)</sup>

### Without coil and plug socket

- 570 = Power consumption 4.2 W, 7/4 VA
- 560 = Power consumption 2.2 W<sup>2)</sup>

### Coils with M12 connector and LED

- O42 = 24 V DC, 4.8 W
- O62 = 24 V DC, 2.5 W<sup>2)</sup>

<sup>1)</sup> Plug socket see page 5.042.

In high humidity environments please use the KN-55-... series with special coils and seals.

All dimensions are equal to the KN-05 series.

Information about electrical datas see page 4.280.

## Design, function and technical data

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

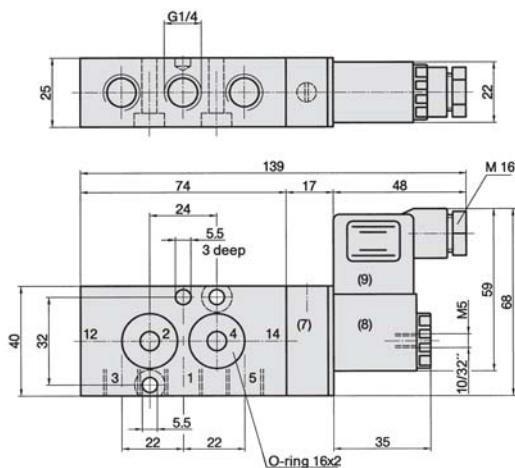
For outdoor applications or in areas with high humidity use coil 23-SP-011-1 or 23-SP-012-1 (see page 4.280).

Please specify required control voltage when ordering.

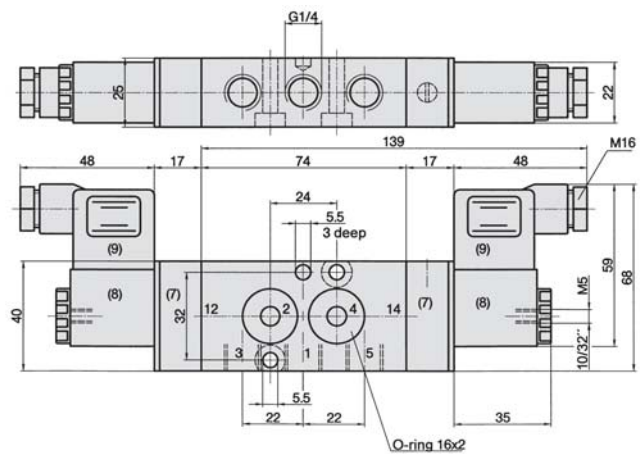
Valves of this series are available in explosion proof design in accordance with 2014/34/EU (ATEX). For further details see chapter 13 of this catalogue.

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### KN-05-510-HN, KN-05-511-HN



### KN-05-520-HN, KN-05-530-HN, KN-05-533-HN



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

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

Order number	KN-05-510-HN KN-55-510-HN	KN-05-511-HN KN-55-511-HN	KN-05-520-HN KN-55-520-HN	KN-05-530-HN KN-55-530-HN	KN-05-533-HN KN-55-533-HN
Please complete according to order code.					
Function	5/2-way single solenoid air spring return	5/2-way single solenoid spring return	5/2-way double solenoid	5/3-way center position closed	5/3-way center position exhausted
Connection	G1/4 at 1, 3 and 5; flange to NAMUR at 2 and 4				
Nominal size	6 mm				
Flow rate	900 NI/min (0.915 Cv)	800 NI/min (0.813 Cv)	900 NI/min (0.915 Cv)	680 NI/min (0.691 Cv)	
Pressure range	3 ... 10 bar <sup>2)</sup> (43 ... 145 psi)		2...10 bar <sup>2)</sup> (29...145 psi)		3 ... 10 bar <sup>2)</sup> (43 ... 145 psi)
Response time at 6 bar	on 16 ms off 17 ms	on 16 ms off 18 ms	14 ms		on 14 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.)		0.440 kg (0.970 lb.)		

<sup>2)</sup> max. 8 bar (max. 116 psi) at 2.2 W and 2.5 W.

## Solenoid coils, actuators

<b>Solenoid coils</b>	<b>23-SP-011-...</b>	Standard coil	page 4.280
	<b>23-SP-012-...</b>	Coil with 2,2 W power consumption	page 4.280
	<b>23-SP-011-5-O12</b>	Coil with M12 plug connection, 4,8 W, LED and circuit protection	page 4.282
	<b>23-SP-012-5-O32</b>	Coil with M12 plug connection, 2,5 W, LED and circuit protection	page 4.282
	<b>-explosion proof</b>	Valves with explosion proof actuator see chapter 13	
<b>Actuators</b>	<b>23-R-011</b>	Standard actuator	
	<b>23-R-012</b>	Low power actuator	
<b>Plug sockets</b>	<b>28-ST-01</b>	Standard plug socket	page 4.283
	<b>28-ST-04-...</b>	Plug socket with LED	page 4.283
	<b>28-ST-06-...</b>	Plug socket with LED and circuit protection	page 4.283
	<b>28-ST-06-K3-...</b>	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

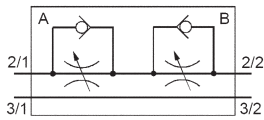


Speed regulator plate for single acting actuators (adjustable with screwdriver)  
**KN-063-DRS**  
Page 5.044

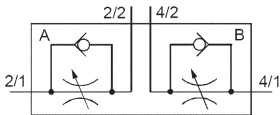


Speed regulator plate for double acting actuators (adjustable with screwdriver)  
**KN-065-DRS**  
Page 5.044

**Manually adjustable speed regulation plates**



KN-063-DRH



KN-065-DRH



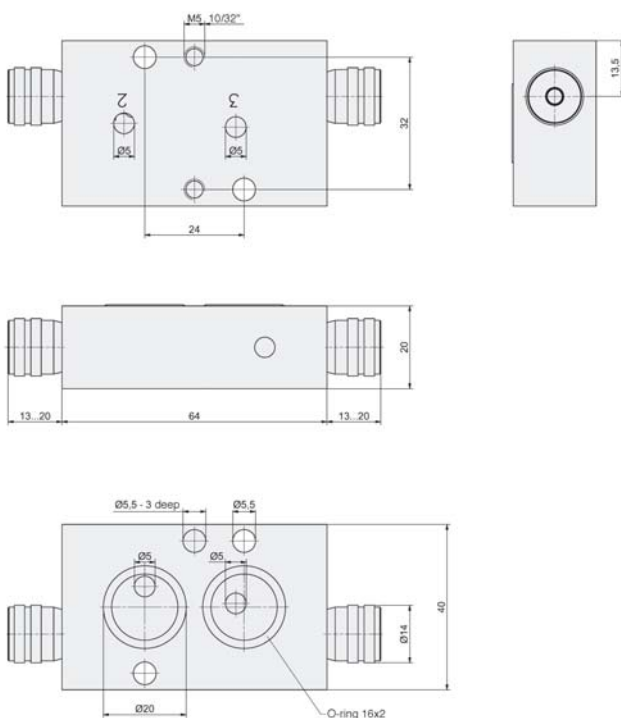
**Design, function and technical data**

The locating pin, screws and seals are included.

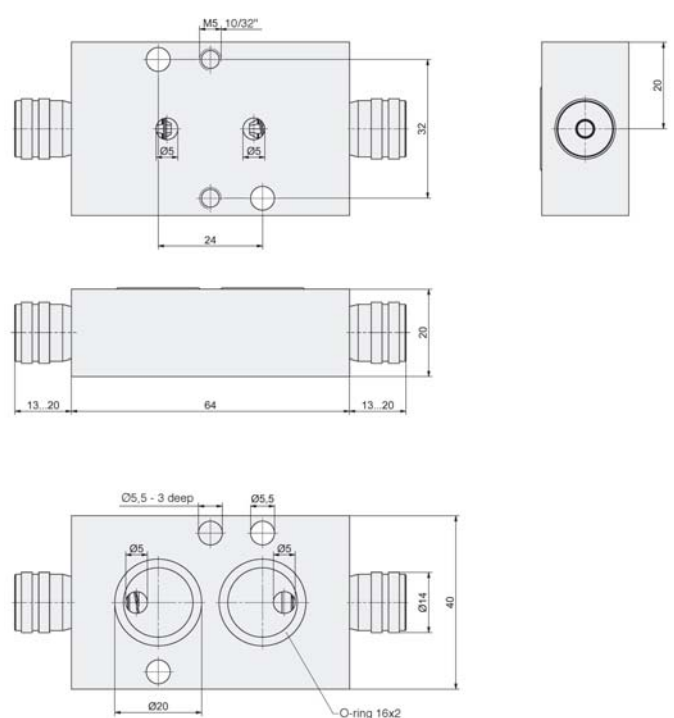
Valves of this series are available in explosion proof design in accordance with 2014/34/EU (ATEX). For further details see chapter 13 of this catalogue.

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: 2010, Class 7:2:4-, Instrument air, each free of corrosive components.	

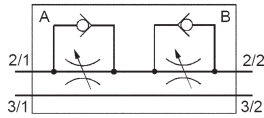
**KN-063-DRH**



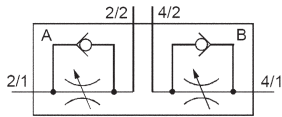
**KN-065-DRH**



**Speed regulation plates adjustable with screwdriver**



KN-063-DRS



KN-065-DRS



**Design, function and technical data**

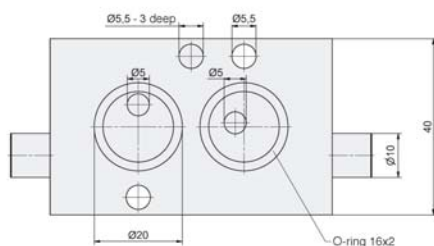
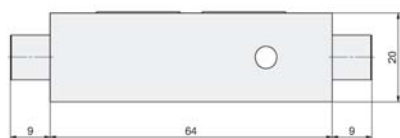
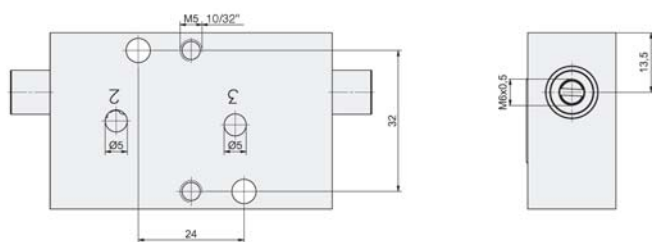
The locating pin, screws and seals are included.

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

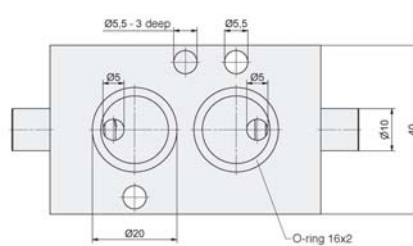
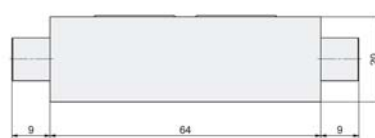
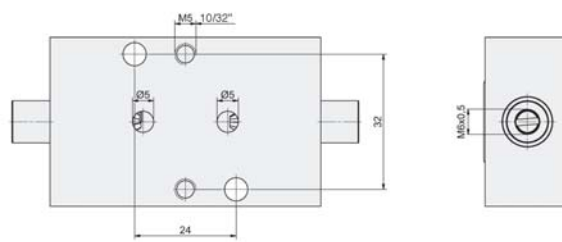
The unit can only be adjusted with a screwdriver.

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: 2010, Class 7:2:4-, Instrument air, each free of corrosive components.	

**KN-063-DRS**

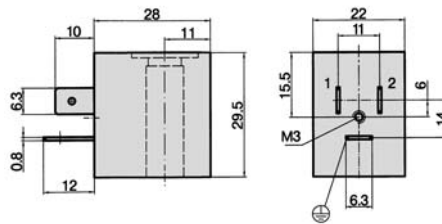


**KN-065-DRS**



# 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.

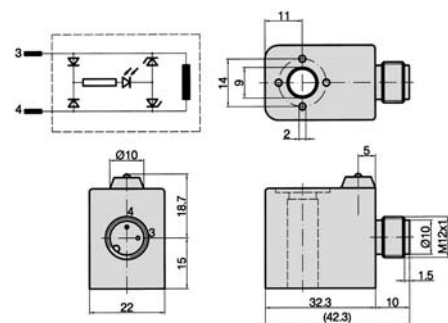
### Solenoid coils with connection pattern pursuant to DIN EN 175301-803 Shape B

(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.



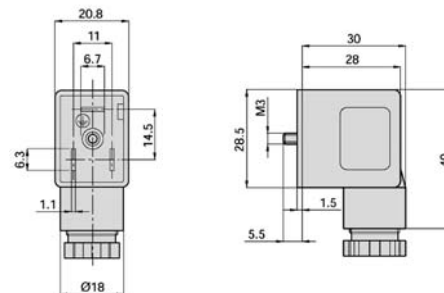
Order number	23-SP-011-5-O12	23-SP-012-5-O32
Standard voltage	24 V DC	24 V DC
Power consumption	4.8 W	2.5 W
Degree of protection	IP 65 according to EN 60529 with connected cable	
Duty cycle	100 %	
Temperature range	- 20 °C ... + 50 °C	
Voltage tolerance	± 10 %	

# 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)



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

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