

# Series KN-05, KN-55

#### **Technical details**

Connection G1/4, Namur Nominal size 6 mm Temperature range -10°C ... +70°C Medium Filtered, oil-free and dried compressed air according to ISO

8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

**Materials** Body: Al (anodized), plastic, seals: NBR, inner parts: Al, steel and plastic

Protection IP 65 according to EN 60529

 $\langle \epsilon_{x} \rangle$ Valves in accordance with 2014/34/EU (ATEX) available. (Chapter 13)



Electrically operated spool valve. The manual override is detent and is operated by screw driver. The model KN-55 has a coil with enhanced humitidy resistance and a additional gasket at the coil. The location pin, screws and seals are included.

#### 3/2-way-valves



KN-05-310-HN-xxx KN-55-310-HN-xxx

3/2-way, single solenoid, air spring

return, NC



KN-05-311-HN-xxx KN-55-311-HN-xxx

3/2-way, single solenoid, mechanical spring return, NC

# 5/2- and 5/3-way-valves

KN-05-510-HN-xxx KN-55-510-HN-xxx

5/2-way, single solenoid, air spring

return

KN-05-511-HN-xxx KN-55-511-HN-xxx

5/2-way, single solenoid, mechanical

spring return

KN-05-520-HN-xxx KN-55-520-HN-xxx 5/2-way, double solenoid

KN-05-530-HN-xxx KN-55-530-HN-xxx 5/3-way, center position closed

KN-05-533-HN-xxx KN-55-533-HN-xxx

5/3-way, center position exhausted

#### **Electrical options**

Please complete: xxx = electrical option

				-X)	ΚΧ
Nominal voltage	Power consumption	Specifics	Plug connection*1	KN-05	KN-55
12 V DC	4.2 W		Form B industrial norm	-441	-741
12 V DC	2.2 W	max. 8 bar	Form B industrial norm	-461	-761
24 V DC	4.2 W		Form B industrial norm	-442	-742
24 V DC	4.8 W		M 12	-042	-
24 V DC	2.2 W	max. 8 bar	Form B industrial norm	-462	-762
24 V DC	2.5 W	max. 8 bar	M 12	-062	-
24 V AC	7/4 VA		Form B industrial norm	-452	-752
115 V AC	7/4 VA		Form B industrial norm	-456	-756
230 V AC	7/4 VA		Form B industrial norm	-457	-757

<sup>\*1</sup> Plug socket not included, suitable plug sockets see page 4-38.

# Series KN-05, KN-55



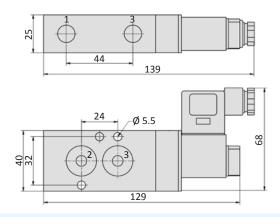
#### **Technical data**

Model-no.:	KN-05-310 KN-55-310	KN-05-311 KN-55-311	KN-05-510 KN-55-510	KN-05-511 KN-55-511	KN-05-520 KN-55-520	KN-05-530 KN-55-530	KN-05-533 KN-55-533
Operating pressure* (bar)	310	310	310	310	210	310	310
Pilot pressure* (bar)	310	310	310	310	210	310	310
Flow rate (NI/min)	780	780	900	800	900	680	680
Response time (ms) at 6 bar	on: 16 off: 18	on: 13 off: 16	on: 16 off: 17	on: 16 off: 18	on: 14 off: 14	on: 14 off: 16	on: 14 off: 16
Weight (kg)	0.320	0.320	0.320	0.320	0.440	0.440	0.440

<sup>\*</sup> max. 8 bar at 2.2 W and 2.5 W

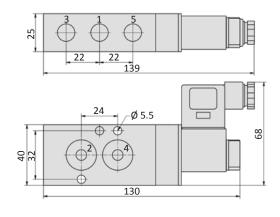
#### **Dimensions**

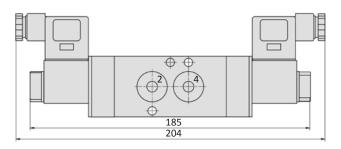
# KN-05-31x-HN, KN-55-31x-HN



# KN-05-51x-HN, KN-55-51x-HN

#### KN-05-520-HN, KN-55-520-HN, KN-05-53x-HN, KN-55-53x-HN





1 = pressure inlet Plug socket (not included in scope of delivery) can be repositioned by 2,4 = outlets  $180^{\circ}$ .

3,5 = exhausts Solenoid coil can be repositioned by 4 x 90°.

# **Accessories**



Plug sockets: page 4-38

O2 Subject to change



# **Plug sockets**

# Form B according to DIN EN 175301-803

Overall width 22 mm **Contact distance** 10 mm Contacts 2P + E

Protection IP 65 according to EN 60529 requires a flat gasket

For use with series



Model-no.:	28-ST-01-G
Voltage (AC/DC)	0 - 250 V
Status indicator	no
Protective circuit	no
Connecting cable	without
Wire cross section	max. 1.5 mm <sup>2</sup>
Ø Connecting cable	6 - 8 mm

#### Form B industrial norm

For use with series

Overall width 22 mm **Contact distance** 11 mm 2P + E Contacts Protection IP 65 according to EN 60529 requires a flat gasket M-04, M-05, M-07, M-22, KM-09, KM-10, MS-18, KN-05,

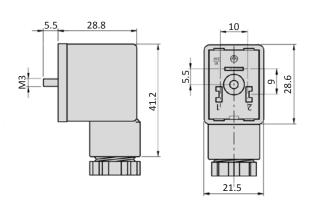
MN-06, MI-01, MI-02, MI-03



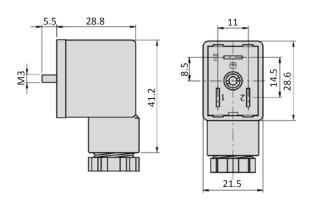
Model-no.:	28-ST-01	28-ST-04-112	28-ST-04-127	28-ST-06-112	28-ST-06-127	28-ST-06-K3-112	28-ST-06-K3-127
Voltage (AC/DC)	0 - 250 V	10 - 50 V	70 - 250 V	24 V	230 V	24 V	230 V
Status indicator	no	yes	yes	yes	yes	yes	yes
Protective circuit	no	no	no	yes (Varistor)	yes (Varistor)	yes (Varistor)	yes (Varistor)
Connecting cable	without	without	without	without	without	3 m	3 m
Wire cross section	max. 1.5 mm²	max. 1.5 mm²	max. 1.5 mm²	max. 1.5 mm²	max. 1.5 mm²	3 x 0.75 mm <sup>2</sup>	3 x 0.75 mm <sup>2</sup>
Ø Connecting cable	6 - 8 mm	6 - 8 mm					

#### **Dimensions**

# Form B according to DIN EN 175301-803



# Form B industrial norm



# **Solenoid coils**



# Form B according to DIN EN 175301-803

Overall width	22 mm
Contact distance	10 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 with connected plug socket
Duty cycle	100 %
Temperature range*	-20°C +50°C
Voltage tolerance	± 10 %
For use with series	



 $<sup>\</sup>hbox{$^*$ The max. applicable operating temperature, depends on the temperature specification of the used valve.}$ 

Model-no.:	23-SP-011-G-412	23-SP-011-G-427
Voltage	24 V DC	230 V AC
Power consumption DC	4.2 W	-
Power consumption AC	-	4.0 VA

# Form B industrial norm

Overall width	22 mm		
Contact distance	11 mm		
Contacts	2P + E		
Protection	IP 65 according to EN 60529 with connected plug socket		
Duty cycle	100 %		
Temperature range*	-20°C +50°C		
Voltage tolerance	± 10 %		
M-04, M-05, M-07, M-22, KM-09, KM-10, MS-18, KN-05, MN-06, MI-01, MI-02, MI-03			
* The max. applicable operating temperature, depends on the temperature specification of the used valve.			



1011 00, 1011 02, 1011 03	100 1 525 6 5
$\ensuremath{^{*}}$ The max. applicable operating temperature, depends on the temperature	re specification of the used valve.

Model-no.:	23-SP-011-411	23-SP-011-412	23-SP-011-422	23-SP-011-426	23-SP-011-427	23-SP-012-431	43-SP-012-432
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 AC	-	-	4 VA	4 VA	4 VA		
Model no :	22 CD 011 1	711 22 CD	011 1 712	22 CD 011 1 72	5 22 CD 01	1 1 727 22	CD 011 1 722

Model-no.:	23-SP-011-1-711	23-SP-011-1-712	23-SP-011-1-725	23-SP-011-1-727	23-SP-011-1-732	
Voltage	12 V DC/ 24V AC	24 V DC/ 48 V AC	110/115 V AC	230 V AC	24 V DC	
Power consumption DC	4.6 W	4.8 W	-	-	2.5 W	
Power consumption AC	7.1 VA	7.7 VA	6.0 VA/ 7.6 VA	7.9 VA	-	
Specifics	Enhanced humidity resistance.					



# **Solenoid coils**

# M12 connection

Overall width	22 mm
Contact distance	-
Contacts	2P
Protection	IP 65 according to EN 60529 with connected plug socket
Duty cycle	100 %
Temperature range*	-20°C +50°C
Voltage tolerance	± 10 %
For use with series	

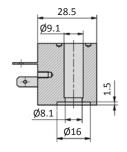


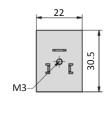
 $<sup>\</sup>hbox{$^*$ The max. applicable operating temperature, depends on the temperature specification of the used valve}.$ 

Model-no.:	23-SP-011-5-O12	23-SP-012-5-O32
Voltage	24 V DC	24 V DC
Power consumption DC	4.8 W	2.5 W
Power consumption AC	-	-
Specifics	Mounting on manifold not allowed. With integrated LED and protective circuit.	Min. mounting distance for manifold mounting is 20 mm. With integrated LED and protective circuit.

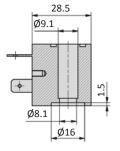
# **Dimensions**

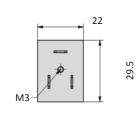
#### Form B according to DIN EN 175301-803



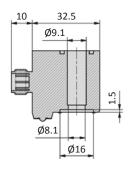


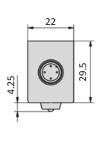
#### Form B industrial norm





# M12 connection





Subject to change 05

# **Voltage code**



			1181 * * * *					
- <u>HN *</u> - * * * T T T								
▼					*			
Manu	ial override		Coil and plug options	Coil type		Manual override osition on side of		Voltage
HN HNR	detent detent	0	ATEX 2GD, encapsulated with casting compound width 30 mm	23-SP-037	0	without indication ports 1/3/(5)	0	without indi- cation
HNT	non-detent	1	with coil and plug	according to valve	1	DC ports 1/3/(5) AC	1	12 V
		2					2	24 V
		3			2 ports 1/3/(5)		3	42 V
		4	with coil, without plug	according to valve	2	DC, low power	4	48 V
		5	without coil	no	3	consumption ports 1/3/(5)	5	110 V
		6	without pilot valve with coil, with enhanced humidity resistance,	no	4	DC	6	115 V
		7	without plug	according to valve		ports 2/(4) AC	7	230 V 240 V
		8	with coil, with enhanced humidity resistance, with plug	according to valve	5	ports 2/(4) DC, low power	9	
		9	ATEX 2GD, intrinsically safe, with plug width 30 mm	23-SP-038	6	consumption ports 2/(4)	A B	4 V 6 V
		Α	ATEX 3GD, without plug, width 30 mm	23-SP-040	7	without indication	С	8 V
		В	ATEX 3GD, with plug, width 30 mm	23-SP-040	7 ports 2/(4)	D	61 V	
		С	ATEX 3GD, without plug, width 22 mm	23-SP-041		E	36 V	
		D	ATEV 200 annual standard with practice account of			F	9 V	
		E	ATEX 2GD, encapsulated with casting compound width 22 mm	23-SP-036		•	<i>y</i> •	
		F	with coil, with enhanced humidity resistance, without plug, low temperature version	23-SP-060-1				
		G						
		Н	with coil shape B according to DIN EN 175301-803, with plug	23-SP-011-G				
		I	with coil shape B according to DIN EN 175301- 803, without plug	23-SP-011-G				
		J	with coil shape A according to DIN EN 175301- 803, without plug (if not standard)	23-SP-016				
		K	with coil shape A according to DIN EN 175301-803, with plug (if not standard)	23-SP-016				
		L	with coil, with plug with LED and protective circuit	according to valve				
		M	with coil, with plug with LED, without protective circuit	according to valve				
		Ν	with coil with M12 connection	according to valve				
		0	with coil with M12 connection with LED and protective circuit	according to valve				
		Р	without connector bridge, without plug					
		Q	with coil with with cable	according to valve				
		R	with cable up to 1 m length	according to valve				
		S	with connector bridge, without plug					
		T	ATEV 2CD without cell (for cell 22 CD 200)					
		V	ATEX 2GD, without coil (for coil 23-SP-036)  ATEX 2GD, Flame proof enclosures and en-	23-SP-045				
		W	capsulated with casting compound  ATEX 2GD / 3GD, without coil  (for soil 23 SD 041 and 23 SD 045)	no				
		Х	(for coil 23-SP-041 and 23-SP-045)  ATEX 3GD, without coil  (for coil 23-SP-040 in 230) (AC and 115) (AC)	no				
		Υ	(for coil 23-SP-040 in 230V AC and 115V AC) ATEX 2GD, without coil (for coil 23-SP-038)	no				
			ATEX 2GD / 3GD, without coil			Not all options are suitable for all val series		le for all valve
		Z	(for coil 23-SP-040 in 24V DC and 23-SP-037)	no				

O6 Subject to change