

## N204/205/206/222 & N223/224/225 Series, Eex – 2/2 Normally Closed

Specifications	
Function (single acting)	<p>Flow direction overseat 1 → 2</p>
Maximum Viscosity	Max. 21cST (3 °E)
Body Material (Std)	Brass CW617N (EN 12165)
Orifice Material	Stainless Steel 1.4305 EN 10088 (AISI 303)
Armature Tube	Stainless Steel solenoid grade
Plunger and Top Stop	Stainless Steel solenoid grade
Seal Material (Std)	FKM
Connection Type (Std)	G parallel thread (ISO 228-1)
Coil Characteristics	
Standard Coil Voltage DC (=)	24 V
Standard Coil Voltage AC 50 Hz (-)	24 V, 110 V, 230 V
Standard Coil Voltage AC 60 Hz (-)	24 V, 120 V
Voltage Tolerance	+10% to -10% (AC/ DC)
Duty Cycle	100% ED
Protection Class	EEx m II 2GD T4 (IP65 - EN 60529)
Cable Type	H05V2V2-F 3G1
Coil Insulation	Class F to EN 60730

### Features and Benefits

- Pilot operated
- Robust construction for industrial applications
- Fitted with explosion-proof operator and coil class EEx m II 2GD T4
- The valve are supplied with a 3 m power cable entry, wired on a non-removable plug



### ⚠ WARNING

**The Ex approval is only valid for complete solenoid valves supplied ex factory (replacing the solenoid doesn't make a valve explosion-proof!).**

Repairs may be performed by the manufacturer only, spare parts are not available (a valve is a closed system according to Directive 2014/34/UE).

Pipe Size	Cv (gpm)	Kv (m³/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
3/8"	3.86	3.30	0.3 - 12	0.3 - 12	13	FKM	N204DVZ
1/2"	4.42	3.78			13	FKM	N205DVZ
3/4" compact	7.02	6.00			21	FKM	N206DVX
3/4"	9.83	8.40			25	FKM	N206DVZ
1"	11.23	9.60	0.5 - 12	0.5 - 12	25	FKM	N222DVZ
1 1/4"	25.97	22.20			40	FKM	N223DVK
1 1/2"	28.08	24.00			40	FKM	N224DVK
2"	37.91	32.40			50	FKM	N225DVJ
							N225DVJ

### Options Available

Valve Options (see coding chart)
NPT threads (minimum batch may be required)

Solenoid Enclosure		
Coil	Voltage - Power	Fuse <sup>2</sup>
N253	24 VDC - 10,1 W	800
N203 <sup>1</sup>	24 V / 50/60 Hz - AC 7,2 VA	800
N403 <sup>1</sup>	110 V / 50 Hz - AC 9,1 VA	200
NK03 <sup>1</sup>	120 V / 60 Hz - AC 8,6 VA	200
N703	230 V / 50 Hz - AC 8,5 VA	100

<sup>1</sup> MOQ required.

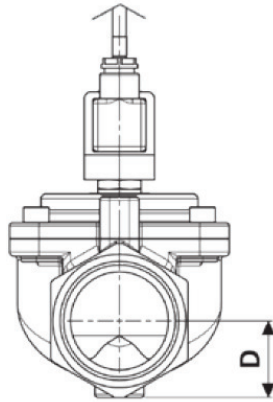
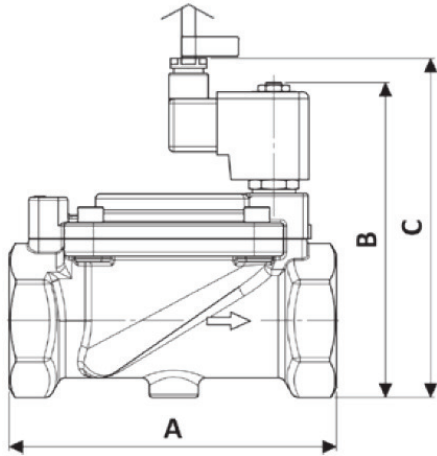
### ⚠ SAFETY WARNING

<sup>2</sup> A mains fuse or equivalent means of protection (breaking value shown on the table above for each coil type) must be installed on the mains supply line. Absence of mains protection is a non conformity to safety standards (EC Directives 2014/34/UE and 1999/92/EC) and could be a potential risk of explosion.

Seal Material <sup>3</sup> and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
FKM (-20 °C to +80 °C)	Water, oil, air	-20 °C	+50 °C

<sup>3</sup> See corrosion reference guide and sealing solutions for material compatibility.

Coil Rotation



Preferred Valve Mounting Options



Pipe Size	A	B	C	D	Weight (kg)
3/8" - 1/2"	67	103.3	115.7	15	-
3/4" compact	82	119	131.5	20.25	-
3/4" - 1"	96	125.5	137.9	23	-
1 1/4" - 1 1/2"	140	143.4	155.8	31.5	-
2"	167	160.4	172.8	39	-

Dimensions (mm)

## Solenoid enclosures

### N--- Type Coil - Insulation class F

- External material: thermoplastic
- Connection type: 3 m wired cable, with ferrules
- Enclosure classification: conforms to IP65 (according to EN 60529)
- Type examination certificates: PTB 03 ATEX 2086 X, IECEx PTB 05.0005X



### Coding chart

#### Main Valve Assembly

Pipe Size	
04	3/8"
05	1/2"
06	3/4" (compact)
06	3/4"
22	1"
23	1 3/4"
24	1 1/2"
25	2"

Orifice <sup>1</sup>	
Z	13
Y	21
Y	25
K	40
J	50

Option	
N	NPT
	w/o option

#### Coil options

Voltage / Frequency - Class F	
N253	24 VDC
N203	24 V / 50/60 Hz
N403	110 V / 50 Hz
NK03	120 V / 60 Hz
N703	230 V / 50 Hz



<sup>1</sup> DN13 only for N204 and N205, DN21 only for N206 compact, DN25 only for N206 and N222, DN40 only for N223 and N224, DN50 only for N225.

### Product coding example:

N205DVZ N253  
1/2" G, Ex m solenoid operator, brass body, FKM seals, 13 mm orifice, 24 VDC.

## N204/205/206/222 Series, Stainless Steel, Eex – 2/2 Normally Closed

Specifications	
Function (single acting)	<p>Flow direction overseas 1 → 2</p>
Maximum Viscosity	Max. 21cST (3 °E)
Body Material (Std)	Stainless steel AISI 316L (ASME SA351/351M GRADE CF3M)
Orifice Material	Stainless Steel 1.4305 EN 10088 (AISI 303)
Armature Tube	Stainless Steel solenoid grade
Plunger and Top Stop	Stainless Steel solenoid grade
Seal Material (Std)	FKM
Connection Type (Std)	G parallel thread (ISO 228-1)
Coil Characteristics	
Standard Coil Voltage DC (=)	24 V
Standard Coil Voltage AC 50 Hz (-)	24 V, 110 V, 230 V
Standard Coil Voltage AC 60 Hz (-)	24 V, 120 V
Voltage Tolerance	+10% to -10% (AC/ DC)
Duty Cycle	100% ED
Protection Class	EEx m II 2GD T4 (IP65 - EN 60529)
Cable Type	H05V2V2-F 3G1
Coil Insulation	Class F to EN 60730

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Pipe Size	Cv (gpm)	Kv (m <sup>3</sup> /h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
3/8"	3.86	3.30	0.3 - 12	0.3 - 12	13	FKM	N204DYZI
1/2"	4.42	3.78			13	FKM	N205DYZI
3/4"	9.83	8.40			25	FKM	N206DYZI
1"	11.23	9.60			25	FKM	N222DYZI

### Options Available

Valve Options (see coding chart)
NPT threads (minimum batch may be required)

Solenoid Enclosure		
Coil	Voltage - Power	Fuse <sup>2</sup>
N253	24 VDC - 10,1 W	800
N203 <sup>1</sup>	24 V / 50/60 Hz - AC 7,2 VA	800
N403 <sup>1</sup>	110 V / 50 Hz - AC 9,1 VA	200
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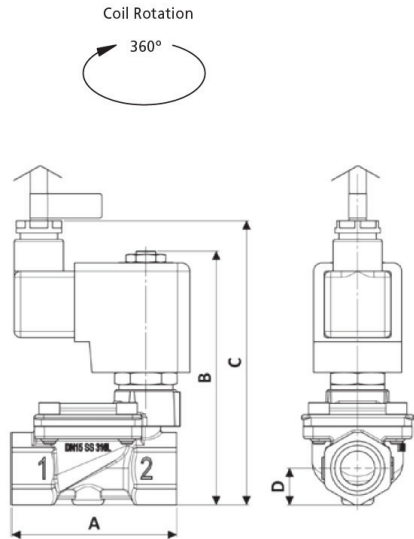
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Seal Material <sup>3</sup> and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
FKM (-20 °C to +80 °C)	Water, oil, air aggressive fluids	-20 °C	+50 °C

<sup>3</sup> See corrosion reference guide and sealing solutions for material compatibility.



Preferred Valve Mounting Options



Pipe Size	A	B	C	D	Weight (kg)
3/8" - 1/2"	67	103.4	115.8	15	-
3/4" - 1"	96	125.6	138	23	-

Dimensions (mm)

Solenoid enclosures

N--- Type Coil - Insulation class F

- External material: thermoplastic
- Connection type: 3 m wired cable, with ferrules
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Coding chart

Main Valve Assembly

Pipe Size
04 3/8"
05 1/2"
06 3/4"
22 1"

Orifice <sup>1</sup>
Z 13
Y 25

Option
N NPT
w/o option

Voltage / Frequency - Class F	
N253	24 VDC
N203	24 V / 50/60 Hz
N403	110 V / 50 Hz
NK03	120 V / 60 Hz
N703	230 V / 50 Hz



<sup>1</sup> DN13 only for N204 and N205, DN25 only for N206 and N222.

Product coding example:

N205DVZI N253  
1/2" G, Ex m solenoid operator, stainless steel body, FKM seals, 13 mm orifice, 24 VDC.