

### Features

- ATEX 94/9/EC directive approved
- Can be used in Zone 1 and Zone 2 hazardous areas
- Direct acting and indirect acting valves available
- Available voltages of 24 volts DC and 230 volts, 50 Hz AC
- All constructions have functional safety data per IEC 61508 available

### Construction

Valve Parts in Contact with Fluid						
	Valve Series					
	8320	8327	8316		8551	
Body	BR or 303 SS	BR or 316 SS	BR	316 SS	AL	316 SS
Core and Plugnut	430F SS					
Core Tube	303 SS					
Disc and Seals	NBR	VMQ	NBR	FPM	NBR & PUR	PUR & VMQ
Rider Ring	PTFE					
Springs	303 SS					



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Series	Body Material	Voltage	Min. Ambient Temp. °F (°C)	ATEX Safety Code					
				II G/D Eex d IIC					
				T4°F (°C)		T5°F (°C)		T6°F (°C)	
				T Amb.	T Cable	T Amb.	T Cable	T Amb.	T Cable
8320	All Materials	AC	32 (0)	140 (60)	194 (90)	104 (40)	158 (70)	77 (25)	158 (70)
		DC		167 (75)	194 (90)	140 (60)	176 (80)	104 (40)	158 (70)
AC		-40 (-40)	-				104 (40)	158 (70)	
DC			104 (40)	158 (70)					
8316	BR	AC	-4 (-20)	140 (60)	194 (90)	104 (40)	158 (70)	77 (25)	158 (70)
		DC		167 (75)	194 (90)	140 (60)	176 (80)	104 (40)	158 (70)
	SS	AC	32 (0)	140 (60)	194 (90)	104 (40)	158 (70)	77 (25)	158 (70)
		DC		167 (75)	194 (90)	140 (60)	176 (80)	104 (40)	158 (70)
8551	AL	AC	-13 (-25)	140 (60)	194 (90)	104 (40)	158 (70)	77 (25)	158 (70)
		DC		-	194 (90)	140 (60)	176 (80)	104 (40)	158 (70)
	SS	AC	-40 (-40)	140 (60)	194 (90)	104 (40)	158 (70)	77 (25)	158 (70)
		DC		-	194 (90)	140 (60)	176 (80)	104 (40)	158 (70)

### Solenoid Enclosures

**Standard:** Electrical Enclosure Protection (EN60529): Aluminum IP-67

### Approvals

Directive ATEX 94/9/EC

II 2 G/D Eex d IIC T6. T4 IP67

EC type examination certificate no. LCIE 00ATEX 6008 X

**Specifications (English Units)**

<b>3/2 VALVES, NORMALLY CLOSED (Closed when de-energized), Direct Acting</b>																
Pipe Size (ins)	Orifice Size (ins)	Cv Flow Factor		Operating Pressure Differential (psi)							Max. Fluid Temp. °F		Catalog Number	Body Material	Wattage	
				Min.	Max. AC			Max. DC			AC	DC			AC	DC
					Air - Inert Gas	Water	Light Oil @ 300 SSU	Air - Inert Gas	Water	Light Oil @ 300 SSU						
1/4	3/32	0.09		0	150	150	150	115	115	115	200	150	NF8320A184	BR	16.7	11.2
													NF8320A202	303 SS		
<b>3/2 VALVES, UNIVERSAL (Normally Closed or Normally Open), Direct Acting</b>																
Pipe Size (ins)	Orifice Size (ins)	Cv Flow Factor		Operating Pressure Differential (psi)							Max. Fluid Temp. °F		Catalog Number	Body Material	Wattage	
				Min.	Max. AC			Max. DC			AC	DC			AC	DC
					Ports 1-2	Ports 2-3	Air - Inert Gas	Water	Light Oil @ 300 SSU	Air - Inert Gas						
1/4	1/4	0.49	0.56	0	150	150	150	150	150	150	104	104	NF8327B011	BR	10	11.2
													NF8327B012	316 SS		
<b>3/2 VALVES, NORMALLY CLOSED (Closed when de-energized), Indirect Acting</b>																
Pipe Size (ins)	Orifice Size (ins)	Cv Flow Factor		Operating Pressure Differential (psi)							Max. Fluid Temp. °F	Catalog Number	Body Material	Wattage		
				Min.	Air - Inert Gas									AC	DC	
1/4	1/4	0.86		30 ②	150						140	NF8551B405	AL	10.5	11.2	
	5/16	1.5		15 ①												
1/2	5/8	4											NF8316A001	BR		
												NF8316A081V	316 SS			
												NF8316A004	BR			
												NF8316A084V	316 SS			
<b>5/2 VALVES, Indirect Acting</b>																
Pipe Size (ins)	Orifice Size (ins)	Cv Flow Factor		Operating Pressure Differential (psi)							Max. Fluid Temp. °F	Catalog Number	Body Material	Wattage		
				Min.	Air - Inert Gas									AC	DC	
1/4	1/4	0.86		30 ②	150						140	NF8551B417	AL	10.5	11.2	
												NF8551A421	316 SS			
<b>3/2, 5/2 NAMUR MOUNT VALVES, Indirect Acting</b>																
Pipe Size (ins)	Orifice Size (ins)	Cv Flow Factor		Operating Pressure Differential (psi)							Max. Fluid Temp. °F	Catalog Number	Body Material	Wattage		
				Min.	Air - Inert Gas									AC	DC	
1/4	1/4	0.86		30 ②	150						140	NF8551B401	AL	10.5	11.2	
												NF8551A409	316 SS			

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① Zero minimum when valve selection gasket is in external position and proper auxiliary air pressure is applied. Minimum 15 psi Operating Pressure Differential when selection gasket is in the internal position. See I&M sheet for details.

② Zero minimum when end cap gasket is in external position and proper auxiliary air pressure is applied. Minimum 30 psi Operating Pressure Differential when end cap gasket is in the external position. See I&M sheet for details.

## Specifications (Metric Units)

3/2 VALVES, NORMALLY CLOSED (Closed when de-energized), Direct Acting																
Pipe Size (ins)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressre Differential (bar)							Max. Fluid Temp. °C		Catalog Number	Body Material	Wattage		
			Min.	Max. AC			Max.DC			AC	DC			AC	DC	
				Air - Inert Gas	Water	Light Oil @ 300 SSU	Air - Inert Gas	Water	Light Oil @ 300 SSU							
1/4	2.4	.10	0	10	10	10	8	8	8	93	65	NF8320A184	BR	16.7	11.2	
												NF8320A202	303 SS			
3/2 VALVES, UNIVERSAL (Normally Closed or Normally Open), Direct Acting																
Pipe Size (ins)	Orifice Size (mm)	Kv Flow Factor (m3/h)		Operating Pressre Differential (psi)							Max. Fluid Temp. °C		Catalog Number	Body Material	Wattage	
		Ports 1-2	Ports 2-3	Min.	Max. AC			Max.DC			AC	DC			AC	DC
					Air - Inert Gas	Water	Light Oil @ 300 SSU	Air - Inert Gas	Water	Light Oil @ 300 SSU						
1/4	6	.42	.48	0	10	10	10	10	10	10	40	40	NF8327B011	BR	10	11.2
													NF8327B012	316 SS		
3/2 VALVES, NORMALLY CLOSED (Closed when de-energized), Indirect Acting																
Pipe Size (ins)	Orifice Size (ins)	Kv Flow Factor (m3/h)	Operating Pressre Differential (bar)							Max. Fluid Temp. °C	Catalog Number	Body Material	Wattage			
			Min.	Air - Inert Gas									AC	DC		
1/4	6	.75	2 ②	10							60	NF8551B405	AL	10.5	11.2	
	8	1.29	1 ①									NF8551A413	316 SS			
1/2	16	3.43		1 ①	10							60	NF8316A001	BR	10.5	11.2
			NF8316A081V										316 SS			
			NF8316A004										BR			
				10							60	NF8316A084V	316 SS			
5/2 VALVES, Indirect Acting																
Pipe Size (ins)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressre Differential (bar)							Max. Fluid Temp. °C	Catalog Number	Body Material	Wattage			
			Min.	Air - Inert Gas									AC	DC		
1/4	6	.75	2 ②	10							60	NF8551B417	AL	10.5	11.2	
												NF8551A421	316 SS			
3/2, 5/2 NAMUR MOUNT VALVES, Indirect Acting																
Pipe Size (ins)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressre Differential (bar)							Max. Fluid Temp. °C	Catalog Number	Body Material	Wattage			
			Min.	Air - Inert Gas									AC	DC		
1/4	6	.7	2 ②	10							60	NF8551B401	AL	10.5	11.2	
												NF8551A409	316 SS			

SPECIAL SERVICE PILOT

① Zero minimum when valve selection gasket is in external position and proper auxiliary air pressure is applied. Minimum 1 bar Operating Pressure Differential when selection gasket is in the internal position. See I&M sheet for details.  
 ② Zero minimum when end cap gasket is in external position and proper auxiliary air pressure is applied. Minimum 2 bar Operating Pressure Differential when end cap gasket is in the external position. See I&M sheet for details.