



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





High Flow NAMUR Valve G1/4" & G1/2"

for Control of Pneumatic Actuators



Market Description

Process industries
Chemical, Petrochemical industries
Oil & Gas
Water & Sewage
Pulp & Paper
Food & Beverage
Pharmaceutical industry
Powder Dosing-Transportation
Air Dryers



Control of single or double acting pneumatic actuators, in safe or dangerous areas.



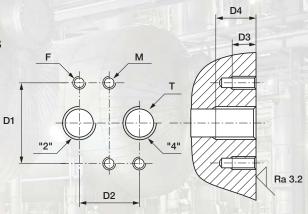




NAMUR Interfaces 1/4" & 1/2"

The interface design is conform to the NAMUR standard and to the VDI/VDE 3845 recommendations of the actuator industry. It allows a compact design of the actuator/valve unit. In case of a 3/2 function, the air of the actuator spring chamber also flows through the pilot valve (re-breather function). This prevents corrosion of the actuator springs.

F	T	D1 mm			D4 min. Mm		
M5	1/4	32	24	8	12	M5	
M6	1/2	45	40	10	16	M6	



F: 2 mounting holes - T: 2 actuators control port - M: 2 holes for dowel pins

Customer Value Proposition

- High flow: 1.250 l/min (1/4"), 3.000 l/min (1/2")
- Compact design
- Long life expectancy
- N3x series compatible with any Parker Lucifer coil (ATEX or not) of electrical group 2 (8/9 W coils)
- Fail safe standard
- Reduced inventory (3/2 & 5/2 functions with the same valve on 341Nx5 series)
- Mechanical part of the valve ATEX certified according standard EN 13463-1 & -5



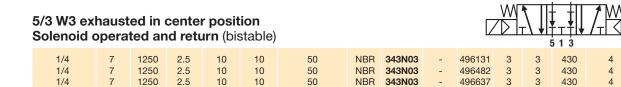
General Information

Function:	3/2, 5/2, 3/2 <=> 5/2 and 5/3 valves.
Manual override:	Standard on all versions.
Design:	Solenoid operated spool valve with combined spring and air return & external air pressure operated versions.
Mounting:	For direct mounting on NAMUR interface 1/4" & 1/2".
Mounting position:	Indifferent.
Material specifications:	Aluminium body. Internal parts from stainless steel. Sealing material from NBR.
Range of admissible pressure drop:	$\Delta p \ min. = see \ table.$ $\Delta p \ max. = 10 \ bar.$
Media:	Dry or lubricated air.
Fluid temperature:	Min. 0°C Max. + 50°C
Ambient temperature:	-10°C to +50°C
Electrical part:	N0x series are compatible with 22mm coil 496131 / 496482 / 496637 Series N3x series are compatible with 32/37/40 mm coils part of electrical group 2 (8/9W), including 481865 / 495870 / 495905 Series.
Solenoid duty:	100% ED.
Voltage:	481865 coil: 12 VDC , 24 VDC , 48 VDC , 110VDC, 24 V / 50 AC, 48 V / 50 AC, 110 V / 50 AC, 220-230V/50 AC, 115 V / 60 Hz AC, 230 V / 60 AC.
Voltage tolerance:	± 10% of nominal for 481865 coil.
Class of insulation material:	Class F for 481865 coil.
Standards:	Mechanical ATEX conform to EN 13463-1 & -5.

G1/4" Series

Solenoid Operated Versions N03-N05 Series with 22 mm Coil

Port size	Orifice	Q _N		Admissible differential pressure (bar) max.		Max. admissible fluid temperature (°C) Min. = 0°C	Seat disc		Reference number		Po	imption wer /att)	Weight (g)	Dimensions Reference
G	mm	L/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		
/2 Solen	oid op	erate	d - Co	mbine	ed spri	ing & air ret	t urn (r	nonost	able)			/ <u> </u> -	3	2 / / / / 1
1/4 1/4 1/4	7 7 7	1250 1250 1250	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	331N03 331N03 331N03	-	496131 496482 496637	3 3 3	3 3 3	300 300 300	1 1 1
5/2 Solen	oid op	1250 1250 1250 1250	2.5 2.5 2.5 2.5	10 10 10	10 10 10	50 50 50 50	NBR NBR NBR	341N03 341N03 341N03	- -	496131 496482 496637	3 3 3	3 3 3	300 300 300 300	1 3 2 2 2 2 2 2
3/2 <=> 5/	NBR 341N03 - 490037 3 3 300 2 5/2 <=> 5/2 with conversion plate - Solenoid operated Combined spring & air return (monostable)													
1/4 1/4	7 7 7	1250 1250 1250	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	341N05 341N05 341N05	-	496131 496482 496637	3 3 3	3 3 3	310 310 310	3 3 3
5/2 Solenoid operated and return (bistable)														
1/4 1/4 1/4	7 7 7	1250 1250 1250	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	347N03 347N03 347N03	-	496131 496482 496637	3 3 3	3 3 3	430 430 430	4 4 4
											W	<u>,</u>	1 2 L <u> </u>	<i>†</i> W



50

50

NBR **342N03**

NBR

NBR

NBR

342N03

342N03

343N03

496131

496482

496637

496637

3

3

Please consult the "How to Order" part at the end of each coil chapter.

10

5/3 W1 closed in center position - Solenoid operated and return

10

10

10

10

1/4

1/4

1/4

1/4

1250

1250

1250

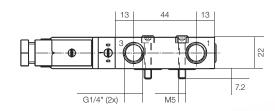
1250

2.5

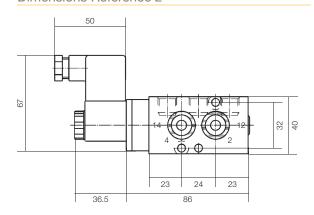
430

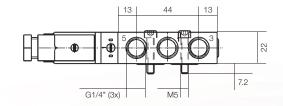
430

Dimensions Reference 1



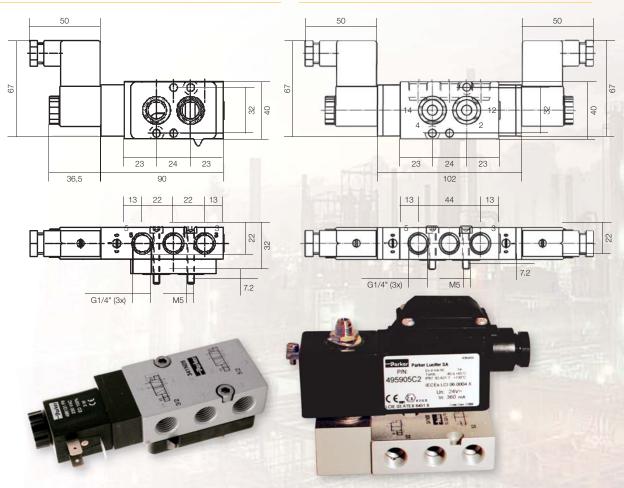
Dimensions Reference 2





Dimensions Reference 3

Dimensions Reference 4



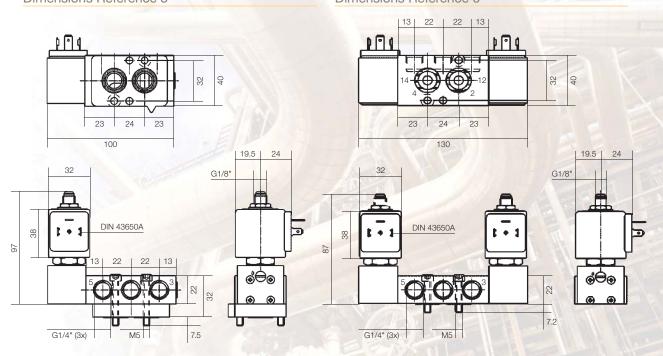
G1/4" Series

Solenoid Operated Versions N33-N35 Series with 32 / 37 / 40 mm Coil

Port size	Orifice	Q _N		Admissible differentia pressure (bar) max.	4	Max. admissible fluid temperature (°C) Min. = 0°C	Seat disc		eference number			mption wer att)	Weight (g)	Elect. Group	Dim. Ref.
G	mm	L/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC			
3/2 <=> 5/2 with conversion plate - Solenoid operated Combined spring & air return (monostable)															
1/4 1/4 1/4	7 7 7	1250 1250 1250	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	341N35 - -	2995 2995 -	481865 495870 495905	9 9 8	8 8 8	480 700 740	2 -	5 2 2
5/2 Solen	oid op	erate	d and	returr	ı (bista	ble)						#F		2 / / T	M
1/4 1/4 1/4	7 7 7	1250 1250 1250	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	347N33 - -		481865 495870 495905	9 9 8	8 8 8	750 1190 1270	2 2 2	6 - -
5/3 W1 closed in center position Solenoid operated and return (bistable)															
1/4 1/4 1/4	7 7 7	1250 1250 1250	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	342N33 - -	2995 2995 -	481865 495870 495905	9 9 8	8 8 8	750 1190 1270	2 2 2	6 - -

Dimensions Reference 5

Dimensions Reference 6



Please consult the "How to Order" part at the end of each coil chapter.

G1/4" Series

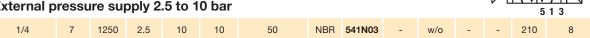
External Pressure Air Operated Series 5xx N03 Series

Port size	Orifice	Q _N		Admissible differentia pressure (bar) max.	I	Max. admissible fluid temperature (°C) Min. = 0°C	Seat disc	ı	Reference number		Pov	mption wer att)	Weight (g)	Dimensions Reference
G	mm	L/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC		

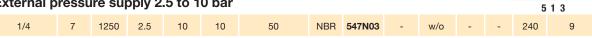
3/2 External pressure air operated Combined spring & air return (monostable) External pressure supply 2.5 to 10 bar



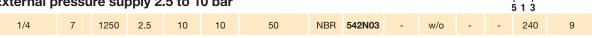
5/2 external pressure air operated Combined spring & air return (monostable) External pressure supply 2.5 to 10 bar



5/2 external pressure air operated External pressure air return (bistable) External pressure supply 2.5 to 10 bar



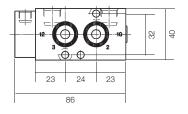
5/3 W1 closed in center position - External pressure air operated External pressure air return (bistable) External pressure supply 2.5 to 10 bar

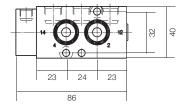


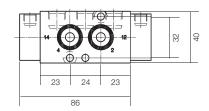
Dimensions Reference 7

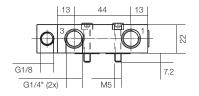
Dimensions Reference 8

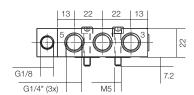
Dimensions Reference 9

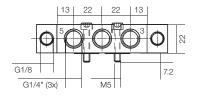












G1/2" Series

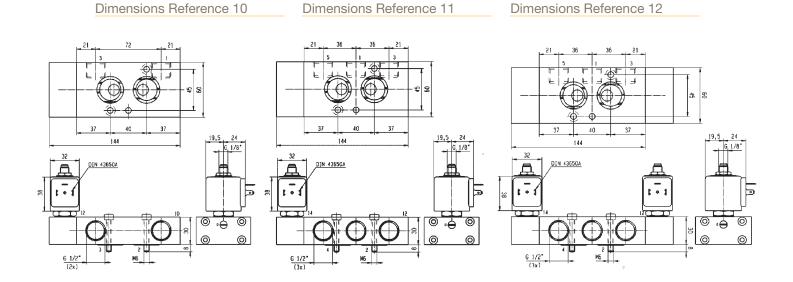
Solenoid Operated Versions N34 Series with 32 / 37 / 40 mm Coil

Admissible

differential

	Port size	Urifice	Q _N		(bar) max.		(°C) Min. = 0°C	disc		eference number		Po	mption wer att)	(g)	Group	Dim. Ref.
	G	mm	L/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC			
	3/2 Solenoid operated Combined spring & air return (monostable)															
	1/2 1/2 1/2	12 12 12	3000 3000 3000	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	331N34 - -	2995	481865 495870 495905	9 9 8	8 8 8	910 1130 1170	2 2 2	10 - -
	5/2 Solenoid operated Combined spring & air return (monostable)															
	1/2 1/2 1/2	12 12 12	3000 3000 3000	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	341N34 - -	2995	481865 495870 495905	9 9 8	8 8 8	900 1120 1160	2 2 2	11 - -
5/2 Solenoid operated and return (bistable)																
	1/2 1/2 1/2	12 12 12	3000 3000 3000	2.5 2.5 2.5	10 10 10	10 10 10	50 50 50	NBR NBR NBR	347N34 - -	2995	481865 495870 495905	9 9 8	8 8 8	1240 1680 1760	2 2 2	12 - -

Max. admissible fluid



Please consult the "How to Order" part at the end of each coil chapter.

G1/2" Series

External Pressure Air Operated Series 5 xx N04 Series

Port size	Orifice	Q _N		Admissible differentia pressure (bar) max.		Max. admissible fluid temperature (°C) Min. = 0°C	Seat disc		Reference number		Pov	mption wer att)	Weight (g)	Dimensions Reference	
G	mm	L/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC			

3/2 External pressure air operated Combined spring & air return (monostable) External pressure supply 2.5 to 10 bar

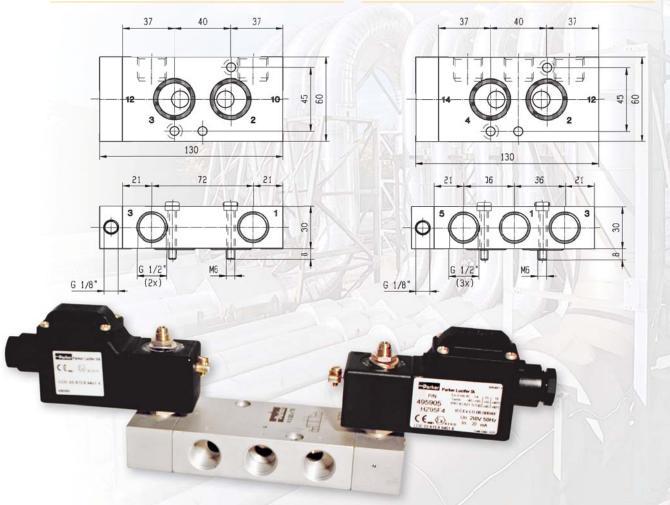


5/2 external pressure air operated Combined spring & air return (monostable) External pressure supply 2.5 to 10 bar

1/2 12 3000 2.5 10 10 50 NBR **541N04** - w/o - - 600 14

Dimensions Reference 13

Dimensions Reference 14



Coils and Spare Parts Informations

Coils 22 mm for N03-N05 Series Safe Area & ATEX Zone 22 Ref. 496131 / 496482 / 496637

These coils with connection for 2 P+G DIN 43650 B plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 73/23/EC.

• Power: 3W

Insulation Class: F (155°C)

 Degree of Protection: IP65 (with plug)

• Duty Cycle: 100% ED

Ambient Temperature:
 -10°C to 50°C

3 different types are available:

 Ref. 496131 for a safe area without plug

 Ref. 496482 for a safe area with plug

• Ref. 496637 for an ATEX area Zone 22



496637 coil series with connection 2P + G when mounted together with the supplied Pg9 plug (delivered with the coil) are suitable for use in dangerous areas (dust Zone 22) according to the European directive ATEX 94/9/C. Protection mode: Ex tD A22 IP65 - T95°C

Available Voltages	Safe area without DIN plug Order Code	Safe area with DIN plug Order Code	ATEX Zone 22 EX II 3D Order Code
12VDC	496131 C1	496482 C1	496637 C1
24VDC	496131 C2	496482 C2	496637 C2
48VDC	496131 C4	496482 C4	496637 C4
110VDC	496131 C5	496482 C5	496637 C5
24/50-60VAC	496131 P0	496482 P0	496637 P0
48/50-60VAC	496131 S4	496482 S4	496637 S4
110/50-60VAC	496131 P2	496482 P2	496637 P2
115/60VAC	496131 K8	496482 K8	496637 K8
230/50-60VAC	496131 P9	496482 P9	496637 P9

How to Order

The housing kit is already included into the coil reference, so it's not needed to add it in the order code:

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 341N03 - 496131 C2

Valves and coils may be ordered also separately.

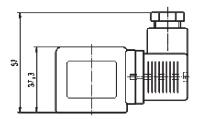
Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series Safe Area Ref. 481865

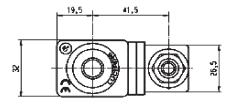
N3x series are compatible with any Parker Lucifer coil part of electrical group 2. That group includes many different coils for safe areas or areas submitted to ATEX certifications. These coils are of the 8/9W class.

These coils with connection for 2P+G DIN 43650 A plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 73/23/EC.

- Power: 8W (AC) 9W (DC)
- Insulation Class: F (155°C)
- Degree of Protection: IP65 (with plug)
- Duty Cycle: 100% ED
- Voltage Tolerance -10%/+10%
- Ambient Temperature -40°C/+50°C
 - ▶ The application can be limited also by the temperature range of the valve

Available Voltages	Order Code
12VDC	481865 C1
24VDC	481865 C2
48VDC	481865 C4
110VDC	481865 C5
24/50VAC	481865 A2
48/50VAC	481865 A4
110/50VAC	481865 A5
220-230/50VAC	481865 3D
380/50VAC	481865 A9
24/60VAC	481865 B2
115/60VAC	481865 K8
230/60VAC	481865 J3







How to Order

This coil must be used together with a housing kit which includes a nut, a plate, and a washer. Housing Kit Order Code: **2995**

Valve Reference Number - Housing Reference - Coil Reference - Voltage Code = Order Code

Example: 341N35 - 2995 - 481865 C2 Valves and coils may be ordered also separately.

Coils and Spare Parts Informations

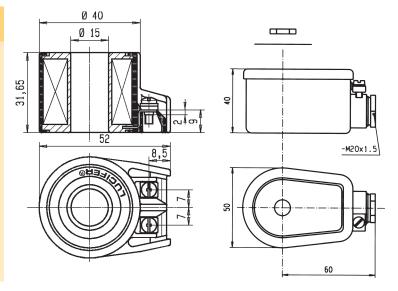
Coils 32 mm/37 mm/40 mm for N33-N34-N35 Series Safe Area Coil 481000 Series with 4538 Watertight and dust proof housing IP67 Ref. 481000

Coil 481000 series is encapsulated in synthetic material. Electrical connection is made with screw terminals for wire up to 1.5 mm. This coil conforms to the IEC/CENELEC safety standards and complies with European low voltage directive 73/23/EC. It must be used with a metallic housing.

- Power: 8W
- Insulation Class: F (155°C)
- Degree of Protection: IP67 (with 4538 housing)
- Duty Cycle: 100%

- Voltage Tolerance -10%/+10%
- Ambient Temperature -40°C/+50°C
 - The application can be limited also by the temperature range of the valve

Available Voltages	Order Code
12VDC	481000 C1
24VDC	481000 C2
48VDC	481000 C4
110VDC	481000 C5
24/50VAC	481000 A2
48/50VAC	481000 A4
110-115/50VAC	481000 OA
220-230/50VAC	481000 3D
380/50-440/60VAC	481000 5P
24/60VAC	481000 B2
110-115/60VAC	481000 6J
220-240/60VAC	481000 4K
42/50-48/60VAC	481000 S7



Housing 4538

This enclosure is dust and water proof. It corresponds to the protection degree IP67 according to IEC/EN60529. Corrosion resistant, the metallic housing offers good protection for the coil against shocks. It can be 360° orientable. This housing must be equipped with 481000 series coil.

Material: galvanized passivated steel - Degree of protection IP67 according to IEC/EN 60529 - Electrical connection: cable connection by cable gland according to DIN46320. Cable with outer diameter 6.5-13.5 mm (M20x1.5) can be simply sealed using a rubber gland resilient sealing rings. The enclosure is internally and externally fitted with grounding and earthing screw terminals.

How to Order

Valve Reference Number - Housing Reference - Coil Reference - Voltage Code = Order Code

Example: 331N34 - 4538 - 481000C2 Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series ATEX Zone 2-22 Ref. 495870

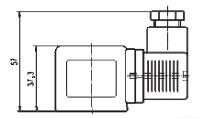
This coil with connection 2P+G - when mounted together with the supplied Pg 9 plug (delivered with the coil), is suitable for use in Gas and Dust dangerous areas (**Zone 2-22**), according to the European directive **ATEX 94/9/C**.

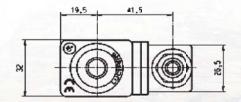
Certificate LCIE 05 ATEX 6003 X - Protection mode: non sparking / limited energy solenoid

- II 3 G Ex nAC IIC T3 / T4
- II 3 D Ex tD A22 IP65 T 195°C / T 130°C
- Power: 8W (AC) 9W (DC)
- Insulation Class: F (155°C)
- Degree of Protection: IP65 (with plug)
- Duty Cycle: 100% ED
- Voltage Tolerance -10%/+10%
- Ambient temperature
 - ▶ T3 (gaz) T 195°C (dust) -40°C/+65°C
 - ▶ T4 (gaz) T 130°C (dust) -40°C/+50°C
 - The application can be limited also by the temperature range of the valve

Available Voltages	Order Code
24VDC	495870 C2
48VDC	495870 C4
110VDC	495870 C5
24/50VAC	495870 A2
48/50VAC	495870 A4
110/50VAC	495870 A5
220-230/50VAC	495870 3D









How to Order

This coil must be used together with a housing kit which includes a nut, a plate, and a washer. Housing kit order code: **2995**

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 331N34 - 2995 - 495870 A5 Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series ATEX Zone 1-21 Ref. 495905

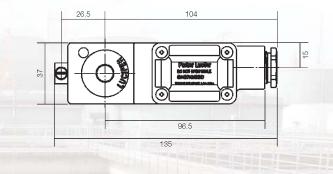
This coil is suitable for use in Gas and Dust dangerous areas (**Zone 1-21**), according to the European directive **ATEX 94/9/C**. It's also IECEx certified according to the IECEx Scheme. **Certificate LCIE 02 ATEX 6451 X - Protection modes: Explosionproof solenoids with flameproof enclosure / encapsulation "d mb"**

- II 2 G Ex d mb IIC T4
- II 2 D Ex tD A21 IP67 T 130°C
- Insulation Class H (180°C)
- Power: 8W (AC-DC)
- Degree of Protection IP67
- Duty Cycle 100%
- Voltage Tolerance -10%/+10%
- Ambient Temperature: -40°C/+65°C
 - The application can be limited also by the temperature range of the valve

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(E₀₀₈₁ (Ex) | 2 G/D

Available Voltages	Order Code	
24VDC	495905 C2	
48VDC	495905 C4	
110VDC	495905 C5	
24/50VAC	495905 A2	
48/50VAC	495905 A4	
110/50VAC	495905 E5	
220-230/50VAC	495905 3D	
115/60	495905 E5	
240/60	495905 B8	



Electric connection is done in the connection box on an easily accessible connector terminals. M20x1.5 Cable gland



The housing kit is already included into the coil reference, so it's not needed to add it in the order code:

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 347N33 - 495905 C2

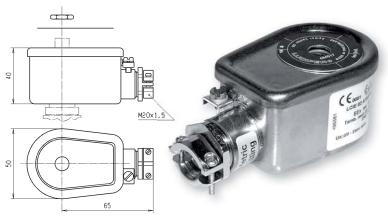
Valves and coils may be ordered also separately.

Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series ATEX Solutions Zone 1-21 Ref. 483371 & 494040

These coils are suitable for use in Gas and Dust dangerous areas (**Zone 1-21**), according to the European directive **ATEX 94/9/C. Protection mode:encapsulated electrical parts with increased safety.**

	Reference	483371 or HZ06	494040 or HZ23		
Approva	l	LCIE 02 ATEX 6011 X	LCIE 02 ATEX 6013 X		
Type of	Gas	II 2 G - Ex e mb II T4	II 2 G - Ex e mb II T3	II 2 G - Ex e mb II T4	
protection	on Dust	II 2 D - Ex tD A21 T 130°C	II 2 D - Ex tD A21 T 195°C	II 2 D - Ex tD A21 T 130°C	
Degree o	of protection	IP67	IP67		
Ambiant	temperature	-40°C to +65°C	-40°C to +90°C -40°C to +65°C		
		The application is	application is limited also by the temperature range of the valve		
Class of	insulation	F (155°)	H (180°)		
Electrica	l connection	By special cable gland or M20x1.5 "Ex e" on screw terminals for wires up to 1.5 mm². Cables with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland with resilient sealing rings supplied.		Cables with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland	
Elect.	DC Pn (hot)	8 W	8 V	V	
Power	P (cold) 20°C	9 W	9 V	V	
	AC Pn (holding)	8 W	8 V	N	
		32 VA (9 W)	32 VA	(9 W)	
Voltage 1	tolerance	Tolera	Tolerance -10/ +10% of the nominal voltage		
Solenoid	duty	Continuous duty solenoid (ED 100%)			

Available Voltages	Order Code	Order Code
6VDC	483371 CO	-
12VDC	483371 C1	-
24VDC	483371 C2	494040 C2
36VDC	483371 C3	-
48VDC	483371 C4	-
60VDC	483371 M3	-
110VDC	483371 C5	-
125VDC	483371 3N	494040 3N
220VDC	483371 C7	494040 C7
12/50VAC	483371 A1	-
24/50VAC	483371 A2	494040 A2
48/50VAC	483371 A4	-
110-115/50VAC	483371 OA	494040 OA
220-230/50	483371 3D	494040 3D
24/60VAC	483371 B2	-
110-115/60VAC	483371 6J	-
220-240/60VAC	483371 4K	-
380/50-440/60VAC		494040 5P



Fuses: Both electrical **483371...** and **494040...** parts have to be connected in series with a safety fuse according to CEI 60127-3.

483371...

DC: 24V / 400mA - 48V / 250mA 110V / 100mA

AC: 24V / 630mA - 48V / 315mA 110/115V / 160mA 220/230V / 80mA

494040...

DC: 24V / 400mA - 125V / 80mA 48V /220V - 63mA

AC: 24V / 630mA - 48V / 315mA 110/115V / 160mA 220/230V / 80mA

How to Order

The housing kit is already included into the coil reference, so it's not needed to add it in the order code:

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 347N33 - 483371C2

Valves and coils may be ordered also separately.