# D262/263 Series, Vacuum - 2/2 Normally Closed

	Specifications			
Function (single acting)	Flow direction overseat $1 \rightarrow 2$			
Maximum Viscosity	Max. 21cST (3 °E)			
Body Material (Std)	Brass CW617N (EN 12165)			
Orifice Material	Stainless Steel 1.4305 EN 10088 (AISI 303)			
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)			
Tube	Stainless Steel AISI 304			
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)			
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)			
Springs	Stainless Steel AISI 302			
Seal Material (Std)	Foodgrade FKM			
Connection Type (Std)	G parallel thread (ISO 228-1)			
Shading Ring	Copper			
Ele	ctrical Characteristics			
Standard Coil Voltage DC (=)	24 V			
Standard Coil Voltage AC 50 Hz (~)	24 V, 110 V, 200 V, 230 V			
Standard Coil Voltage AC 60 Hz (~)	24 V, 120 V, 220 V, 240 V			
Voltago Tolovanso	+10% to -15% (AC)			
Voltage Tolerance	+10% to -5% (DC)			
Duty Cycle	100% ED			
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *			
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)			
Coil Insulation	Class F 155 °C			
Power Rating (Standard)	AC 18 VA (holding) AC 36 VA (inrush) DC 14 W			

#### **Features and Benefits**

- Direct Acting
- Robust construction for industrial applications
- Configuration suitable for vacuum
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- Choice of high quality seal materials
- Response time 5 to 25 ms



Pipe	Cv	Κv	OPD	(bar)	Orifice	Seal	Valve
Size		(m³/h)	AC Voltages	DC Voltages	(mm)	Material	Code
1/4 "	0.04	0.03	-0.9 to 1	-0.9 to 1	1.0	FKM	D263D <u>V</u> AL
74	0.04	0.03	-0.9 10 1	-0.9 (0 1	1.0	NBR	D263D <u>B</u> AL
1/4 "	0.09	0.08	-0.9 to 1	-0.9 to 1	1.5	FKM	D263D <u>V</u> CL
74	0.09	0.06	-0.9 10 1	-0.9 (0 1	1.5	NBR	D263D <u>B</u> CL
1/4 "	0.24	0.20	-0.9 to 1	-0.9 to 1	2.5	FKM	D263D <u>V</u> GL
74	0.24	0.20	-0.9 10 1	-0.9 (0 1	2.5	NBR	D263D <u>B</u> GL
1/4 "	0.32	0.27	-0.9 to 1	-0.9 to 1	3.0	FKM	D263D <u>V</u> HL
74	0.32	0.27	-0.9 10 1	-0.9101 3.0	3.0	NBR	D263D <u>B</u> HL
1/4 "	0.42	0.36	-0.9 to 1	-0.9 to 1	4.0	FKM	D263D <u>V</u> LL
74	0.42	0.36	-0.9 10 1	-0.9 (0 1	4.0	NBR	D263D <u>B</u> LL
1/4 "	0.53	0.45	-0.9 to 1	-0.9 to 1	F 0	FKM	D263D <u>V</u> NL
74	0.53	0.45	-0.9 10 1	-0.9 10 1	5.0	NBR	D263D <u>B</u> NL
1/ 11	0.50	0.40	0.0 +- 1	0.0 +- 1	6.0	FKM	D263D <u>V</u> PL
1/4 "	0.56	0.48	-0.9 to 1	-0.9 to 1	6.0	NIDD	DSESUDDI

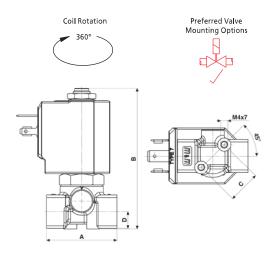
Valve Options (see coding char	:)
Body threaded connection G 1/8"	

Seal Material <sup>1</sup> and Media Temperature Range	Media	Ambient Temperature Range		
remperature kange		Min	Max	
FKM (-10 °C to +130 °C)	Water, oi <b>l</b> , air	-10 °C	+50 °C	
NBR (-10 °C to +90 °C)	Water, oi <b>l</b> , air	-10 °C	+50 °C	

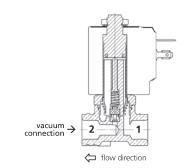
<sup>1</sup> See corrosion reference guide and sealing solutions for material compatability. Other seals material on request.



### D262/263 Series, Vacuum - 2/2 Normally Closed



#### Connection scheme



Pipe Size	A	В	С	D	Weight (kg)
1/8" - 1/4"	40	77.5	18.5	9.5	0.26

Dimensions (mm)

#### Solenoid enclosures

#### 7--0 Type Coil - Insulation class F

External material: PBT (reinforced fiberglass 30%) Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (E180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

#### Type 600 011- Plug

Rated Voltage (max.): 250 VAC / 300 VDC Nominal Current: 10A (rated) / 16A (max)

Wire cross-section: 1.5 mm<sup>2</sup> max Cable Entry: PG9 (6 to 8 mm)

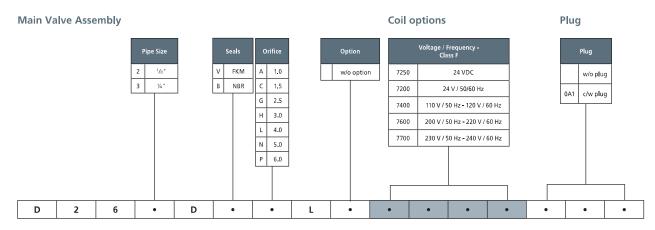
Enclosure classification: Conforms to IP65 (according to EN 60529)

with supplied gasket

Insulation class: group C- VDE 0110

black Housing colour: UL approved, file No: E205538

#### **Coding chart**



#### **Product coding example:**

D263DBPL 7700

 $\frac{1}{4}$  G, auto operation, brass body, FKM seals, 6.0 mm orifice, 230 V / 50 Hz - 240 V / 60 Hz, without plug.

<sup>\*</sup> Plug and gasket not supplied as standard, must be ordered separately.

# D362/363 Series, Vacuum - 3/2 Normally Closed

	C				
	Specifications				
Function (single acting)	$\square$ $\downarrow$				
	Flow direction underseat 2 → 1				
Maximum Viscosity	Max. 21cST (3 °E)				
Body Material (Std)	Brass CW617N (EN 12165)				
Orifice Material	Stainless Steel 1.4305 EN 10088 (AISI 303)				
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)				
Tube	Stainless Steel AISI 304				
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)				
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)				
Springs	Stainless Steel AISI 302				
Seal Material (Std)	Foodgrade FKM				
Connection Type (Std)	G parallel thread (ISO 228-1)				
Shading Ring	Copper				
Electrical Characteristics					
Standard and Class H Coil Voltage DC (=)	24 V				
Standard and Class H Coil Voltage AC 50 Hz (~)	24 V, 110 V, 200 V, 230 V				
Standard and Class H Coil Voltage AC 60 Hz (~)	24 V, 120 V, 220 V, 240 V				
c <b>೯೩೩</b> ՝ us Coil Voltage DC (=)	24 V				
c <b>FN</b> us Coil Voltage AC 50 Hz (~)	24 V, 110 V, 230 V				
c <b>FN</b> us Coil Voltage AC 60 Hz (~)	120 V, 240 V				
	+10% to -15% (AC)				
Voltage Tolerance	+10% to -5% (DC)				
Duty Cycle	100% ED				
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *				
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)				
Coil Insulation	Class F 155 °C				
Power Rating (Standard and Class H)	AC 18 VA (holding) AC 36 VA (inrush) DC 14 W				
Power Rating	AC 15 VA (holding) AC 30 VA (inrush) DC 10 W				

#### **Features and Benefits**

- Direct Acting
- Robust construction for industrial applications
- Configuration suitable for vacuum
- Zero pressure rated
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- High quality seal materials
- Response time 5 to 25 ms



Pipe Cv		Κv	OPD (bar)		Orifice	Seal	Valve	
Size		(m³/h)	AC Voltages	DC Voltages	(mm)	Material	Code	
1/4 "	0.15	0.13	0 to <b>-</b> 0.95	0 to -0.95	2.0	FKM	D363C <u>V</u> EL	
1/4 "	0.24	0.20	0 to <b>-</b> 0.95	0 to -0.95	2.5	FKM	D363C <u>V</u> GL	
1/4 "	0.32	0.27	0 to <b>-</b> 0.95	0 to <b>-</b> 0.95	3.0	FKM	D363C <u>V</u> HL	
1/4 "	0.42	0.36	0 to -0.95	0 to -0.95	4.0	FKM	D363C <u>V</u> LL	

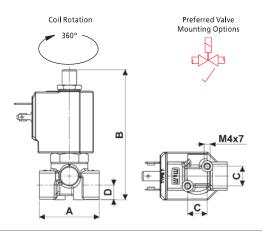
Valve Options (see coding chart)	
Body threaded connection G 1/8"	

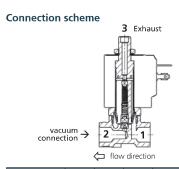
Seal Material <sup>1</sup> and Media	Media	Ambient Temperature Range		
Temperature Range		Min	Max	
FKM (-10 °C to +130 °C)	Water, oi <b>l</b> , air	-10 °C	+50 °C	

<sup>&</sup>lt;sup>1</sup> See corrosion reference guide and sealing solutions for material compatability. Other seals material on request.



# D362/363 Series, Vacuum - 3/2 Normally Closed





Pipe Size	A	В	c	D	Weight (kg)
1/8" - 1/4"	40	87	13	9.5	0.26

Dimensions (mm)

#### Solenoid enclosures

#### 7--0 & 7--1 Type Coil - Insulation class F & H

External material (7--0): PBT (reinforced fiberglass 30%) External material (7--1): PPS (glass fiber & mineral filled)

Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (E180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

#### 7--R Type Coil - Insulation class F

Encapsulation material: PET 815ER Rynite®

Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (P180)

Enclosure classification: Conforms to IP65 (according to EN 60529)  $\,$ 

with plug and gasket correctly fitted\*

UL approved, file No: E193928

#### Type 600 011- Plug

Insulation class:

Rated Voltage (max.): 250 VAC / 300 VDC Nominal Current: 10A (rated) / 16A (max)

Wire cross-section: 1.5 mm² max

Cable Entry: PG9 (6 to 8 mm)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with supplied gasket group C- VDE 0110

Housing colour: black
UL approved, file No: E205538



#### **Coding chart**

#### **Main Valve Assembly Coil options** Plug 24 VDC 2.0 w/o 7250 7251 24 VDC w/o plug G 2.5 7200 24 V / 50/60 Hz 7201 24 V / 50/60 Hz c/w pluq 110 V / 50 Hz -120 V / 60 Hz 200 V / 50 Hz -220 V / 60 Hz 3.0 L 4.0 7701 725R 24 VDC 720R 24 V / 50 Hz 110 V / 50 Hz **-**120 V / 60 Hz 740R 230 V / 50 Hz -240 V / 60 Hz 770R

#### **Product coding example:**

D362CVGL 7250

1/8" G, auto operation, brass body, FKM seals, 2.5 mm orifice, 24 VDC, without plug.

 $<sup>^{\</sup>star}$  Plug and gasket not supplied as standard, must be ordered separately.

# D203/204/205 Series, Vacuum - 2/2 Normally Closed

Specifications					
Function (single acting)	Flow direction underseat 2 → 1				
Maximum Viscosity	Max. 21cST (3 °E)				
Body Material (Std)	Brass CW617N (EN 12165)				
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)				
Tube	Stainless Steel AISI 304				
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)				
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)				
Springs	Stainless Steel AISI 302				
Seal Material (Std)	NBR				
Connection Type (Std)	G parallel thread (ISO 228-1)				
Shading Ring	Copper				
Electrical Characteristics					
Standard Coil Voltage DC (=)	24 V				
Standard Coil Voltage AC 50 Hz (~)	24 V, 110 V, 200 V, 230 V				
Standard Coil Voltage AC 60 Hz (~)	24 V, 120 V, 220 V, 240 V				
coil Voltage DC (=)	24 V				
c <b>Fl</b> us Coil Voltage AC 50 Hz (~)	24 V, 110 V, 230 V				
բ <b>Պ</b> մտ Coil Voltage AC 60 Hz (~)	120 V, 240 V				
	+10% to -15% (AC)				
Voltage Tolerance	+10% to -5% (DC)				
Duty Cycle	100% ED				
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *				
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)				
Coil Insulation	Class F 155 °C				
Power Rating (Standard)	AC 18 VA (holding) AC 36 VA (inrush) DC 14 W				
Power Rating (c <b>RI</b> us)	AC 15 VA (holding) AC 30 VA (inrush) DC 10 W				

#### **Features and Benefits**

- Pilot operated
- Robust construction for industrial applications
- Configuration suitable for vacuum
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- High quality seal materials
- Response time 50 to 500 ms



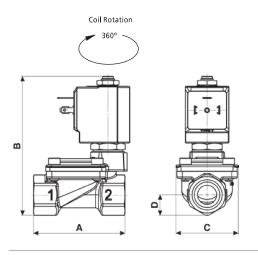
Pino	Cv	Κv	OPD (bar)		Orifice	Seal	Valve
Pipe Size		(m³/h)	AC Voltages	DC Voltages	(mm)	Material	Code
1/4 "	1.83	1.56	-0.2	-0.2	13	NBR	D203D <u>B</u> ZL
3/8"	3.86	3.30	to	to	13	NBR	D204D <u>B</u> ZL
1/2 "	4.42	3.78	-0.95	-0.95	13	NBR	D205D <u>B</u> ZL

Seal Material <sup>1</sup> and Media	Media	Ambient Temperature Range		
Temperature Range		Min	Max	
NBR (-10 °C to +90 °C)	Water, oi <b>l</b> , air	-10 °C	+50 °C	

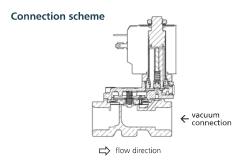
<sup>&</sup>lt;sup>1</sup> See corrosion reference guide and sealing solutions for material compatability. Other seals material on request.



### D203/204/205 Series, Vacuum - 2/2 Normally Closed







Pipe Size	A	В	С	D	Weight (kg)
1/4" to 1/2"	67	102	45.6	15	0.49

Dimensions (mm)

#### Solenoid enclosures

#### 7--0 Type Coil - Insulation class F

External material: PBT (reinforced fiberglass 30%)
Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (E180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

#### 7--R Type Coil - Insulation class F

Encapsulation material: PET 815ER Rynite® Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (P180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

UL approved, file No: E193928

 $\ensuremath{^{\star}}$  Plug and gasket not supplied as standard, must be ordered separately.

### Type 600 011- Plug

Rated Voltage (max.): 250 VAC / 300 VDC

Nominal Current: 10A (rated) / 16A (max)

Wire cross-section: 1.5 mm² max

Cable Entry: PG9 (6 to 8 mm)

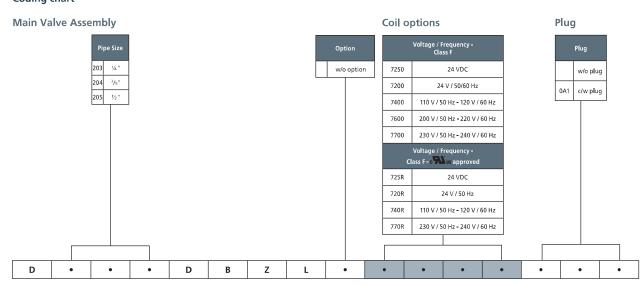
Enclosure classification: Conforms to IP65 (according to EN 60529)

with supplied gasket

Insulation class: group C- VDE 0110

Housing colour: black
UL approved, file No: E205538

### **Coding chart**



#### **Product coding example:**

D205DBZL 725R

½" G, auto operation, brass body, NBR seals, 13 mm orifice, 24 V / 50/60 Hz 🛍 sapproved, without plug.

# D237/238/239 & CD237/238/239 Series, Vacuum - 2/2 Normally Closed

	Specifications				
Function (single acting)	Flow direction overseat 1 → 2				
Maximum Viscosity	Max. 21cST (3 °E)				
Body Material (Std)	Brass CW617N (EN 12165)				
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)				
Additional Flange (HEX 30)	Brass CW614N (EN 12164)				
Tube	Stainless Steel AISI 304				
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)				
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)				
Springs	Stainless Steel AISI 302				
Seal Material (Std)	NBR				
Connection Type (Std)	G parallel thread (ISO 228-1)				
Shading Ring	Copper				
Ele	ctrical Characteristics				
High Power Coil Voltage DC (=)	24 V				
High Power Coil Voltage AC 50 Hz (~)	24 V, 110 V, 230 V				
High Power Coil Voltage AC 60 Hz (~)	24 V, 120 V, 240 V				
Voltage Tolerance	+10% to -15% (AC)				
voltage folerance	+10% to -5% (DC)				
Duty Cycle	100% ED				
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *				
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)				
Coil Insulation	Class H 180 °C				
Power Rating (High Power)	AC 25 VA (holding) AC 50 VA (inrush) DC 22 W				

#### **Features and Benefits**

- Direct Acting
- Robust construction for industrial applications
- Configuration suitable for vacuum
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- Choice of high quality seal materials
- Response time 5 to 25 ms



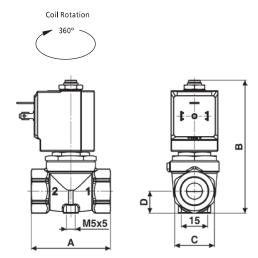
Pipe	Cv	Κv	OPD	(bar) Orifice		Seal	Valve														
Size		(m³/h)	AC Voltages	DC Voltages	(mm)	Material	Code														
1/4 "	1.49	1.27	0 to -0.95		10.5	NBR	D237D <u>B</u> U1														
74	1.43	1.27	0 10 -0.55	-	10.5	EPDM	D237D <u>E</u> U1														
3/8"	1.68	1.44	0 to -0.95		10.5	NBR	D238D <u>B</u> U1														
-78	1.00	1.44	1.44	1.44	0 10 -0.33	0 10 0.55	0 10 0.33	0 10 0.55	1.44	10.5	10.5	+ 0 10 -0.93	10.5	0 10 0.55	0 10 0.55	-	710-0.95		10.5	EPDM	D238D <u>E</u> U1
1/2 "	1.76	1.50	0 to -0.95		10.5	NBR	D239D <u>B</u> U1														
72	1.76	1.50	0 10 -0.95	_	10.5	EPDM	D239D <u>E</u> U1														
1/4 "	1.40	1.27		0 to -0.95	10.5	NBR	C D237D <u>B</u> U1														
74	1.49	1.27	-	0 10 -0.95	10.5	EPDM	C D237D <u>E</u> U1														
3/8"	1.68	1.44		0 40 0 0 5	10.5	NBR	C D238D <u>B</u> U1														
-/8	1.68	1.44	- 0 to -0.95	1.44   -   0 (0 -0.95   10.5	0 to <b>-</b> 0.95	10.5	EPDM	C D238D <u>E</u> U1													
1/2 "	4.76			0 to -0.95	10.5	NBR	C D239D <u>B</u> U1														
72	1.76	1.50	-	0 10 -0.95	10.5	EPDM	C D239D <u>E</u> U1														

Seal Material <sup>1</sup> and Media Temperature Range	Media	Ambient Temperature Range		
lemperature hange		Min Max		
NBR 60 shore (-10 °C to +90 °C)	Water, oi <b>l</b> , air	<b>-</b> 10 °C	+50 °C	
EPDM (-10 °C to +120 °C)	Water, hot water	<b>-</b> 10 °C	+50 °C	

<sup>&</sup>lt;sup>1</sup> See corrosion reference guide and sealing solutions for material compatability. Other seals material on request.



# D237/238/239 & CD237/238/239 Series, Vacuum - 2/2 Normally Closed



Preferred Valve Mounting Options



Pipe Size	A	В	С	D	Weight (kg)
1/4" - 3/8" - 1/2"	54	89	HEX 27	15	0.45

Dimensions (mm)

#### Solenoid enclosures

#### 7-K1 & 7-Z1 Type Coil - Insulation class H

External material: PPS (glass fiber & mineral filled) Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (E180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

#### Type 600 011- Plug

Rated Voltage (max.): 250 VAC / 300 VDC Nominal Current: 10A (rated) / 16A (max) 1.5 mm² max Wire cross-section:

Cable Entry: PG9 (6 to 8 mm)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with supplied gasket

group C- VDE 0110 Insulation class: black

Housing colour: UL approved, file No: E205538

#### **Coding chart**

#### **Main Valve Assembly Coil options** Plug E EPDM 72Z1 24 VDC w/o option w/o p**l**ug B NBR 24 V / 50/60 Hz c/w plug 110 V / 50 Hz - 120 V / 60 Hz 230 V / 50 Hz - 240 V / 60 Hz 77K1 D 1

#### Product coding example:

D238DEU1 77K1  $^{3}\!/s^{*}$  G, auto operation, brass body, EPDM seals, 10.5 mm orifice, 230 V / 50 Hz - 240 V / 60 Hz, without plug.

<sup>\*</sup> Plug and gasket not supplied as standard, must be ordered separately.

# D187/188/189/190/192 Series, Vacuum - 2/2 Normally Closed

Specifications						
Function (single acting)	Flow direction underseat 2 → 1					
Maximum Viscosity	Max. 21cST (3 °E)					
Body Material (Std)	Brass CW617N (EN 12165)					
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)					
Tube	Stainless Steel AISI 304					
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)					
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)					
Springs	Stainless Steel AISI 302					
Seal Material (Std)	NBR					
Connection Type (Std)	G parallel thread (ISO 228-1)					
Shading Ring	Copper					
Electrical Characteristics						
Standard Coil Voltage DC (=)	24 V					
Standard Coil Voltage AC 50 Hz (~)	24 V, 110 V, 200 V, 230 V					
Standard Coil Voltage AC 60 Hz (~)	24 V, 120 V, 220 V, 240 V					
<b>բՎՆ</b> սs Coil Voltage DC (=)	24 V					
ն <b>ԳԱ</b> ՝ ՍՏ Coil Voltage AC 50 Hz (~)	24 V, 110 V, 230 V					
ະ <b>ຈາ</b> ໂພຣ Coil Voltage AC 60 Hz (~)	120 V, 240 V					
	+10% to -15% (AC)					
Voltage Tolerance	+10% to -5% (DC)					
Duty Cycle	100% ED					
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *					
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)					
Coil Insulation	Class F 155 °C					
Power Rating (Standard)	AC 18 VA (holding) AC 36 VA (inrush) DC 14 W					
Power Rating (c <b>FL</b> us)	AC 15 VA (holding) AC 30 VA (inrush) DC 10 W					

#### **Features and Benefits**

- Pilot operated
- Robust construction for industrial applications
- Configuration suitable for vacuum
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- High quality seal materials
- Response time 50 to 500 ms



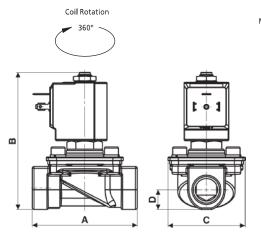
Pipe	Cv	Κv	OPD	OPD (bar)		Seal	Valve							
Size		(m³/h)	AC Voltages	DC Voltages	Orifice (mm)	Material	Code							
1/4 "	3.51	3.00			15	NBR	D187D <u>B</u> WL							
3/8"	4.21	3.60	0	0	15	NBR	D188D <u>B</u> WL							
1/2 "	4.56	3.90	to	to	15	NBR	D189D <u>B</u> WL							
3/4 "	5.62	4.80	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	15	NBR	D190D <u>B</u> WL
1"	5.97	5.10			15	NBR	D192D <u>B</u> WL							

Seal Material <sup>1</sup> and Media	Media	Ambient Temperature Range		
Temperature Range		Min Max		
NBR (-10 °C to +90 °C)	Water, oi <b>l</b> , air	-10 °C	+50 °C	

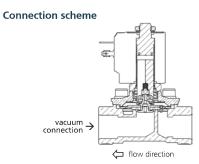
<sup>&</sup>lt;sup>1</sup> See corrosion reference guide and sealing solutions for material compatability. Other seals material on request.



### D187/188/189/190/192 Series, Vacuum - 2/2 Normally Closed







Pipe Size	Α	В	C	D	Weight (kg)
1/4" - 1/2"	75	108	55	14	0.5
3/4" - 1"	85	108	55	21.5	0.8

Dimensions (mm)

#### Solenoid enclosures

#### 7--0 Type Coil - Insulation class F

External material: PBT (reinforced fiberglass 30%)
Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (E180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

### 7--R c¶ us Type Coil - Insulation class F

Encapsulation material: PET 815ER Rynite® Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (P180)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with plug and gasket correctly fitted\*

UL approved, file No: E193928

 $\ensuremath{^{\star}}$  Plug and gasket not supplied as standard, must be ordered separately.

#### Type 600 011- Plug

Insulation class:

Rated Voltage (max.): 250 VAC / 300 VDC

Nominal Current: 10A (rated) / 16A (max)

Wire cross-section: 1.5 mm² max

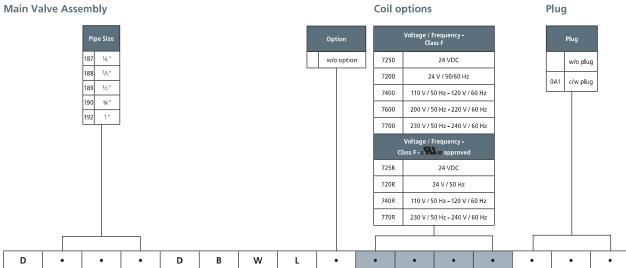
Cable Entry: PG9 (6 to 8 mm)

Enclosure classification: Conforms to IP65 (according to EN 60529)

with supplied gasket group C- VDE 0110

Housing colour: black
UL approved, file No: E205538

# Coding chart



#### **Product coding example:**

D189DBWL 7200

 $\frac{1}{2}$ " G, auto operation, brass body, NBR seals, 15 mm orifice, 24 V / 50/60 Hz, without plug.

# D223/224/225 Series, Vacuum - 2/2 Normally Closed

	Specifications				
Function (single acting)	Flow direction underseat 2 → 1				
Maximum Viscosity	Max. 21cST (3 °E)				
Body Material (Std)	Brass CW617N (EN 12165)				
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)				
Tube	Stainless Steel AISI 304				
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)				
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)				
Springs	Stainless Steel AISI 302				
Seal Material (Std)	NBR				
Connection Type (Std)	G parallel thread (ISO 228-1)				
Shading Ring	Copper				
Ele	ctrical Characteristics				
Standard Coil Voltage DC (=)	24 V				
Standard Coil Voltage AC 50 Hz (~)	24 V, 110 V, 200 V, 230 V				
Standard Coil Voltage AC 60 Hz (~)	24 V, 120 V, 220 V, 240 V				
Valtana Talanana	+10% to -15% (AC)				
Voltage Tolerance	+10% to -5% (DC)				
Duty Cycle	100% ED				
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *				
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)				
Coil Insulation	Class F 155 °C				
Power Rating (Standard)	AC 18 VA (holding) AC 36 VA (inrush) DC 14 W				

#### **Features and Benefits**

- Pilot operated
- Robust construction for industrial applications
- Configuration suitable for vacuum
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- High quality seal materials
- Speed control screw as standard
- Response time 50 to 500 ms



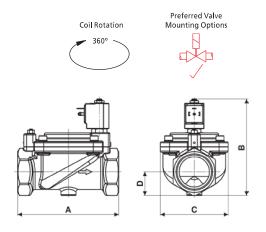
Pipe Cv		Κv	OPD (bar)		Orifice	Seal	Valve
		(m³/h)	AC Voltages		(mm)	Material	Code
1 1/4"	25.97	22.20	-0.5	-0.5	40	NBR	D223D <u>B</u> KL
1 ½"	28.08	24.00	to	to	40	NBR	D224D <u>B</u> KL
2"	37.91	32.40	<b>-</b> 0.95	-0.95	50	NBR	D225D <u>B</u> JL

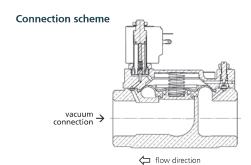
Seal Material <sup>1</sup> and Media	Media	Ambient Temperature Range	
Temperature Range		Min	Max
NBR (-10 °C to +90 °C)	Water, oi <b>l,</b> air	-10 °C	+50 °C

<sup>&</sup>lt;sup>1</sup> See corrosion reference guide and sealing solutions for material compatability. Other seals material on request.



### D223/224/225 Series, Vacuum - 2/2 Normally Closed





Pipe Size	Α	В	С	D	Weight (kg)
1 1/4" - 1 1/2"	140	140	96	31	2.8
2 "	168	158	112	39	3.9

Dimensions (mm)

#### Solenoid enclosures

#### 7--0 Type Coil - Insulation class F

External material: PBT (reinforced fiberglass 30%)
Electrical connection: DIN EN 175301-803 form A

Winding insulation: Class H (E180)

Enclosure classification: Conforms to IP65 (according to EN 60529)  $\,$ 

with plug and gasket correctly fitted\*

#### Type 600 011- Plug

Rated Voltage (max.): 250 VAC / 300 VDC

Nominal Current: 10A (rated) / 16A (max)

Wire cross-section: 1.5 mm² max

Cable Entry: PG9 (6 to 8 mm)

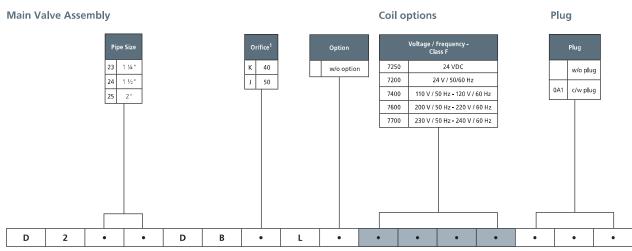
Enclosure classification: Conforms to IP65 (according to EN 60529)

with supplied gasket group C- VDE 0110

Insulation class: group C- VDE 01

Housing colour: black
UL approved, file No: E205538

#### **Coding chart**



<sup>&</sup>lt;sup>1</sup> DN40 for D223 and D224; DN50 for D225.

#### **Product coding example:**

D225DBJL 7250

<sup>\*</sup> Plug and gasket not supplied as standard, must be ordered separately

<sup>2&</sup>quot; G, auto operation, brass body, NBR seals, 50 mm orifice, 24 VDC, without plug.