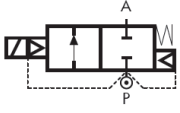






D187/188/189/190/192 Series, Vacuum – 2/2 Normally Closed

Specifications	
Function (single acting)	 <p>Flow direction underseat 2 → 1</p>
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
 Coil Voltage AC 50 Hz (-)	24 V, 110 V, 230 V
 Coil Voltage AC 60 Hz (-)	120 V, 240 V
Voltage Tolerance	+10% to -15% (AC)
	+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 ()	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



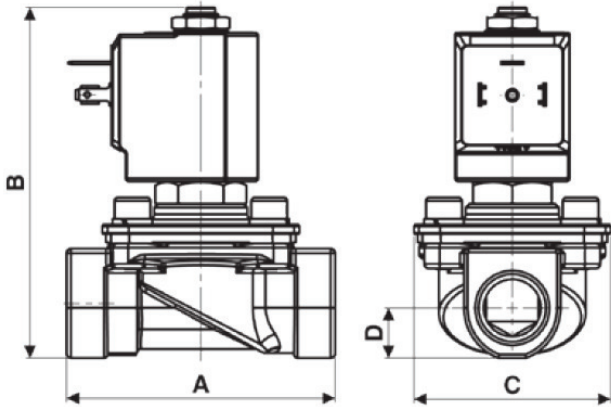
Pipe Size	Cv (gpm)	Kv (m ³ /h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	3.51	3.00	0 to -0.95	0 to -0.95	15	NBR	D187DBWL
⅜"	4.21	3.60			15	NBR	D188DBWL
½"	4.56	3.90			15	NBR	D189DBWL
¾"	5.62	4.80			15	NBR	D190DBWL
1"	5.97	5.10			15	NBR	D192DBWL

Options Available

Seal Material ¹ and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
NBR (-10 °C to +90 °C)	Water, oil, air	-10 °C	+50 °C

¹ See corrosion reference guide and sealing solutions for material compatibility. Other seals material on request.

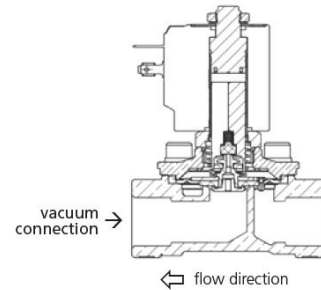
Coil Rotation



Preferred Valve Mounting Options



Connection scheme



Pipe Size	A	B	C	D	Weight (kg)
¼" - ½"	75	108	55	14	0.5
¾" - 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 cULus 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*



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



* Plug and gasket not supplied as standard, must be ordered separately.

Coding chart

Main Valve Assembly

Pipe Size
187 ¼"
188 ⅜"
189 ½"
190 ¾"
192 1"

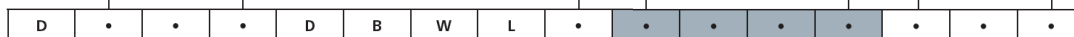
Option
w/o option

Coil options

Voltage / Frequency - Class F	
7250	24 VDC
7200	24 V / 50/60 Hz
7400	110 V / 50 Hz - 120 V / 60 Hz
7600	200 V / 50 Hz - 220 V / 60 Hz
7700	230 V / 50 Hz - 240 V / 60 Hz
Voltage / Frequency - Class F - cULus approved	
725R	24 VDC
720R	24 V / 50 Hz
740R	110 V / 50 Hz - 120 V / 60 Hz
770R	230 V / 50 Hz - 240 V / 60 Hz

Plug

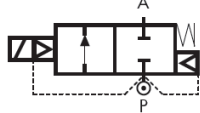




Plug
w/o plug
0A1 c/w plug



Product coding example:

D189DBWL 7200
 ½" G, auto operation, brass body, NBR seals, 15 mm orifice, 24 V / 50/60 Hz, without plug.

D203/204/205 Series, Vacuum – 2/2 Normally Closed

Specifications	
Function (single acting)	 <p>Flow direction underseat 2 → 1</p>
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
 Coil Voltage AC 50 Hz (-)	24 V, 110 V, 230 V
 Coil Voltage AC 60 Hz (-)	120 V, 240 V
Voltage Tolerance	+10% to -15% (AC)
	+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 ()	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

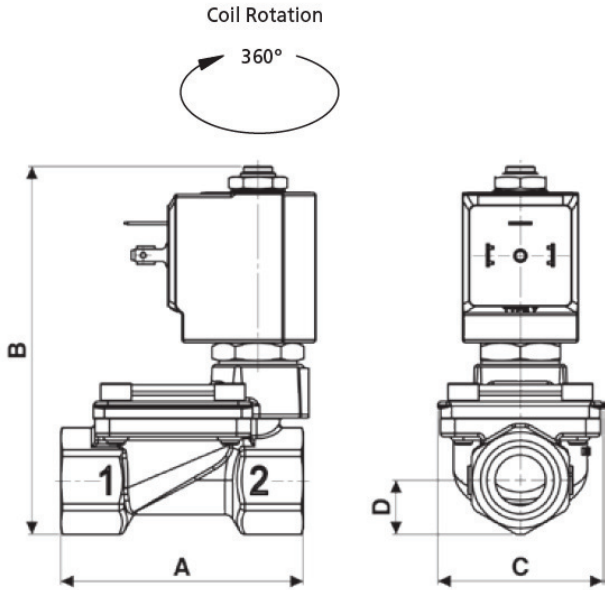


Pipe Size	Cv (gpm)	Kv (m ³ /h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	1.83	1.56	-0.2 to -0.95	-0.2 to -0.95	13	NBR	D203DBZL
¾"	3.86	3.30			13	NBR	D204DBZL
½"	4.42	3.78			13	NBR	D205DBZL

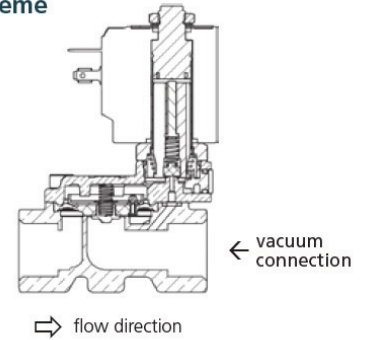
Options Available

Seal Material ¹ and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
NBR (-10 °C to +90 °C)	Water, oil, air	-10 °C	+50 °C

¹ See corrosion reference guide and sealing solutions for material compatibility. Other seals material on request.



Connection scheme



Pipe Size	A	B	C	D	Weight (kg)
¼" to ½"	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 cULus 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

- 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



* Plug and gasket not supplied as standard, must be ordered separately.

Coding chart

Main Valve Assembly

Pipe Size
203 ¼"
204 ⅜"
205 ½"

Coil options

Option	Voltage / Frequency - Class F	
w/o option	7250	24 VDC
	7200	24 V / 50/60 Hz
	7400	110 V / 50 Hz - 120 V / 60 Hz
	7600	200 V / 50 Hz - 220 V / 60 Hz
	7700	230 V / 50 Hz - 240 V / 60 Hz
	Voltage / Frequency - Class F - cULus approved	
	725R	24 VDC
	720R	24 V / 50 Hz
	740R	110 V / 50 Hz - 120 V / 60 Hz
	770R	230 V / 50 Hz - 240 V / 60 Hz

Plug

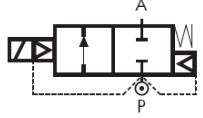
Plug
w/o plug
0A1 c/w plug



Product coding example:

D205DBZL 725R
½" G, auto operation, brass body, NBR seals, 13 mm orifice, 24 V / 50/60 Hz cULus approved, without plug.

D223/224/225 Series, Vacuum – 2/2 Normally Closed

Specifications	
Function (single acting)	 <p>Flow direction underseat 2 → 1</p>
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
Voltage Tolerance	+10% to -15% (AC)
	+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

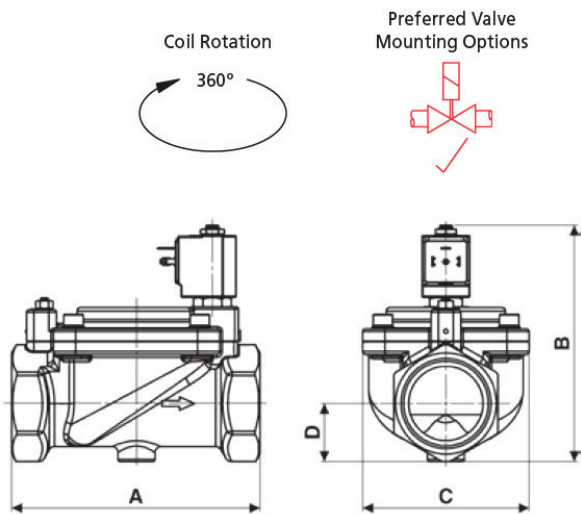


Pipe Size	Cv (gpm)	Kv (m³/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
1 ¼"	25.97	22.20	-0.5	-0.5	40	NBR	D223DBKL
1 ½"	28.08	24.00	to	to	40	NBR	D224DBKL
2"	37.91	32.40	-0.95	-0.95	50	NBR	D225DBJL

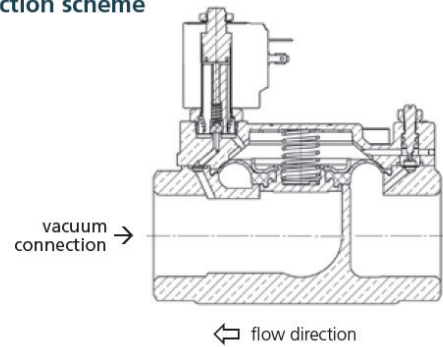
Options Available

Seal Material ¹ and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
NBR (-10 °C to +90 °C)	Water, oil, air	-10 °C	+50 °C

¹ See corrosion reference guide and sealing solutions for material compatibility. Other seals material on request.



Connection scheme



Pipe Size	A	B	C	D	Weight (kg)
1 ¼" - 1 ½"	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
- Insulation class: group C- VDE 0110
- Housing colour: black
- UL approved, file No: E205538



* Plug and gasket not supplied as standard, must be ordered separately

Coding chart

Main Valve Assembly

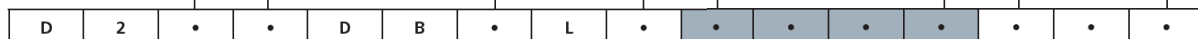
Pipe Size
23 1 ¼"
24 1 ½"
25 2"

Orifice ¹
K 40
J 50

Option
w/o option

Voltage / Frequency - Class F	
7250	24 VDC
7200	24 V / 50/60 Hz
7400	110 V / 50 Hz - 120 V / 60 Hz
7600	200 V / 50 Hz - 220 V / 60 Hz
7700	230 V / 50 Hz - 240 V / 60 Hz

Plug
w/o plug
0A1 c/w plug



¹ DN40 for D223 and D224; DN50 for D225.

Product coding example:

D225DBJL 7250
2" G, auto operation, brass body, NBR seals, 50 mm orifice, 24 VDC, without plug.