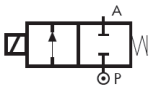
B298 Series, General Purpose & Chemical Industry – 2/2 Normally Closed

Specifications	
Function	 Flow direction overseat 1 → 2
Maximum Viscosity	Max. 21cST (3 °E)
Body Material (Std)	Stainless Steel 1.4305 EN 10088 (AISI 303)
Orifice Material	Stainless Steel 1.4305 EN 10088 (AISI 303)
Flange Tube[1]	Stainless Steel (AISI 303)
Plunger and Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F) or equivalent
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 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	AC +10% to -15%
	DC +10% to -5%
Duty Cycle	100% ED
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *
Electrical Connection	to industrial form B
Coil Insulation	Class F 155 °C
Power Rating (Standard)	AC 10 VA (holding) AC 16 VA (inrush) DC 7W

[1] With special nut, different from Standard.

Features and Benefits

- Direct Acting
- Robust construction for industrial applications
- 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

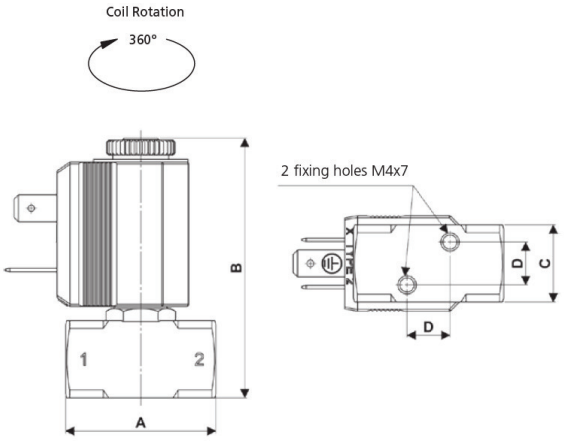
Pipe Size	Cv (gpm)	Kv (m^3/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
1/8"	0.09	0.08	0 - 22	0 - 18	1.5	FKM	B298DVC
1/8"	0.13	0.11	0 - 18	0 - 8	2.0	FKM	B298DVE
1/8"	0.19	0.16	0 - 13	0 - 2.5	2.5	FKM	B298DVG
1/8"	0.25	0.21	0 - 8	0 - 1	3.0	FKM	B298DVH
1/8"	0.09	0.08	0 - 24	0 - 24	1.5	KALREZ®	B298DKC
1/8"	0.13	0.11	0 - 18	0 - 15	2.0	KALREZ®	B298DKE
1/8"	0.19	0.16	0 - 15	0 - 3	2.5	KALREZ®	B298DKG

Options Available

Valve Options (see coding chart)
Anticorrosion treatment recommended with aggressive fluids

Seal Material[1] and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
FKM (-10 °C to +130 °C)	Water, oil, air, aggressive fluids	-10 °C	+50 °C
Kalrez® Spectrum™ (-10 °C to 130 °C)	Chemicals	-10 °C	+50 °C

[1] See corrosion reference guide and sealing solutions for material compatability.



Preferred Valve Mounting Options

Pipe Size	A	B	C	D	Weight (kg)
1/8"	35	60.6	18	10	0.1

Dimensions (mm)

Solenoid enclosures

2--0 Type Coil - Insulation class F

External material: PBT (reinforced fiberglass 30%)
Electrical connection: Industrial form B
Winding insulation: Class H (E180)
Enclosure classification: Conforms to IP65 (according to EN 60529) with plug and gasket correctly fitted*

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

Type 600 001- 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

Main Valve Assembly

Seals	
V	FKM
K	KALREZ®

Orifice	
C	1.5
E	2.0
G	2.5
H	3.0

Option	
F	Anticorrosion treatment[1]
	w/o option

Coil options

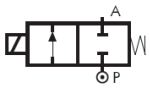
Voltage / Frequency - Class F	
2250	24 VDC
2200	24 V / 50/60 Hz
2400	110 V / 50 Hz - 120 V / 60 Hz
2600	200 V / 50 Hz - 220 V / 60 Hz
2700	230 V / 50 Hz - 240 V / 60 Hz

Plug

Plug	
	w/o plug
0B1	c/w plug

B	2	9	8	D	•	•	•	•	•	•	•	•	•	•	•

D298/299 Series, General Purpose & Chemical Industry – 2/2 Normally Closed

Specifications	
Function (single acting)	 Flow direction overseat 1 → 2
Maximum Viscosity	Max. 21cST (3 °E)
Body Material (Std)	Stainless Steel 1.4305 EN 10088 (AISI 303)
Orifice Material	Stainless Steel 1.4305 EN 10088 (AISI 303)
Tube	Stainless Steel AISI 304
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)
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 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

- Direct Acting
- Robust construction for industrial applications
- 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
- Wide range of available orifices
- Eex option (see separate datasheet)
- Response time 5 to 25 ms

Pipe Size	Cv (gpm)	Kv (m^3/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	0.08	0.07	0 - 24	0 - 24	1.5	FKM EPDM	D299DVC D299DEC
¼"	0.23	0.20	0 - 18	0 - 18	2.5	FKM EPDM	D299DVG D299DEG
¼"	0.32	0.27	0 -15	0 - 10	3.0	FKM EPDM	D299DVH D299DEH
¼"	0.42	0.36	0 - 10	0 - 5.5	4.0	FKM EPDM	D299DVL D299DEL
¼"	0.53	0.45	0 - 5	0 - 2.5	5.0	FKM EPDM	D299DVN D299DEN
¼"	0.16	0.14	0 - 20	0 - 20	2.0	KALREZ®	D299DKE
¼"	0.23	0.20	0 - 18	0 - 16	2.5	KALREZ®	D299DKG
¼"	0.32	0.27	0 - 15	0 - 8	3.0	KALREZ®	D299DKH

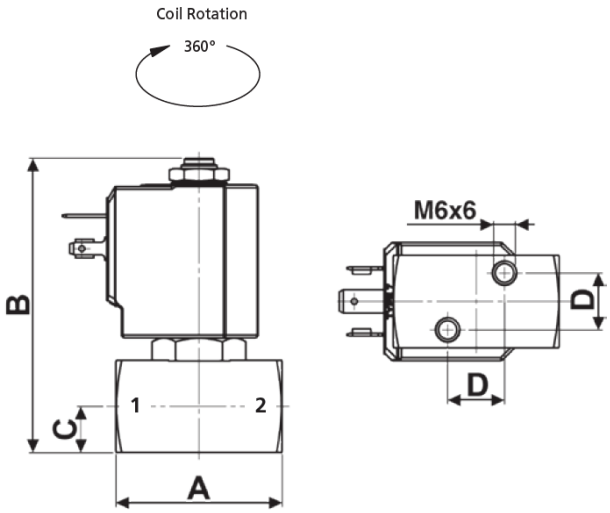
Options Available

Valve Options (see coding chart)
Body threaded connection G ⅛"
NPT threads (minimum batch may be required)
Anticorrosion treatment recommended with aggressive fluids
Silver shading ring

EEx T4	
Protection Class	See separate datasheet
EEx T4 (IP65)	

Seal Material[1] and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
FKM (-10 °C to +130 °C)	Water, oil, air, aggressive fluids	-10 °C	+50 °C
EPDM (-10 °C to +120 °C)	Water, hot water	-10 °C	+50 °C
Kalrez® Spectrum™ (-10 °C to +130 °C)	Chemicals	-10 °C	+50 °C

[1] See corrosion reference guide and sealing solutions for material compatability.



Preferred Valve Mounting Options

Pipe Size	A	B	C	D	Weight (kg)
1/8" - 1/4"	45	80	12.5	15.4	0.36

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:	E538

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

Coding chart

Main Valve Assembly

Pipe Size	
8	1/8"
9	1/4"

Seals	
V	FKM
E	EPDM
K	KALREZ®

Orifice	
C	1.5
E	2.0
G	2.5
H	3.0
L	4.0[1]
N	5.0[1]

Option	
A	Silver shading ring
F	Anticorrosion treatment[2]
N	NPT
	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

Plug

Plug	
	w/o plug
0A1	c/w plug

D	2	9	•	D	•	•	•	•	•	•	•	•	•	•	•

[1] Not available with Kalrez® seals.

[2] Recommended with aggressive fluids.

Product coding example:

D298DVC 7250 0A1
1/8" G, auto operation, stainless steel body, FKM seals, 1.5 mm orifice, 24 VDC, with plug.