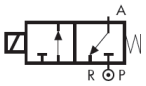
B398 Series, General Purpose – 3/2 Normally Closed

Specifications	
Function (single acting)	 Flow direction underseat 2 → 1
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	+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 industrial form B
Coil Insulation	Class F 155 °C
Power Rating (Standard)	AC 10 VA (holding) AC 16 VA (inrush) DC 7 W

[1] With special nut, different from Standard.

Features and Benefits

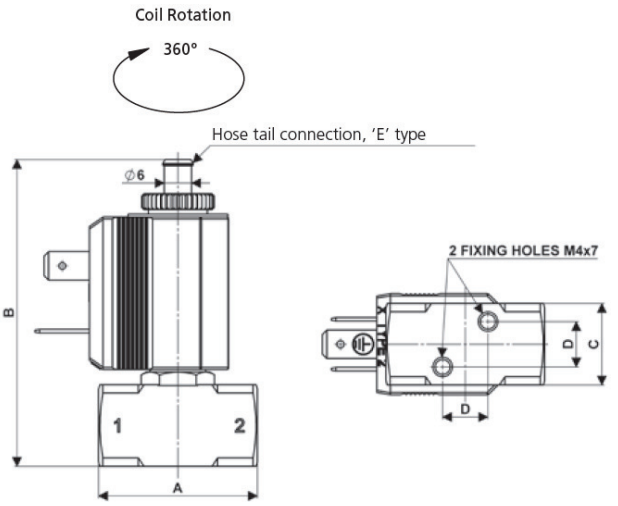
- Direct Acting
- Robust construction for industrial applications
- Zero pressure rated
- Stainless steel AISI 430F operators with low residual magnetism
- Coils tested 100% in compliance to RoHS directive and to relevant international standards
- High quality seal materials
- Response time 5 to 25 ms

Pipe Size	Cv (gpm)	Kv (m^3/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
1/8"	0.05	0.04	0 - 15	0 - 15	1.2	FKM	B398EVB
1/8"	0.07	0.06	0 - 10	0 - 10	1.5	FKM	B398EVC
1/8"	0.13	0.11	0 - 5	0 - 5	2.0	FKM	B398EVE
1/8"	0.19	0.16	0 - 3	0 - 3	2.5	FKM	B398EVG

Options Available

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

[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	68	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

Orifice	
B	1.2
C	1.5
E	2.0
G	2.5

Option	
	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

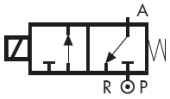
Plug	
0B1	c/w plug
	w/o plug

B	3	9	8	E	V	•	•	•	•	•	•	•	•	•	•

Product coding example:

B398EVB 2250
1/8" G, auto operation, stainless steel body, FKM seals, 1.2 mm orifice, 24 VDC, without plug.

D362/363 Series, General Purpose – 3/2 Normally Closed

Specifications	
Function (single acting)	 Flow direction underseat 2 → 1
Maximum Viscosity	Max. 21cST (3 °E)
Body Material (Std)	Brass CW617N (EN 12165)
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 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
cULus Coil Voltage DC (=)	24 V
cULus Coil Voltage AC 50 Hz (~)	24 V, 110 V, 230 V
cULus 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 (cULus)	AC 15 VA (holding) AC 30 VA (inrush) DC 10 W

Features and Benefits

- Direct Acting
- Robust construction for industrial applications
- 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
- Choice of 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			
¼"	0.09	0.08	0 - 18	0 - 18	1.5	FKM EPDM	D363CVC D363CEC
¼"	0.15	0.13	0 - 10	0 - 10	2.0	FKM EPDM	D363CVE D363CEE
¼"	0.24	0.20	0 - 7	0 - 7	2.5	FKM EPDM	D363CVG D363CEG
¼"	0.32	0.27	0 - 5	0 - 5	3.0	FKM EPDM	D363CVH D363CEH
¼"	0.42	0.36	0 - 3.5	0 - 3.5	4.0	FKM EPDM	D363CVL[1] D363CEL[1]
¼"	0.53	0.45	0 - 2.5	0 - 2.5	5.0	FKM EPDM	D363CVN[1] D363CEN[1]
¼"	0.56	0.48	0 - 1.5	0 -1.5	6.0	FKM EPDM	D363CVP[1] D363CEP[1]

[1] Manual override not available for orifice > Ø3mm.

Options Available

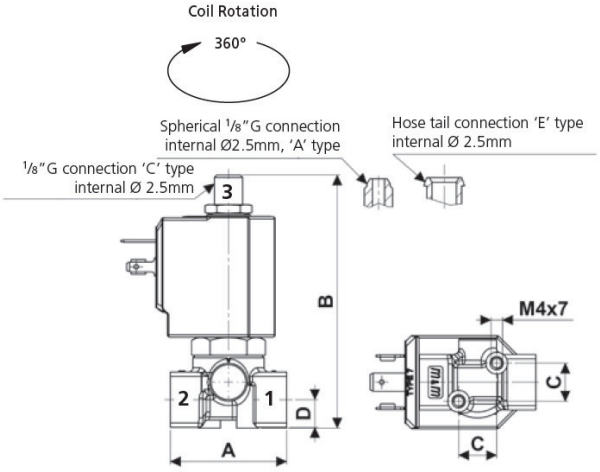
Valve Options (see coding chart)
Body threaded connection G 1/8"
NPT threads (minimum batch may be required)
Manual override

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

Vacuum Version
See separate datasheet

Seal Material[1] and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
FKM (-10 °C to +130 °C)	Water, oil, air	-10 °C	+50 °C
EPDM (-10 °C to +120 °C)	Water, hot water	-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"	40	87	13	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*

7--R c UL 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

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

Main Valve Assembly

Pipe Size	
2	1/8"
3	1/4"

Top Port Connection	
C	1/8" G
A	spherical 1/8" G
E	Hose tail Ø 6mm

Seals	
V	FKM
E	EPDM

Orifice	
C	1.5
E	2.0
G	2.5
H	3.0
L	4.0
N	5.0
P	6.0

Option	
N	NPT
M	Manual Override[1]
	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 - c UL us 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

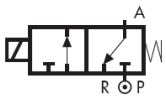
D	3	6	•	•	•	•	•	•	•	•	•	•	•	•	•

[1] Manual override not available for orifice > Ø3mm.

Product coding example:

D363AVC 7250
1/4" G, auto operation, brass body, FKM seals, 1.5 mm orifice, with top port connection spherical 1/8"G, 24 VDC, without plug.

D398/399 Series, General Purpose – 3/2 Normally Closed

Specifications	
Function (single acting)	 Flow direction underseat 2 → 1
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
- 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
- Choice of high quality seal materials
- Response time 5 to 25 ms

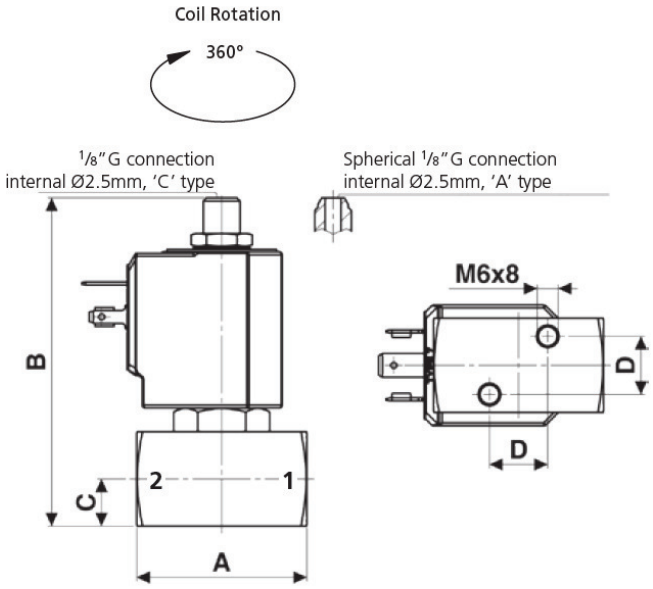
Pipe Size	Cv (gpm)	Kv (m^3/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	0.09	0.08	0 - 18	0 - 18	1.5	FKM EPDM	D399CVC D399CEC
¼"	0.15	0.13	0 - 10	0 - 10	2.0	FKM EPDM	D399CVE D399CEE
¼"	0.24	0.20	0 - 7	0 - 7	2.5	FKM EPDM	D399CVG D399CEG
¼"	0.32	0.27	0 - 5	0 - 5	3.0	FKM EPDM	D399CVH D399CEH

Options Available

Valve Options (see coding chart)
Body threaded connection G 1/8"
NPT threads (minimum batch may be required)
Silver shading ring
Top port connection with spherical 1/8" G

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

[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	87	12.5	15.4	0.35

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*

* 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

Main Valve Assembly

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

Top Port Connection	
C	1/8" G
A	Spherical 1/8" G

Seals	
V	FKM
E	EPDM

Orifice	
C	1.5
E	2.0
G	2.5
H	3.0

Option	
A	Silver shading ring
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

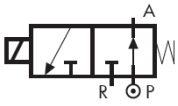
Plug	
0A1	c/w plug
	w/o plug

D	3	9	•	•	•	•	•	•	•	•	•	•	•	•	•

Product coding example:

D399CECA 7700
1/4" G, auto operation, stainless steel body, EPDM seals, 1.5 mm orifice, with silver shading ring, 230 V / 50 Hz - 240 V / 60 Hz AC, without plug.

RD362/363 Series, General Purpose – 3/2 Normally Open

Specifications	
Function (single acting)	 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 Tube (Seamless)	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 H 180 °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
- 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

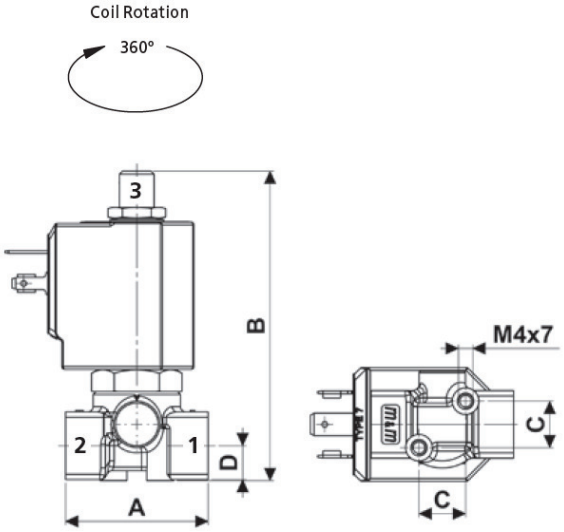
Pipe Size	Cv (gpm)	Kv (m^3/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	0.09	0.08	0 - 16	0 - 13	1.5	FKM	RD363CVC
¼"	0.15	0.13	0 - 10	0 - 10	2.0	FKM	RD363CVE
¼"	0.24	0.20	0 - 7	0 - 7	2.5	FKM	RD363CVG
¼"	0.32	0.27	0 - 4	0 - 4	3.0	FKM	RD363CVH

Options Available

Valve Options (see coding chart)
Body threaded connection G 1/8"
NPT threads (minimum batch may be required)

Seal Material[1] and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
FKM (-10 °C to +130 °C)	Water, oil, air	-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"	40	86.4	13	9.5	0.26

Dimensions (mm)

Solenoid enclosures

7--1 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*

* 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

Main Valve Assembly

Pipe Size	
2	1/8"
3	1/4"

Orifice	
C	1.5
E	2.0
G	2.5

Option	
N	NPT
	w/o option

Coil options

Voltage / Frequency - Class H	
7251	24 VDC
7201	24 V / 50/60 Hz
7401	110 V / 50 Hz - 120 V / 60 Hz
7601	200 V / 50 Hz - 220 V / 60 Hz
7701	230 V / 50 Hz - 240 V / 60 Hz

Plug

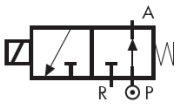
Plug	
0A1	c/w plug
	w/o plug

RD	3	6	•	C	V	•	•	•	•	•	•	•	•	•	•

Product coding example:

RD362CVC 7251
1/8" G, auto operation, brass body, FKM seals, 1.5 mm orifice, 24 VDC, without plug.

RD398/399 Series, General Purpose – 3/2 Normally Open

Specifications	
Function (single acting)	 Flow direction underseat 2 → 1
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 (Seamless)	Stainless Steel 1.4305 EN 10088 (AISI 303)
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)
Top Stop	Stainless Steel 1.4305 EN 10088 (AISI 303)
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 H 180 °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
- 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

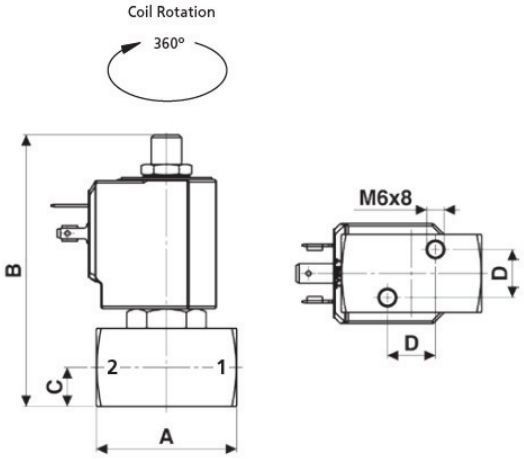
Pipe Size	Cv (gpm)	Kv (m^3/h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	0.09	0.08	0 - 15	0 - 15	1.5	FKM	RD399CVC
¼"	0.15	0.13	0 - 10	0 - 10	2.0	FKM	RD399CVE
¼"	0.32	0.27	0 - 4	0 - 4	3.0	FKM	RD399CVH

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

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

[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	87	12.5	15.4	0.35

Dimensions (mm)

Solenoid enclosures

7--1 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)
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	
8	1/8"
9	1/4"

Orifice	
C	1.5
E	2.0
H	3.0

Option	
N	NPT
F	Anticorrosion treatment[1]
	w/o option

Coil options

Voltage / Frequency - Class H	
7251	24 VDC
7201	24 V / 50/60 Hz
7401	110 V / 50 Hz - 120 V / 60 Hz
7601	200 V / 50 Hz - 220 V / 60 Hz
7701	230 V / 50 Hz - 240 V / 60 Hz

Plug

Plug	
0A1	c/w plug
	w/o plug

RD	3	9	•	C	V	•	•	•	•	•	•	•	•	•	•

[1] Recommended with aggressive fluids.

Product coding example:

RD399CVE 7251
¼" G, auto operation, stainless steel body, FKM seals, 2.0 mm orifice, 24 VDC, without plug.