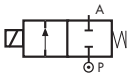
# D298/299 Series, High Pressure – 2/2 Normally Closed

| 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) |
| 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) | Ruby |
| Standard Connection Type | G parallel thread (ISO 228-1) |
| Shading Ring | Copper |
| **Electrical 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) |
| | +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)<br>AC 50 VA (inrush)<br>DC 22 Watts |

## 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
- Wide range of available orifices
- Response time 5 to 25 ms

| Pipe Size | Cv (gpm) | Kv ($m^3/h$) | OPD (bar) | | Orifice (mm) | Seal Material | Valve Code[1] |
|---|---|---|---|---|---|---|---|
| | | | AC Voltages | DC Voltages | | | |
| ¼" | 0.05 | 0.04 | 0 - 200 | 0 - 110 | 1.2 | RUBY | D299DRB1 |
| ¼" | 0.08 | 0.07 | 0 - 200 | 0 - 80 | 1.5 | RUBY | D299DRC1 |
| ¼" | 0.16 | 0.14 | 0 - 140 | 0 - 30 | 2.0 | RUBY | D299DRE1 |
| ¼" | 0.23 | 0.20 | 0 - 90 | 0 - 23 | 2.5 | RUBY | D299DRG1 |
| ¼" | 0.32 | 0.27 | 0 - 50 | 0 - 14 | 3.0 | RUBY | D299DRH1 |

NOTE: Not 100% leak-proof when used with air/gases. Approx leak rate is 1.5ml/min at max OPD.

[1] ATTENTION: when high pressure valves are supplied without a coil, their nameplates display the max OPD of the valve when equipped with an AC (25VA) and DC(22W) coil. If fitting coils with a different power rating OPD will vary, please consult supplier for more details.

## Options Available

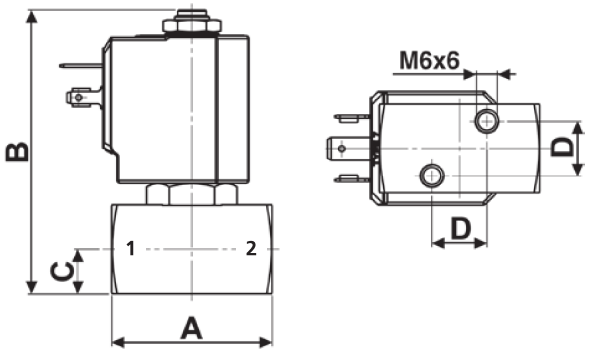
| Valve Options (see coding chart) |
|---|
| Body threaded connection G 1/8" |
| NPT Threads (minimum batch may be required) |
| Anticorrosion treatment recommended with aggressive fluids |
| Silver shading ring |

| Seal Material[1] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| RUBY (-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.

# D298/299 Series, High Pressure – 2/2 Normally Closed

Coil Rotation


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-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*

* 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 8mm)
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" |

| Orifice | |
|---|---|
| B | 1.2 |
| C | 1.5 |
| E | 2.0 |
| G | 2.5 |
| H | 3.0 |

| Option | |
|---|---|
| A | Silver shading ring |
| F | Anticorrosion treatment[1] |
| N | NPT |
| | w/o option |

### Coil options

| Voltage / Frequency - Class H, High Power | |
|---|---|
| 72Z1 | 24 VDC |
| 72K1 | 24 V / 50/60 Hz |
| 74K1 | 110 V / 50 Hz - 120 V / 60 Hz |
| 77K1 | 230 V / 50 Hz - 240 V / 60 Hz |

### Plug

| Plug | |
|---|---|
| | w/o plug |
| 0A1 | c/w plug |

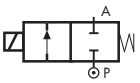
| D | 2 | 9 | • | D | R | • | • | 1 | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

[1] Recommended with aggressive fluids.

### Product coding example:

D298DRC1 72Z1 0A1
1/8" G, auto operation, stainless steel body, RUBY seals, 1.5 mm orifice, 24 VDC, with plug.

# D262DR-1/263DR-1 Series, High Pressure – 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) |
| 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) | RUBY |
| Connection Type (Std) | G parallel thread (ISO 228-1) |
| Shading Ring | Copper |
| **Electrical 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) |
| | +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)<br>AC 50 VA (inrush)<br>DC 22W |

## 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 | | | |
| ¼" | 0.05 | 0.04 | 0 - 200 | 0 - 60 | 1.2 | RUBY | D263DRB1 |
| ¼" | 0.09 | 0.08 | 0 - 200 | 0 - 35 | 1.5 | RUBY | D263DRC1 |
| ¼" | 0.15 | 0.13 | 0 - 120 | 0 - 25 | 2.0 | RUBY | D263DRE1 |
| ¼" | 0.32 | 0.27 | 0 - 50 | 0 - 11 | 3.0 | RUBY | D263DRH1 |

**NOTE:** Not 100% leak-proof when used with air/gases. Approx leak rate is 1.5ml/min at max OPD.

**ATTENTION:** when high pressure valves are supplied without a coil, their nameplates display the max OPD of the valve when equipped with an AC (25VA) and DC(22W) coil. If fitting coils with a different power rating OPD will vary, please consult supplier for more details.

## Options Available

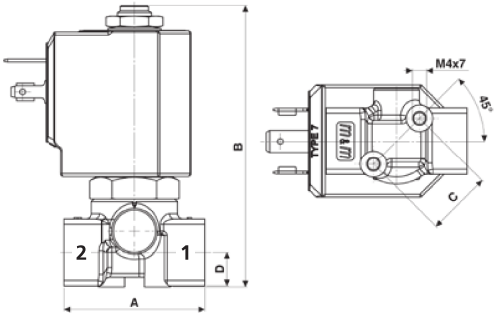
| Valve Options (see coding chart) |
|---|
| Body threaded connection G 1/8" |
| NPT threads (minimum batch may be required) |

| Seal Material[1] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| RUBY (-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.

# D262DR-1/263DR-1 Series, High Pressure – 2/2 Normally Closed

Coil Rotation


Preferred Valve Mounting Options

| Pipe Size | A | B | C | D | Weight (kg) |
|---|---|---|---|---|---|
| 1/8" - 1/4" | 40 | 77.5 | 18.5 | 9.5 | 0.26 |

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*

* 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 | |
|---|---|
| B | 1.2 |
| C | 1.5 |
| E | 2.0 |
| H | 3.0 |

| Option | |
|---|---|
| N | NPT |
| M | Manual override |
| | w/o option |

### Coil options

| Voltage / Frequency - Class H, High Power | |
|---|---|
| 72Z1 | 24 VDC |
| 72K1 | 24 V / 50/60 Hz |
| 74K1 | 110 V / 50 Hz - 120 V / 60 Hz |
| 77K1 | 230 V / 50 Hz - 240 V / 60 Hz |

### Plug

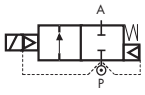
| Plug | |
|---|---|
| | w/o plug |
| 0A1 | c/w plug |

| D | 2 | 6 | • | D | R | • | • | 1 | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### Product coding example:

D263DRB1 72Z1 0A1
1/4" G, auto operation, brass body, RUBY seals, 1.2 mm orifice, 24 VDC, with plug.

# D634/635/636DTT1 Series, High Pressure – 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) |
| 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) |
| Piston Material | Brass CW614N (EN 12164) |
| Springs | Stainless Steel AISI 302 |
| Seal Material (Std) | PTFE |
| Connection Type (Std) | G parallel thread (ISO 228-1) |
| Shading Ring | Copper |
| **Electrical Characteristics** | |
| High Power Coil Voltage DC (=) | 24 V |
| High Power Coil Voltage AC 50 Hz (~) | 24 V, 110 V, 200 V, 230 V |
| High Power 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 (High Power) | AC 25 VA (holding) AC 50 VA (inrush) DC 22 W |

## Features and Benefits

- Pilot operated
- 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 | | | |
| ¼" | 1.47 | 1.26 | 0.3 - 140 | 0.3 - 35 | 10 | PTFE | D634DTT1 |
| ⅜" | 1.68 | 1.44 | 0.3 - 140 | 0 .3 - 35 | 10 | PTFE | D635DTT1 |
| ½" | 1.76 | 1.50 | 0.3 - 140 | 0 .3 - 35 | 10 | PTFE | D636DTT1 |

**NOTE:** Not 100% leak-proof when used with air/gases. Approx leak rate is 1.5ml/min at max OPD.

**ATTENTION:** when high pressure valves are supplied without a coil, their nameplates display the max OPD of the valve when equipped with an AC (25VA) and DC(22W) coil. If fitting coils with a different power rating OPD will vary, please consult supplier for more details.

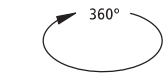
## Options Available

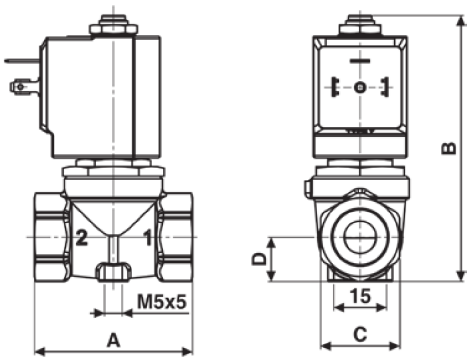
| Seal Material[1] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| PTFE (-10 °C to +130 °C) | Water, oil, liquids | -10 °C | +50 °C |

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

# D634/635/636DTT1 Series, High Pressure – 2/2 Normally Closed

Coil Rotation




Preferred Valve Mounting Options

| Pipe Size | A | B | C | D | Weight (kg) |
|---|---|---|---|---|---|
| ¼" | 54 | 100 | HEX 27 | 15 | 0.5 |
| ⅜" to ½" | 54 | 100 | 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*

* 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 | |
|---|---|
| 4 | ¼" |
| 5 | ⅜" |
| 6 | ½" |

| Option | |
|---|---|
| | w/o option |

### Coil options

| Voltage / Frequency - Class H, High Power | |
|---|---|
| 72Z1 | 24 VDC |
| 72K1 | 24 V / 50/60 Hz |
| 74K1 | 110 V / 50 Hz - 120 V / 60 Hz |
| 77K1 | 230 V / 50 Hz - 240 V / 60 Hz |

### Plug

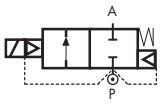
| Plug | |
|---|---|
| | w/o plug |
| 0A1 | c/w plug |

| D | 6 | 3 | • | D | T | T | 1 | • | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## Product coding example:

D634DTT1 72Z1
¼" G, auto operation, brass body, PTFE seals, 10 mm orifice, 24 VDC, without plug.

# D232/233/234 Series, High Pressure & Compressed Air – 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) |
| 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 |
| Operator Seal Material[1] | RUBY |
| Diaphragm Material | FKM |
| Main Seal Material[1] | PTFE |
| 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)<br>AC 36 VA (inrush)<br>DC 14 W |

[1] For D23-DVW operator seal material is foodgrade FKM and main seal material is FKM.

## Features and Benefits

- Pilot operated
- 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 50 to 500 ms

| Pipe Size | Cv (gpm) | Kv ($m^3/h$) | OPD (bar) | | Orifice (mm) | Seal Material | Valve Code |
|---|---|---|---|---|---|---|---|
| | | | AC Voltages | DC Voltages | | | |
| 3/8" | 2.95 | 2.52 | 1 - 50 | 1 - 50 | 16 | PTFE | D232DTW[2] |
| 1/2" | 3.23 | 2.76 | 1 - 50 | 1 - 50 | 16 | PTFE | D233DTW[2] |
| 3/4" | 3.37 | 2.88 | 1 - 50 | 1 - 50 | 16 | PTFE | D234DTW[2] |
| 3/8" | 2.95 | 2.52 | 1 - 25 | 1 - 25 | 16 | FKM | D232DVW[3] |
| 1/2" | 3.23 | 2.76 | 1 - 25 | 1 - 25 | 16 | FKM | D233DVW[3] |
| 3/4" | 3.37 | 2.88 | 1 - 25 | 1 - 25 | 16 | FKM | D234DVW[3] |

[2] Not 100% leak-proof when used with air/gases. Approximate leak rate is 1,5 ml/min at max. OPD.

[3] Non standard, MOQ required.

## Options Available

| Valve Options (see coding chart) |
|---|
| NPT threads (minimum batch may be required) |

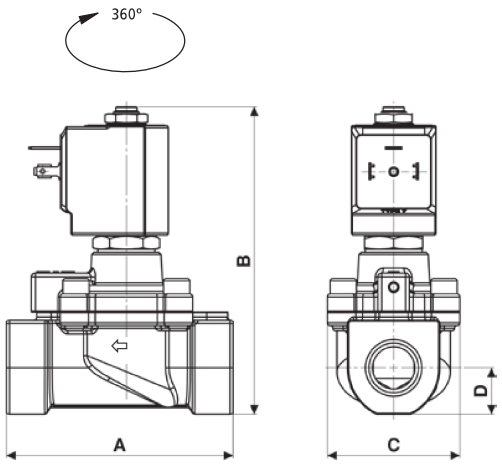
| Seal Material[4] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| PTFE (-10 °C to +130 °C) | Water[5], oil, air | -10 °C | +50 °C |
| FKM (-10 °C to +130 °C) | Water[5], oil, air | -10 °C | +50 °C |

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

[5] When using liquid fluids waterhammer and pressures higher than 20 barg can cause the diaphragm to tear.

# D232/233/234 Series, High Pressure & Compressed Air – 2/2 Normally Closed

Coil Rotation




Preferred Valve Mounting Options

| Pipe Size | A | B | C | D | Weight (kg) |
|---|---|---|---|---|---|
| 3/8" | 86 | 116.5 | 50.2 | 17.5 | 1 |
| ½" - ¾" | 86 | 116.5 | 50.2 | 17.5 | 0.9 |

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*

* 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 | 3/8" |
| 3 | ½" |
| 4 | ¾" |

| Seals | |
|---|---|
| T | PTFE |
| V | FKM |

| Option | |
|---|---|
| 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

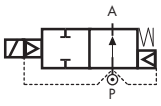
| Plug | |
|---|---|
| | w/o plug |
| 0A1 | c/w plug |

| D | 2 | 3 | • | D | • | W | • | • | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## Product coding example:

D232DTW 7200
3/8" G, auto operation, brass body, PTFE main seal, 16 mm orifice, 24 V / 50/60 Hz, without plug.

# RD232/233/234 Series, High Pressure – 2/2 Normally Open

| Specifications | |
|---|---|
| Function (single acting) |  Flow direction overseat 1 → 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 Tube | 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 |
| Operator Seal Material[1] | RUBY |
| Diaphragm Material | FKM |
| Main Seal Material[1] | PTFE |
| 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)<br>AC 36 VA (inrush)<br>DC 14 W |

[1] For RD23-DVW operator seal material is foodgrade FKM and main seal material is FKM.

## Features and Benefits

- Pilot operated
- 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 50 to 500 ms

| Pipe Size | Cv (gpm) | Kv ($m^3/h$) | OPD (bar) | | Orifice (mm) | Seal Material | Valve Code |
|---|---|---|---|---|---|---|---|
| | | | AC Voltages | DC Voltages | | | |
| 3/8" | 2.95 | 2.52 | 1 - 50 | 1 - 50 | 16 | PTFE | RD232DIW[2] |
| 1/2" | 3.23 | 2.76 | 1 - 50 | 1 - 50 | 16 | PTFE | RD233DIW[2] |
| 3/4" | 3.37 | 2.88 | 1 - 50 | 1 - 50 | 16 | PTFE | RD234DIW[2] |
| 3/8" | 2.95 | 2.52 | 1 - 25 | 1 - 25 | 16 | FKM | RD232DVW[3] |
| 1/2" | 3.23 | 2.76 | 1 - 25 | 1 - 25 | 16 | FKM | RD233DVW[3] |
| 3/4" | 3.37 | 2.88 | 1 - 25 | 1 - 25 | 16 | FKM | RD234DVW[3] |

[2] Not 100% leak-proof when used with air/gases. Approximate leak rate is 1,5 ml/min at max. OPD.

[3] Non standard, MOQ required.

## Options Available

| Valve Options (see coding chart) |
|---|
| NPT threads (minimum batch may be required) |

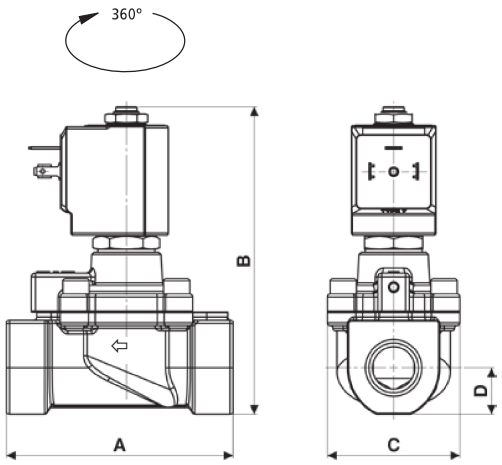
| Seal Material[4] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| PTFE (-10 °C to +130 °C) | Water[5], oil, air | -10 °C | +50 °C |
| FKM (-10 °C to +130 °C) | Water[5], oil, air | -10 °C | +50 °C |

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

[5] When using liquid fluids waterhammer and pressures higher than 20 barg can cause the diaphragm to tear.

# RD232/233/234 Series, High Pressure – 2/2 Normally Open

Coil Rotation




Preferred Valve Mounting Options

| Pipe Size | A | B | C | D | Weight (kg) |
|---|---|---|---|---|---|
| 3/8" | 86 | 116.5 | 50.2 | 17.5 | 1 |
| ½" - ¾" | 86 | 116.5 | 50.2 | 17.5 | 0.9 |

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 | 3/8" |
| 3 | ½" |
| 4 | ¾" |

| Seals | |
|---|---|
| T | PTFE |
| V | FKM |

| 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

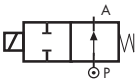
| Plug | |
|---|---|
| | w/o plug |
| 0A1 | c/w plug |

| RD | 2 | 3 | • | D | • | W | • | • | • | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### Product coding example:

RD233DTW 7701 0A1
½" G, auto operation, brass body, PTFE seals, 16.5 mm orifice, 230 V / 50 Hz - 240 V / 60 Hz, with plug.

# RD236DR-1 Series, High Pressure – 2/2 Normally Open

| Specifications | |
|---|---|
| Function (single acting) |  Flow direction overseat 1 → 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 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) | Ruby |
| Connection Type (Std) | G parallel thread (ISO 228-1) |
| Shading Ring | Copper |
| **Electrical 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) |
| | +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)<br>AC 50 VA (inrush)<br>DC 22 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" | 0.04 | 0.03 | 0 - 180 | 0 - 180 | 1.0 | RUBY | RD236DRA1 |
| ¼" | 0.09 | 0.08 | 0 - 150 | 0 - 150 | 1.5 | RUBY | RD236DRC1 |
| ¼" | 0.14 | 0.12 | 0 - 60 | 0 - 60 | 2.0 | RUBY | RD236DRE1 |
| ¼" | 0.20 | 0.17 | 0 - 37 | 0 - 37 | 2.5 | RUBY | RD236DRG1 |
| ¼" | 0.25 | 0.21 | 0 - 28 | 0 - 28 | 3.0 | RUBY | RD236DRH1 |

NOTE: Not 100% leak-proof when used with air/gases. Approx leak rate is 1.5ml/min at max OPD.

ATTENTION: when high pressure valves are supplied without a coil, their nameplates display the max OPD of the valve when equipped with an AC (25VA) and DC(22W) coil. If fitting coils with a different power rating OPD will vary, please consult supplier for more details.

## Options Available

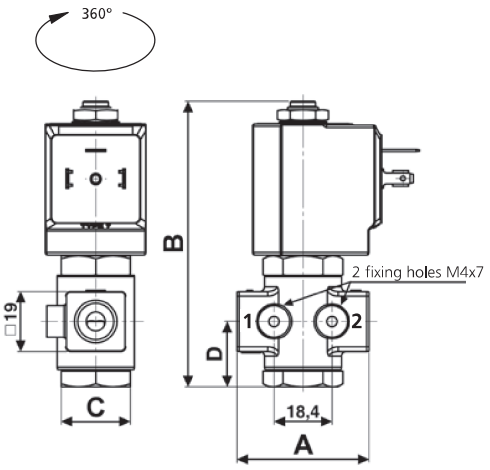
| Valve Options (see coding chart) |
|---|
| Coils with additional protection by impregnation with Loctite® Resinol RTC for humid environments |

| Seal Material[1] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| RUBY (-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.

# RD236DR-1 Series, High Pressure – 2/2 Normally Open

Coil Rotation




Preferred Valve Mounting Options

| Pipe Size | A | B | C | D | Weight (kg) |
|---|---|---|---|---|---|
| ¼" | 47 | 91 | Hex 22 | 20.75 | 0.25 |

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*

* 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

| Orifice | |
|---|---|
| A | 1.0 |
| C | 1.5 |
| E | 2.0 |
| G | 2.5 |
| H | 3.0 |

| Option | |
|---|---|
| | w/o option |

### Coil options

| Voltage / Frequency - Class H, High Power | |
|---|---|
| 72Z1 | 24 VDC |
| 72K1 | 24 V / 50/60 Hz |
| 74K1 | 110 V / 50 Hz - 120 V / 60 Hz |
| 77K1 | 230 V / 50 Hz - 240 V / 60 Hz |
| **Voltage / Frequency - Class H, High Power, Impregnated** | |
| D2Z1 | 24 VDC |
| D2K1 | 24 V / 50/60 Hz |
| D4K1 | 110 V / 50 Hz - 120 V / 60 Hz |
| D7K1 | 230 V / 50 Hz - 240 V / 60 Hz |

### Plug

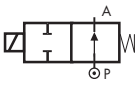
| Plug | |
|---|---|
| 0A1 | c/w plug |
| | w/o plug |

| RD | 2 | 3 | 6 | D | R | • | 1 | • | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## Product coding example:

RD236DRC1 72K1
¼" G, auto operation, brass body, RUBY seals, 1.5 mm orifice, 24 VDC, without plug.

# RD201 Series High Pressure – 2/2 Normally Open

| Specifications | |
|---|---|
| Function (single acting) |  Flow direction overseat 1 → 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) | Ruby |
| Connection Type (Std) | Flanged 32x32mm |
| 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)<br>AC 36 VA (inrush)<br>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 | | | |
| Flanged | 0.09 | 0.08 | 0 - 55 | 0 - 55 | 1.5 | Ruby | RD201DRC |
| Flanged | 0.24 | 0.20 | 0 - 25 | 0 - 25 | 2.0 | Ruby | RD201DRE |
| Flanged | 0.32 | 0.27 | 0 - 10 | 0 - 10 | 3.0 | Ruby | RD201DRH |

NOTE: Not 100% leak-proof when used with air/gases. Approx leak rate is 1.5ml/min at max OPD.

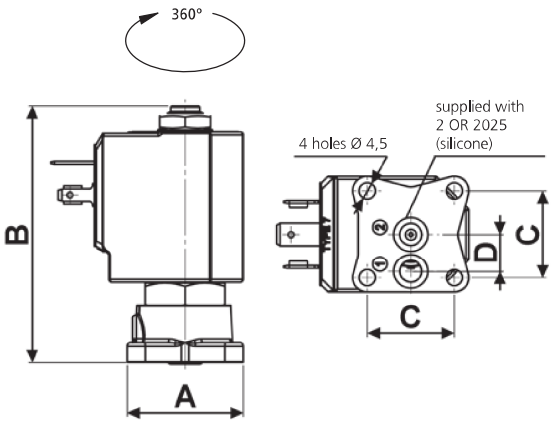
## Options Available

| Seal Material[1] and Media Temperature Range | Media | Ambient Temperature Range | |
|---|---|---|---|
| | | Min | Max |
| RUBY (-10 °C to +130 °C) | Water, oil, liquids | -10 °C | +50 °C |

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

# RD201 Series High Pressure – 2/2 Normally Open

Coil Rotation




Preferred Valve Mounting Options

| Pipe Size | A | B | C | D | Weight (kg) |
|---|---|---|---|---|---|
| Flanged | 32 | 68.4 | 24 | 10.25 | 0.3 |

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

| Orifice | |
|---|---|
| C | 1.5 |
| E | 2.0 |
| H | 3.0 |

| Option | |
|---|---|
| | 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 | |
|---|---|
| | w/o plug |
| 0A1 | c/w plug |

| RD | 2 | 0 | 1 | D | R | • | • | • | • | • | • | • | • | • | • |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### Product coding example:

RD201DRC 7201
Flanged connection, auto operation, brass body, RUBY seals, 1.5 mm orifice, 24 V / 50 Hz/60 Hz, without plug.