

DIRECT OPERATED SOLENOID VALVE

Variants

CRD 04 18 NC ...
18W coil version

Variants

CRD 04 22 NC ...
22W coil version

Variants

CRD 04 NC ...
30W coil version

Flux	Emergency Force (F)
2 → 1	10N
1 → 2	10 + (2,5 x p) N

p = used pressure (bar)

00012023 Spare seals kit CRD0418NC - CRD0422NC

00012037 Spare seals kit CRD04NC

The direct acting, normally closed 2-way 2 position bi-directional electric control valve releases pressure and enables fluid to flow through the valve in both directions.

The bi-directional tapered poppet is in tempered and ground steel.

The valves work with DC coils whereas RAC coils with a connector with incorporated rectifier must be used for AC applications.

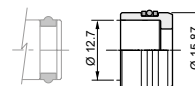
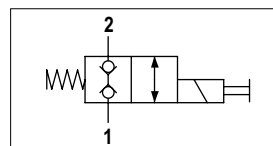
CRD0418NC - CRD0422NC: nickel-plated steel sleeve.

CRD04NC: phosphate-coating steel sleeve.

FEATURES

Max. pressure - see note (*)	CRD 04 22 NC = 300 bar CRD 04 18 NC = 210 bar CRD 04 NC = 250 bar
Max. Flow	CRD 04 22 NC /18 NC = 15 l/min CRD 04 NC = 30 l/min
Max. excitation frequency	2 Hz
Duty cycle	100% ED
Max. Leakage (0 ÷ 20 drops/min)	0 ÷ 1 cm ³ /min
Hydraulic fluids	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm ² /s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Cartridge filter	280µm
Type of protection (in relation to the connection used)	IP65
Weight (with coil)	CRD 04 18 NC = 0.27 kg CRD 04 22 NC = 0.35 kg CRD 04 NC = 0.63 kg
Cartridge tightening torque	25 ÷ 30 Nm
Coil ring nut tightening torque Emergency tightening torque	7 Nm
Cavity standard "A" (3/4 - 16 UNF)	CD018006 (See section 17)
Cavity with reduction "B" (3/4 - 16 UNF)	CD018012 (See section 17)

HYDRAULIC SYMBOLS



Reduction for cavity type "B"

V89B30000 Spare code

* **Max. pressure with reduction:**

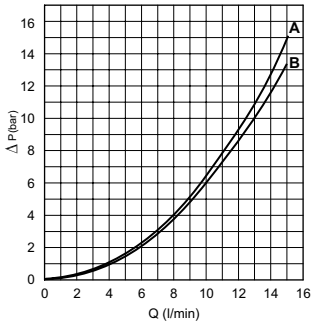
Unidirectional 2 → 1 = 300 bar

Bidirectional 2 → 1 and 1 → 2 = 210 bar

PRESSURE DROPS

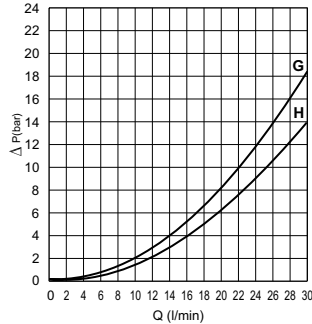
18W / 22W

A = 2 → 1
B = 1 → 2



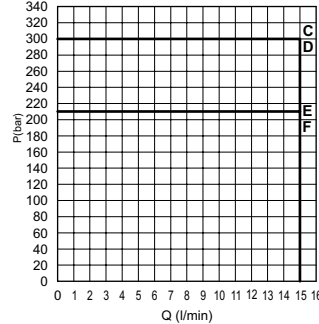
30W

G = 2 → 1
H = 1 → 2



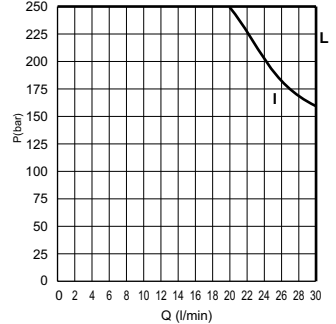
22W

C = 2 → 1
D = 1 → 2



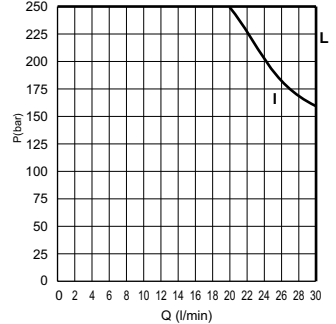
18W

E = 2 → 1
F = 1 → 2



30W

I = 2 → 1
L = 1 → 2



The tests were carried out with the solenoids at operating temperature, with a supply voltage 10% below nominal value and with a 40°C fluid temperature. The fluid used is a mineral oil with viscosity of 46 mm²/s at 40°C.

ORDERING CODE

	CRD	04	**	NC	*	*	*	**	*																
	Series	Size	Coil	Version	Seat size	Version	Voltage	Variants																	
CRD = Direct operated solenoid valve		04 = 3/4 - 16 UNF	18 = 18W (C30) 22 = 22W (C36) 00 = Without coil (7)	NC = Normally closed	A = Standard - Ø 12.7 mm B = With reduction - Ø 15.9 mm	E = With emergency Omit for 30W version (D12)		<ul style="list-style-type: none"> 00 = No variants E1 = Rubber emergency (30W) P1 = Rotary emergency (30W) P3 = Rotary emergency (18W/22W) P4 = Push button Emergency with removable protection E9 = Push button Emergency direct control FY = Emergency P3 + FH (18W/22W) FH = Cartridge filter PJ = FH + P4 emergency FK = With flying leads 600 mm (1) AJ = AMP Junior connection (2) CX = Deutsch connection with bidirectional diode <p><i>Connector to be ordered separately, see sect. 20</i></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">2 = Serial No. CRD 04 18 NC.. CRD 04 22 NC.. CRD 04 00 NC..</td> <td style="width: 50%;">1 = Serial No. CRD 04 NC..</td> </tr> </table>	2 = Serial No. CRD 04 18 NC.. CRD 04 22 NC.. CRD 04 00 NC..	1 = Serial No. CRD 04 NC..														
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							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DC 18W/22W (C30-C36)</td> <td style="width: 50%;">DC 30W (D12)</td> </tr> <tr> <td>L = 12 VDC</td> <td>L = 12 VDC</td> </tr> <tr> <td>M = 24 VDC</td> <td>M = 24 VDC</td> </tr> <tr> <td>N = 48 VDC</td> <td>W = Without coil (6)</td> </tr> <tr> <td>2 = 21.6 VDC RAC (3)</td> <td></td> </tr> <tr> <td>Z = 102 VDC RAC (4)</td> <td></td> </tr> <tr> <td>X = 205 VDC RAC (5)</td> <td></td> </tr> <tr> <td>W = Without coil (6)</td> <td></td> </tr> </table> <p><i>Coils technical data, see sect. 19</i></p>	DC 18W/22W (C30-C36)	DC 30W (D12)	L = 12 VDC	L = 12 VDC	M = 24 VDC	M = 24 VDC	N = 48 VDC	W = Without coil (6)	2 = 21.6 VDC RAC (3)		Z = 102 VDC RAC (4)		X = 205 VDC RAC (5)		W = Without coil (6)			
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(1) Only voltages 12 VDC - 24 VDC and coils 18W/22W

(2) Only voltages 12 VDC - 24 VDC and coil 22W

(3) With rectifier: 24 VAC/50-60Hz

(4) With rectifier: 115 VAC/50Hz - 120 VAC/60Hz

(5) With rectifier: 230 VAC/50Hz - 240 VAC/60Hz

(6) Performance are guaranteed only using valves completed with BFP coil