ENAPART

93 S Railroad Avenue Unit C
Bergenfield NJ 07621 USA
www.enapart.com
sales@enapart.com

Friedrich-Ebert-Anlage 36, 60325
Frankfurt am Main, Germany
www.enapart.de
anfrage@enapart.de

〒584-0023　大阪府富田林市若松町
東2丁目2番16号
www.enapart.co.jp
sales@enapart.co.jp

Via del Canneto 35,
Borgosatollo, Brescia - Italia
www.enapart.it
vendite@enapart.it

4 boulevard Carnot, 95400
villiers-le-bel, Paris, France
www.enapart.fr
sales@enapart.fr

PLAZA NUESTRA SEÑORA DE LAS
NIEVES 12 ,LOCAL ,50012,ZARAGOZA
www.enapart.es
ventas@enapart.es

Barbaros Mah. Ihlamur Bul. Ağaoğlu
My Newwork No:3/15 Ataşehir / İstanbul
www.enapart.net
satis@enapart.net

65049, ОДЕСА, ВУЛИЦЯ ІВАНА
ФРАНКА, БУДИНОК 55, ПОВЕРХ 3
www.enapart.com.ua
sales@enapart.com.ua

Складова база „Онгъл“, Склад А2, п.к.
4006, гр. Пловдив, България
www.enapart.bg
sales@enapart.bg

PRIVADA 10 B SUR #3908 COL.
ANZUREZ, C.P. 72530, PUEBLA,PUE
www.enapart.com.mx
sales@enapart.com.mx

MUNICIPIUL BUCUREŞTI, SECTOR 3,
B-DUL BASARABIA, NR.250, CORP P+5
www.enapart.ro
sales@enapart.ro

3 Austin Mews, High Street, Hemel
Hempstead, HP1 3AF , United Kingdom
www.enapart.co.uk
sales@enapart.co.uk

Spring 2017

Comatrol

RESPONSIVENESS IN MOTION

Member of the Danfoss Group

Your Most Responsive Partner for Control Solutions

Visit www.comatrol.com to locate a distributor near you.

E1 COMPLIANT

State of the art CAD design

HIC Solid Models

Custom HICs

Fan Drive HICs

About Us

Comatrol, a member of the Danfoss Group, is the most responsive and innovative choice for Cartridge Valves and Hydraulic Integrated Circuit (HIC) needs. Comatrol works with customers and suppliers around the world to manufacture high performance machine control solutions for mobile, on-highway, energy and industrial equipment markets.

Our History

Originally a pioneering brand in the European cartridge valve market, Comatrol is a global business built on the strength of our experience and established position within the fluid controls industry. At Comatrol, product focus means product expertise, allowing us to be the market leader in HIC design and prototype speed. Our comprehensive cartridge portfolio brought together by Danfoss, combines three separate product lines allowing customers to buy the best individual components at competitive prices straight from the source.

Our Products

As a market leader in HIC design, Comatrol has built upon our engineering and application expertise to create a balanced offering with over 500 high quality catalog products including configurable cartridge valves and Catalog HICs to meet your control solutions needs.

The Cartridge Valve line consists of a strong portfolio of proportional, solenoid and mechanical valves. Comatrol provides pre-engineered customer solutions with Catalog HICs, including Cross-Port Reliefs, Dual Counterbalance, Motor Mount and the new family of Fan Drive HICS.

Comatrol specializes in Custom HICs allowing customers to use our broad portfolio of cartridge valves to create innovative solutions for optimal machine control and performance.

Our Experience

Comatrol represents a long history of experience and an established position within the fluid controls industry. Since 1980, we have built upon the knowledge and expertise within the design, application and manufacturing of cartridge valves and HICs to become the preferred component provider for over 1800 companies and distributors throughout the world. Our leadership and engineering team have over 300 years combined fluid power experience and in the words of one of our account managers, "This is all we do and we do it well!"

Operational Excellence

Responsiveness resonates throughout every aspect of Comatrol's business. Our aim is to link your request to the supplier network in order to compress lead time and improve quality, providing the most valuable control solutions on the market today. Comatrol's ISO 9001-2008 certified facilities help ensure the delivery of high quality precision products at world class levels.

Motor Mount HICs

Valve Hybrid HICs

HICs with steering unit

Integrated cartridge valve in gear units

EasyValve® Version 3.0

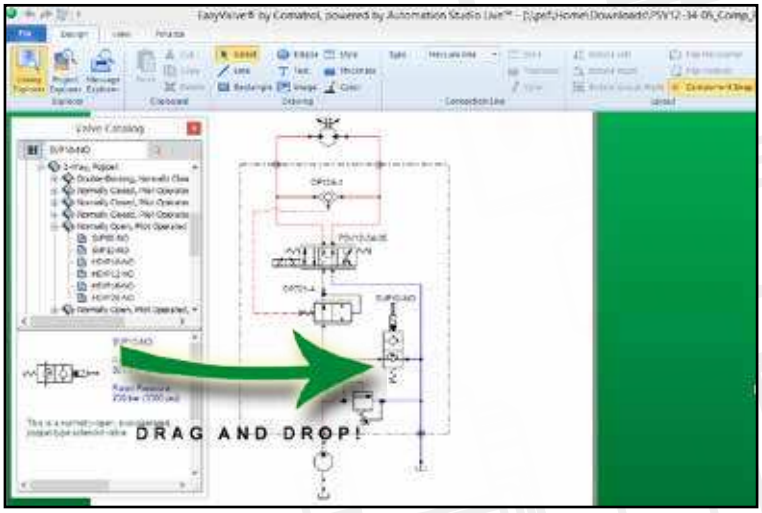
EasyValve –where custom HIC solutions and creativity meet

Our flagship design software EasyValve is the e-destination that takes custom HIC solutions to the next level by providing a streamlined development process from the customer to the Comatrol engineer.

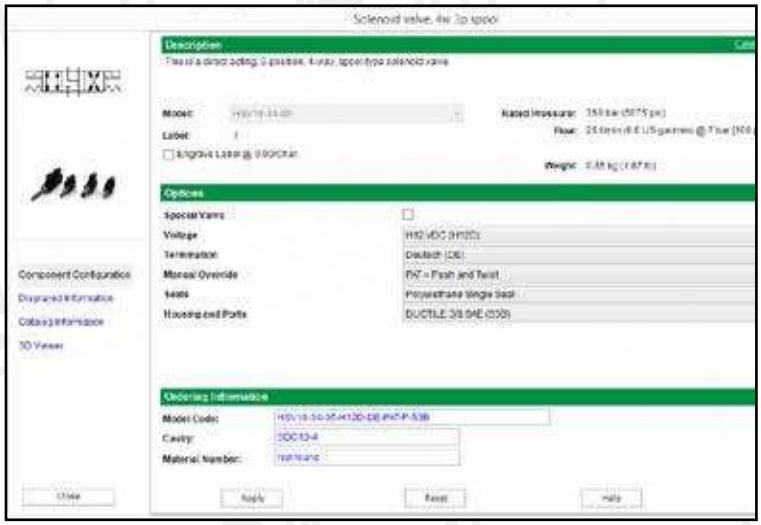
EasyValve's intuitive user interface allows you to proficiently create your hydraulic circuit schematic by simply dragging and dropping from Comatrol's complete digital library of cartridge valves, Cetop valves and accessories. Capture your technical, commercial and application requirements to accurately document and communicate your custom HIC needs - allowing you to get exactly what you want from the first drawing, reducing the prototype cycle time by as much as half.

Features

- Quickly select the products, ports and machining options you need by navigating the library, or by using the search function – then drag and drop onto your Schematic Layout
- Easily configure all of your selected items to meet your application needs with the drop-down component selection functionality
- To help make optimal technical vs. pricing* decisions, this information is now readily available in one location on the Component Specification page of each item, which also includes the valve catalog pages
- The Project Information View allows you to capture customer, technical, and HIC material information
- The Manifold Layout page allows you to capture customer-critical layout information where you can define the maximum envelope dimensions and the location of valves, ports and mounting holes



Schematic Layout - Drag and Drop from Library



Component Specifications - Configuring Products

- Outputs Include:
  - o Project file that stores all your work into one document [.HICS]
  - o Project Summary
  - o Schematic in DXF format
  - o Automation Studio™ output [.HIX] to support your simulation needs
- The Project Summary includes:
  - o Customer and Distributor Information
  - o Net price* and other Commercial Information
  - o Technical Parameters
  - o Schematic
  - o Manifold Layout
  - o Bill of Material
  - o Warnings and Revision History

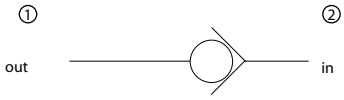
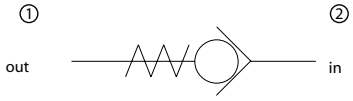
Shopping Cart Feature

Quickly configure and generate pricing for standard catalog components.

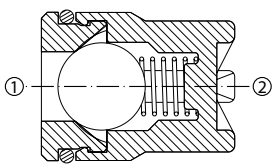
From inception to installation, EasyValve ensures that the first prototype is the right prototype. Download EasyValve software and see for yourself what responsiveness in motion looks like firsthand.

**Pricing is only available to Comatrol distributors*

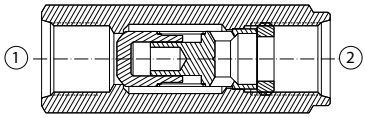
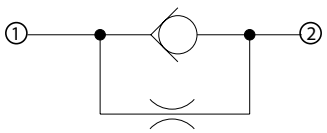
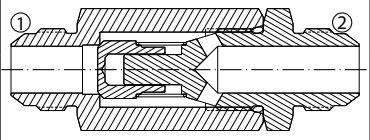
Check Valves - Threaded

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Ball Type, Normal Direction	CV04-NB	207 3000	3 0.8	CP04-2
 Poppet Type, Normal Direction	CV08-NP	350 5075	38 10	SDC08-2
	CV10-NP	350 5075	80 21	SDC10-2
	CP102-1	315 4570	210 55	SDC16-2
	CP103-1	215 3120	330 87	SDC20-2
 Reverse Direction, No Spring	CP104-2	350 5075	4.5 1.2	CP04-2
 Reverse Direction	CP108-2	350 5075	20 5	SDC08-2
	CP100-2	350 5075	50 13	SDC10-2
	CP101-2	350 5075	75 20	CP12-2
	CP102-2	350 5075	150 40	SDC16-2
	CP103-2	350 5075	265 70	SDC20-2

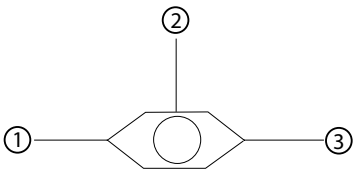
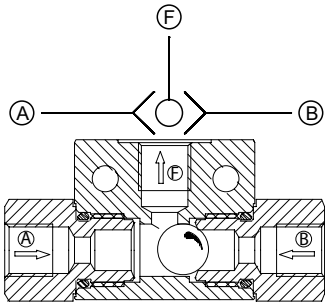
Check Valves - Slip-In

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
	3C50-01	210 3045	70 19	FC-144
	3C60-01	140 2000	70 19	FC-144
 Slip-In	3C80-01	140 2000	190 50	FC-304
	3C90-01	210 3045	190 50	FC-304

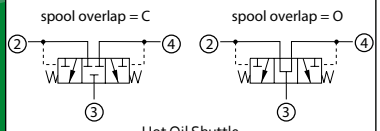
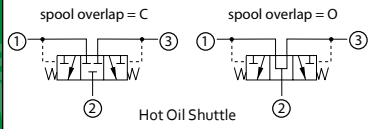
Check Valves - In-line

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	PORTS
  In-line, Female Port	3C11-01	350 5075	20 5	#4 SAE
	RS 06	350 5075	30 8	#6 SAE 1/4 BSP
	3C12-01	350 5075	35 9	#6 SAE
	RS 10	350 5075	60 16	3/8 BSP
	3C13-01	350 5075	70 19	#8 SAE
	3C14-01	350 5075	95 25	#12 SAE
	RS 13	315 4500	100 26	1/2 BSP
	RS 19	280 4000	140 37	#12 SAE 3/4 BSP
	3C15-01	350 5075	150 40	#16 SAE
	RS 25	245 3500	200 53	#16 SAE 1 BSP
	3C16-01	350 5075	230 61	#20 SAE
 In-line, Female Port, with Orifice	2RN11-01	350 5075	20 5	#4 SAE
  In-line, Male Port	3CM11-01	350 5075	20 5	#6 SAE
	3CM12-01	350 5075	35 9	#8 SAE
	3CM15-01	350 5075	150 40	#16 SAE

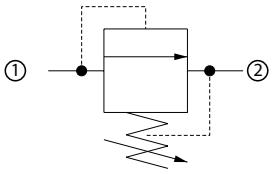
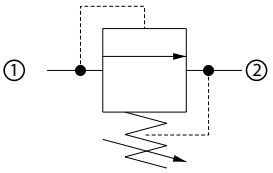
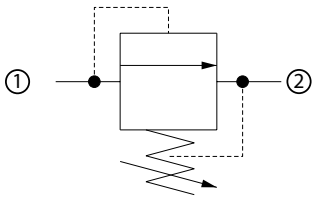
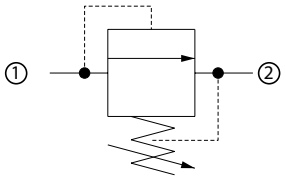
Shuttle Valves - Load Shuttle

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Normal Direction	CP124-1	350 5075	3.7 1	CP04-3
	CP128-1	315 4570	22 5.8	SDC08-3
	SV 04	315 4500	15 4	NCS04/3
	CP120-4	330 4800	25 7	SDC10-3
	SV 06	350 5075	48 12.7	NCS06/3
 In-line	VS 06	350 5075	35 9	1/4 BSP Port
	VS 10	350 5075	45 12	3/8 BSP Port

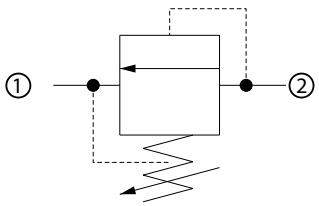
Shuttle Valves - Hot Oil

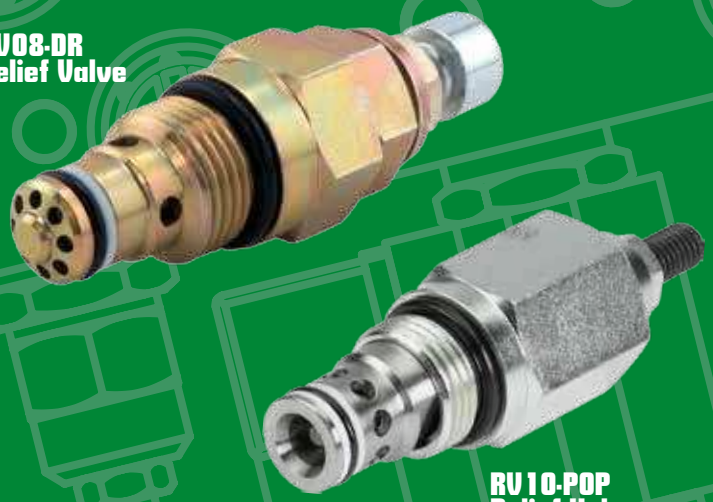
SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 spool overlap = C spool overlap = O Hot Oil Shuttle	CP720-3	350 5075	25 7	SDC10-4
 spool overlap = C spool overlap = O Hot Oil Shuttle	CP721-3	350 5075	90 24	CP12-3M

Relief Valves - Direct Acting

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Thermal Relief, Direct Acting, Poppet Type	CP208-4	415 6000	1.1 .3	SDC08-2
 Direct Acting, Poppet Type	CP208-3	250 3625	30 8	SDC08-2
	CP200-3	250 3625	40 11	SDC10-2
 Direct Acting, Damping, Poppet Type	RV08-DR	250 3625	30 8	SDC08-2
	VEN 06	250 3625	40 11	NCS06/2
	VME 06	315 4500	40 11	VME 06
	VME 07	315 4500	50 13	VME 07
	VME 08	315 4500	80 21	VME 08
 Direct Acting, Spool Type	CP210-1	210 3045	45 12	SDC10-2
	CP211-1	40 600	75 20	CP12-2

Relief Valves - Differential

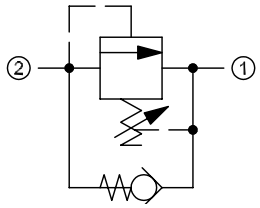
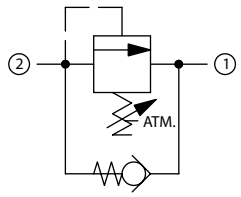
SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Relief Valve, Differential Area, Poppet Type	CP200-2	350 5075	40 11	SDC10-2
	CP208-1	250 3625	40 11	SDC08-2
	CP200-1	250 3625	75 20	SDC10-2
	CP201-1	250 3625	150 40	CP12-2



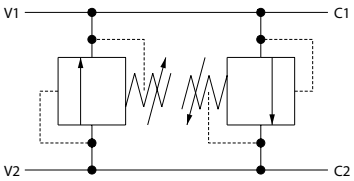
RV08-DR Relief Valve

RV10-POP Relief Valve

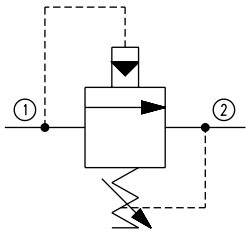
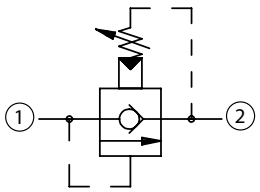
Relief Valves · Differential (continued)

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Differential Area, Poppet Type with Reverse Free Flow Check	VSB 06-EN	350 5075	80 21	NCS06/2
	VSB 12-EN	350 5075	140 37	NCS12/2
 Differential Area, Poppet Type with Reverse Free Flow Check, Atmospheric Venting	VSB 06-CN	350 5075	80 21	NCS06/2
	VSB 12-CN	350 5075	140 37	NCS12/2

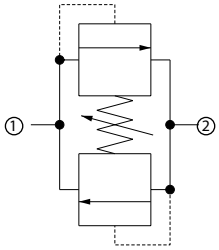
Relief Valves · Cross-Over

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	PORTS
 Cross-Over, Catalog HIC	VA-E 06	210 3045	40 11	3/8 BSP
	CP220-1	250 3625	75 20	3/8 & 1/2 BSP #6 & #8 SAE
	CP221-1	250 3625	190 50	3/4 & 1 BSP #12 & #16 SAE

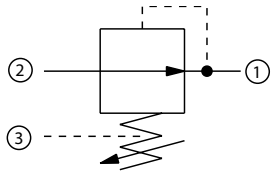
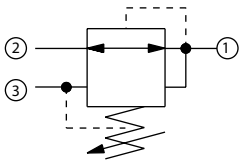
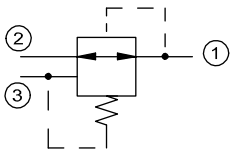
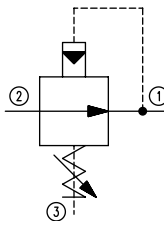
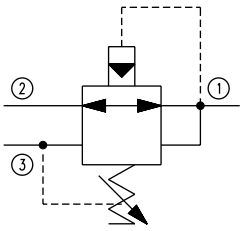
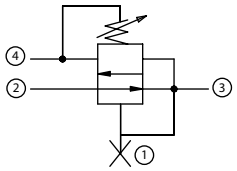
Relief Valves · Pilot Operated

SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Pilot Operated, Spool Type	CP210-2	350 5075	115 30	SDC10-2
	CP211-2	350 5075	190 50	CP12-2
 Pilot Operated, Poppet Type, Reverse Free Flow	RV10-POP	250 3625	120 32	SDC10-2

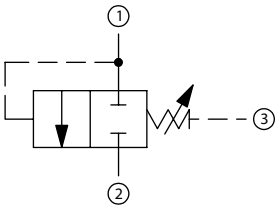
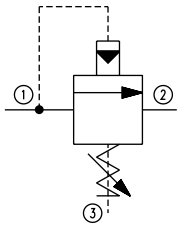
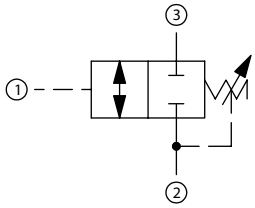
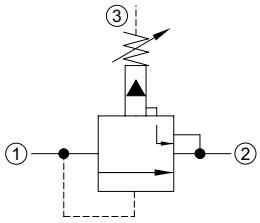
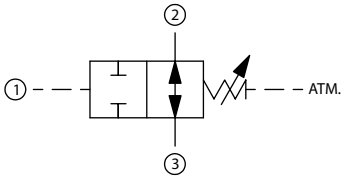
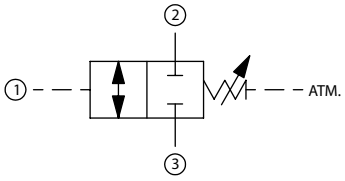
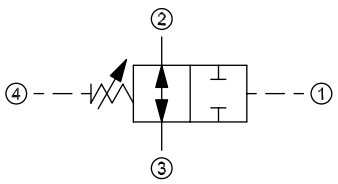
Relief Valves · Bi-Directional

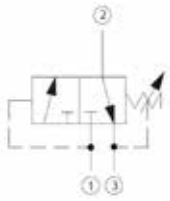
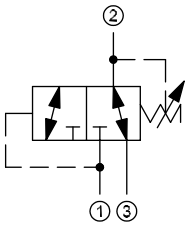
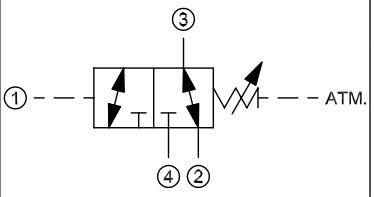
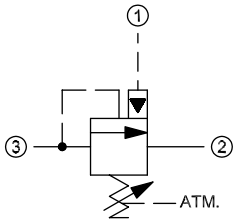
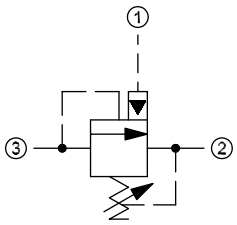
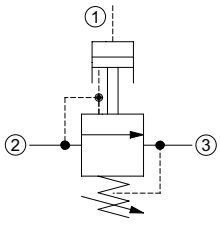
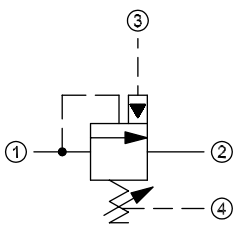
SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Relief Valve, Bi-directional	CP200-7	250 3625	40 11	SDC10-2

Pressure Reducing Valves

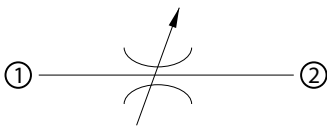
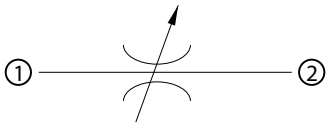
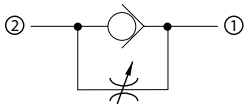
SCHEMATIC / DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Non-Relieving, Direct Acting	CP230-2	210 3045	40 10	SDC10-3
	PRC 06	315 4500	40 10	NCS06/3
 Relieving, Direct Acting	CP230-1	210 3045	40 10	SDC10-3
 Relieving, Direct Acting, for PVG Actuators	PRR10-PVG	210 3045	40 10	SDC10-3
 Non-Relieving, Pilot Operated	CP230-4	350 5075	40 10	SDC10-3
	PPRC-06	315 4500	40 10	NCS06/3
 Relieving, Pilot Operated	PRMP 064	315 4500	40 10	SDC10-3
	CP231-3	350 5075	115 30	CP12-3S
 Relieving, Direct Acting, with Damping Port	PRR10-DRD	207 3000	38 10	SDC10-4

Sequence Valves

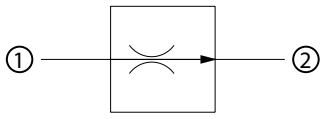
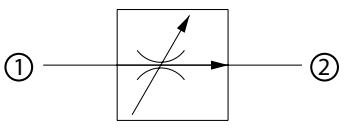
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Sequence Valve,2-Way, Normally Closed	CP240-8	210 3045	55 14	SDC10-3
	CP241-8	206 3000	150 39	CP12-3S
 Sequence Valve, Pilot Operated Spool	CP240-21	350 5075	45 12	SDC10-3
	CP241-21	350 5075	75 20	CP12-3S
 Sequence Valve, 2-Way, Normally Closed, External Pilot, Internal Drain	CP240-2	210 3045	35 9	SDC10-3
 Sequence Valve, Kick-Down Type	CP240-22	350 5075	45 12	SDC10-3
 Sequence Valve, 2-Way, Normally Open	VDP 06/NA	315 4500	25 7	NCS06/3
 Sequence Valve, 2-Way, Normally Closed	VDP 06/NC	315 4500	25 7	NCS06/3
 Sequence Valve, 2-Way, Normally Open	CP240-5	210 3045	25 7	SDC10-4

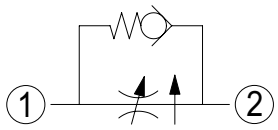
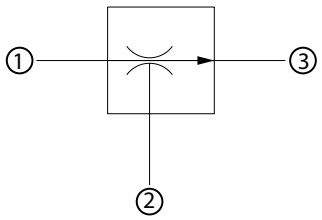
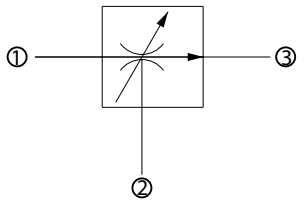
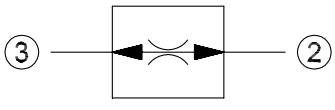
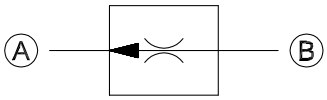
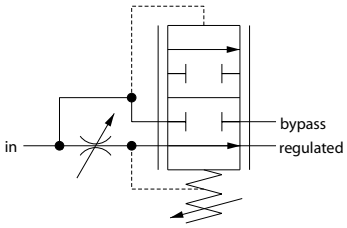
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Sequence Valve, 3-Way, Pilot Operated Spool	CP240-1	210 3045	25 7	SDC10-3
 Sequence Valve, 3-Way	CP240-9	210 3045	20 5	SDC10-3
 Sequence Valve, 3-Way	VDP 06/4201	315 4500	22 6	NCS06/4
 Unloading Valve, Differential Area, Pilot Operated, Atmospheric Vent	VDB 06-CN	350 5075	80 21	NCS06/3
 Unloading Valve, Differential Area, Pilot Operated	VDB 06-EN	350 5075	80 21	NCS06/3
	VDB 12-EN	350 5075	160 42	NCS12/3
 Unloading Valve, Pilot Operated	CP240-30	240 3500	4 1	SDC10-3
 Unloading Valve, Pilot Operated, Spool	AUV 06	250 3625	50 13	NCS06/4

Flow Control Valves - Needle Valves

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Needle Valve, Bi-Directional, Fine Metering	CP618-6	310 4500	10 3	SDC08-2
 Needle Valve, Bi-Directional	CP618-1	210 3045	25 7	SDC08-2
	CP618-2	210 3045	45 12	SDC08-2
	CP610-1	210 3045	50 13	SDC10-2
	CP610-2	210 3045	50 13	SDC10-2
	CP611-2	210 3045	115 30	CP12-2
	CP612-1	210 3045	190 50	SDC16-2
	CP612-2	210 3045	190 50	SDC16-2
	CP613-1	210 3045	380 100	SDC20-2
 Needle Valve, Fine Metering, Rev. Free Flow	CP610-7	350 5075	55 15	SDC10-2

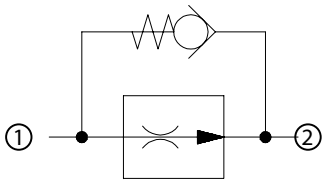
Flow Control Valves - Pressure Compensated

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Flow Control Valve, Fixed Setting, Restrictive Type	CP308-1	210 3045	15 4	SDC08-2
	CP300-1	210 3045	23 6	SDC10-2
	CP301-1	210 3045	57 15	CP12-2
 Flow Control Valve, Adjustable, Restrictive Type	CP308-2	210 3045	15 4	SDC08-2
	CP300-2	210 3045	23 6	SDC10-2
	VR 06	315 4500	30 8	NCS06/2
	VR 12	315 4500	60 16	NCS12/2

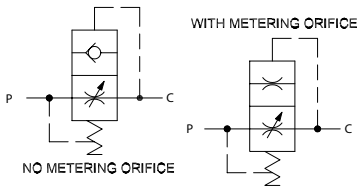
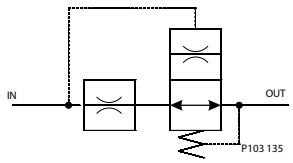
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 High Pressure Flow Control, Variable Orifice, Restrictive Type	HFCV10-RT	350 5075	11.4 3	SDC10-2
 Flow Control Valve, Fixed Setting, Priority Type	CP310-1	210 3045	23 6	SDC10-3
	VRF 06	315 4500	30 8	NCS06/3
	CP311-1	210 3045	45 12	CP12-3
	CP312-1	210 3045	65 17	SDC16-3
 Flow Control Valve, Adjustable, Priority Type	CP310-2	210 3045	23 6	SDC10-3
	VRC 06	315 4500	50 13	NCS06/3
	VRC 12	315 4500	100 26	NCS12/3
 Flow Control Valve, Fixed Setting, Bi-Directional	CP300-6	210 3045	23 6	SDC10-3
	FCH10-BD	350 5075	23 6	SDC10-3
 Flow Control Valve, In-line	SC 10	210 3045	16 4	Modified 3/8 BSP Port
	SC 13	210 3045	47 12	Modified 1/2 BSP Port
 Flow Control Valve, Adjustible, Priority Type ,Catalog HIC	2F94-01	210 3045	30 8	#6 SAE Ports
	2F95-01	210 3045	60 16	#8 SAE Ports
	2F96-01	210 3045	95 25	#12 SAE Ports
	2F97-01	210 3045	190 50	#16 SAE Ports
Pressure Compensators - See Logic Elements				

HFCV10-RT
Flow Control Valve

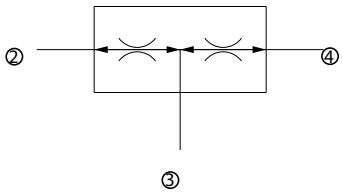
Flow Control Valves - Load Lowering

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Load Lowering Valve	CP9014-1	210 3045	113 30	Modified #14 SAE Cavity #10 & #12 SAE Ports

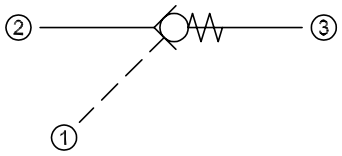
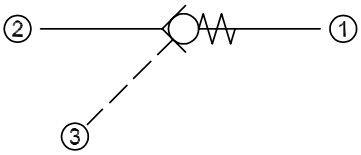
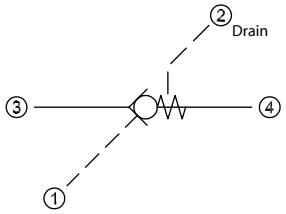
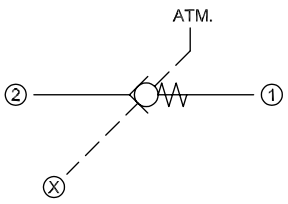
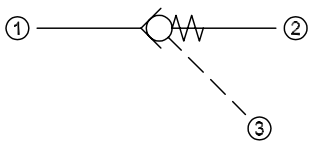
Velocity Fuses

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	PORTS
 Velocity Fuse	BC 06	210 3045	30 8	1/4 BSP
	BC 10	210 3045	60 16	3/8 BSP
	BC 13	210 3045	85 22	1/2 BSP
 Velocity Fuse	CP330-3	207 3000	110 29	#10 SAE

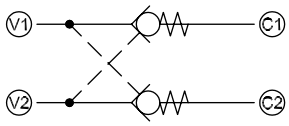
Flow Control Valves - Flow Dividers

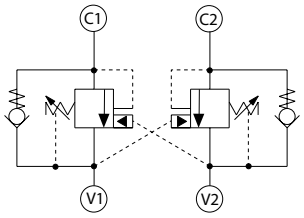
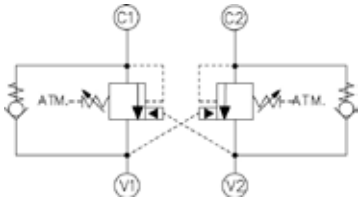
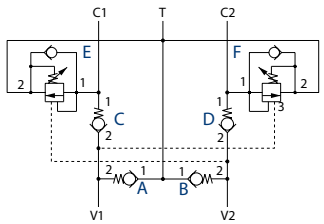
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Flow Divider, Divider/Combiner	CP340-1	210 3045	45 12	SDC10-4
	VDF 06	210 3045	45 12	NCS06/4
	CP341-1	210 3045	75 20	CP12-4
	CP342-1	210 3045	150 40	CP16-4
	CP342-3	450 6500	150 40	CP16-4
	CP343-1	210 3045	340 90	SDC20-4

Pilot Operated Check Valves

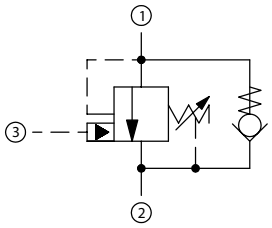
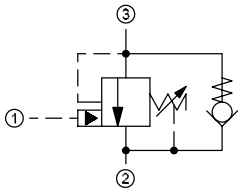
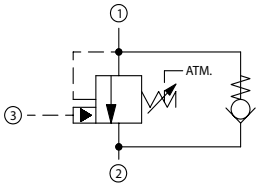
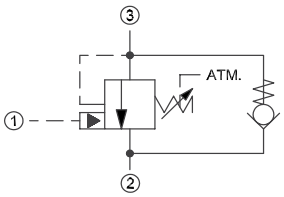
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Pilot Operated Check Valve, Pilot to Open	RPC 04	350 5075	20.5 5.4	NCS04/3
	RPC 06	350 5075	35 9.3	NCS06/3
	CP450-1	240 3480	30 8	SDC10-3
	RPC 12	315 4500	90 24	NCS12/3
 Pilot Operated Check Valve, Reverse Pilot to Open	CP458-2	210 3045	20 5	SDC08-3
	MC10-RO	210 3045	45 12	SDC10-3S
	CP451-2	210 3045	95 25	CP12-3S
	CP452-2	210 3045	130 34	SDC16-3S
	CP453-2	210 3045	230 61	CP20-3S
 Pilot Operated Check Valve, Pilot-to-open with drain	RPV 06	315 4500	30 8	NCS06/4
 Pilot Operated Check Valve, Reverse Pilot-to-open with vent	CP453-5	350 5075	250 66	SDC20-2
 Pilot Operated Check Valve, Pilot to Close	CP460-1	210 3045	45 12	SDC10-3
	CP461-1	210 3045	115 30	CP12-3S
	CP462-1	210 3045	190 50	SDC16-3S

Pilot Operated Check Valves - (continued)

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Pilot Operated Check Valve, Catalog HIC	CP410-1	210 3045	85 22	3/8 & 1/2 BSP #6 & #8 SAE

SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY
 Dual Counterbalance Valve, Hydraulic Vent, Catalog HIC	CP448-2	350 5075	20 5	#4 & 6 SAE 3/8 BSP
	VCB06-EN-DL	350 5075	60 16	#6 & 8 SAE 3/8 & 1/2 BSP
	DCB10-HV	350 5075	60 16	#6 & 8 SAE 3/8 & 1/2 BSP
	CP441-2	350 5075	115 30	#10,12 SAE 1/2 & 3/4 BSP
	VCB12-EN-DL	350 5075	140 37	#8, 12 SAE 1/2 & 3/4 BSP
	DCB20-HV [CP443-2]	345 5000	266 70	#16,20 SAE 1 & 1 1/4 BSP
 Dual Counterbalance, Atmospheric Vent, Cat. HIC	DCB10-AV	350 5075	60 16	#6 & 8 SAE 3/8 & 1/2 BSP
	VCB06-CN-DL	350 5075	60 16	#6 & 8 SAE 3/8 & 1/2 BSP
	VCB12-CN-DL	350 5075	140 37	#8, 12 SAE 1/2 & 3/4 BSP
 Dual-Counterbalance w/ Makeup Checks, Cat. HIC	DCB10-MC {1EEC11-01}	350 5075	57 15	#6 SAE & #8 SAE Ports
	DCB12-MC [1EEC12-01]	350 5075	95 25	3/4 BSP #10 & #12 SAE

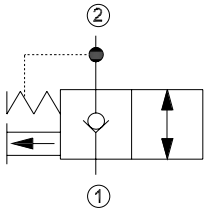
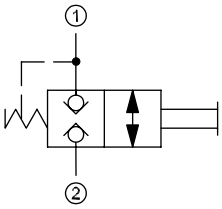
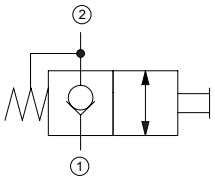
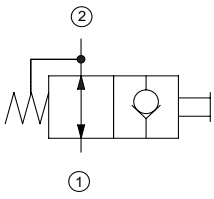
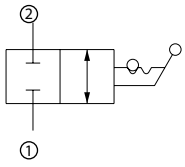
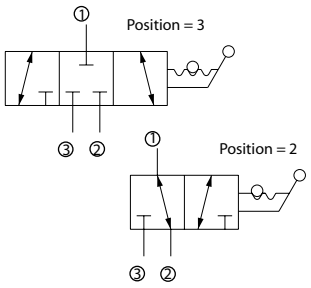
Counterbalance Valves

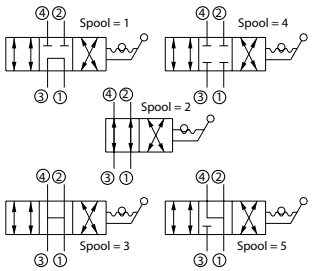
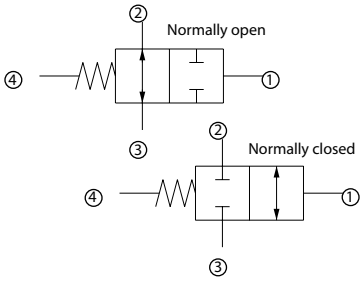
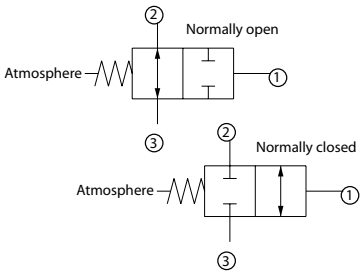
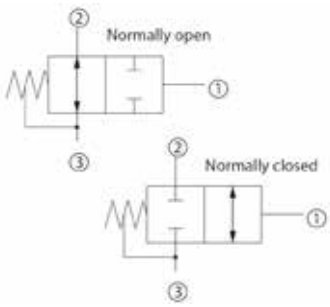
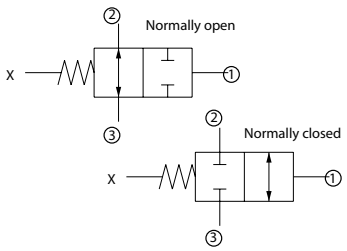
SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY
 Counterbalance Valve, Hydraulic Vent	CP448-1	350 5075	20 5	CP08-3L
	CB10-HV	350 5075	60 16	SDC10-3S
	CP441-1	350 5075	115 30	CP12-3S
	CB20-HV [CP443-1]	345 5000	266 70	CP20-3S
 Counterbalance Valve, Hydraulic Vent, Pilot Port 1	VCB06-EN	350 5075	60 16	NCS06-3
	VCB 12-EN	350 5075	140 37	NCS12-3
 Counterbalance Valve, Atmospheric Vent	CB10-AV	350 5075	60 16	SDC10-3S
 Counterbalance Valve, Atmospheric Vent, Pilot Port 1	VCB06-CN	350 5075	60 16	NCS06-3
	VCB 12-CN	350 5075	140 37	NCS12-3

Counterbalance Valves

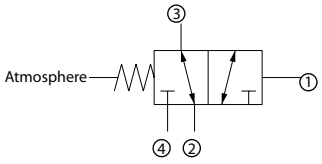
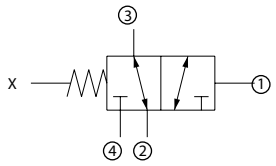
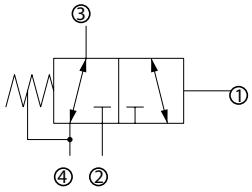
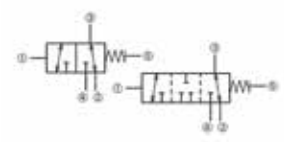
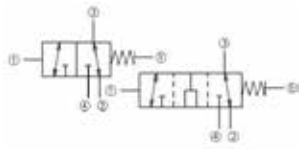
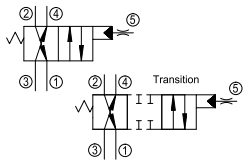
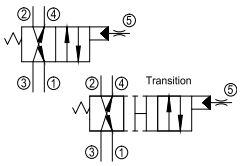
VCB-DL Dual Counterbalance Nose to Nose Design

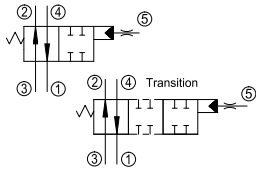
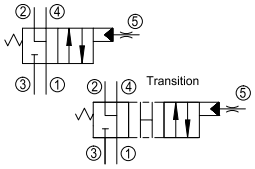
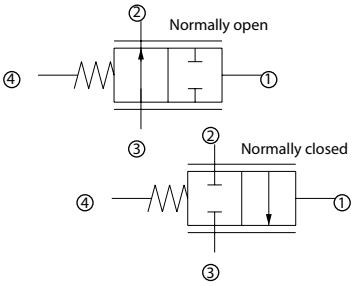
Directional Control Valves

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Directional Mechanical, Poppet, Pull to Open	CP600-1	210 3045	68 18	SDC10-2
 Directional Mechanical, Poppet, Pull to Open	CE 06	210 3045	20 5	NCS06/2
	CP600-2	210 3045	50 13	SDC10-2
 Directional Mechanical, Poppet, Normally Closed	DMP08-NC	210 3045	38 10	SDC08-2
 Directional Mechanical, Poppet, Normally Open	DMP08-NO	210 3045	38 10	SDC08-2
 Directional Manual, Rotary, 2-Position, 2-Way	CP620-1	210 3045	75 20	SDC10-2
 Directional Manual, Rotary, 2-Position, 3-Way	CP630-1	210 3045	30 8	SDC10-3

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Directional Manual, Rotary, 2-Position, 4-Way	CP640-1	210 3045	10 3	SDC10-4
 Directional Control Valve, 2-Position, 2-Way	CP710-8	210 3045	40 11	SDC10-4
	CP712-11	450 6500	130 34	CP16-4
	CP712-8	210 3045	130 34	CP16-4
 Directional Control Valve, 2-Position, 2-Way, Atmospheric Vent	CP710-1	210 3045	40 11	SDC10-3
	CP712-1	210 3045	130 34	SDC16-3
	CP713-1	210 3045	265 70	SDC20-3
 Directional Control Valve, 2-Pos., 2-Way, Hydraulic Vent	CP710-3	210 3045	40 11	SDC10-3
 Directional Control Valve, 2-Position, 2-Way, External Pilot	CP710-2	210 3045	40 11	SDC10-3
	CP712-2	210 3045	130 34	SDC16-3
	CP713-2	210 3045	265 70	SDC20-3

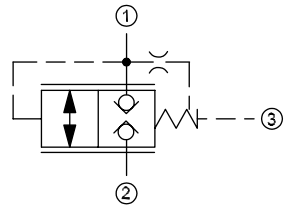
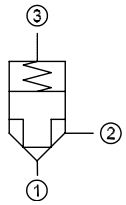
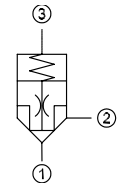
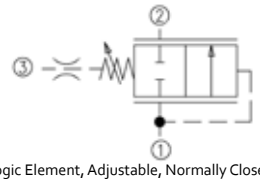
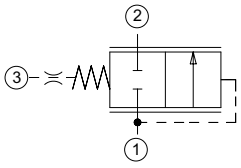
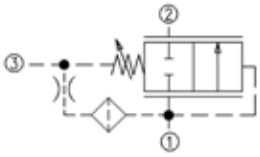
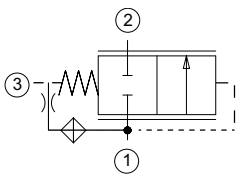
Directional Control Valves (continued)

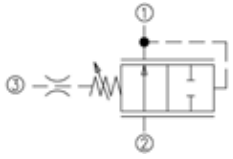
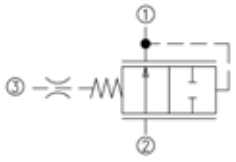
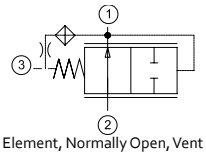
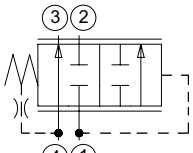
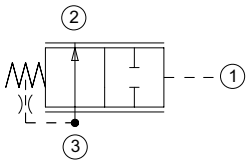
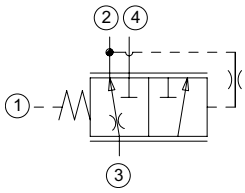
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Directional Control Valve, 2-Position, 3-Way, Atmospheric Vent	CP720-1	210 3045	30 8	SDC10-4
	CP722-1	210 3045	130 34	CP16-4
	CP723-1	210 3045	265 70	SDC20-4
 Directional Control Valves, 2-Position, 3-Way, External Pilot	CP720-2	210 3045	25 7	SDC10-4
	CP722-2	210 3045	130 34	CP16-4
	CP723-2	210 3045	265 70	SDC20-4
 Directional Control Valve, 2-Position, 3-Way, Hydraulic Vent	CP720-5	210 3045	40 11	SDC10-4
	CP722-11	450 6500	125 33	CP16-4
	CP722-5	210 3045	130 34	CP16-4
	CP723-5	210 3045	265 70	SDC20-4
 Directional Control Valve, 2-Position, 3-Way, Pilot Port 5, Closed Transition	DV16-P5-23-01-CT	210 3045	130 34	SDC16-5S
 Directional Control Valve, 2-Position, 3-Way, Pilot Port 5, Open Transition	DV16-P5-23-01-OT	210 3045	130 34	SDC16-5S
 Directional Control Valve, 2-Position, 4-Way, Pilot Port 5	DV15-P5-24-01	230 3335	70 18	NCS 12/5
 Directional Control Valve, 2-Position, 4-Way, Fan Drive, Pilot Port 5	DV15-P5-24-FD	230 3335	70 18	NCS 12/5

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Directional Control Valve, 2-Position, 4-Way, Pilot Port 5	DV15-P5-24-05	230 3335	70 18	NCS 12/5
 Directional Control Valve, 2-Position, 3-Way, Pilot Port 5	DV15-P5-24-08	230 3335	70 18	NCS 12/5
 Directional Control Valve, Normally Closed/Open, Hydraulically Piloted, Proportional	CP712-7	210 3045	220 58	CP16-4

DV15
High Flow Directional Valve

Logic Elements/Differential Sensing Valves

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 Logic Element, Poppet Typer, Double Blocking, Normally Closed, Vent to Open	VLP 12/P2	315 4500	160 42	NCS12/3
 Logic Element, Poppet Type, Normally Closed, Pilot to Close	VLP 12/A5	315 4500	160 42	NCS12/3
 Logic Element, Poppet Type , Normally Closed, Vent to Open	VLP 12/C2	315 4500	160 42	NCS12/3
 Logic Element, Adjustable, Normally Closed, Pilot to Close	HLEA10-CPC	350 5075	80 21	SDC10-3S
 Logic Element, Normally Closed, Pilot to Close	CP700-1	210 3045	50 13	SDC10-3
	HLE10-CPC	350 5075	80 21	SDC10-3
	CP701-1	210 3045	150 40	CP12-3S
	CP702-1	210 3045	190 50	SDC16-3S
	LE20-CPC	207 3000	300 79	CP20-3S
 LE, Adjustable, Normally Closed, Vent to Open	HLEA10-CVO	350 5075	80 21	SDC10-3S
 Logic Element, Normally Closed, Vent to Open	CP700-2	210 3045	50 13	SDC10-3
	HLE10-CVO	350 5075	80 21	SDC10-3S
	CP701-2	210 3045	150 40	CP12-3S
	CP702-2	210 3045	190 50	SDC16-3S
	CP703-2	210 3045	320 85	CP20-3S

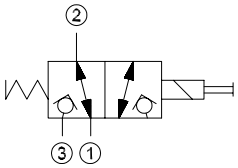
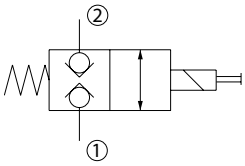
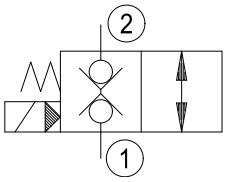
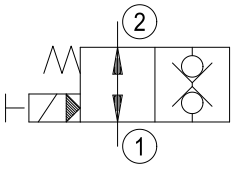
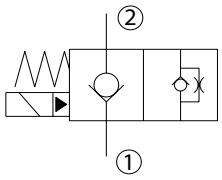
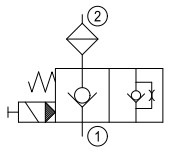
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY
 LE, Adjustable, Normally Open, Pilot to Open	HLEA10-OPO	350 5075	60 16	SDC10-3S
 Logic Element, Normally Open, Pilot to Open	CP700-4	210 3045	40 11	SDC10-3
	HLE10-OPO	350 5075	60 16	SDC10-3S
	CP701-4	210 3045	75 20	CP12-3S
	CP702-4	210 3045	114 30	SDC16-3S
	CP703-4	210 3045	200 53	CP20-3S
 Logic Element, Normally Open, Vent to Close	CP700-3	210 3045	40 11	SDC10-3
	CP701-3	210 3045	80 21	CP12-3S
	CP702-3	210 3045	115 30	SDC16-3S
 Pressure Compensator, Flow Control, Priority	CP310-4	210 3045	40 11	SDC10-4
	CP311-4	210 3045	60 16	CP12-4
	CP312-4	210 3045	130 34	CP16-4
	CP313-4	210 3045	340 90	SDC20-4
 Pressure Compensator, Flow Control, Restrictive	CP300-4	210 3045	40 11	SDC10-3
	CP301-4	210 3045	90 24	CP12-3
	CP302-4	210 3045	130 34	SDC16-3
	CP303-4	210 3045	284 75	SDC20-3
 Pressure Compensator, Load Sense, Priority, Static	CP310-6	210 3045	40 11	SDC10-4
	PC12-LPS	210 3045	75 20	CP12-4
	PC16-LPS	210 3045	125 33	CP16-4
	CP313-6	210 3045	200 53	SDC20-4

HLE10
High Pressure Logic Element

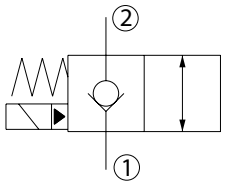
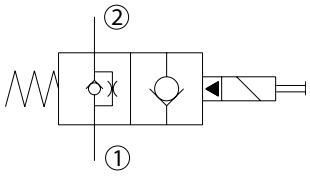
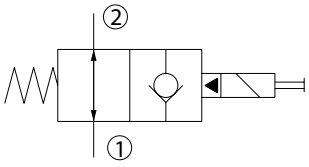
HLEA10
High Pressure Logic Element

CE COMPLIANT

Solenoid Valves

SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Solenoid Valve, Poppet Type, 3-Way, 2-Position	EVH 06/D5	230 3300	20 5	NCS06/3 M16/R16
 Solenoid Valve, Poppet Type, Double-Blocking, Normally Closed	SVP08-CDB	230 3300	16 4	SDC08-2 M13/R13
	EVK 06/C5	210 3045	40 11	NCS06/2 M16/R16
 Solenoid Valve, Poppet Type, Normally Closed, Pilot Operated, Double-Blocking	HSVP10-CDB	350 5075	65 17	SDC10-2 H16
 Solenoid Valve, Poppet Type, Normally Open, Pilot Operated, Double-Blocking	HSVP10-ODB	350 5075	65 17	SDC10-2 H16
 Solenoid Valve, Poppet Type, Normally Closed, Pilot Operated	SVP08-NC	230 3300	35 9	SDC08-2 M13/R16
	SVP10-NC	230 3300	80 21	SDC10-2 M16/R16
	HSVP10-NC	350 5075	65 17	SDC10-2 H16
	SVP12-NC	230 3300	114 30	CP12-2 M16/R16
	HSVP12-NC	350 5075	114 30	CP12-2 H16
	SVP16-NC	230 3300	152 40	SDC16-2 M16/R16
	HSVP16-NC	350 5075	152 40	SDC16-2 H16
	SVP20-NC	230 3300	227 60	SDC20-2 M16/R16
	HSVP20-NC	350 5075	227 60	SDC20-2 H16
 Solenoid Valve, Poppet Type, Normally Closed, Pilot Operated, Flow Control	SVP08-NCF	230 3300	15 4	SDC08-2 M13/R13

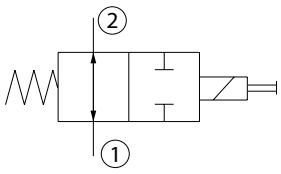
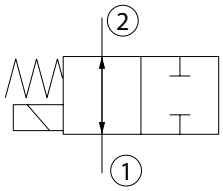
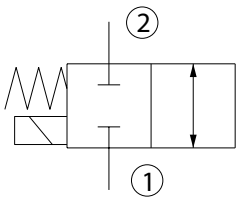
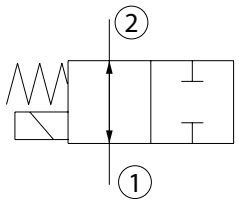
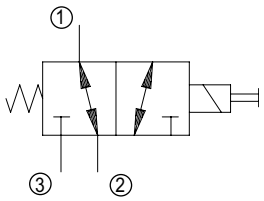
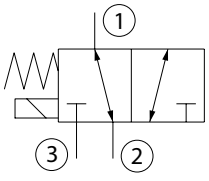
Solenoid Valves (continued)

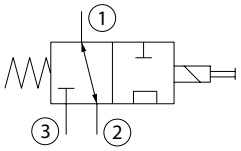
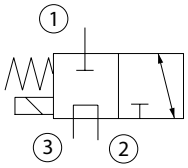
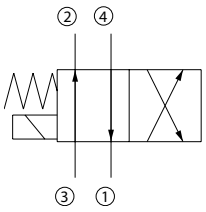
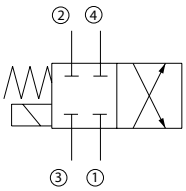
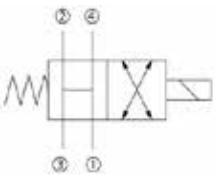
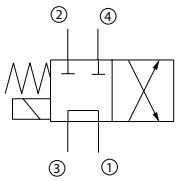
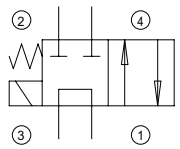
SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Solenoid Valve, Poppet Type, Normally Closed, Pilot Operated with Reverse Free Flow	SVP08-NCR	230 3300	35 9	SDC08-2 M13/R13
	SVP10-NCR	230 3300	80 21	SDC10-2 M16/R16
	HSVP10-NCR	350 5075	65 17	SDC10-2 H16
	SVP12-NCR	230 3300	114 30	CP12-2 M16/R16
	HSVP12-NCR	350 5075	114 30	CP12-2 H16
	SVP16-NCR	230 3300	152 40	SDC16-2 M16/R16
	HSVP16-NCR	350 5075	152 40	SDC16-2 H16
	SVP20-NCR	230 3300	227 60	SDC20-2 M16/R16
	HSVP20-NCR	350 5075	227 60	SDC20-2 H16
 Solenoid Valve, Poppet Type, Normally Open, Pilot Operated	SVP08-NO	230 3300	35 9	SDC08-2 M13/R13
	SVP10-NO	230 3300	80 21	SDC10-2 M16/R16
	HSVP10-NO	350 5075	65 17	SDC10-2 H16
	SVP12-NO	230 3300	114 30	CP12-2 M16/R16
	HSVP12-NO	350 5075	114 30	CP12-2 H16
	SVP16-NO	230 3300	152 40	SDC16-2 M16/R16
	HSVP16-NO	350 5075	152 40	SDC16-2 H16
	SVP20-NO	230 3300	265 70	SDC20-2 M16/R16
	HSVP20-NO	350 5075	265 70	SDC20-2 H16
 Solenoid Valve, Poppet Type, Normally Open, Pilot Operated with reverse Free Flow	SVP08-NOR	230 3300	35 9	SDC08-2 M13/R13
	SVP10-NOR	230 3300	80 21	SDC10-2 M16/R16
	HSVP10-NOR	350 5075	65 17	SDC10-2 H16
	SVP12-NOR	230 3300	114 30	CP12-2 M16/R16
	HSVP12-NOR	350 5075	114 30	CP12-2 H16
	SVP16-NOR	230 3300	152 40	SDC16-2 M16/R16
	HSVP16-NOR	350 5075	152 40	SDC16-2 H16
	SVP20-NOR	230 3300	265 70	SDC20-2 M16/R16
	HSVP20-NOR	350 5075	265 70	SDC20-2 H16

HSV 10-22

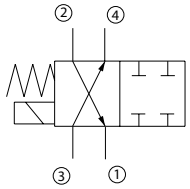
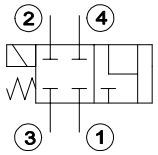
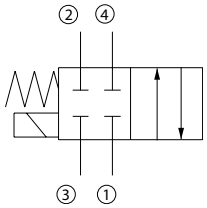
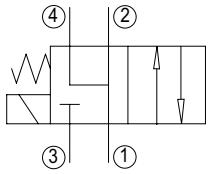
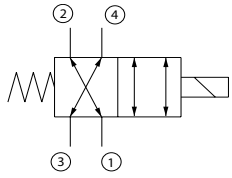
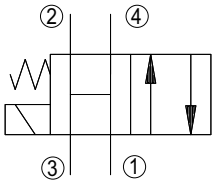
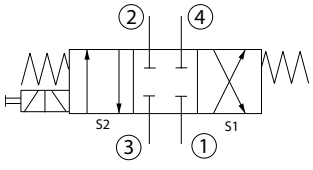
HSVP 10

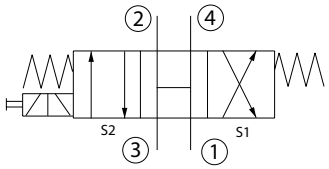
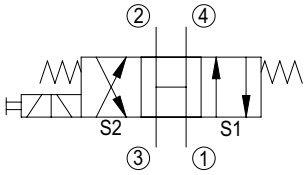
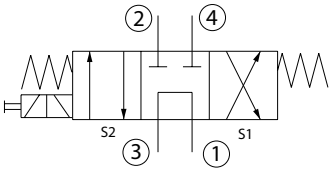
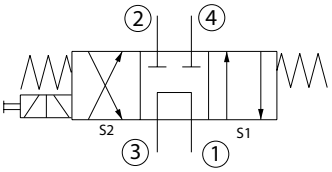
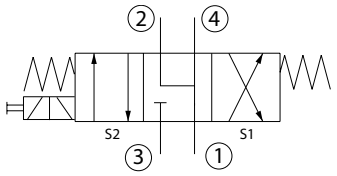
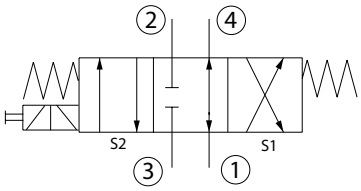
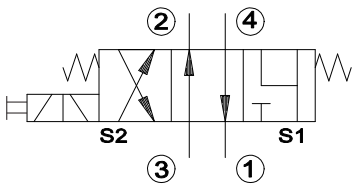
Solenoid Valves (continued)

SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Solenoid Valve, Spool Type, 2-Way, 2-Pos., Normally Open	SV08-22-01	230 3300	16 4	SDC08-2 M13/R13
	HSV10-22-01	350 5075	50 13	SDC10-2 H16
 Solenoid Valve, Spool Type, 2-Way, 2-Position, Normally Open	SV10-22-01	230 3300	27 7	SDC10-2 M16/R16
	SV15-22-01 [EDH 12/NA]	210 3045	60 16	NCS12/2 M19
 Solenoid Valve, Spool Type, 2-Way, 2-Position, Normally Closed	SV08-22-02	230 3300	14 4	SDC08-2 M13/R13
	SV10-22-02	230 3300	35 9	SDC10-2 M16/R16
	HSV10-22-02	350 5075	50 13	SDC10-2 H16
	SV15-22-02 [EDH 12/NC]	210 3045	60 16	NCS12/2 M19
 Solenoid Valve, Spool Type, 2-Way, 2-Position, Normally Open	SV08-22-03	230 3300	12 3	SDC08-2 M13/R13
 Solenoid Valve, Spool Type, 3-Way, 2-Position	SV08-23-01	230 3300	17 4.5	SDC08-3 M13/R13
	SV10-23-01	230 3300	28 7.4	SDC10-3 M16/R16
	HSV10-23-01	350 5075	30 8	SDC10-3 H16
	CP521-21	240 3500	60 16	CP12-3 D14E
 Solenoid Valve, Spool Type, 3-Way, 2-Position	SV08-23-02	230 3300	10 3	SDC08-3 M13/R13
	SV09-23-02	100 1450	21 6	SDC10-3 M13/R13
	HSV10-23-02	350 5075	28 7.4	SDC10-3 H16
	SV10-23-02	230 3300	15 4	SDC10-3 M16/R16

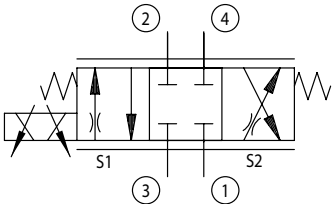
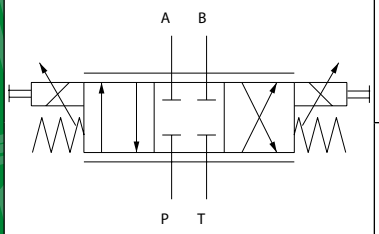
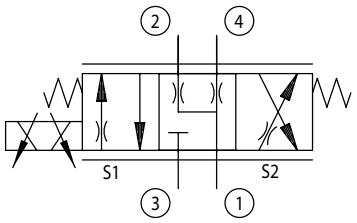
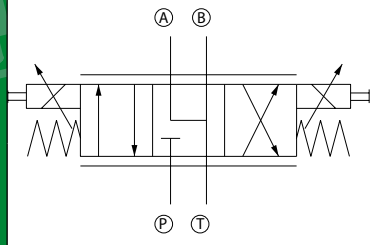
SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Solenoid Valve, Spool Type,3-Way, 2-Position	SV08-23-03	230 3300	18 5	SDC08-3 M13/R13
 Solenoid Valve, Spool Type, 3-Way, 2-Position	SV08-23-04	230 3300	10 3	SDC08-3 M13/R13
	SV10-23-04	230 3300	20 5	SDC10-3 M16/R16
	SV15-23-04 [EDH 12/3201]	210 3045	50 13	NCS12/3 M19
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV08-24-01	230 3300	8 2	SDC08-4 M13/R13
	SV09-24-01	100 1450	20 5	SDC10-4 M13/R13
	SV10-24-01	230 3300	15 4	SDC10-4 M16/R16
	HSV10-24-01	350 5075	25 6.6	SDC10-4 H16
	SV15-24-01 [EDH 12/4205]	210 3045	55 15	NCS12/4 M19
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV08-24-02	230 3300	10 3	SDC08-4 M13/R13
	SV10-24-02	230 3300	24 6.3	SDC10-4 M16/R16
	SV15-24-02 [EDH 12/4206]	210 3045	60 16	NCS12/4 **M19**
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV15-24-03 [EDH 12/4207]	210 3045	50 13	NCS12/4 M19
 Solenoid Valve, Spool Type,4-Way, 2-Position	SV08-24-04	230 3300	8 2	SDC08-4 M13/R13
	SV15-24-04 [EDH 12/4208]	210 3045	50 13	NCS12/4 M19
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV10-24-12	230 3300	18 5	SDC10-4 M16/R16

Solenoid Valves - (continued)

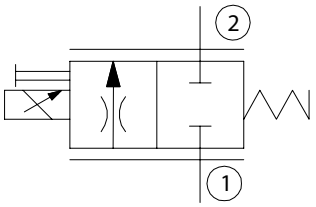
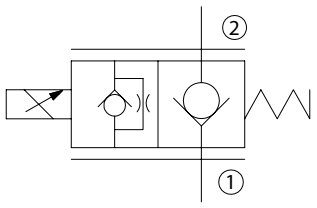
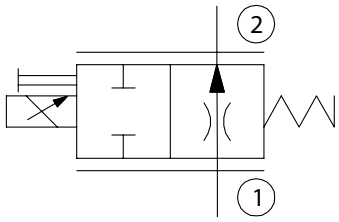
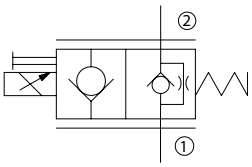
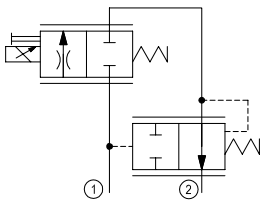
SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Solenoid Valve, Spool Type,4-Way, 2-Position	SV10-24-05	230 3300	25 7	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV10-24-06	230 3300	20 5	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV10-24-07	230 3300	24 6	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV08-24-08	230 3300	24 6	SDC08-4 M13/R13
 Solenoid Valve, Spool Type, 4-Way, 2-Position	CP531-21	240 3500	32 8	CP12-4 D14E
 Solenoid Valve, Spool Type, 4-Way, 2-Position	SV10-24-13	230 3300	21 6	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV08-34-02	230 3300	10 2.6	SDC08-4 M13/R13
	SV10-34-02	230 3300	20 6	SDC10-4 M16/R16
	HSV10-34-02	350 5075	25 6.6	SDC10-4 H16
	SV15-34-02 [EDH 12/4306]	210 3045	55 15	NCS12/4 M19

SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV08-34-03	230 3300	8 2	SDC08-4 M13/R13
	SV15-34-03 [EDH 12/4307]	210 3045	50 13	NCS12/4 M19
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV10-34-03	230 3300	16 4	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV08-34-04	230 3300	6 2	SDC08-4 M13/R13
	SV15-34-04 [EDH 12/4308]	210 3045	50 13	NCS12/4 M19
 Solenoid Valve, Spool Type,4-Way, 3-Position	SV10-34-04	230 3300	15 4	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV08-34-05	230 3300	10 2.6	SDC08-4 M13/R13
	SV10-34-05	230 3300	20 5	SDC10-4 M16/R16
	HSV10-34-05	350 5075	25 6.6	SDC10-4 H16
	SV15-34-05 [EDH 12/4309]	210 3045	55 15	NCS12/4 M19
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV10-34-11	230 3300	24 6	SDC10-4 M16/R16
 Solenoid Valve, Spool Type, 4-Way, 3-Position	SV10-34-14	230 3300	18 5	SDC10-4 M16/R16

Proportional Valves - Directional

SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Proportional Directional Valve, Closed Center	PSV08-34-02	210 3045	11 3	SDC08-4 M13/R13
	PSV10-34-02	250 3625	22 6	SDC10-4 M16/R16
	PSV12-34-02	250 3625	50 13	CP12-4 M19
 Proportional Directional Valve, Cetop	PDCV03-3Z11	350 5075	30.3 8	ISO D05 PD03
	PDCV05-3Z11	350 5075	60 16	ISO D003 PD03
 Proportional Directional Valve, Float Center	PSV08-34-05	210 3045	11 3	SDC08-4 M13/R13
	PSV10-34-05	250 3625	22 6	SDC10-4 M16/R16
	PSV12-34-05	250 3625	60 16	CP12-4 M19
 Proportional Directional Valve, Cetop	PDCV03-3Y11	350 5075	30.3 8	ISO D03 PD03
	PDCV05-3Y11	350 5075	60 16	ISO D05 PD05

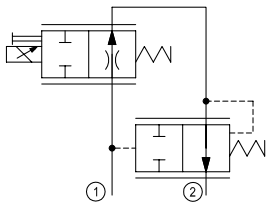
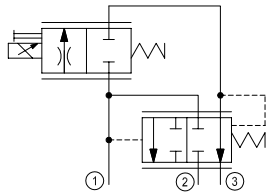
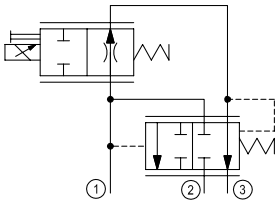
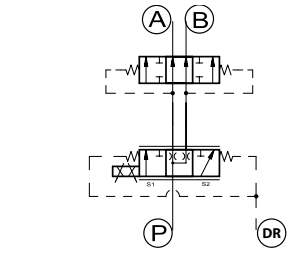
Proportional Valves - Flow Control

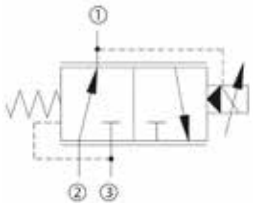
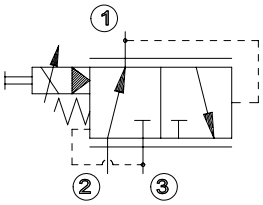
SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Proportional Flow Control Valve, Non-Compensated, Normally Closed	CP518-PNC	210 3045	12 3	SDC08-2 M19P
	PSV10-NC	260 3770	40 11	SDC10-2 M19P
	PSV12-NC	260 3770	80 21	SDC12-2 D14E (35W)
	PSV16-NC	260 3770	100 26	SDC16-2 D14E (35W)
 Proportional Flow Control Valve, Non-Compensated, Normally Closed, Poppet Type	PSVP10-NCR	260 3770	55 14	SDC10-2 M19P
	PSVP12-NCR	260 3770	70 18	SDC12-2 M19P
	PSVP16-NCR	260 3770	90 24	SDC16-2 M19P
 Proportional Flow Control Valve, Non-Compensated, Normally Open	CP518-PNO	210 3045	12 3	SDC08-2 M19P
	PSV10-NO	260 3770	45 12	SDC10-2 M19P
	PSV12-NO	260 3770	100 26	SDC12-2 D14E (35W)
	PSV16-NO	260 3770	110 29	SDC16-2 D14E (35W)
 Proportional Flow Control Valve, Non-Compensated, Normally Open, Poppet Type	PSVP10-NOR	260 3770	45 12	SDC10-2 M19P
	PSVP12-NOR	260 3770	70 18	SDC12-2 M19P
	PSVP16-NOR	260 3770	80 21	SDC16-2 M19P
 Proportional Flow Control Valve, Pressure Compensated, Restrictive Type, Normally Closed	PFC10-RC	260 3770	30 8	SDC10-2 M19P
	PFC12-RC	260 3770	65 17	SDC12-2 D14E (35W)
	PFC16-RC	260 3770	90 24	SDC16-2 D14E (35W)

PSV10-34 w/Robust Coils

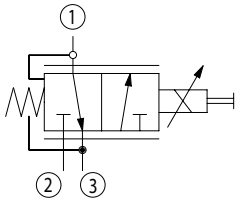
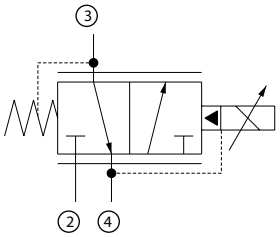
PSV12-34

Proportional Valves - Flow Control (continued)

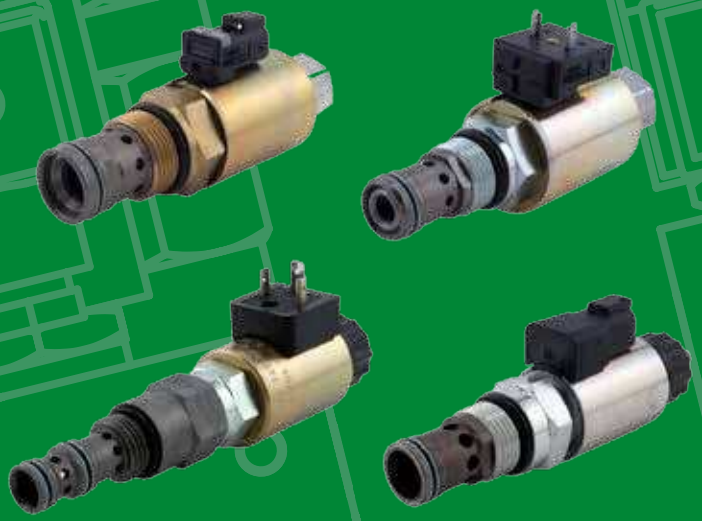
SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Proportional Flow Control Valve, Pressure Compensated, Restrictive Type, Normally Open	PFC10-RO	260 3770	30 8	SDC10-2 M19P
	PFC12-RO	260 3770	60 16	SDC12-2 D14E (35W)
	PFC16-RO	260 3770	85 22	SDC16-2 D14E (35W)
 Proportional Flow Control Valve, Pressure Compensated, Priority Type, Normally Closed	PFC10-PC	260 3770	40 11	SDC10-3 M19P
	PFC12-PC	260 3770	65 17	SDC12-3 D14E (35W)
	PFC16-PC	260 3770	85 22	SDC16-3 D14E (35W)
 Proportional Flow Control Valve, Pressure Compensated, Priority Type, Normally Open	PFC10-PO	260 3770	35 9	SDC10-3 M19P
	PFC12-PO	260 3770	70 18	SDC12-2 D14E (35W)
	PFC16-PO	260 3770	90 24	SDC16-3 D14E (35W)
 Proportional Flow Divider, Compensated, Catalog HIC	PFD10-OD	230 3335	40 11	#4 & #6 SAE Ports 3/8 & 1/2 BSP M16

SCHEMATIC/DESCRIPTION	MODEL [FORMER]	BAR PSI	LPM GPM	CAVITY/ COIL
 Proportional Pressure Red/Relieving Valve, Piloted, Normally Closed	PPR10-PAC	250 3625	18 5	SDC10-3 M19P
 Proportional Pressure Red/Relieving Valve, Piloted, Normally Open	XRP 06	315 4500	25 7	NCS06/3 M19P

Proportional Valves - Pressure Reducing

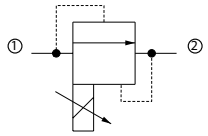
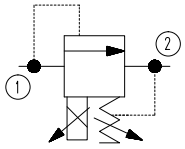
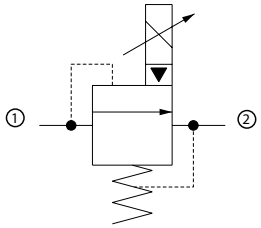
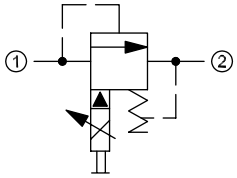
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY/ COIL
 Proportional Pressure Reducing Valve, Direct Acting, Norm. Open	CP558-24	34 500	4 1	SDC08-3 D08
 Proportional Pressure Red/Relieving, Pilot Operated, Normal Open to Drain	PPR09-POD [XRP 044]	50 700	25 7	SDC10-4 M13/R13

Proportional Flow Control Valves

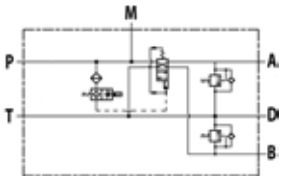
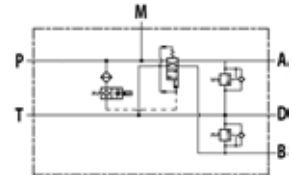
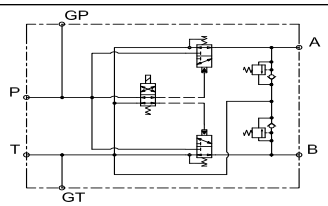
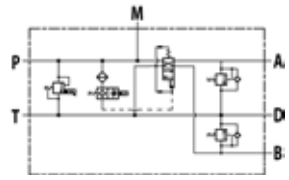
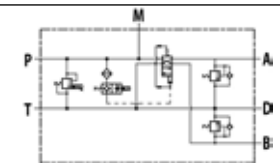
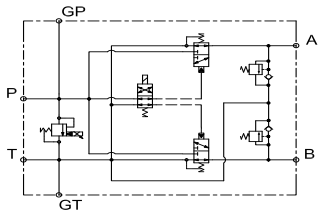


PPR09-POD

Proportional Valves - Pressure Relieving

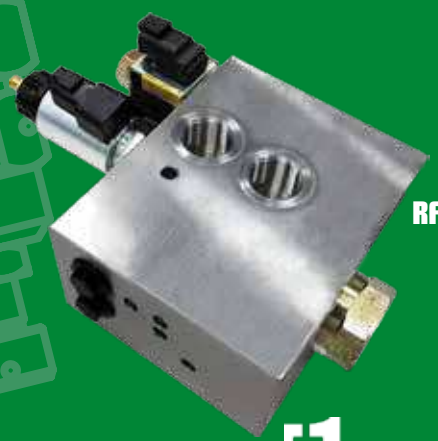
SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	CAVITY/ COIL
 Proportional Pressure Relief Valve, Direct Acting, Norm. Open	XMD 04	250 3625	5 1	NCS04/2 M19P
	CP558-20	210 3045	8 2	SDC08-2 D10
 Proportional Pressure Relieving Valve, Direct Acting, Normally Closed	PRV08-DAC	210 3045	2.1 0.55	SDC08-2 M13/R13
	HPRV08-DAC	350 5075	1.2 0.32	SDC08-2 M13/R13
 Proportional Relief Valve, Pilot Operated, Normally Closed	PRV10-POC	250 3625	76 20	SDC10-2 M19P
	PRV12-POC	250 3625	180 48	SDC12-2 M19P
 Proportional Relief Valve, Pilot Operated, Normally Open	XMP 06	315 4500	50 13	NCS06/2 M19P

Fan Drive HICs

SCHEMATIC/DESCRIPTION	MODEL	BAR PSI	LPM GPM	PORT
 Fan Drive HIC with Reversing Control	RFDE-40-000	210 3045	10 to 40 (2.6 to 10.5)	#12 SAE 3/4 BSP
 Fan Drive HIC with Reversing Control	RFDE-80-000	210 3045	20 to 80 (5.3 to 21.1)	#12 SAE 3/4 BSP
 Fan Drive HIC with Reversing Control	RFD-120-000	210 3045	120 (31.7)	#12 SAE 3/4 BSP
 Fan Drive HIC with Proportional and Reversing Control	RFDE-40-PRV	210 3045	10 to 40 (2.6 to 10.5)	#12 SAE 3/4 BSP
 Fan Drive HIC with Proportional and Reversing Control	RFDE-80-PRV	210 3045	20 to 80 (5.3 to 21.1)	#12 SAE 3/4 BSP
 Fan Drive HIC with Proportional and Reversing Control	RFD-120-PRV	210 3045	120 (31.7)	#12 SAE 3/4 BSP

HPRV08-DAC & PRV08-DAC

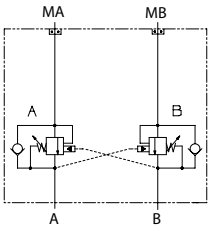
PRV10-POC



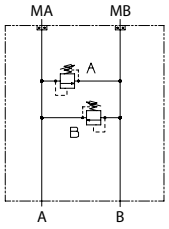
RFDE

CE COMPLIANT

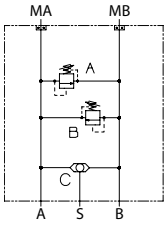
Motor Mount HICs



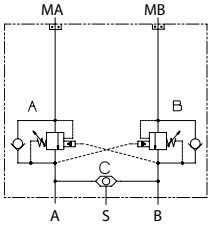
Counterbalance valve (hydraulic vent)



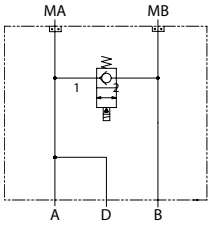
Cross-port relief



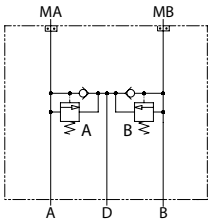
Cross-port relief w/shuttle



Counterbalance valve (hydraulic vent) w/shuttle

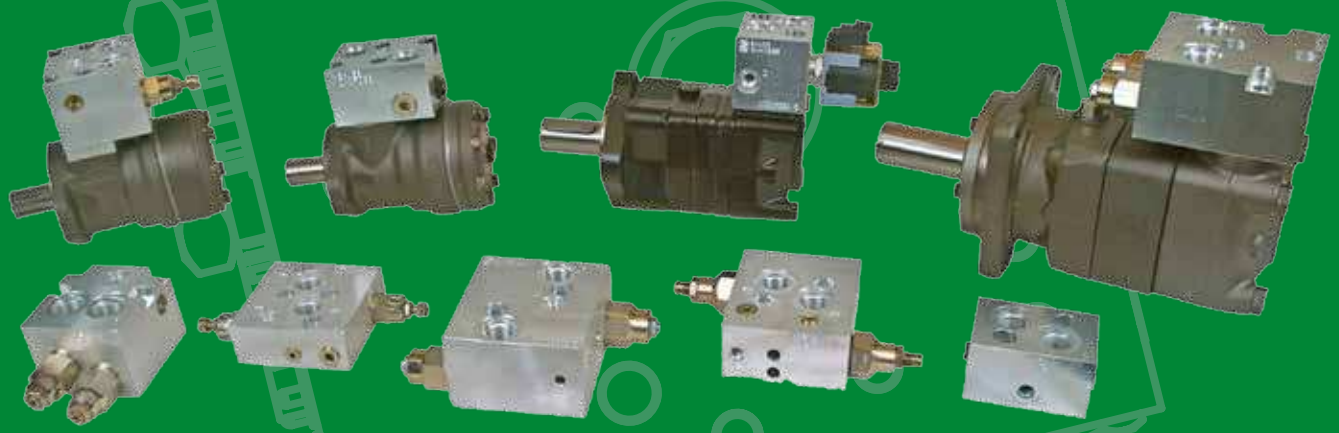


Bypass solenoid w/drain

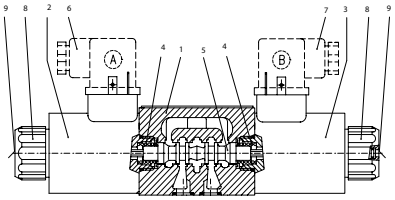
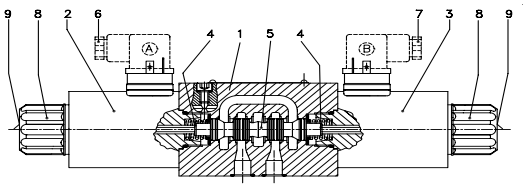


Dual shock valve w/anti-cavitation (PVLP)

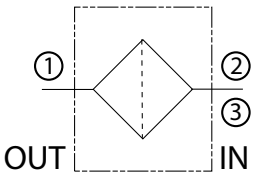
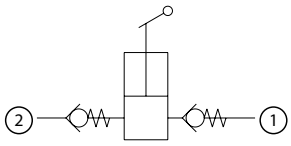
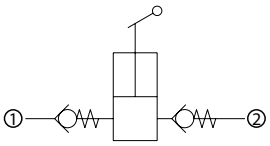
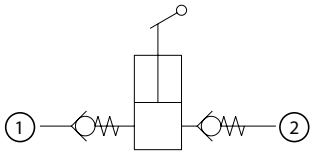
Danfoss Motor	DH	DS	OMP/OMR	OMH	OMS	OMT
Maximum continuous flow l/min [US gal/min]	60 [16]	60 [16]	60 [16]	75 [20]	75 [20]	125 [33]
Counterbalance valve (hydraulic vent)	MM-DH-00-DCB10-HV	MM-DS-00-DCB10-HV	MM-OMP/OMR-00-DCB10-HV	MM-OMH-00-DCP441-1	MM-OMS-00-DCP441-1	MM-OMT-00-DCP441-1
Counterbalance valve (hydraulic vent) w/shuttle	MM-DH-LS-DCB10-HV	MM-DS-LS-DCB10-HV	MM-OMP/OMR-LS-DCB10-HV	MM-OMH-LS-DCP441-1	MM-OMS-LS-DCP441-1	MM-OMT-LS-DCP441-1
Cross-port relief	MM-DH-00-DVME06	MM-DS-00-DVME06	MM-OMP/OMR-00-DVME06	MM-OMH-00-DCP211-2	MM-OMS-00-DCP211-2	MM-OMT-00-DCP211-2
Cross-port relief w/shuttle	MM-DH-LS-DVME06	MM-DS-LS-DVME06	MM-OMP/OMR-LS-DVME06	MM-OMH-LS-DCP211-2	MM-OMS-LS-DCP211-2	MM-OMT-LS-DCP211-2
Bypass solenoid w/drain	MM-DH-00-BSVP10-NCR	MM-DS-00-BSVP10-NCR	MM-OMP/OMR-00-BSVP10-NCR	MM-OMH-00-BSVP10-NCR	MM-OMS-00-BSVP10NCR	MM-OMT-00-BCP502-3
Dual shock valve w/anti-cavitation (PVLP)	MM-DH-00-DPVLP	MM-DS-00-DPVLP	MM-OMP/OMR-00-DPVLP	MM-OMH-00-DPVLP	MM-OMS-00-DPVLP	MM-OMT-00-DPVLP



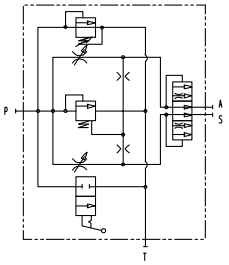
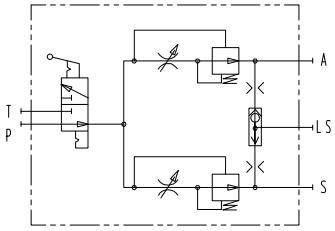
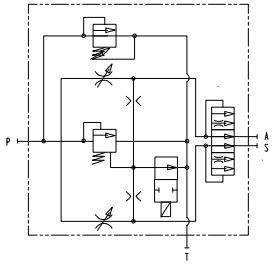
DCV03 & DCV05 Valves

DCV03	DCV05
	
Various 4W 3P & 4P Schematics. Sub-plate mounting pattern in line with NFPA D03 (CETOP 3, NG 6) standards. Mounting Pattern: ISO D03	Various 4W 3P & 4P Schematics. Sub-plate mounting pattern in line with NFPA D05 (CETOP 5, NG 10) standards. Mounting Pattern: ISO D05

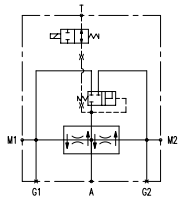
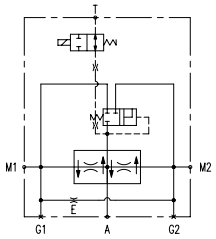
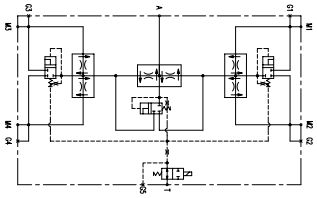
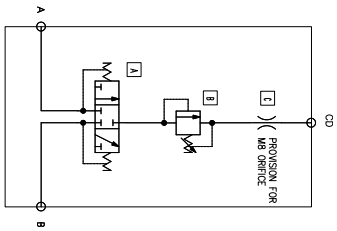
Accessories

SCHEMATIC/DESCRIPTION	MODEL/ CAVITY	BAR PSI	DISPLACEMENT
 Cavity Plug Filter	CPF20-3 SDC20-3	210 3045	20 & 30 Micro Filter
 Hand Pump	CP600-5 SDC10-2	210 3045	1.2 cc / stroke 0.07 ci / stroke
 Hand Pump	CP602-5 SDC16-2	210 3045	9.2 cc / stroke 0.56 ci / stroke
 Hand Pump	MP 06 NCS06/2	210 3045	0.94 cc / stroke 0.057 ci / stroke
	MP 12 NCS 12/2	315 4500	5cc / stroke 0.305 ci /stroke

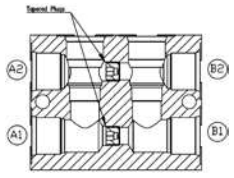
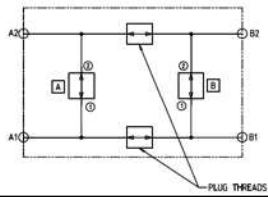
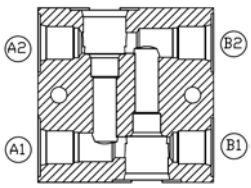
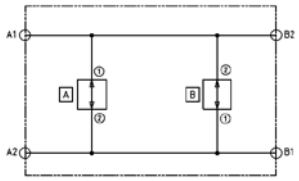
Spreader Valves

SCHEMATIC/DESCRIPTION	MODEL/ CAVITY	BAR PSI	LPM GPM
 Spreader Valve, Dual Flow Regulation, Compensated, Manual Dump, Gear Pump Circuit	SPR-2FFL12	138 2000	114 30
 Spreader Valve, Dual Flow Regulation, Compensated, Manual Dump, Piston Pump Circuit	SPR-2FFLC12	210 3045	114 30
 Spreader Valve, Spreader Valve, Dual Flow Regulation, Compensated, Solenoid Dump, Gear Pump Circuit	SPR-2FFLW86	138 2000	114 30

Traction Controls

SCHEMATIC/DESCRIPTION	MODEL	DESCRIPTION	BAR PSI	DISPLACEMENT	PORTS
	X05-FD10	Traction Control - for hydrostatic systems with one pump and two motors in parallel. Designed to prevent wheel spin or motor overspeed	210 3045	45 LPM 12 GPM	1/2 & 3/4 BSP #8 & #12 SAE
	X05-FD16	Traction Control - for hydrostatic systems with one pump and two motors in parallel. Designed to prevent wheel spin or motor overspeed	350 5075	150 LPM 40 GPM	1 & 1 1/4 BSP #16 & #20 SAE 1" Code 61
	X05-FD104	Traction Control - for hydrostatic systems with one pump and four motors in parallel. Designed to prevent wheel spin or motor overspeed	230 3335	45 LPM 12 GPM	#8 & #10 SAE
	LFB12	Remote loop flushing (hot oil shuttle) HIC for hydraulic transmission circuits that require hot oil removal from the circuit. Remote LF commonly used when motor does not have integral loop flushing, or when multiple motors are used.	350 5075	53 LPM 14 GPM	#8 SAE & 1/2 BSP

Mix - N - Match Dual Bodies

CROSS SECTION (EXAMPLE)	SCHEMATIC	NOMENCLATURE	CAVITY	PORTS
 Dual Parallel Body		DPL08-2	SDC08-2	#6 SAE, 3/8 BSP
		DPL10-2	SDC10-2	#8 SAE, 1/2 BSP
		DPL12-2	CP12-2	#12 SAE, 3/4 BSP
		DPL16-2	SDC16-2	#16 SAE, 1 BSP
 Dual Cross-Port Body		DCP08-2	SDC08-2	#6 SAE, 3/8 BSP
		DCP10-2	SDC10-2	#8 SAE, 1/2 BSP
		DCP12-2	CP12-2	#12 SAE, 3/4 BSP
		DCP16-2	SDC16-2	#16 SAE, 1 BSP

Many Comatrol cavities are designed around SAE standard O-ring thread ports. In many cases these cavities are interchangeable with cavities used by other manufacturers. The table below is intended as a guide for cartridge valve interchanges.

Cavity Crossover Table

Comatrol	Thread	Delta Power	Eaton-Vickers	HydraForce	Parker	Sterling [Parker]	Command Controls [Bucher]
CP04-2	7/16-20			NO	NO		NO
CP04-3				NO	NO		NO
CP07-3	5/8-18	YES		YES	YES		
SDC08-2	3/4-16	YES	YES	YES	YES	YES	YES
SDC08-3		YES	YES	YES	YES	YES	YES
CP08-3L							
SDC08-4		YES	YES	YES	YES	YES	YES
SDC10-2	7/8-14	YES	YES	YES	YES	YES	YES
SDC10-3		YES	YES	YES	YES	YES	YES
SDC10-3S			YES	YES	YES	YES	YES
SDC10-4		YES	YES	YES	YES	YES	YES
CP12-2	1 1/16-12	NO	NO	YES*	NO		NO
SDC12-2		NO	NO	YES*	NO		NO
CP12-3S		NO	NO	NO	NO		NO
CP12-3		NO	NO	YES	NO		NO
CP12-4		NO	NO	NO	NO		NO
SDC16-2	1 5/16-12		YES	YES	YES	YES	YES
SDC16-3S			YES	YES	YES	YES	YES
SDC16-3			YES	YES	YES	YES	YES
CP16-4			YES	YES	YES	YES	YES
SDC16-4			YES	YES	YES	YES	YES
SDC20-2	1 5/8-12		YES		YES		
CP20-3S				NO			
SDC20-3			YES				
SDC20-4			YES				

*Cavities are not 100% compatible, but all Comatrol cartridges will work in HF cavity.

Please note that most manufacturers have many non-standard cavities and that details are subject to change. Compare cavity details before interchanging cartridges.

Coils	Valve Tube Outer Diameter	Coil Type	Wattage	Diode	10 VDC	12 VDC	20 VDC	24 VDC	110 / 220 VAC
D08	0.500 inch	Standard	16		X	X	X	X	Internally Rectified
D10	0.625 inch	Standard	16 & 30		X	X	X	X	Internally Rectified
M13	13 mm	Standard	20	Unidirectional	X	X	X	X	External Rectifier Needed
M16	16 mm	Standard	26	Unidirectional	X	X	X	X	External Rectifier Needed
M19	19 mm	Standard	33	Unidirectional		X		X	External Rectifier Needed
D14E	0.875 inch	Robust	30		X	X	X	X	
D14E (35W)	0.875 inch	Robust	35			X		X	
R13	13 mm	Robust	16	Bi-directional	X	X	X	X	
R16	16 mm	Robust	20	Bi-directional	X	X	X	X	
H16	16mm	Robust	29	Bi-directional		X		X	
M19P	19 mm (proportional)	Robust	22			X		X	

www.comatrol.com

Comatrol
RESPONSIVENESS IN MOTION
Member of the Danfoss Group

Catalogs Available Online and Print Edition

Binder (includes all sections below)	11141705
IN-Introduction	11143603
CV-Check Valves Catalog	11141707
SH-Shuttle Valves Catalog	11141709
RV-Relief Valves Catalog	11141711
PR-Pressure Reducing Valves	11141712
SQ-Sequence Valves Catalog	11141713
FC-Flow Control Valves Catalog	11141714
PO-Pilot Operated Check Valves Catalog	11141715
CB-Counterbalance Valves Catalog	11141716
DV-Directional Control Valves Catalog	11141719
LE-Logic Elements Catalog	11141720
SV-Solenoid Valves Catalog	11141717
PV-Proportional Valves Catalog	11141718
FD-Fan Drive HICs Catalog	11141721
MM-Motor Mount HICs Catalog	11141722
TC-Traction Control HICs Catalog	11141723
SP-Spreader Valves Catalog	11141724
MX-Mix-N-Match HICs Catalog	11141725
D3-DCV03 Solenoid Valves Catalog	11141726
D5-DCV05 Solenoid Valves Catalog	11141727
AC-Accessories Catalog	11141729
CA-Cavities Catalog	11141730
HS-Housings Catalog	11141731
CL-Coils Catalog	11141732
CX-Cross Reference Catalog	11141733
ID-Index	11141734

Responsiveness In Motion

Application Know-How

EasyValve Drag! Drop! Deliver!

Rhythm of Innovation

Comatrol, a member of the Danfoss Group, is the most responsive and innovative choice for Cartridge Valves and Hydraulic Integrated Circuit (HIC) needs. Comatrol works with customers and suppliers around the world to manufacture high performance machine control solutions for mobile, off-highway, energy and industrial equipment markets.

Comatrol (Americas)
1407 Pelzer Highway
Easley, SC 29642
Phone: +1 864 644-0055
marketing@comatrol.com

Comatrol (Europe)
Via Rinaldi, 111 I-42124
Reggio Emilia Italy
Phone: +39 0522 915511
Fax: +39 0522 915555
marketing@comatrol.com

Comatrol (China)
No. 626 Rong Qiao Rd., Jin Qaio
EPZ, Pudong
Shanghai 201206, P.R. China
Phone: + 86 21 2035 8128
Fax: + 86 21 5834 5748
info-china@comatrol.com