

ENGINEERING
TOMORROW



Integrated Circuit Solutions (ICS)

Your **most responsive** partner for **control solutions**

Specializing in custom hydraulic integrated circuits (HICs) allowing customers to use our broad portfolio of cartridge valves to create innovative solutions for optimal machine control and performance.

Leading

the cartridge valve
and hydraulic
integrated circuit
solutions market



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About **Integrated Circuit Solutions (ICS)**

Danfoss Power Solutions (DPS) is a worldwide leader in the design, manufacture, and sale of engineered hydraulic and electronic systems and components. The ICS division within DPS is the most responsive and innovative choice for your cartridge valve and hydraulic integrated circuit (HIC) needs.

This global ICS division is a business unit built on the strength of our experience and established position within the fluid controls industry. Previously known in the market as Comatrol, the product focus within ICS allows 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 access to the best individual components as well as custom HIC solutions.



ICS 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. ICS provides pre-engineered solutions with catalog HICs, including cross-port reliefs, dual counterbalance, motor mount, fan drives, and our new modular valve solution MVB10.

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



Danfoss ICS 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 teams 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!"

Responsiveness resonates throughout every aspect of our 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. Our ISO/TS16949 certified facilities help ensure the delivery of high quality precision products at world class levels.



From **schematic** to **3D** in **one click**

EasyManifold is an HIC design software tool that streamlines the development process from the customer to Danfoss - taking custom HIC solutions to the next level.

With a simple, intuitive user interface, EasyManifold allows you to effortlessly create your hydraulic circuit schematic from Danfoss's digital library of cartridge valves and generate a quotation on the customer solution. With detailed information fields and a logical process for project progression, you can accurately document and communicate your application requirements as a project moves from a concept to a functioning product.

Through our Cloud-based software, you no longer need to worry about software program and update installations – everything is ready to go the moment you log in! Using our new Project Management features, schematics and application details are saved in the cloud for instant access by your Danfoss representatives.

With the new Automatic Design feature, small to medium sized projects are eligible for a computer-generated design. At the click of a button, your project can be submitted in the system for an automatic design, with a 2D drawing and 3D model available for download once completed. In less than an hour, you can take your project from a concept to a design ready for manufacturing.

Features

- Quickly select the products and ports you need by navigating the library, or by using the search function - then drag and drop onto your schematic
- Easily configure all your selected items to meet your application needs with the drop-down configuration menu
- Projects are stored on the Cloud which allows users to access their projects from any computer and instantly share schematics with your Danfoss representatives for immediate support
- The Automated Design feature allows for schematics 12 cartridges and less to be automatically designed by the EasyManifold software – resulting in a full 3D model and 2D drawing.
- The project revision process keeps all the project data tied together, allowing you to easily keep track of the project updates.



DWG & PDF schematics | PDF quotes | 2D PDF files | 3D STP files

Check Valves - Threaded

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	CV04-NB	207 [3000]	3 [0.8]	CP04-2
	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
	CP104-2	350 [5075]	4.5 [1.2]	CP04-2
	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 - In-line

Schematic / Description	Model	bar [psi]	lpm [gpm]	Ports
	3C11-01	350 [5075]	20 [5]	SAE #4
	RS 06	350 [5075]	30 [8]	SAE #6, G1/4
	3C12-01	350 [5075]	35 [9]	SAE #6
	RS 10	350 [5075]	60 [16]	G3/8
	3C13-01	350 [5075]	70 [19]	SAE #8
	3C14-01	350 [5075]	95 [25]	SAE #12
	RS 13	315 [4500]	100 [26]	G1/2
	RS 19	280 [4000]	140 [37]	SAE #12, G3/4
	3C15-01	350 [5075]	150 [40]	SAE #16
	RS 25	245 [3500]	200 [53]	SAE #16, G1
	3C16-01	350 [5075]	230 [61]	SAE #20
	2RN11-01	350 [5075]	20 [5]	SAE #4
	3CM11-01	350 [5075]	20 [5]	SAE #6
	3CM12-01	350 [5075]	35 [9]	SAE #8
	3CM15-01	350 [5075]	150 [40]	SAE #16

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
	3C80-01	140 [2000]	190 [50]	FC-304
	3C90-01	210 [3045]	190 [50]	FC-304

Shuttle Valves - Load Shuttle

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
 	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
 	VS 06	350 [5075]	35 [9]	G1/4
	VS 10	350 [5075]	45 [12]	G3/8

Shuttle Valves - Hot Oil Shuttle

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
 	CP720-3	350 [5075]	25 [7]	SDC10-4
 	CP721-3	350 [5075]	90 [24]	CP12-3M

Relief Valves - Direct Acting

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	Thermal relief, poppet type	CP208-4	415 [6000]	1.1 [0.3]
	Poppet type	CP208-3	250 [3625]	30 [8]
		CP200-3	250 [3625]	40 [11]
	Damping, poppet type	RV08-DR	250 [3625]	30 [8]
		VEN 06	250 [3625]	40 [11]
		VME 06	315 [4500]	VME 06
		VME 07	315 [4500]	VME 07
		VME 08	315 [4500]	VME 08
	Spool type	CP210-1	210 [3045]	45 [12]
		CP211-1	40 [600]	75 [20]
				CP12-2

Relief Valves - Differential Area

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	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
	VSB 06-EN	350 [5075]	80 [21]	NCS06/2
	VSB 12-EN	350 [5075]	140 [37]	NCS12/2
	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
	VA-E 06	210 [3045]	40 [11]	G3/8
	CP220-1	250 [3625]	75 [20]	G3/8, G1/2, SAE #6 & #8
	CP221-1	250 [3625]	190 [50]	G3/4, G1, SAE #12 & #16
Catalog HIC				

Relief Valves - Pilot Operated

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
 Spool type	CP210-2	350 [5075]	115 [30]	SDC10-2
	CP211-2	350 [5075]	190 [50]	CP12-2
 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
 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 [11]	SDC10-3
	PRC 06	315 [4500]	40 [11]	NCS06/3
 Relieving, direct acting	CP230-1	210 [3045]	40 [11]	SDC10-3
 Relieving, direct acting, for PVG actuators	PRR10-PVG	210 [3045]	40 [11]	SDC10-3

Pressure Reducing Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
 Non-relieving, pilot operated	CP230-4	350 [5075]	40 [11]	SDC10-3
	PPRC-06	315 [4500]	40 [11]	NCS06/3
 Relieving, pilot operated	PRMP 064	315 [4500]	40 [11]	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
 2-way, normally closed	CP240-8	210 [3045]	55 [14]	SDC10-3
	CP241-8	207 [3000]	150 [39]	CP12-3S
 Pilot operated spool	CP240-21	350 [5075]	45 [12]	SDC10-3
	CP241-21	350 [5075]	75 [20]	CP12-3S
 2-way, normally closed, external pilot, internal drain	CP240-2	210 [3045]	35 [9]	SDC10-3

Sequence Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	Kick-down type CP240-22	350 [5075]	45 [12]	SDC10-3
	2-way, normally open atmospheric vent VDP 06/NA	315 [4500]	25 [7]	NCS06/3
	2-way, normally closed atmospheric vent VDP 06/NC	315 [4500]	25 [7]	NCS06/3
	2-way, normally open CP240-5	210 [3045]	25 [7]	SDC10-4
	3-way, pilot operated spool CP240-1	210 [3045]	25 [7]	SDC10-3
	3-way CP240-9	210 [3045]	20 [5]	SDC10-3
	3-way, atmospheric vent VDP 06/4201	315 [4500]	22 [6]	NCS06/4

Sequence Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	VDB 06-CN	350 [5075]	80 [21]	NCS06/3
	VDB 06-EN	350 [5075]	80 [21]	NCS06/3
	VDB 12-EN	350 [5075]	160 [42]	NCS12/3
	CP240-30	240 [3500]	4 [1]	SDC10-3
	AUV 06	250 [3625]	50 [13]	NCS06/4

Flow Control Valves - Needle Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	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

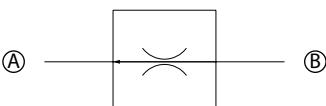
Flow Control Valves - Needle Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	CP618-6	310 [4500]	10 [3]	SDC08-2
	CP610-7	350 [5075]	55 [15]	SDC10-2

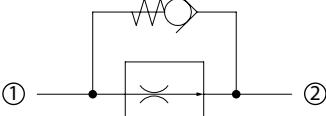
Flow Control Valves - Pressure Compensated

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity/Port
	CP308-1	210 [3045]	15 [4]	SDC08-2
	CP300-1	210 [3045]	23 [6]	SDC10-2
	CP301-1	210 [3045]	57 [15]	CP12-2
	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
	HFCV10-RT	350 [5075]	11.4 [3]	SDC10-2
	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
	CP310-2	210 [3045]	23 [6]	SDC10-3
	VRC 06	315 [4500]	50 [13]	NCS06/3
	VRC 12	315 [4500]	100 [26]	NCS12/3
	CP300-6	210 [3045]	23 [6]	SDC10-3
	FCH10-BD	350 [5075]	23 [6]	SDC10-3
	2F94-01	210 [3045]	30 [8]	SAE #6
	2F95-01	210 [3045]	60 [16]	SAE #8
	2F96-01	210 [3045]	95 [25]	SAE #12
	2F97-01	210 [3045]	190 [50]	SAE #16

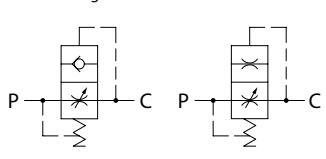
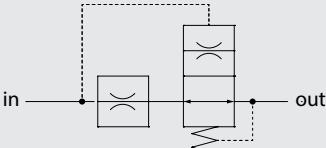
Flow Control Valves - Pressure Compensated

Schematic / Description	Model	bar [psi]	lpm [gpm]	Port
 In-line	SC 10	210 [3045]	16 [4]	Modified G3/8 Port
	SC 13	210 [3045]	47 [12]	Modified G1/2 Port

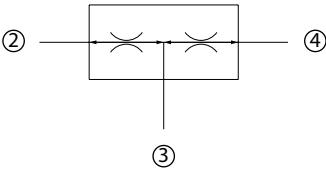
Flow Control Valves - Pressure Compensated, Reverse Check

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity/Port
 Fixed setting, restrictive type	CP9014-1	210 [3045]	113 [30]	Modified SAE #14 Cavity, SAE #10 & 12 Ports

Velocity Fuses

Schematic / Description	Model	bar [psi]	lpm [gpm]	Port
 Velocity fuse	BC 06	210 [3045]	30 [8]	G1/4
	BC 10	210 [3045]	60 [16]	G3/8
	BC 13	210 [3045]	85 [22]	G1/2
 Velocity fuse	CP330-3	207 [3000]	110 [29]	SAE #10

Flow Control Valves - Flow Dividers

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
 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 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
 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 to open with drain	RPV 06	315 [4500]	30 [8]	NCS06/4
 Reverse pilot to open with vent	CP453-5	350 [5075]	250 [66]	SDC20-2
 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
 HIC, dual pilot operated check	CP410-1	210 [3045]	85 [22]	G3/8 G1/2 SAE #6 SAE #8

Counterbalance Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
 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	345 [5000]	266 [70]	CP20-3S

Counterbalance Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
<p>Hydraulic vent, pilot port 1</p>	VCB06-EN	350 [5075]	60 [16]	NCS06-3
	VCB 12-EN	350 [5075]	140 [37]	NCS12-3
<p>Atmospheric vent</p>	CB10-AV	350 [5075]	60 [16]	SDC10-3S
<p>Atmospheric vent, pilot port 1</p>	VCB06-CN	350 [5075]	60 [16]	NCS06-3
	VCB 12-CN	350 [5075]	140 [37]	NCS12-3
<p>Dual counterbalance valve, hydraulic vent, catalog HIC</p>	CP448-2	350 [5075]	20 [5]	SAE #4 & 6 G3/8
	VCB06-EN-DL	350 [5075]	60 [16]	SAE #6 & 8 G3/8 & G1/2
	DCB10-HV	350 [5075]	60 [16]	SAE #6 & 8 G3/8 & G1/2
	CP441-2	350 [5075]	115 [30]	SAE #10 & 12 G1/2 & G3/4
	VCB12-EN-DL	350 [5075]	140 [37]	SAE #8 & 12 G1/2 & G3/4
	DCB20-HV	345 [5000]	266 [70]	SAE #16 & 20 G1 & G1-1/4
<p>Dual counterbalance valve, atmospheric vent, catalog HIC</p>	DCB10-AV	350 [5075]	60 [16]	SAE #6 & 8 G3/8 & G1/2
	VCB06-CN-DL	350 [5075]	60 [16]	SAE #6 & 8 G3/8 & G1/2
	VCB12-CN-DL	350 [5075]	140 [37]	SAE #8 & 12 G1/2 & G3/4
<p>Dual counterbalance valve, make-up checks, catalog HIC</p>	DCB10-MC	350 [5075]	57 [15]	SAE #6 & 8
	DCB12-MC	350 [5075]	95 [25]	SAE #10 & 12 G3/4

Directional Control Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	CP600-1	210 [3045]	68 [18]	SDC10-2
	CE 06	210 [3045]	20 [5]	NCS06/2
	CP600-2	210 [3045]	50 [13]	SDC10-2
	DMP08-NC	210 [3045]	38 [10]	SDC08-2
	DMP08-NO	210 [3045]	38 [10]	SDC08-2
	CP620-1	210 [3045]	75 [20]	SDC10-2
	CP630-1	210 [3045]	30 [8]	SDC10-3
	CP640-1	210 [3045]	10 [3]	SDC10-4

Directional Control Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
<p>2-position, 2-way</p>	CP710-8	210 [3045]	40 [11]	SDC10-4
	CP712-11	450 [6500]	130 [34]	CP16-4
	CP712-8	210 [3045]	130 [34]	CP16-4
<p>2-position, 2-way, atmospheric vent</p>	CP710-1	210 [3045]	40 [11]	SDC10-3
	CP712-1	210 [3045]	130 [34]	SDC16-3
	CP713-1	210 [3045]	265 [70]	SDC20-3
<p>2-position, 2-way, hydraulic vent</p>	CP710-3	210 [3045]	40 [11]	SDC10-3
<p>2-position, 2-way, external pilot</p>	CP710-2	210 [3045]	40 [11]	SDC10-3
	CP712-2	210 [3045]	130 [34]	SDC16-3
	CP713-2	210 [3045]	265 [70]	SDC20-3
<p>2-position, 3-way, atmospheric vent</p>	CP720-1	210 [3045]	30 [8]	SDC10-4
	CP722-1	210 [3045]	130 [34]	CP16-4
	CP723-1	210 [3045]	265 [70]	SDC20-4
<p>2-position, 3-way, external pilot</p>	CP720-2	210 [3045]	25 [7]	SDC10-4
	CP722-2	210 [3045]	130 [34]	CP16-4
	CP723-2	210 [3045]	265 [70]	SDC20-4
<p>2-position, 3-way, hydraulic vent</p>	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 Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	DV16-P5-23-01-CT	210 [3045]	130 [34]	SDC16-5S
	DV16-P5-23-01-OT	210 [3045]	130 [34]	SDC16-5S
	DV15-P5-24-01	230 [3335]	70 [18]	NCS 12/5
	DV15-P5-24-FD	230 [3335]	70 [18]	NCS 12/5
	DV15-P5-24-05	230 [3335]	70 [18]	NCS 12/5
	DV15-P5-24-08	230 [3335]	70 [18]	NCS 12/5
	CP712-7	210 [3045]	220 [58]	CP16-4

Logic Elements - Differential Sensing Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity	
	Poppet type, double blocking, normally closed, vent to open	VLP 12/P2	315 [4500]	160 [42]	NCS12/3
	Poppet type, normally closed, pilot to close	VLP 12/A5	315 [4500]	160 [42]	NCS12/3
	Poppet type, normally closed, vent to open	VLP 12/C2	315 [4500]	160 [42]	NCS12/3
	Adjustable, normally closed, pilot to close	HLEA10-CPC	350 [5075]	80 [21]	SDC10-3S
	Normally closed, pilot to close	CP700-1	210 [3045]	50 [13]	SDC10-3
		HLE10-CPC	350 [5075]	80 [21]	SDC10-3S
		CP701-1	210 [3045]	150 [40]	CP12-3S
		CP702-1	210 [3045]	190 [50]	SDC16-3S
		LE20-CPC	207 [3000]	300 [79]	CP20-3S
	Adjustable, normally closed, vent to open	HLEA10-CVO	350 [5075]	80 [21]	SDC10-3S
	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

Logic Elements - Differential Sensing Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity
	HLEA10-OPO	350 [5075]	60 [16]	SDC10-3S
	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
	Normally open, vent to close	CP700-3	210 [3045]	40 [11] SDC10-3
		HLE10-OVC	350 [5075]	60 [16] SDC10-3S
		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

Solenoid Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	Poppet type, 3-way, 2-position EVH 06/D5	230 [3300]	20 [5]	NCS06/3 • M16/R16
	SVP08-CDB	230 [3300]	16 [4]	SDC08-2 • M13/R13
	EVK 06/C5	210 [3045]	40 [11]	NCS06/2 • M16/R16
	Poppet type, double blocking, normally closed, pilot operated HSVP10-CDB	350 [5075]	65 [17]	SDC10-2 • H16
	Poppet type, double blocking, normally open, pilot operated HSVP10-ODB	350 [5075]	65 [17]	SDC10-2 • H16
	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
	Poppet type, normally closed, pilot operated, flow control SVP08-NCF	230 [3300]	15 [4]	SDC08-2 • M13/R13

Solenoid Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	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
	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
	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
	SV08-22-01	230 [3300]	16 [4]	SDC08-2 • M13/R13
	HSV10-22-01	350 [5075]	50 [13]	SDC10-2 • H16
	HSV08-22-01	350 [5075]	12 [3.4]	SDC08-2 • M13/R13
	SV10-22-01	230 [3300]	27 [7]	SDC10-2 • M16/R16
	SV15-22-01	210 [3045]	60 [16]	NCS12/2 • M19

Solenoid Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	Spool type, 2-way, 2-position, normally closed	SV08-22-02	230 [3300]	14 [4] SDC08-2 • M13/R13
		HSV08-22-02	350 [5075]	12 [3] 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	210 [3045]	60 [16] NCS12/2 • M19
	Spool type, 2-way, 2-position, normally open	SV08-22-03	230 [3300]	12 [3] SDC08-2 • M13/R13
	Spool type, 3-way, 2-position	SV08-23-01	230 [3300]	17 [4.5] SDC08-3 • M13/R13
		HSV08-23-01	350 [5075]	16 [4.2] 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
	Spool type, 3-way, 2-position	SV08-23-02	230 [3300]	10 [3] SDC08-3 • M13/R13
		HSV08-23-02	350 [5075]	16 [4.2] 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
	Spool type, 3-way, 2-position	SV08-23-03	230 [3300]	18 [5] SDC08-3 • M13/R13
	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	210 [3045]	50 [13] NCS12/3 • M19
	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	210 [3045]	60 [16] NCS12/4 • M19

Solenoid Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	SV08-24-01	230 [3300]	8 [2]	SDC08-4 • M13/R13
	HSV08-24-01	350 [5075]	11 [2.9]	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	210 [3045]	55 [15]	NCS12/4 • M19
	SV15-24-03	210 [3045]	50 [13]	NCS12/4 • M19
	SV08-24-04	230 [3300]	8 [2]	SDC08-4 • M13/R13
	SV15-24-04	210 [3045]	50 [13]	NCS12/4 • M19
	SV10-24-12	230 [3300]	18 [5]	SDC10-4 • M16/R16
	SV10-24-05	230 [3300]	25 [7]	SDC10-4 • M16/R16
	SV10-24-06	230 [3300]	20 [5]	SDC10-4 • M16/R16
	SV10-24-07	230 [3300]	24 [6]	SDC10-4 • M16/R16

Solenoid Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil	
	Spool type, 4-way, 2-position	SV08-24-08	230 [3300]	24 [6]	SDC08-4 • M13/R13
	Spool type, 4-way, 2-position	CP531-21	240 [3500]	32 [8]	CP12-4 • D14E
	Spool type, 4-way, 2-position	SV10-24-13	230 [3300]	21 [6]	SDC10-4 • M16/R16
	SV08-34-02	230 [3300]	10 [2.6]	SDC08-4 • M13/R13	
	HSV08-34-02	350 [5075]	11 [2.9]	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	210 [3045]	55 [15]	NCS12/4 • M19	
	SV08-34-03	230 [3300]	8 [2]	SDC08-4 • M13/R13	
	SV15-34-03	210 [3045]	50 [13]	NCS12/4 • M19	
	Spool type, 4-way, 3-position	SV10-34-03	230 [3300]	16 [4]	SDC10-4 • M16/R16
	Spool type, 4-way, 3-position	SV08-34-04	230 [3300]	6 [2]	SDC08-4 • M13/R13
	Spool type, 4-way, 3-position	SV15-34-04	210 [3045]	50 [13]	NCS12/4 • M19

Solenoid Valves

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil	
	Spool type, 4-way, 3-position	SV10-34-04	230 [3300]	15 [4]	SDC10-4 • M16/R16
	SV08-34-05	230 [3300]	10 [2.6]	SDC08-4 • M13/R13	
	HSV08-34-05	350 [5075]	11 [2.9]	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	210 [3045]	55 [15]	NCS12/4 • M19	
	Spool type, 4-way, 3-position	SV10-34-11	230 [3300]	24 [6]	SDC10-4 • M16/R16
	Spool type, 4-way, 3-position	SV10-34-14	230 [3300]	18 [4.8]	SDC10-4 • M16/R16
	Spool type, 5-way, 3-position	SV10-35-02	230 [3300]	18 [4.8]	SDC10-5 • M16/R16
	Spool type, 5-way, 3-position	SV10-35-05	230 [3300]	18 [4.8]	SDC10-5 • M16/R16

Proportional Valves - Directional

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	PSV10-34-02	250 [3625]	22 [6]	SDC10-4 • M16/R16
	PSV12-34-02	250 [3625]	50 [13]	CP12-4 • M19
	PDCV03-3Z11	350 [5075]	30.3 [8]	ISO D05 • PD03
	PDCV05-3Z11	350 [5075]	60 [16]	ISO D03 • PD03
	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
	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	bar [psi]	lpm [gpm]	Cavity • Coil
	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)
	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
	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 Valves - Flow Control

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	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
	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)
	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)
	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)
	PFC10-PO	260 [3770]	35 [9]	SDC10-3 • M19P
	PFC12-PO	260 [3770]	70 [18]	SDC12-3 • D14E (35W)
	PFC16-PO	260 [3770]	90 [24]	SDC16-3 • D14E (35W)
<p>AB</p> <p>P DR</p> <p>S1 S2</p>	PFD10-OD	230 [3335]	40 [11]	SAE #4 & 6 G3/8 & G1/2 • M16

Proportional Valves - Pressure Reducing

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	CP558-24	34 [500]	4 [1]	SDC08-3 • D08

Proportional Valves - Pressure Reducing

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	PPR10-PAC	250 [3625]	18 [5]	SDC10-3 • M19P
	XRP 06	315 [4500]	25 [7]	NCS06/3 • M19P
	PPR09-POD	50 [700]	25 [7]	SDC10-4 • M13/R13

Proportional Valves - Pressure Relieving

Schematic / Description	Model	bar [psi]	lpm [gpm]	Cavity • Coil
	XMD 04	250 [3625]	5 [1.3]	NCS04/2 • M19P
	CP558-20	210 [3045]	8 [2]	SDC08-2 • D10
	PRV08-DAC	210 [3045]	2.1 [0.55]	SDC08-2 • M13/R13
	HPRV08-DAC	350 [5075]	1.2 [0.32]	SDC08-2 • M13/R13
	PRV10-POC	250 [3625]	76 [20]	SDC10-2 • M19P
	PRV12-POC	250 [3625]	180 [48]	SDC12-2 • M19P
	XMP 06	315 [4500]	50 [13]	NCS06/2 • M19P

Accessories

Schematic / Description	Model	bar [psi]	Information	Cavity
	CPF20-3	210 [3045]	20 micron filter (38 lpm flow) & 60 micron filter (114 lpm flow)	SDC20-3
	CP600-5	210 [3045]	1.2 cc / stroke 0.07 ci / stroke	SDC10-2
	CP602-5	210 [3045]	9.2 cc / stroke 0.56 ci / stroke	SDC16-2
	MP 06	210 [3045]	0.94 cc / stroke 0.057 ci / stroke	NCS06/2
	MP 12	315 [4500]	5cc / stroke 0.305 ci / stroke	NCS12/2

Spreader Valves

Schematic / Description	Model / Cavity	bar [psi]	lpm [gpm]
	SPR-2FFL12	138 [2000]	114 [30]
	SPR-2FFLC12	210 [3045]	114 [30]
	SPR-2FFLW86	138 [2000]	114 [30]

Modular HIC System - MVB10

General technical information	
Max input flow <i>lpm [gpm]</i>	80 [21.1]
Working section rated flow <i>lpm [gpm]</i>	22 [5]
Max operating pressure <i>bar [psi]</i>	210 [3045]
Max number of sections*	10
Manifold surface treatment	Black anodized
Cartridge surface treatment	Zinc plated

*For additional sections contact Danfoss ICS

Modular HIC System - MVB10 (inlet sections)

Schematic / Description	Model	Associated Cartridges
	MVB10-I-LS	HLE10-CPC RV08-DR SVP08-NO
	MVB10-I	

Modular HIC System - MVB10 (working modules)

Schematic / Description	Model	Associated Cartridges
<p>The schematic shows a two-stage pressure relief system. Stage 1 (SH1) is a cartridge with a set pressure of 34 bar and a trip pressure of 35 bar. Stage 2 (SH2) is a cartridge with a set pressure of 34 bar and a trip pressure of 35 bar. The system includes a safety valve (SV), a float control (FC), and a low energy device (LE).</p>	MVB10-W	SV10-34-05 PSV10-34-05
<p>The schematic shows a two-stage pressure relief system. Stage 1 (SH1) has a set pressure of 34 bar and a trip pressure of 35 bar. Stage 2 (SH2) has a set pressure of 34 bar and a trip pressure of 35 bar. The system includes a safety valve (SV), a float control (FC), and a low energy device (LE).</p>	MVB10-W-F	SV10-34-05 PSV10-34-05 CP610-2 CP300-1
<p>The schematic shows a two-stage pressure relief system. Stage 1 (SH1) has a set pressure of 34 bar and a trip pressure of 35 bar. Stage 2 (SH2) has a set pressure of 34 bar and a trip pressure of 35 bar. The system includes a safety valve (SV), a low energy device (LE), and a float control (FC).</p>	MVB10-W-C	SV10-34-05 PSV10-34-05 CP700-4

Modular HIC System - MVB10 (working modules)

Schematic / Description	Model	Associated Cartridges
	MVB10-W-LH	SV10-34-05 PSV10-34-05 VCB 06-EN RPC06
	MVB10-W-F-LH	SV10-34-05 PSV10-34-05 CP610-2 CP300-1 VCB 06-EN RPC06
	MVB10-W-C-LH	SV10-34-05 PSV10-34-05 CP700-4 VCB 06-EN RPC06

Modular HIC System - MVB10 (end module)

Schematic / Description	Model	Associated Cartridges
	MVB10-E	

Fan Drive HICs

Schematic / Description	Model	bar [psi]	lpm [gpm]	Port
	RFDE-40-000	210 [3045]	10-40 [2.6-10.5]	SAE #12, G3/4
	RFDE-80-000	210 [3045]	20-80 [5.3-21.1]	SAE #12, G3/4
	RFD-120-000	210 [3045]	120 [31.7]	SAE #12, G3/4
	RFDE-40-PRV	210 [3045]	10-40 [2.6-10.5]	SAE #12, G3/4
	RFDE-80-PRV	210 [3045]	20-80 [5.3-21.1]	SAE #12, G3/4
	RFD-120-PRV	210 [3045]	120 [31.7]	SAE #12, G3/4

Motor Mount HICs

Schematic / Description	Model	lpm [gpm]	Orbital Motor
<p>MA MB A B</p>	MM-DH-00-DCB10-HV	60 [16]	OMPX w/C1option
	MM-DS-00-DCB10-HV	60 [16]	OMRX w/C1option
	MM-OMP/OMR-00-DCB10-HV	60 [16]	OMPX/OMRX w/A3 option
	MM-OMH-00-DCP441-1	75 [20]	OMH
	MM-OMS-00-DCP441-1	75 [20]	OMS
	MM-OMT-00-DCP441-1	125 [33]	OMT
<p>MA MB A S B</p>	MM-DH-LS-DCB10-HV	60 [16]	OMPX w/C1option
	MM-DS-LS-DCB10-HV	60 [16]	OMRX w/C1option
	MM-OMP/OMR-LS-DCB10-HV	60 [16]	OMPX/OMRX w/A3 option
	MM-OMH-LS-DCP441-1	75 [20]	OMH
	MM-OMS-LS-DCP441-1	75 [20]	OMS
	MM-OMT-LS-DCP441-1	125 [33]	OMT
<p>MA MB A B</p>	MM-DH-00-DVME06	60 [16]	OMPX w/C1option
	MM-DS-00-DVME06	60 [16]	OMRX w/C1option
	MM-OMP/OMR-00-DVME06	60 [16]	OMPX/OMRX w/A3 option
	MM-OMH-00-DCP211-2	75 [20]	OMH
	MM-OMS-00-DCP211-2	75 [20]	OMS
	MM-OMT-00-DCP211-2	125 [33]	OMT
<p>MA MB A S B</p>	MM-DH-LS-DVME06	60 [16]	OMPX w/C1option
	MM-DS-LS-DVME06	60 [16]	OMRX w/C1option
	MM-OMP/OMR-LS-DVME06	60 [16]	OMPX/OMRX w/A3 option
	MM-OMH-LS-DCP211-2	75 [20]	OMH
	MM-OMS-LS-DCP211-2	75 [20]	OMS
	MM-OMT-LS-DCP211-2	125 [33]	OMT
<p>MA MB A D B</p>	MM-DH-00-BSVP10-NCR	60 [16]	OMPX w/C1option
	MM-DS-00-BSVP10-NCR	60 [16]	OMRX w/C1option
	MM-OMP/OMR-00-BSVP10-NCR	60 [16]	OMPX/OMRX w/A3 option
	MM-OMH-00-BSVP10-NCR	75 [20]	OMH
	MM-OMS-00-BSVP10-NCR	75 [20]	OMS
	MM-OMT-00-BCP502-3	125 [33]	OMT
<p>MA MB A D B</p>	MM-DH-00-DPVLP	60 [16]	OMPX w/C1option
	MM-DS-00-DPVLP	60 [16]	OMRX w/C1option
	MM-OMP/OMR-00-DPVLP	60 [16]	OMPX/OMRX w/A3 option
	MM-OMH-00-DPVLP	75 [20]	OMH
	MM-OMS-00-DPVLP	75 [20]	OMS
	MM-OMT-00-DPVLP	125 [33]	OMT

Traction Controls

Schematic / Description	Model	bar [psi]	lpm [gpm]	Ports
	X05-FD10	210 [3045]	45 [12]	SAE #8, SAE #12, G1/2, G3/4
	X05-FD16	350 [5075]	150 [40]	SAE #16, SAE #20, G1, G1-1/4, 1" Code 61
	X05-FD104	230 [3335]	45 [12]	SAE #8, SAE #10
	X05-FD164	350 [5075]	150 [40]	SAE #10, SAE #12, SAE #16
	LFB12	350 [5075]	53 [14]	SAE #8, G1/2

Mix N Match Dual Bodies

Schematic / Description	Model	Cavity	Ports
 Dual parallel body	DPL08-2	SDC08-2	SAE #6, SAE #8, G3/8
	DPL10-2	SDC10-2	SAE #8, SAE #10, G1/2
	DPL12-2	CP12-2	SAE #12, G3/4
	DPL16-2	SDC16-2	SAE #16, G1
 Dual cross-port body	DCP08-2	SDC08-2	SAE #6, SAE #8, G3/8
	DCP10-2	SDC10-2	SAE #8, SAE #10, G1/2
	DCP12-2	CP12-2	SAE #12, G3/4
	DCP16-2	SDC16-2	SAE #16, G1

Many Danfoss ICS cavities are designed around SAE standard o-ring threaded 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. Most manufacturers offer many non-standard cavities and that details are subject to change. Compare cavity details before interchanging cartridges.

Cavity Crossover Table

Danfoss	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 Danfoss ICS cartridges will work in HF cavity.

Coils

Model	Valve Tube Outer Dia.	Type	Wattage	Diode	10 VDC	12 VDC	20 VDC	24 VDC	110/220 VAC
D08	1/2 in	Standard	16		X	X	X	X	Internally Rectified
D10	5/8 in	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	7/8 in	Robust	30		X	X	X	X	
D14E (35W)	7/8 in	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	16 mm	Robust	29	Bi-directional		X		X	
M19P	19 mm (proportional)	Robust	22			X		X	

Print and Online Catalogs

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

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Danfoss Power Solutions (US) Company
2800 East 13th Street
Ames, IA 50010, USA
Phone: +1 515 239 6000

Danfoss Power Solutions ApS
Nordborgvej 81
DK-6430 Nordborg, Denmark
Phone: +45 7488 2222

Danfoss Power Solutions GmbH & Co. OHG
Krokamp 35
D-24539 Neumünster, Germany
Phone: +49 4321 871 0

Danfoss Power Solutions Trading (Shanghai) Co. Ltd.
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
Phone: +86 21 3418 5200