



Cartridge and CRS Product Catalogue

DYNALENE
Tomorrow's Solutions Flow Through Us



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IC Series Cartridge

Series Overview

IC Series ion exchange cartridge offered by Dynalene is designed and extensively tested for greater ion removal for our low conductivity heat transfer fluid products. These cartridges can be easily installed to systems operating up to 200°F (93°C). We offer two cartridge models, IC-070 and IC-093, which are designed to operate up to 158°F (70°C) and 200°F (93°C), respectively. Our resin cartridge products, which are currently used in low conductivity cooling applications such as fuel cell and battery cooling, can be custom designed for your systems.

Features

- Wide range operational temperature
- High capacity media
- Performance tested for a long operating cycle
- Inhibitor retaining capacity
- Longer life
- Option of barb and FNPT connections
- Compatible with glycol based heat transfer fluid
- Resistant to physical and chemical deterioration
- Spin welded construction
- Easy to install
- Easy to custom design



Applications

- Fuel cell cooling
- Battery cooling
- Electronics cooling
- Computer cooling
- Laser cooling
- All applications that requires low electrical conductivity of the fluid over the time of operation

Specifications

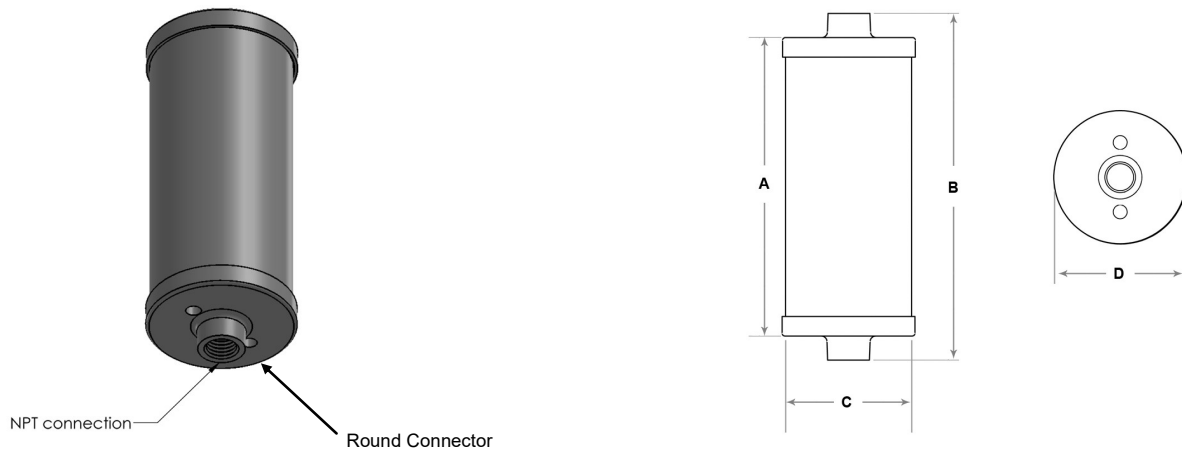
Properties	Value
Max. operating temperature	IC-070: 158°F (70°C) IC-093: Intermittent 200°F (93°C) Continuous 185°F (85°C)
Material of construction	Polypropylene
Max. operating pressure	40 psi
Orientation	Vertical
Media	Ion exchange resin
Connection Type	FNPT and Barb
Connector Configuration	Round and Hex

Exchange capacity	
Product number	Capacity (meq)
IC-070-04	147
IC-093-04	203
IC-070-06	190
IC-093-06	262
IC-093-08	1273
IC-093-16	2865
IC-093-24	4377

Customization

IC Series Cartridge

Design and Construction



The round connector on the IC series cartridge features two different maximum operating temperatures (70° C or 93°C). The easy install vertical orientation has a maximum pressure of 40 psi.

IC-070 Series Round Connector Cartridge Dimensions, Weight, and Flow Rate Compatibility

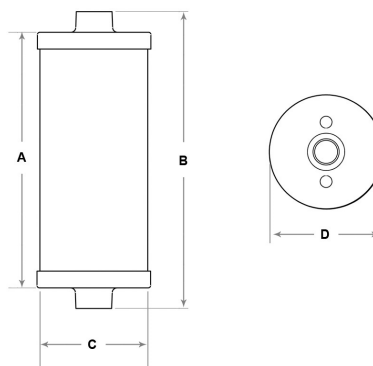
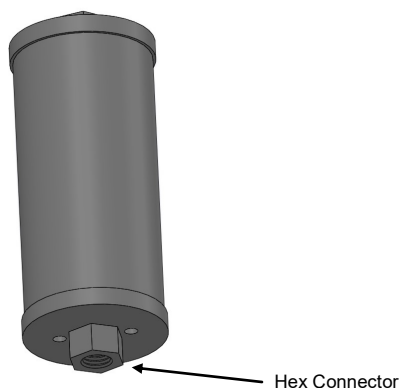
Cartridge I.D./ Size	A (inch)	B (inch)	C (inch)	D (inch)	Weight (lbs)	Connector Config.	Connection Type	Connection Size (inch)	Max Operating Temp (°C)	Max Flow Rate (GPM)	Max Pressure (psi)
IC-070-04	4.5	5.5	2.3	2.4	0.46	Round	FNPT	0.25	70	1.0	40
IC-070-06	5.5	6.5	2.3	2.4	0.65	Round	FNPT	0.25	70	1.3	40

IC-093 Series Round Connector Cartridge Dimensions, Weight, and Flow Rate Compatibility

Cartridge I.D./ Size	A (inch)	B (inch)	C (inch)	D (inch)	Weight (lbs)	Connector Config.	Connection Type	Connection Size (inch)	Max Operating Temp (°C)	Max Flow Rate (GPM)	Max Pressure (psi)
IC-093-04	4.5	5.5	2.3	2.4	0.46	Round	FNPT	0.25	93	1.0	40
IC-093-06	5.5	6.5	2.3	2.4	0.65	Round	FNPT	0.25	93	1.3	40

IC Series Cartridge

Design and Construction



The hex connector on the IC series cartridge features two different maximum operating temperatures (70°C or 93°C). The easy install vertical orientation has a maximum pressure of 40 psi, and comes in a variety of

IC-070 Series Hex Connector Cartridge Dimensions, Weight, and Flow Rate Compatibility

Cartridge I.D./ Size	A (inch)	B (inch)	C (inch)	D (inch)	Weight (lbs)	Connector Config.	Connection Type	Connection Size (inch)	Max Operating Temp (°C)	Max Flow Rate (GPM)	Max Pressure (psi)
IC-070-04H	4.5	5.5	2.3	2.4	0.46	Hex	FNPT	0.25	70	1.0	40
IC-070-06H	5.5	6.0	2.3	2.4	0.65	Hex	FNPT	0.25	70	1.3	40
IC-070-08H	7.5	8.5	4.3	4.5	2.50	Hex	FNPT	0.50	70	2.0	40
IC-070-10H	9.5	10.5	4.3	4.5	3.33	Hex	FNPT	0.50	70	2.0	40
IC-070-12H	11.5	12.5	4.3	4.5	4.17	Hex	FNPT	0.50	70	2.0	40
IC-070-14H	13.5	14.5	4.3	4.5	5.00	Hex	FNPT	0.50	70	2.3	40
IC-070-16H	15.5	16.5	4.3	4.5	6.10	Hex	FNPT	0.50	70	2.5	40
IC-070-18H	17.5	18.5	4.3	4.5	6.98	Hex	FNPT	0.50	70	2.8	40
IC-070-20H	19.5	20.5	4.3	4.5	7.85	Hex	FNPT	0.50	70	3	40
IC-070-22H	21.5	22.5	4.3	4.5	8.73	Hex	FNPT	0.50	70	3.2	40
IC-070-24H	23.5	24.5	4.3	4.5	9.60	Hex	FNPT	0.50	70	3.4	40

IC-093 Series Hex Connector Cartridge Dimensions, Weight, and Flow Rate Compatibility

Cartridge I.D./ Size	A (inch)	B (inch)	C (inch)	D (inch)	Weight (lbs)	Connector Config.	Connection Type	Connection Size (inch)	Max Operating Temp (°C)	Max Flow Rate (GPM)	Max Pressure (psi)
IC-093-04H	4.5	5.5	2.3	2.4	0.46	Hex	FNPT	0.25	93	1.0	40
IC-093-06H	5.5	6.0	2.3	2.4	0.65	Hex	FNPT	0.25	93	1.3	40
IC-093-08H	7.5	8.5	4.3	4.5	2.50	Hex	FNPT	0.50	93	2.0	40
IC-093-10H	9.5	10.5	4.3	4.5	3.33	Hex	FNPT	0.50	93	2.0	40
IC-093-12H	11.5	12.5	4.3	4.5	4.17	Hex	FNPT	0.50	93	2.0	40
IC-093-14H	13.5	14.5	4.3	4.5	5.00	Hex	FNPT	0.50	93	2.3	40
IC-093-16H	15.5	16.5	4.3	4.5	6.10	Hex	FNPT	0.50	93	2.5	40
IC-093-18H	17.5	18.5	4.3	4.5	6.98	Hex	FNPT	0.50	93	2.8	40
IC-093-20H	19.5	20.5	4.3	4.5	7.85	Hex	FNPT	0.50	93	3	40
IC-093-22H	21.5	22.5	4.3	4.5	8.73	Hex	FNPT	0.50	93	3.2	40
IC-093-24H	23.5	24.5	4.3	4.5	9.60	Hex	FNPT	0.50	93	3.4	40

IC Series Cartridge

Design and Construction

Angle	I.D.
0°	0
90°	1
180°	2

Model	Temperature	Size	Angle I.D.
IC	93	08B	2

Example of ordering a barbed connection with a 180° connection angle.

The barbed connector on the IC series cartridge features two different maximum operating temperatures (70°C or 93°C). The smaller cartridges offer vertical barb orientation, while the larger cartridges offer customization on the orientation of the barbs. The cartridges have a maximum pressure rating of 40 psi and come in a variety of lengths.

IC-070 Series Barbed Connector Cartridge Dimensions, Weight, and Flow Rate Compatibility

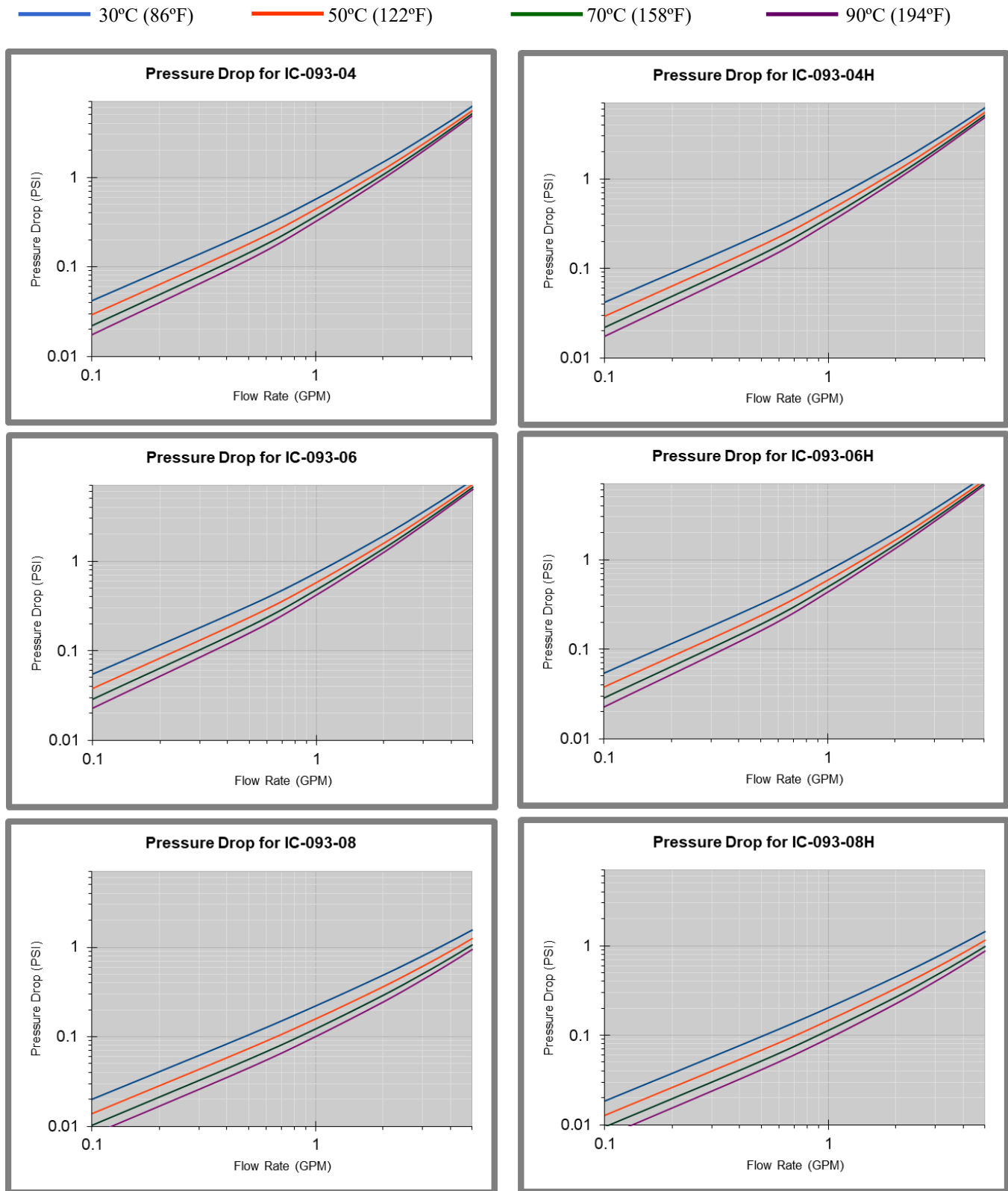
Cartridge I.D./ Size	A (inch)	B (inch)	C (inch)	D (inch)	Weight (lbs)	Connection Type	Tube Size (inch)	Connector Direction	Angle Between Connector	Max Operating Temp (°C)	Max Flow Rate (GPM)	Max Pressure (psi)
IC-070-04BX	4.8	7.1	2.3	2.4	0.46	Barbed	3/8	0°	-	70	1.0	40
IC-070-06BX	5.2	7.6	2.3	2.4	0.65	Barbed	3/8	0°	-	70	1.3	40
IC-070-08BX	7.5	11.0	4.3	4.5	2.50	Barbed	1/2	90°	0,1,2	70	2.0	40
IC-070-10BX	9.5	12.5	4.3	4.5	3.33	Barbed	1/2	90°	0,1,2	70	2.0	40
IC-070-12BX	11.5	14.5	4.3	4.5	4.17	Barbed	1/2	90°	0,1,2	70	2.0	40
IC-070-14BX	13.5	16.5	4.3	4.5	5.00	Barbed	1/2	90°	0,1,2	70	2.3	40
IC-070-16BX	15.5	18.5	4.3	4.5	6.10	Barbed	1/2	90°	0,1,2	70	2.5	40
IC-070-18BX	17.5	20.5	4.3	4.5	6.98	Barbed	1/2	90°	0,1,2	70	2.8	40
IC-070-20BX	19.5	22.5	4.3	4.5	7.85	Barbed	1/2	90°	0,1,2	70	3	40
IC-070-22BX	21.5	24.5	4.3	4.5	8.73	Barbed	1/2	90°	0,1,2	70	3.2	40
IC-070-24BX	23.5	26.5	4.3	4.5	9.60	Barbed	1/2	90°	0,1,2	70	3.4	40

IC-093 Series Barbed Connector Cartridge Dimensions, Weight, and Flow Rate Compatibility

Cartridge I.D./ Size	A (inch)	B (inch)	C (inch)	D (inch)	Weight (lbs)	Connection Type	Tube Size (inch)	Connector Direction	Angle Between Connector	Max Operating Temp (°C)	Max Flow Rate (GPM)	Max Pressure (psi)
IC-093-04BX	4.8	7.1	2.3	2.4	0.46	Barbed	3/8	0°	-	93	1.0	40
IC-093-06BX	5.2	7.6	2.3	2.4	0.65	Barbed	3/8	0°	-	93	1.3	40
IC-093-08BX	7.5	11.0	4.3	4.5	2.50	Barbed	1/2	90°	0,1,2	93	2.0	40
IC-093-10BX	9.5	12.5	4.3	4.5	3.33	Barbed	1/2	90°	0,1,2	93	2.0	40
IC-093-12BX	11.5	14.5	4.3	4.5	4.17	Barbed	1/2	90°	0,1,2	93	2.0	40
IC-093-14BX	13.5	16.5	4.3	4.5	5.00	Barbed	1/2	90°	0,1,2	93	2.3	40
IC-093-16BX	15.5	18.5	4.3	4.5	6.10	Barbed	1/2	90°	0,1,2	93	2.5	40
IC-093-18BX	17.5	20.5	4.3	4.5	6.98	Barbed	1/2	90°	0,1,2	93	2.8	40
IC-093-20BX	19.5	22.5	4.3	4.5	7.85	Barbed	1/2	90°	0,1,2	93	3	40
IC-093-22BX	21.5	24.5	4.3	4.5	8.73	Barbed	1/2	90°	0,1,2	93	3.2	40
IC-093-24BX	23.5	26.5	4.3	4.5	9.60	Barbed	1/2	90°	0,1,2	93	3.4	40

IC Series Cartridge

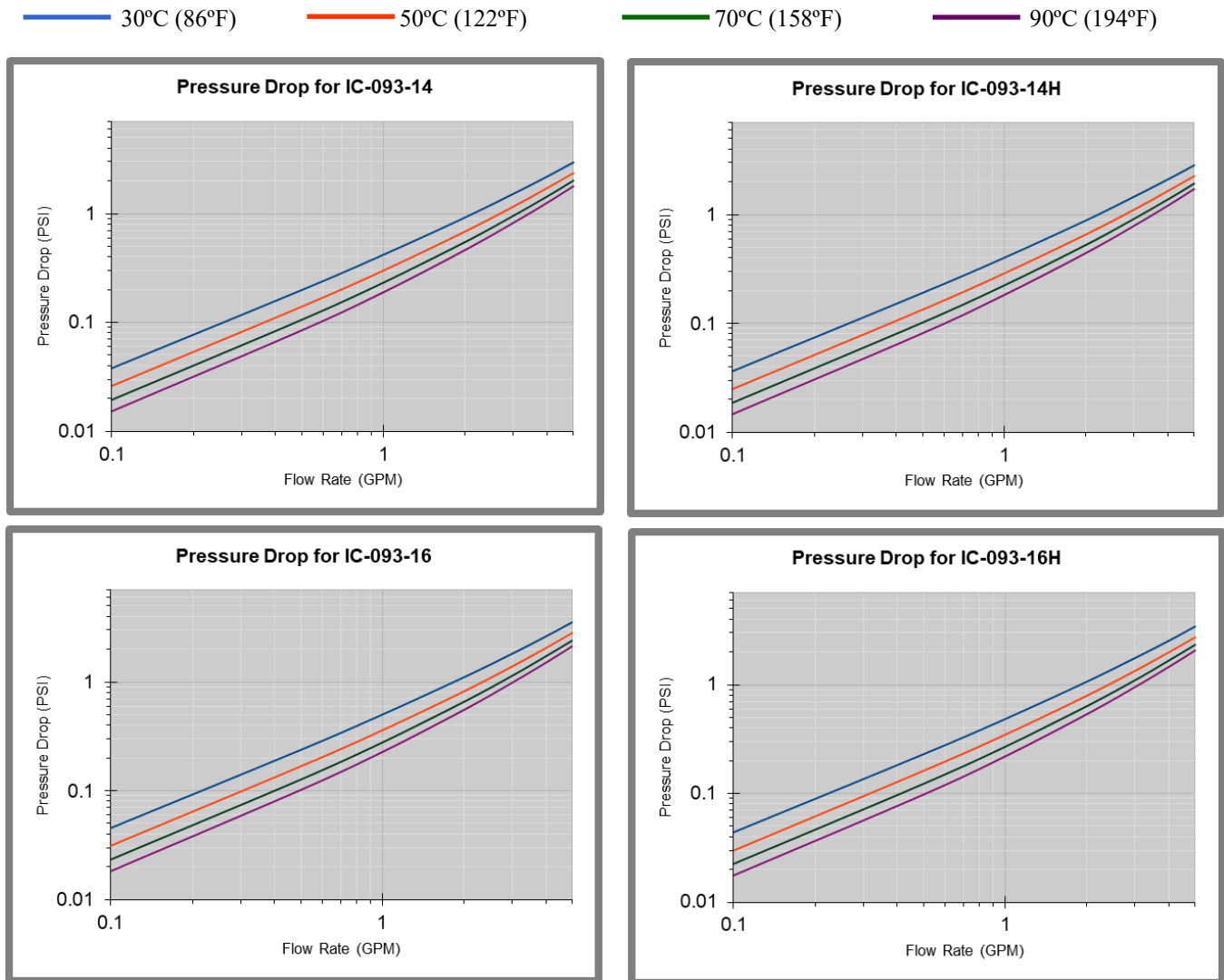
Hydraulic Properties: DI Water



Note: Pressure drop was determined with deionized water.

IC Series Cartridge

Hydraulic Properties: DI Water

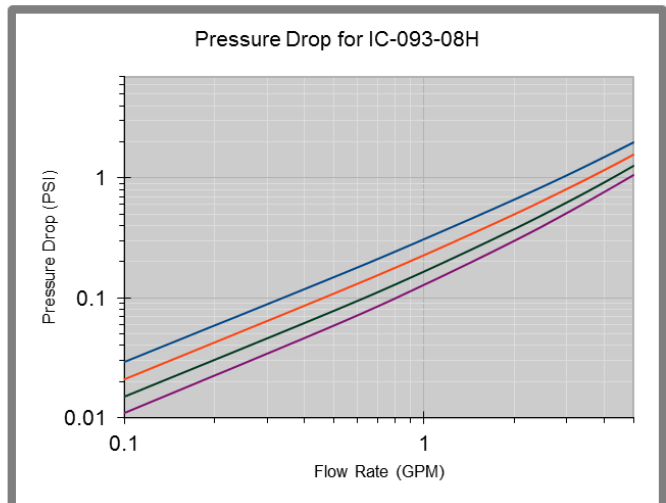
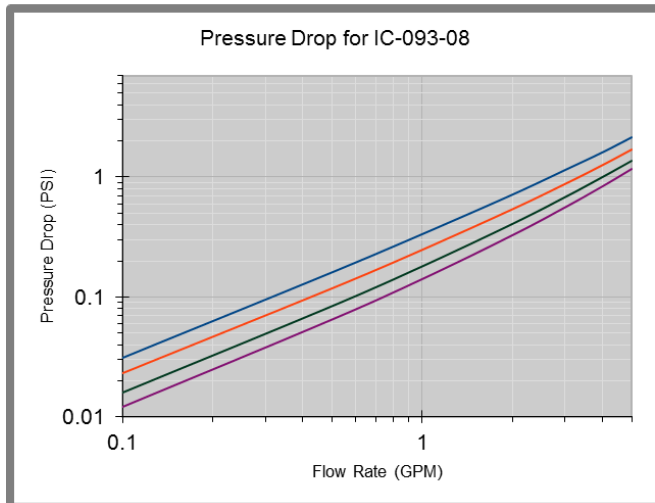
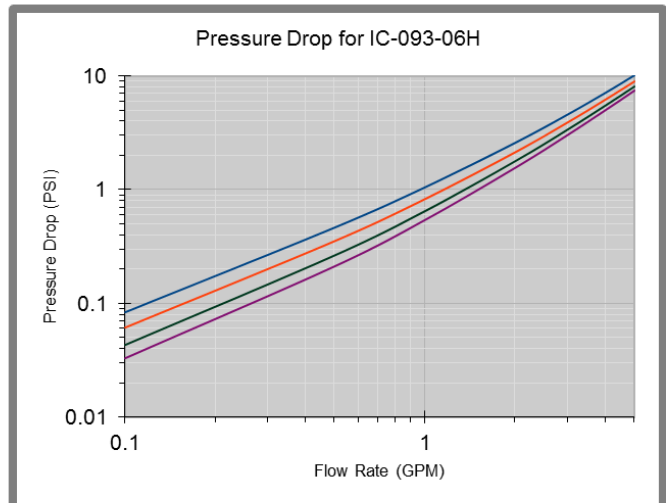
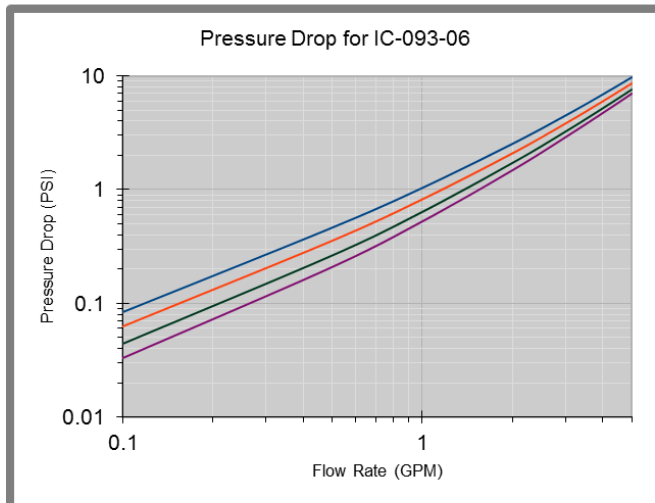
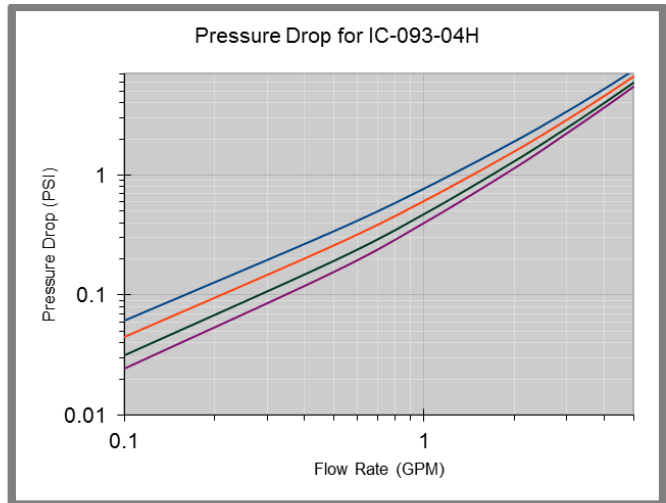
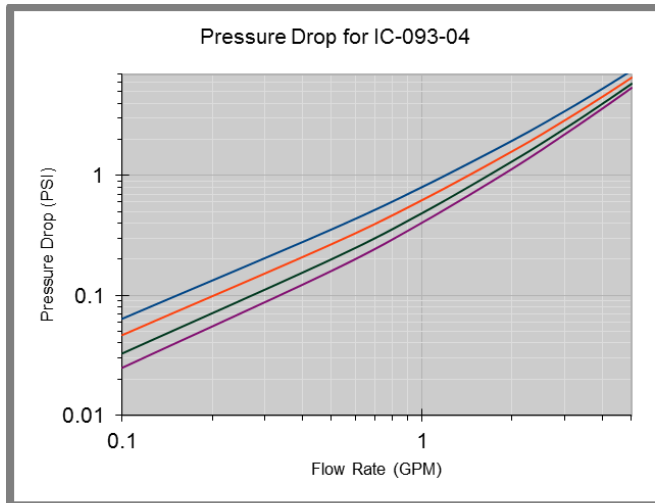


Note: Pressure drop was determined with deionized water.

IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 20% (LC-EG 20%)

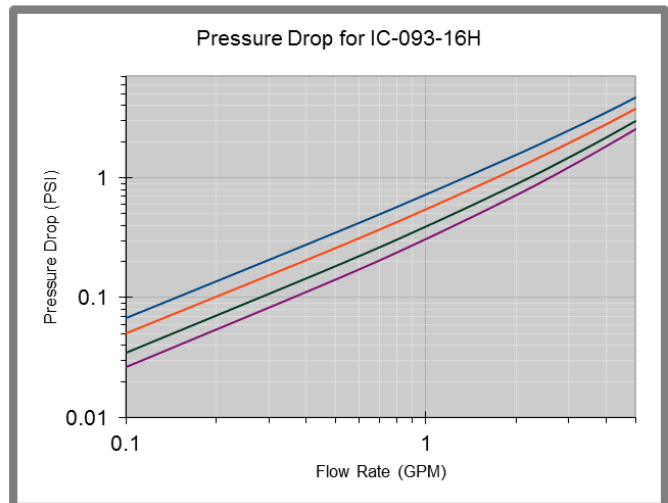
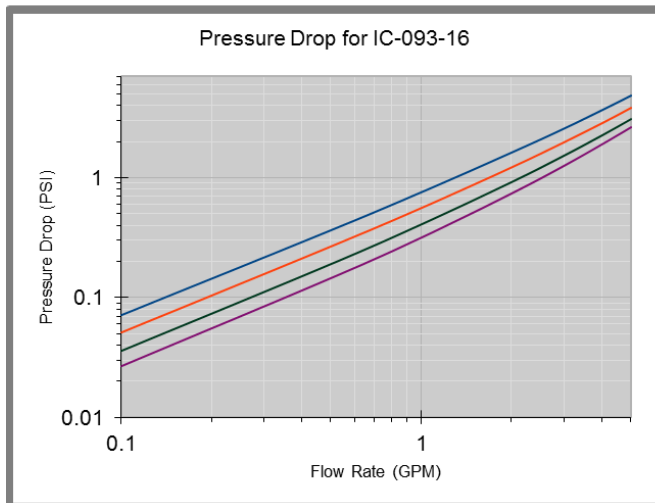
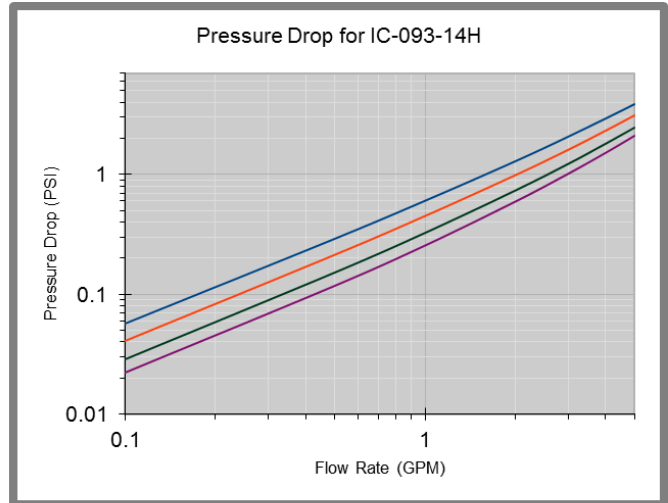
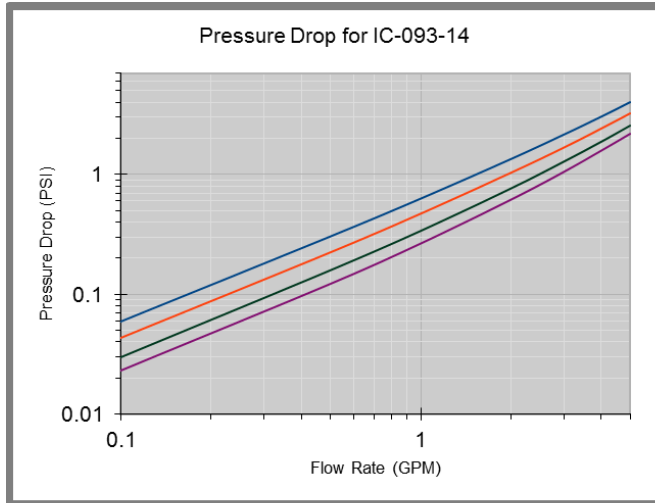
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 20% (LC-EG 20%)

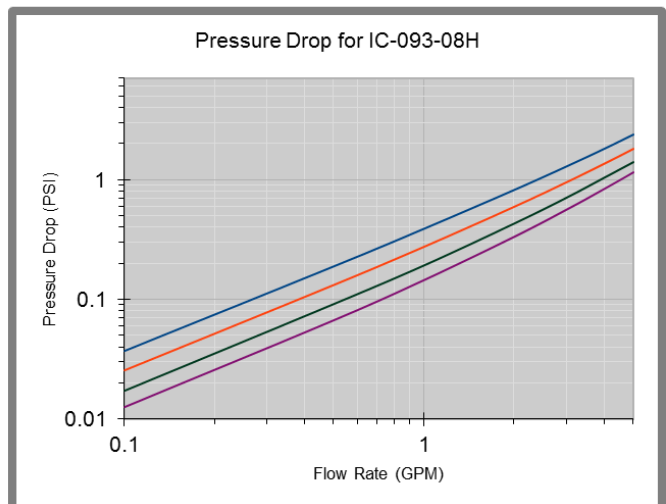
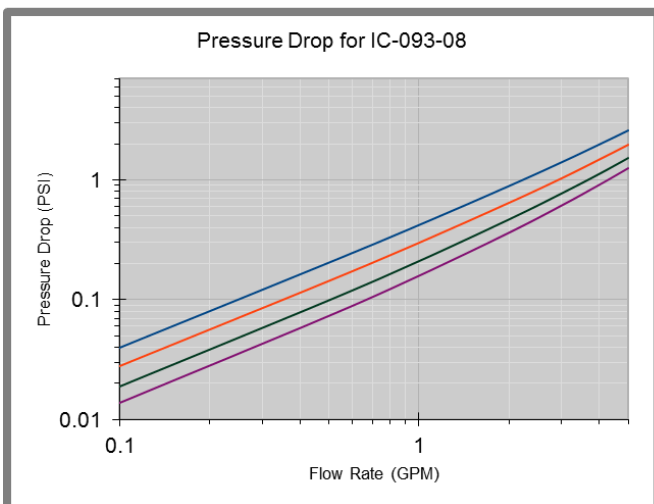
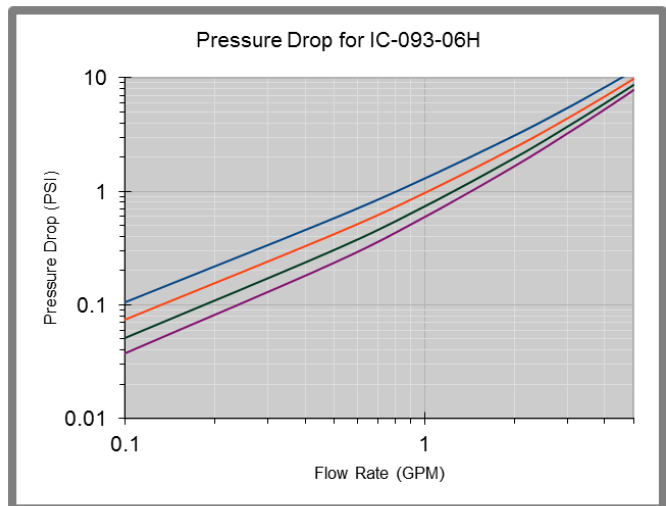
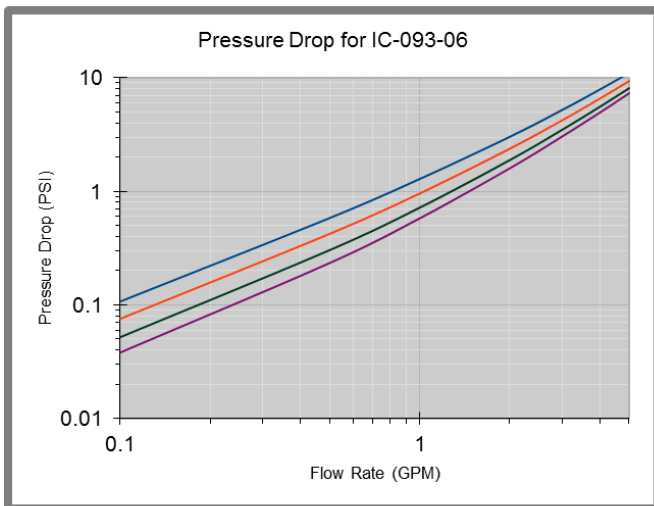
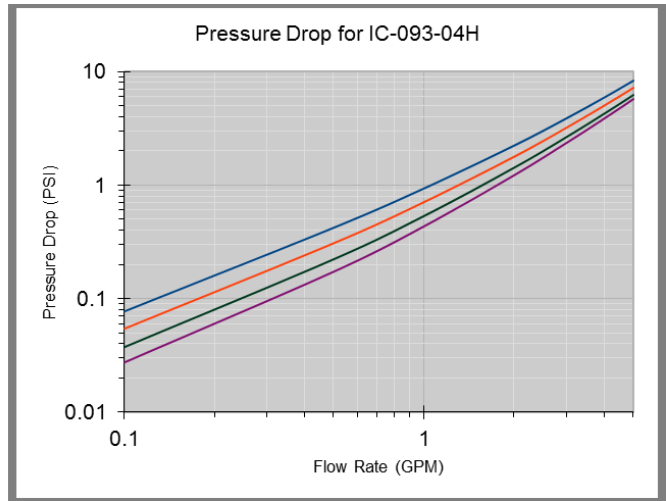
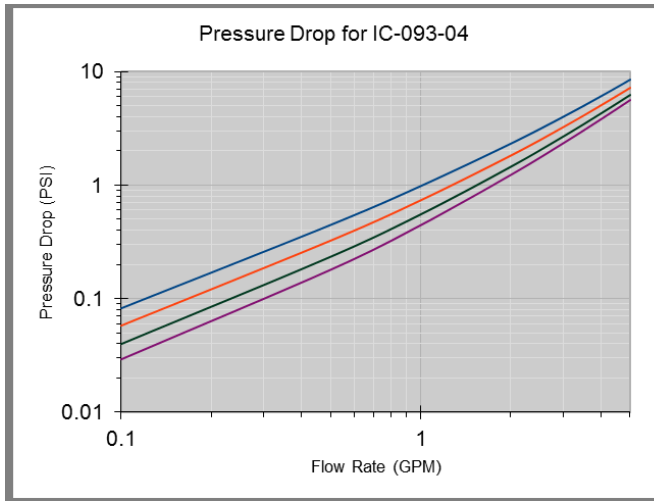
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 30% (LC-EG 30%)

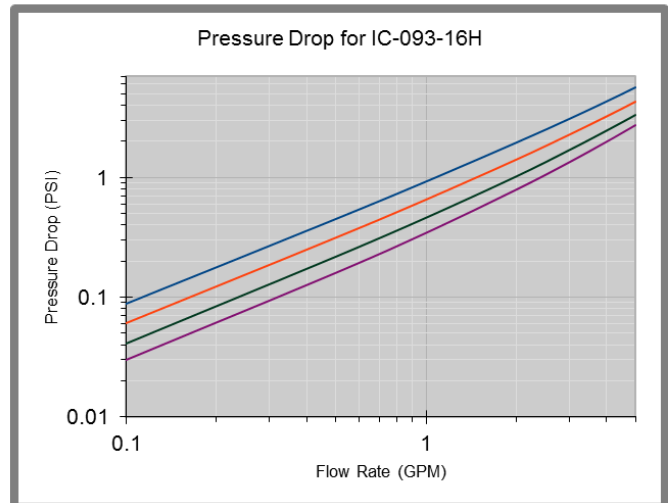
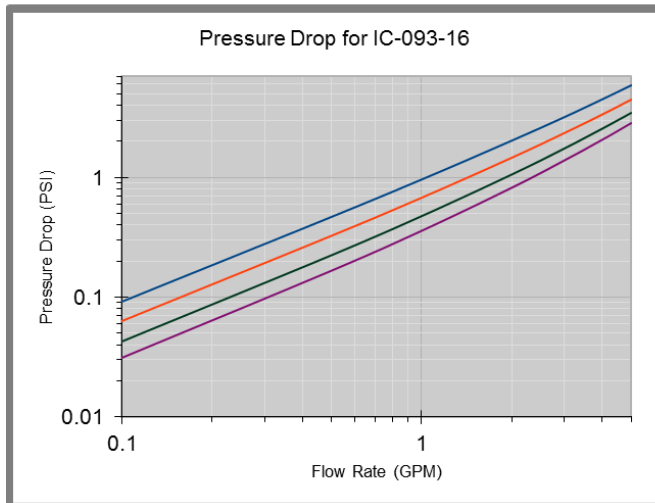
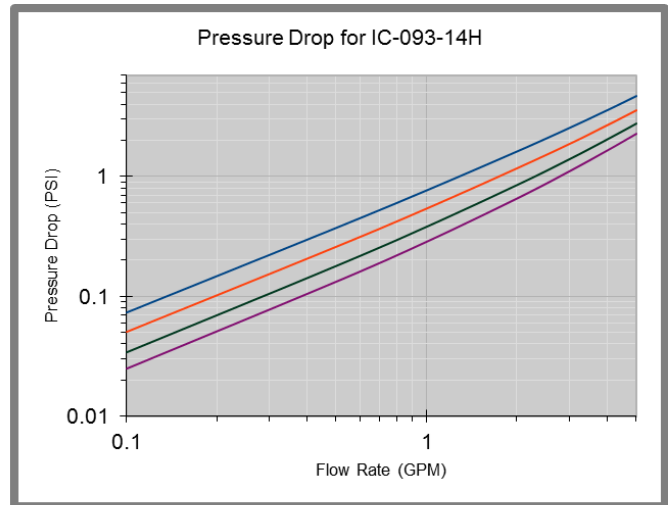
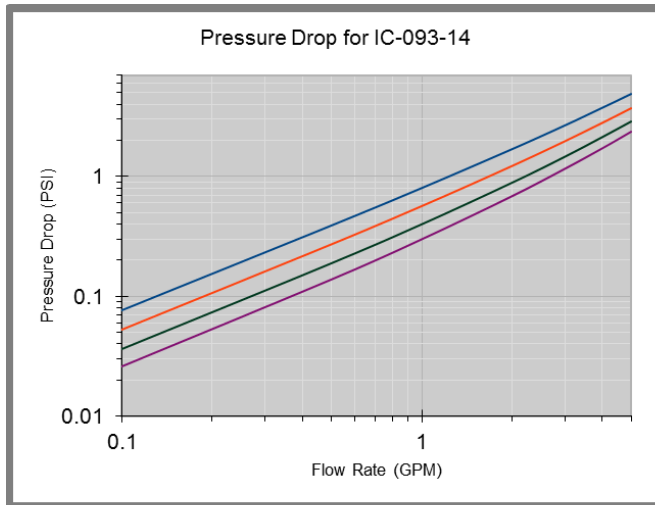
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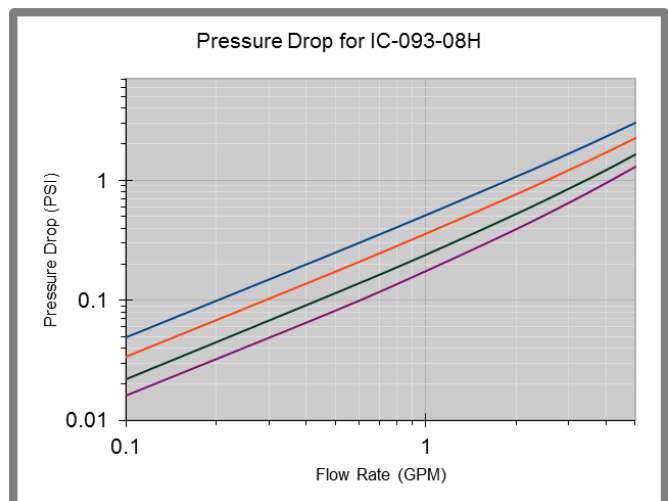
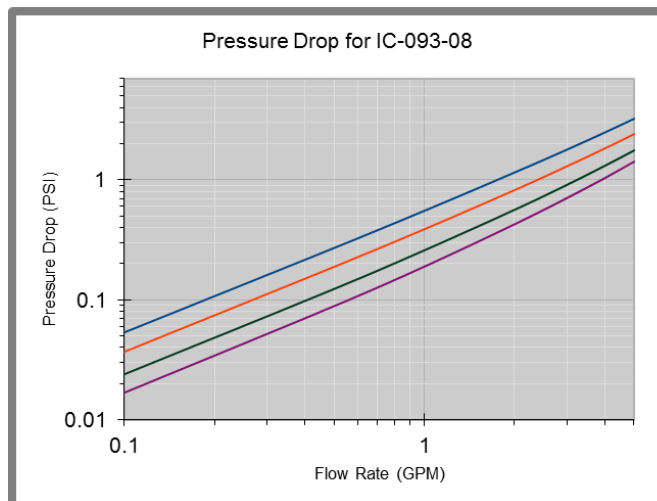
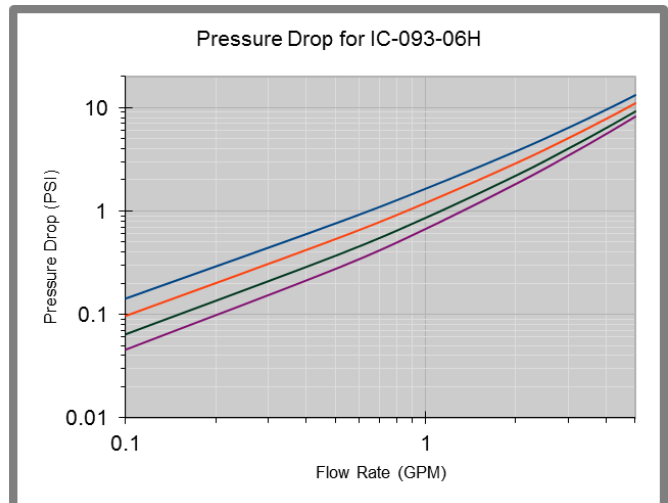
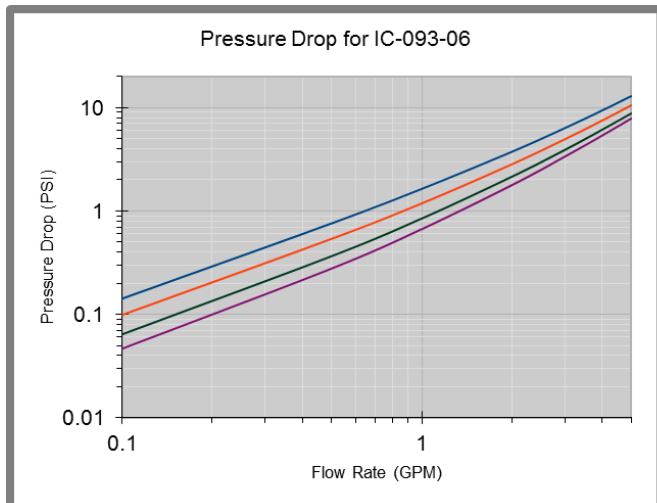
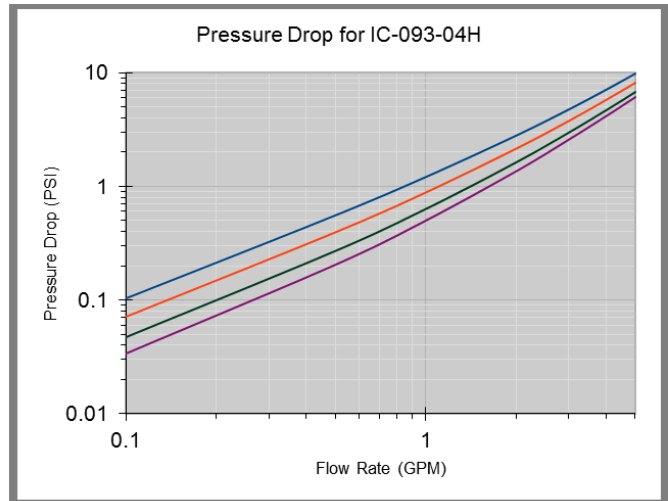
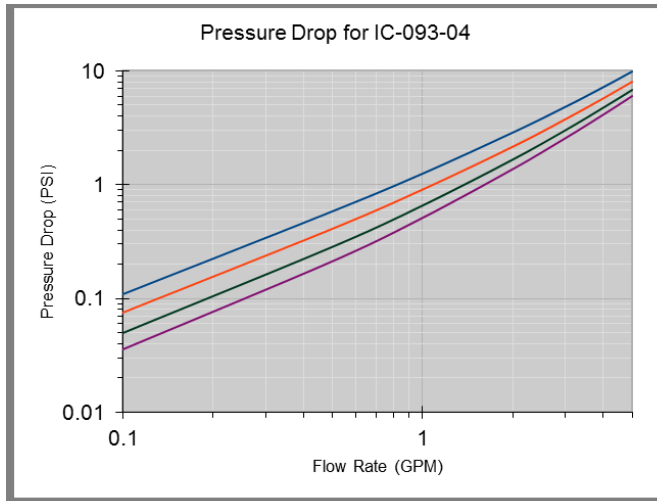
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IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 40% (LC-EG 40%)

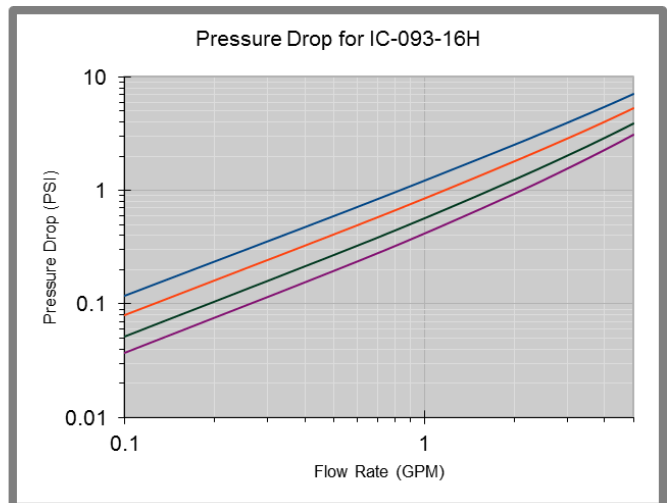
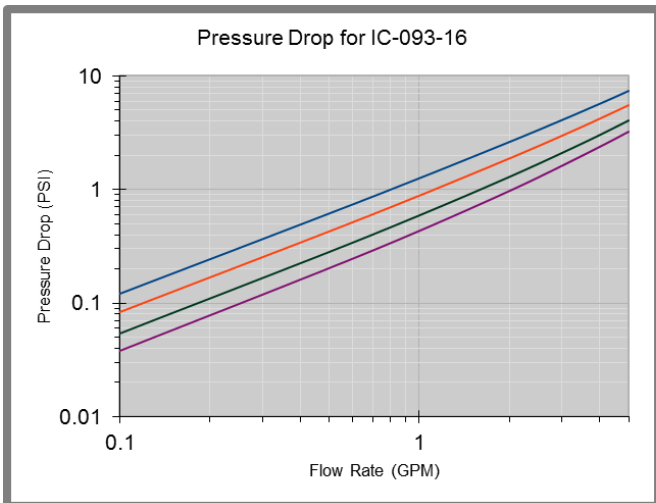
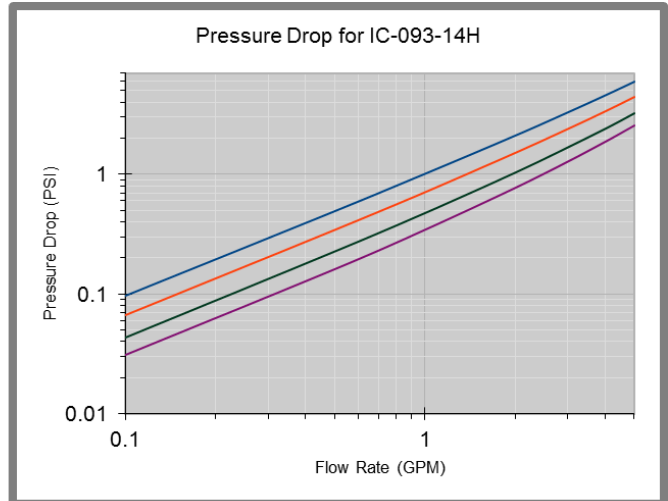
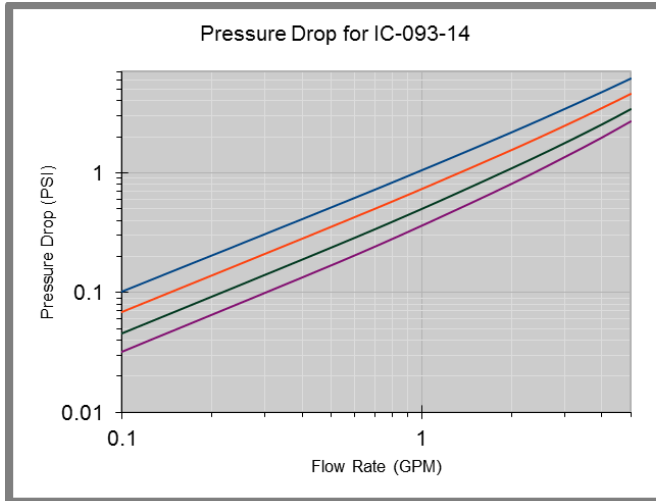
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IC Series Cartridge

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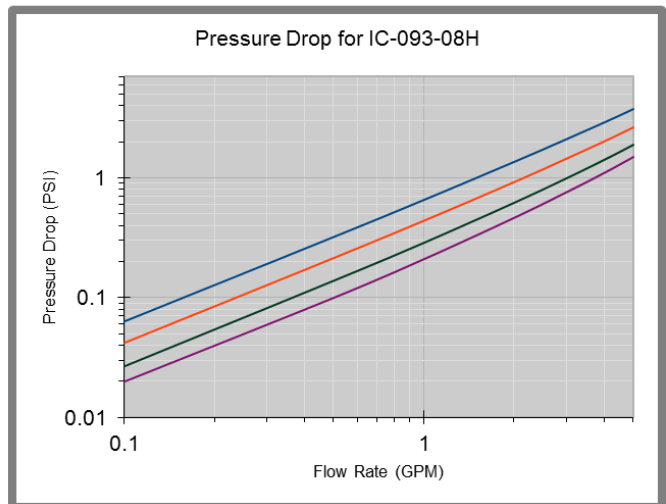
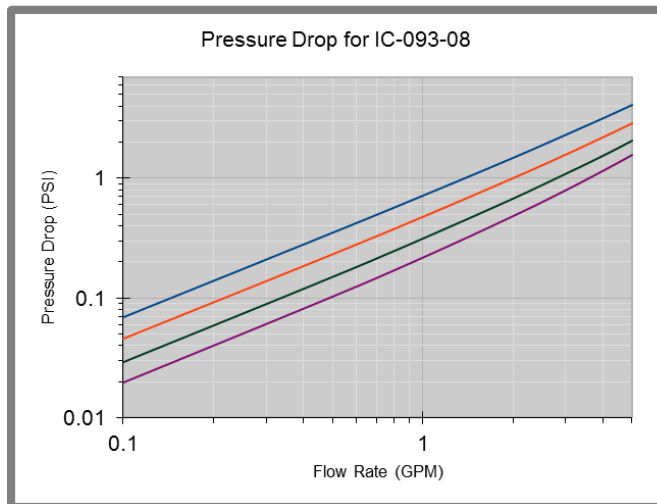
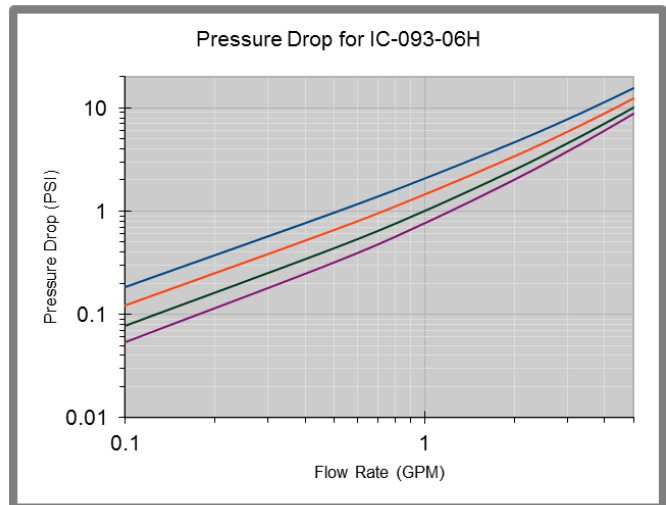
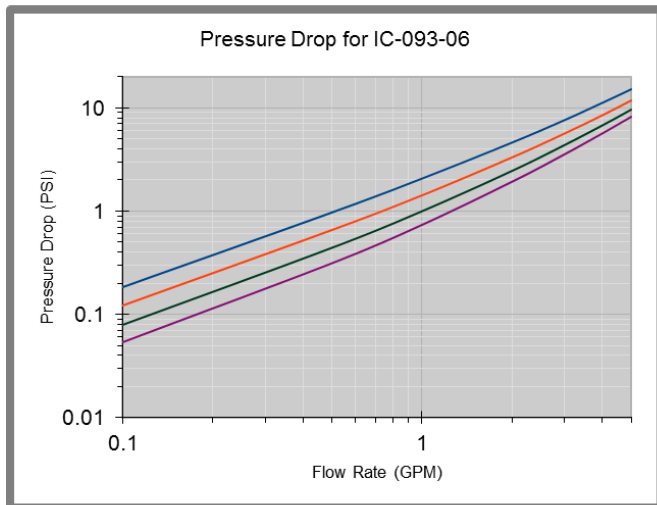
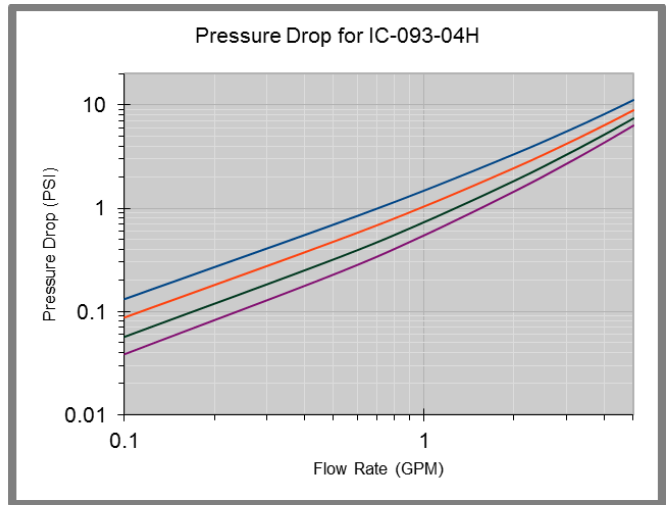
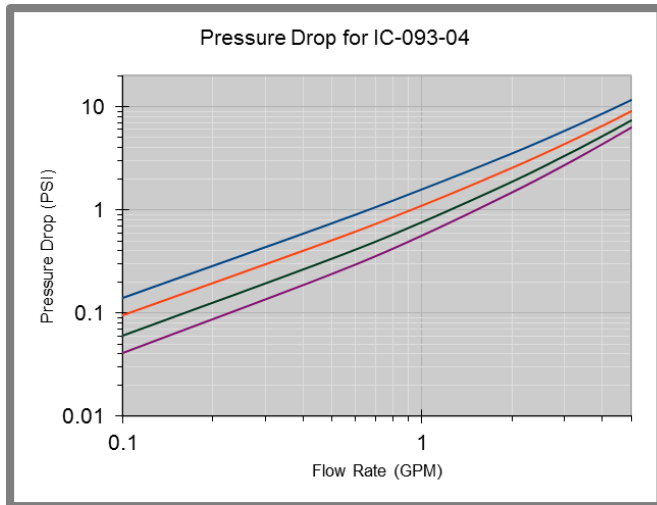
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IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 50% (LC-EG 50%)

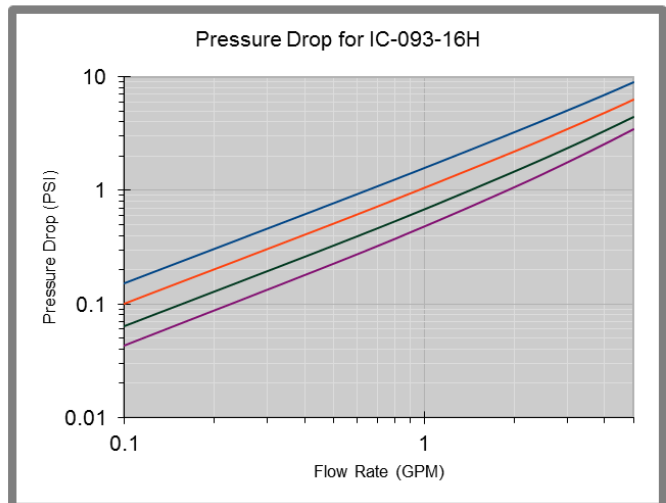
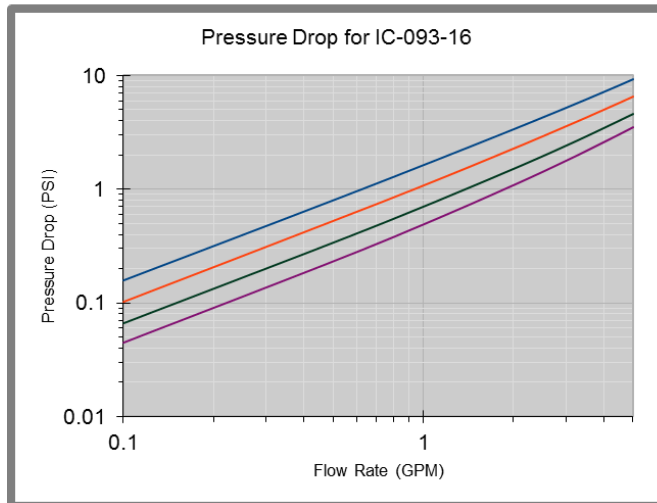
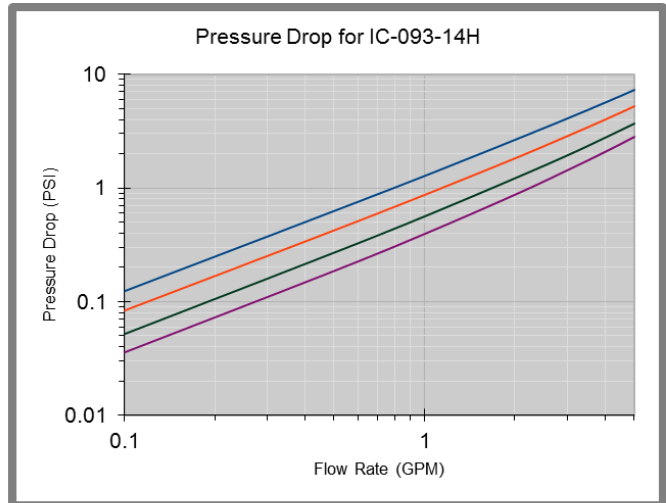
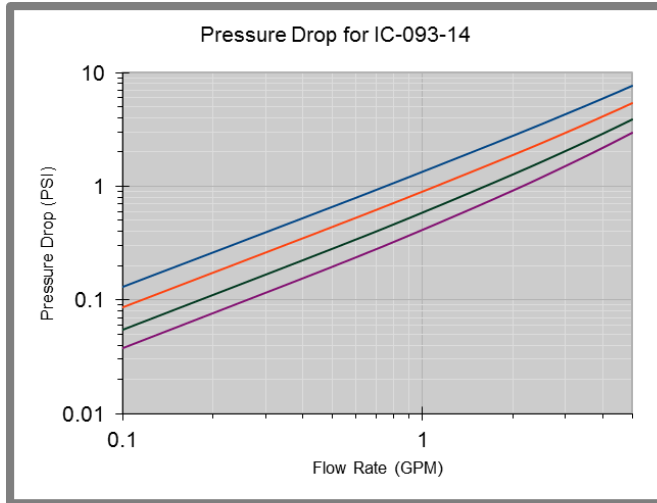
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IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 50% (LC-EG 50%)

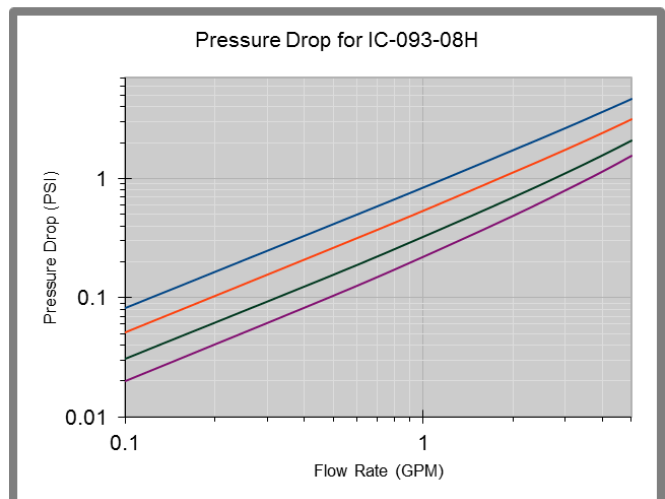
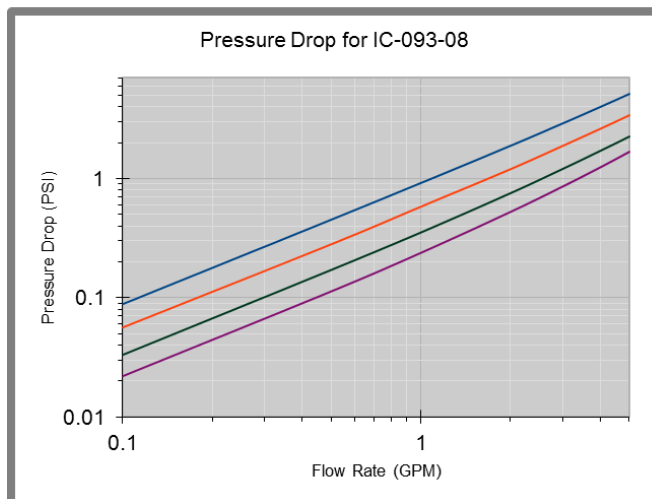
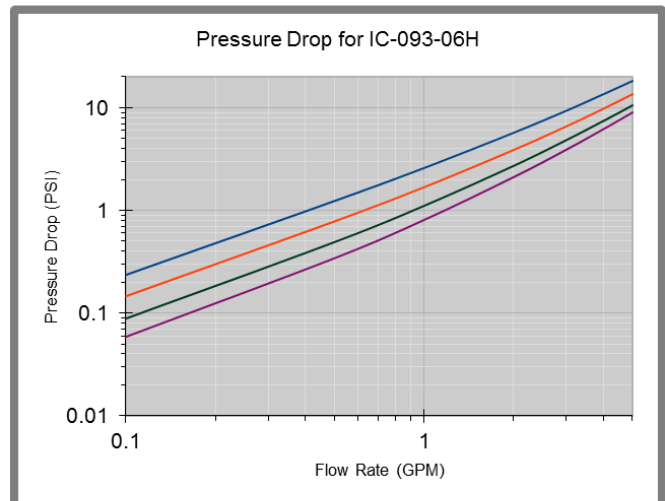
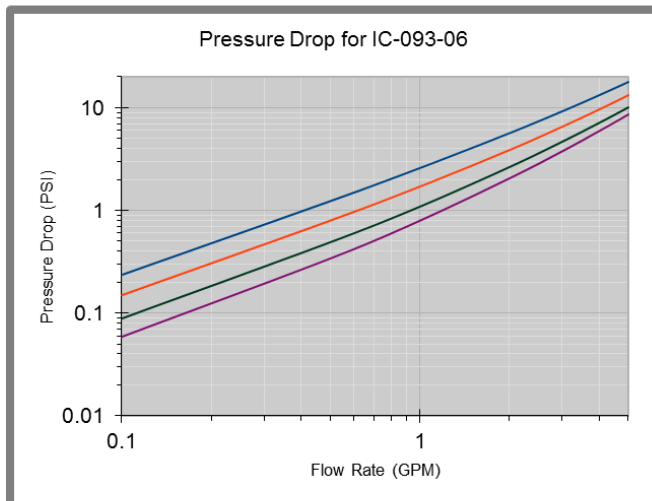
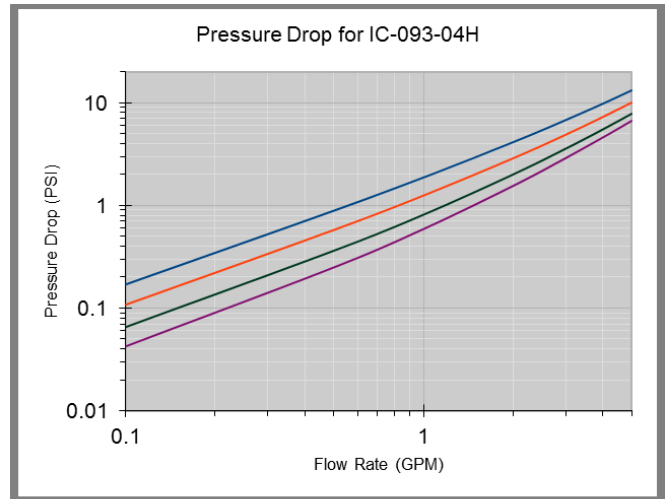
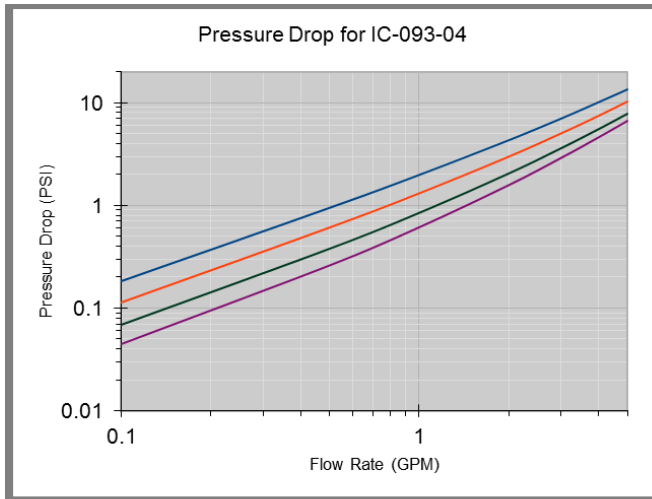
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 60% (LC-EG 60%)

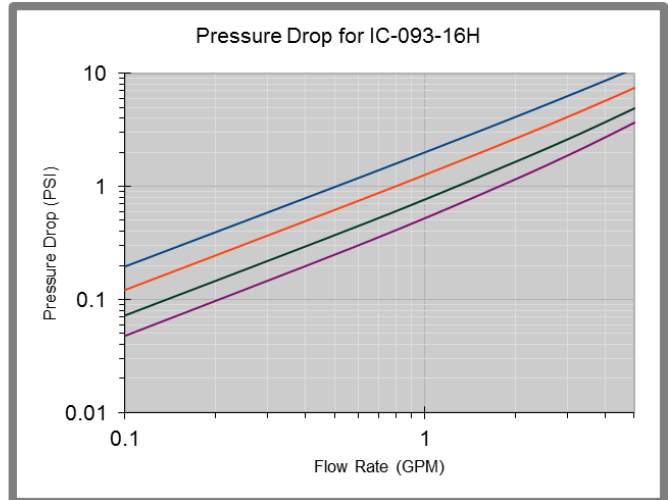
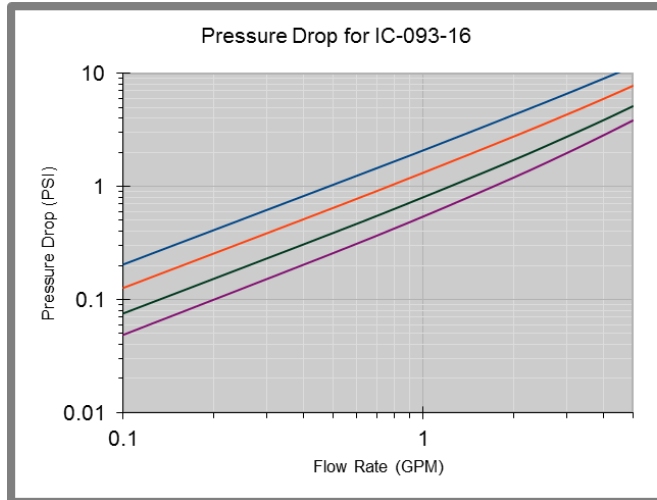
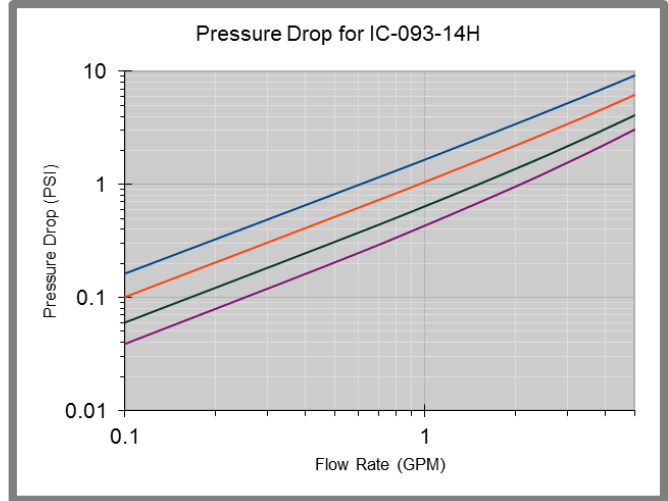
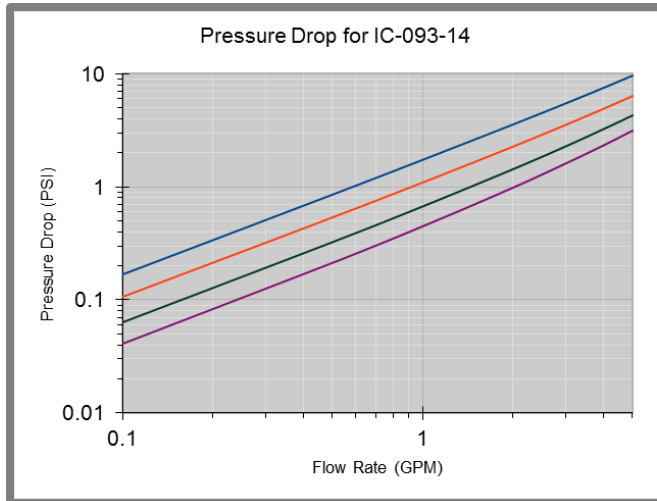
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Ethylene Glycol 60% (LC-EG 60%)

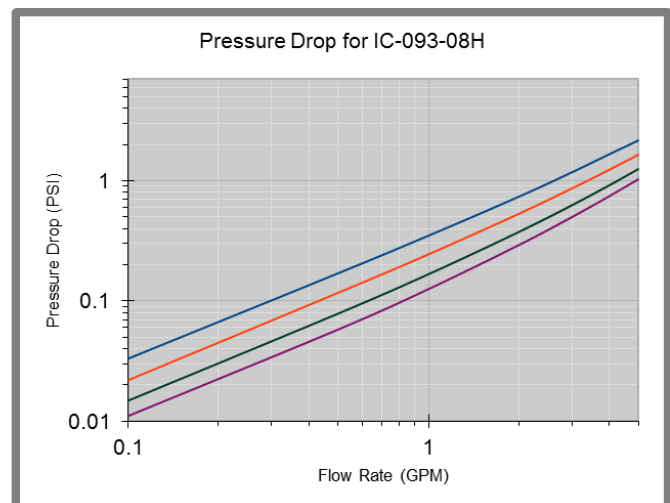
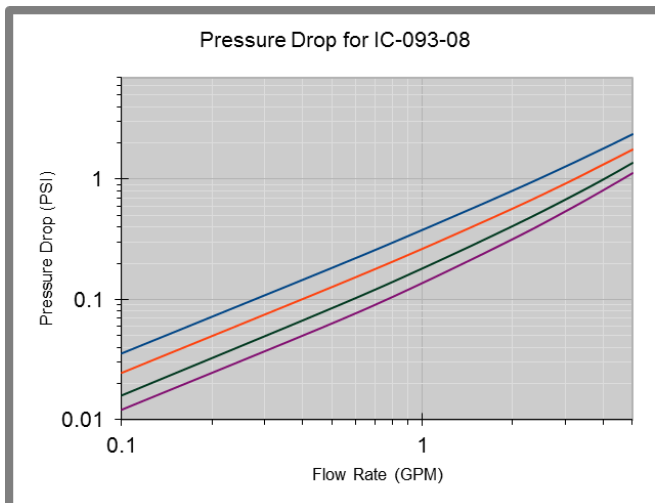
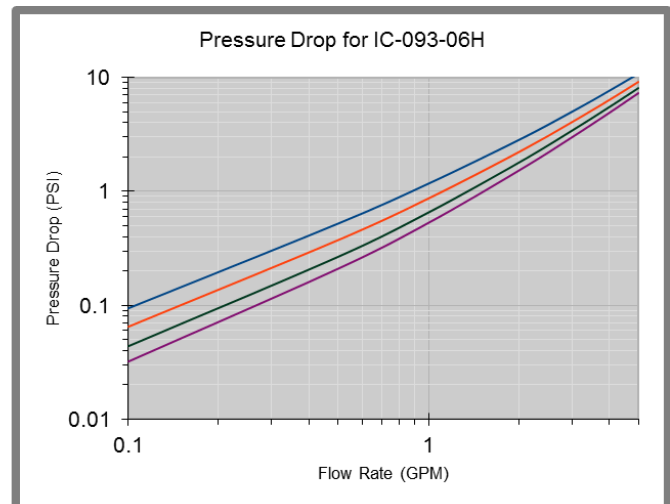
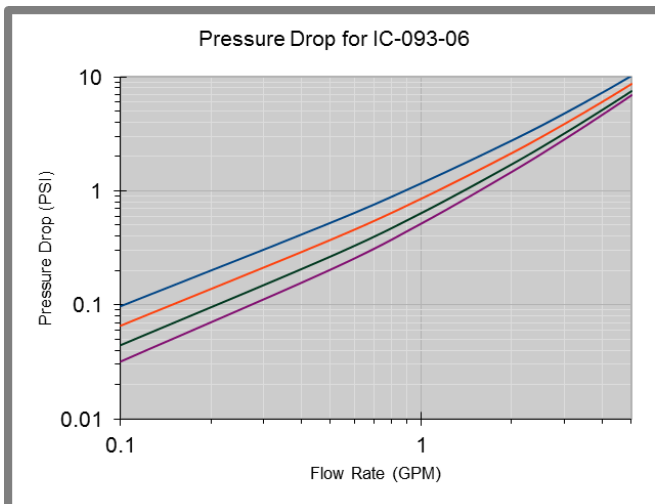
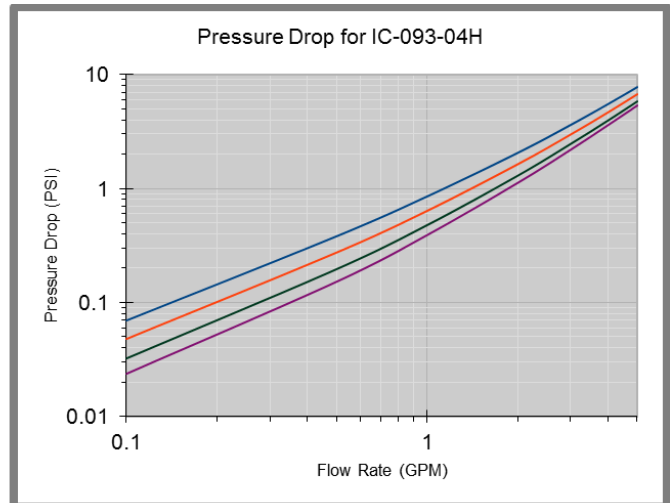
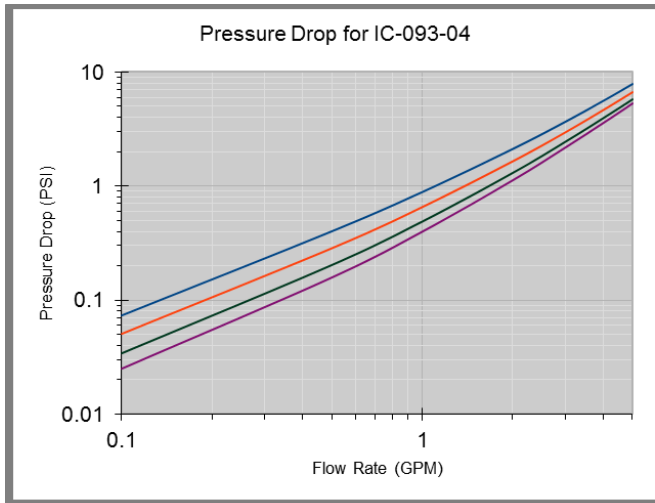
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 20% (LC-PG 20%)

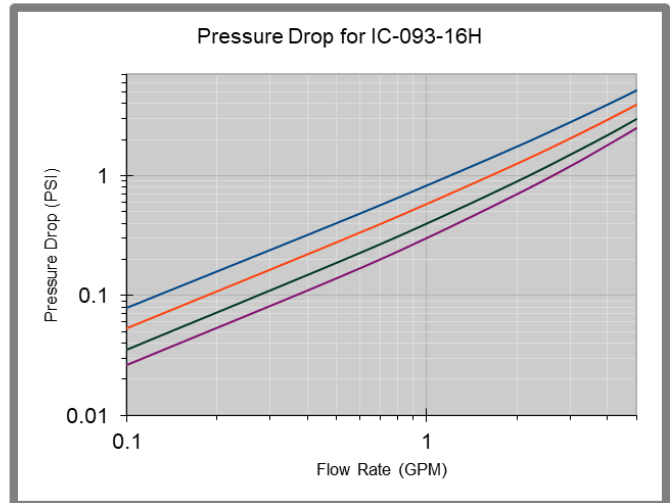
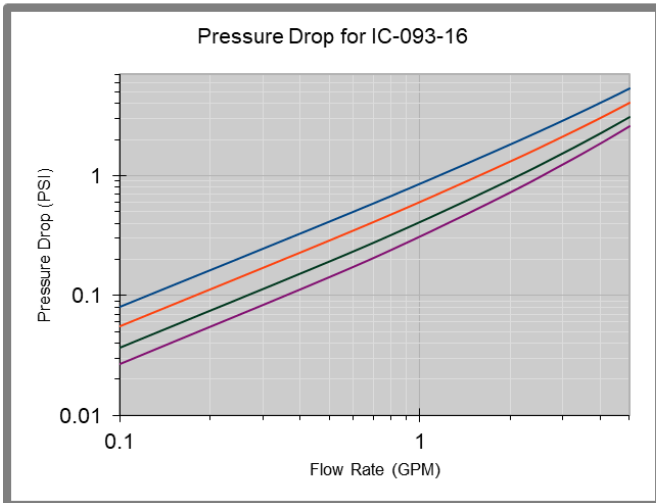
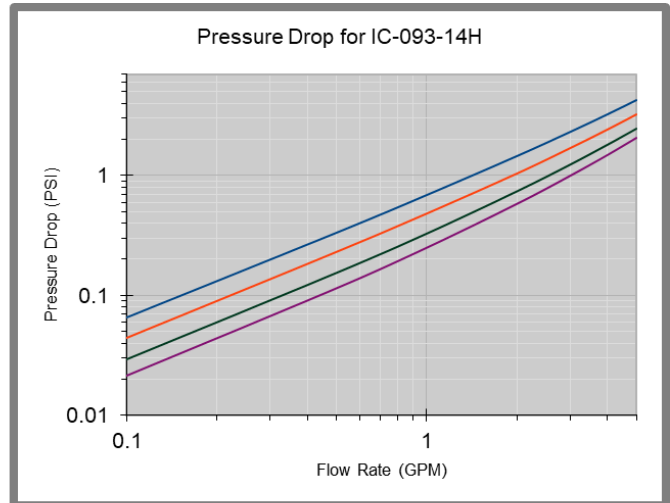
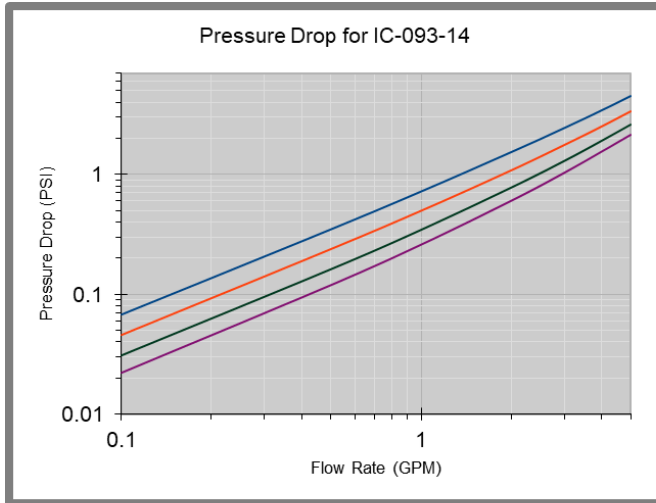
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 20% (LC-PG 20%)

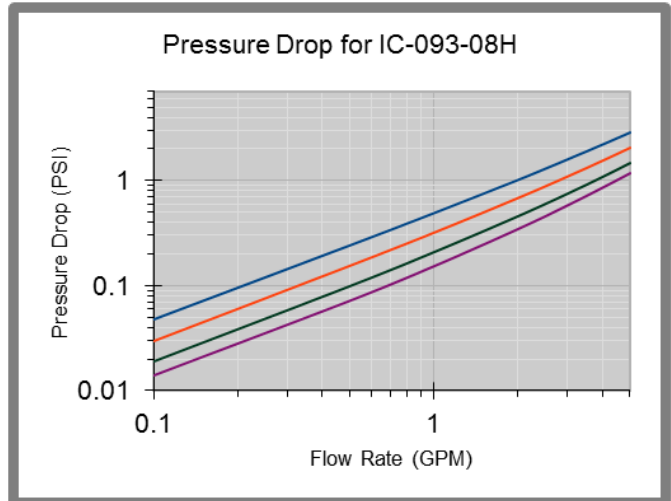
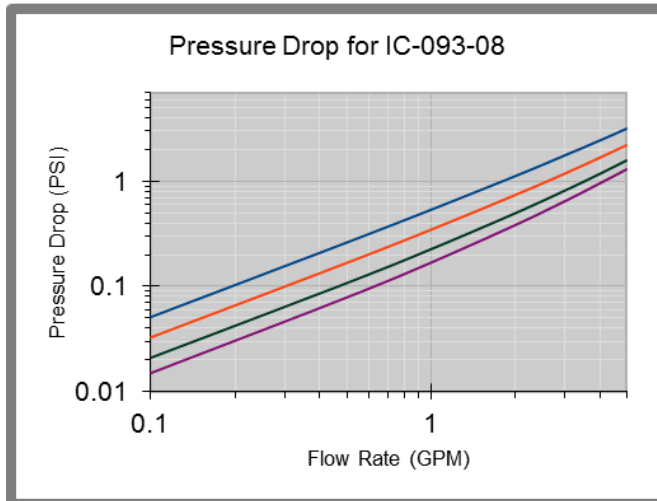
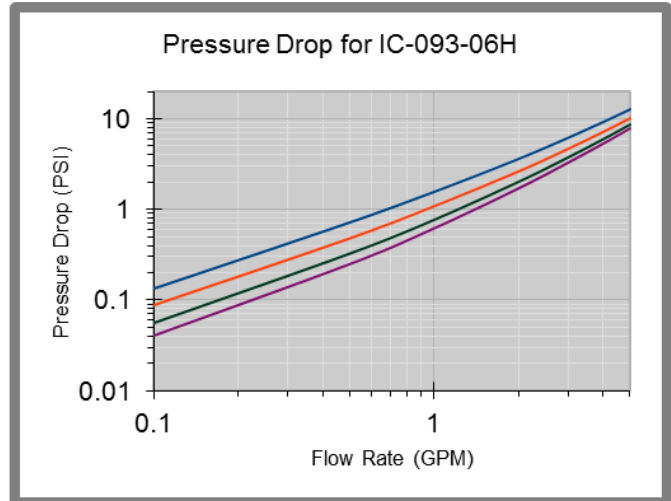
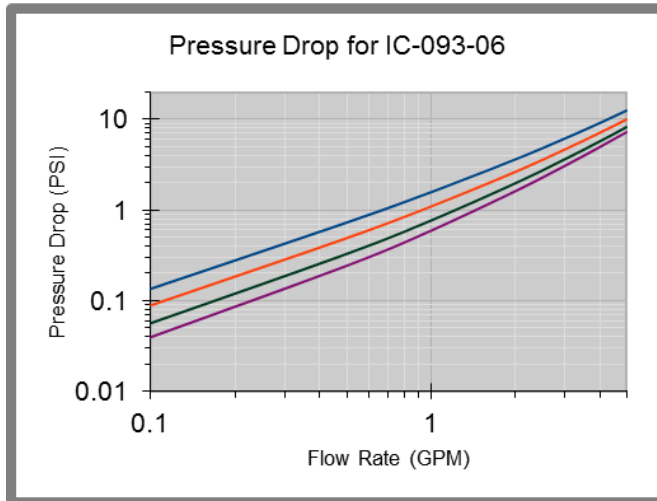
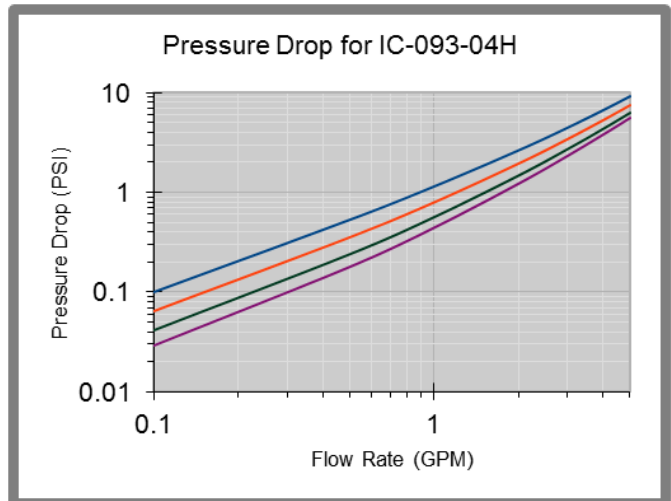
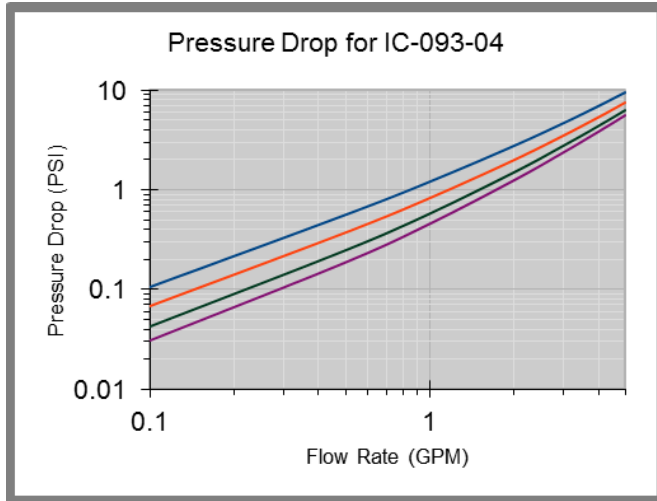
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 30% (LC-PG 30%)

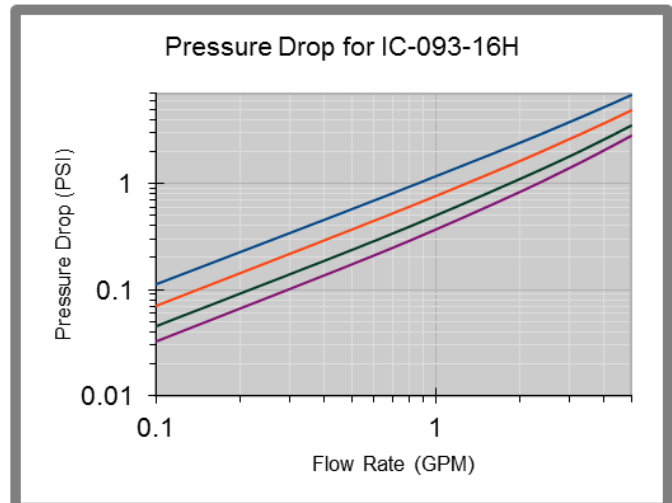
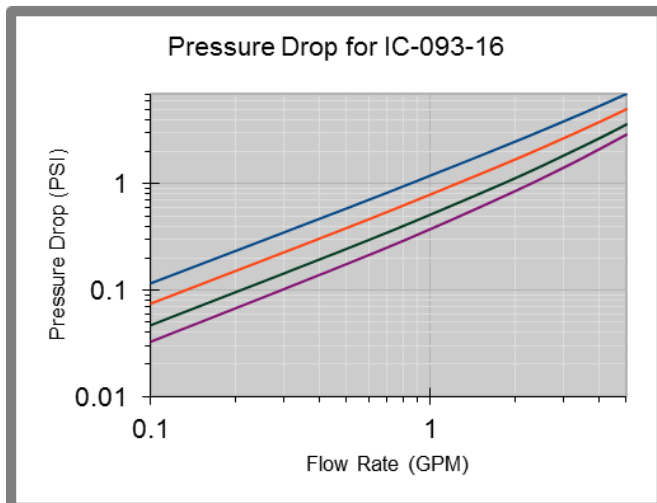
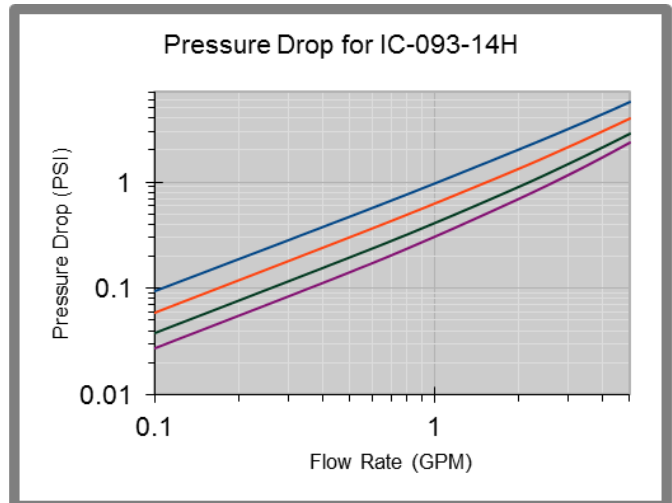
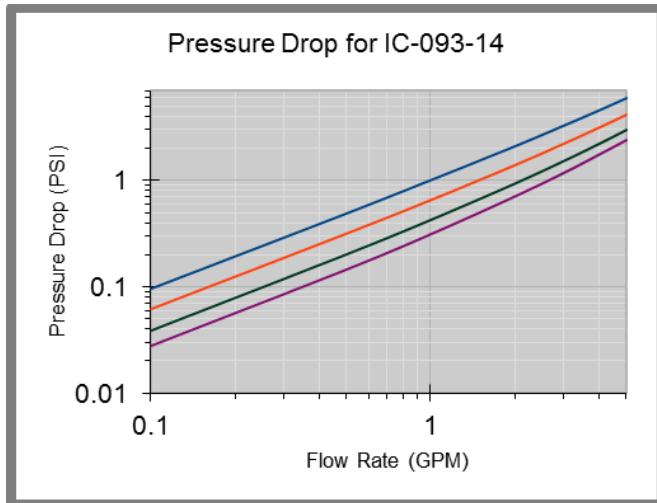
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 30% (LC-PG 30%)

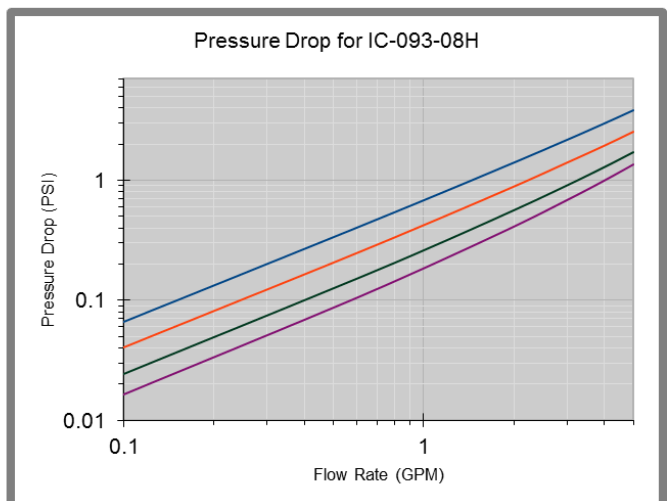
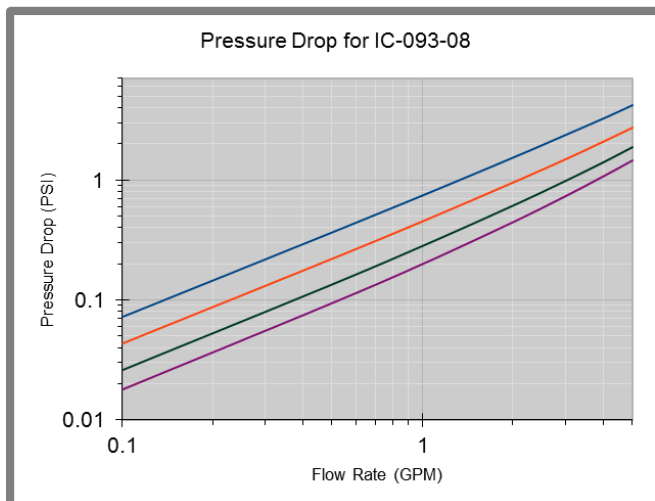
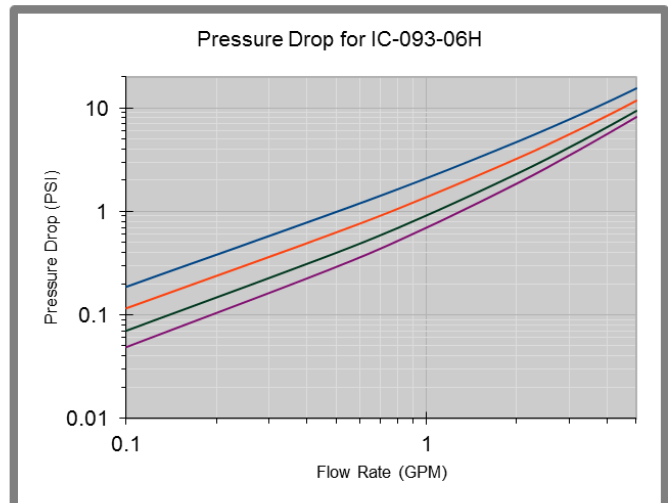
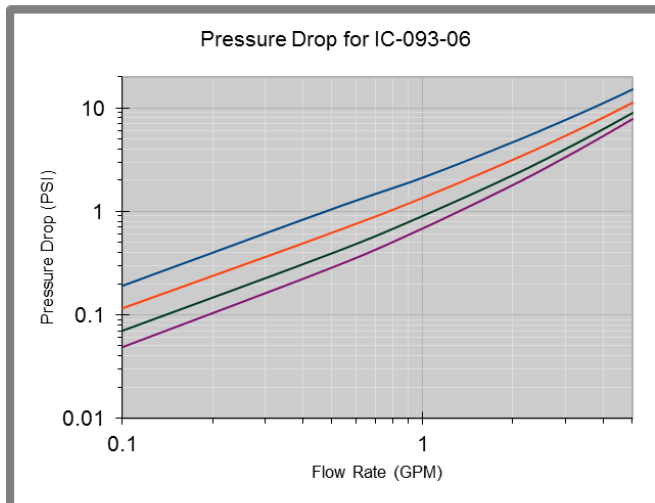
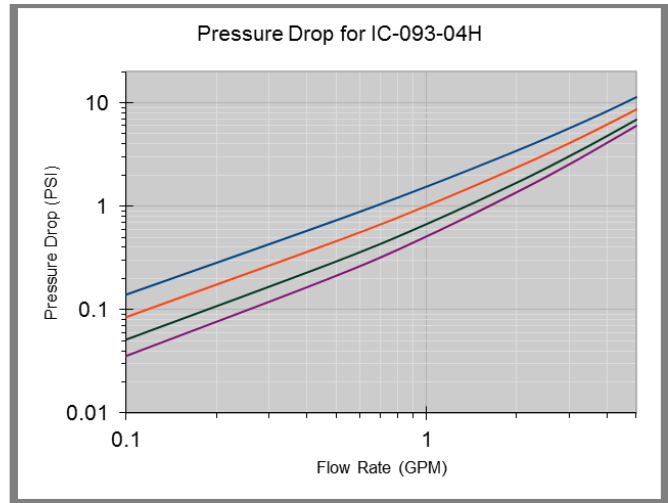
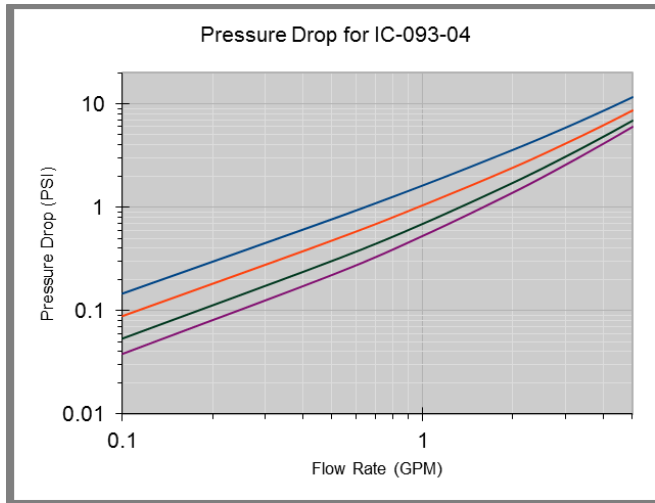
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 40% (LC-PG 40%)

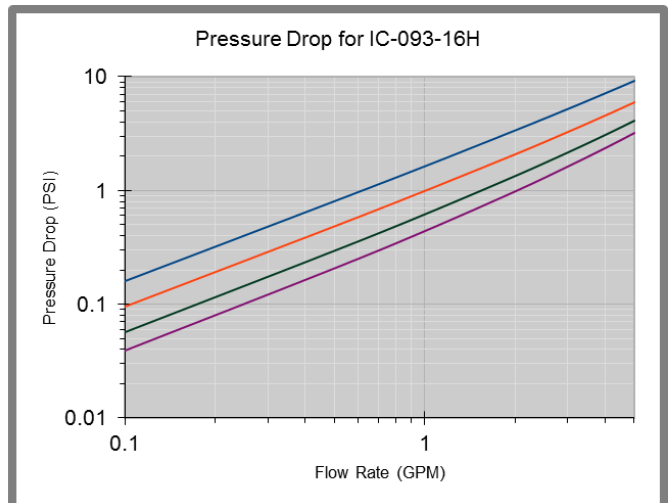
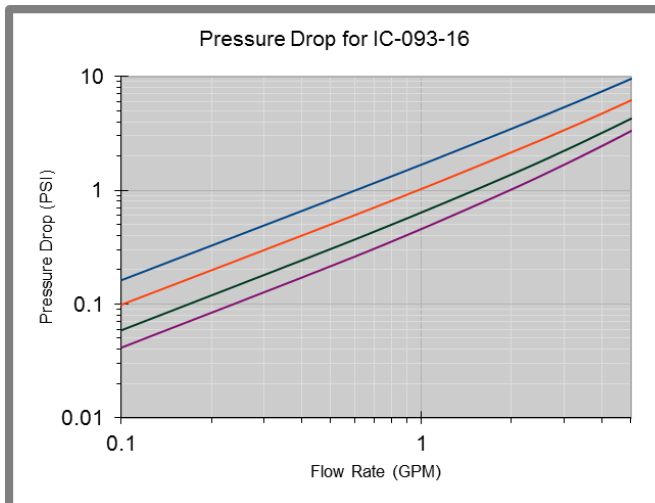
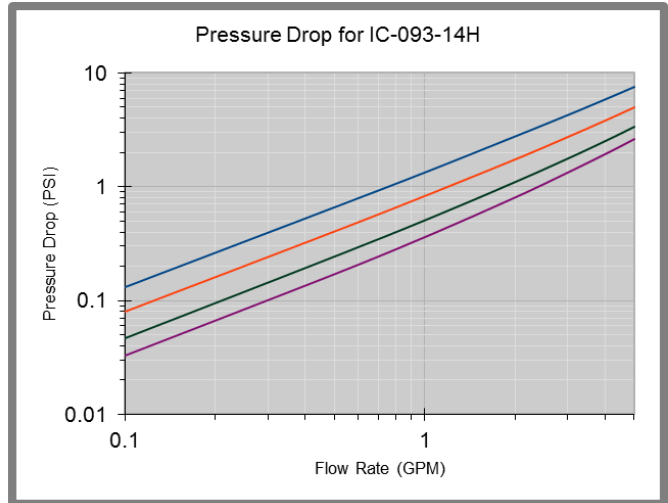
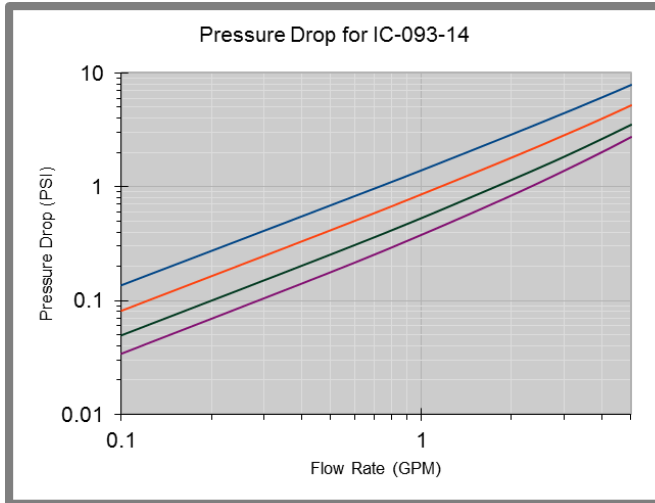
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

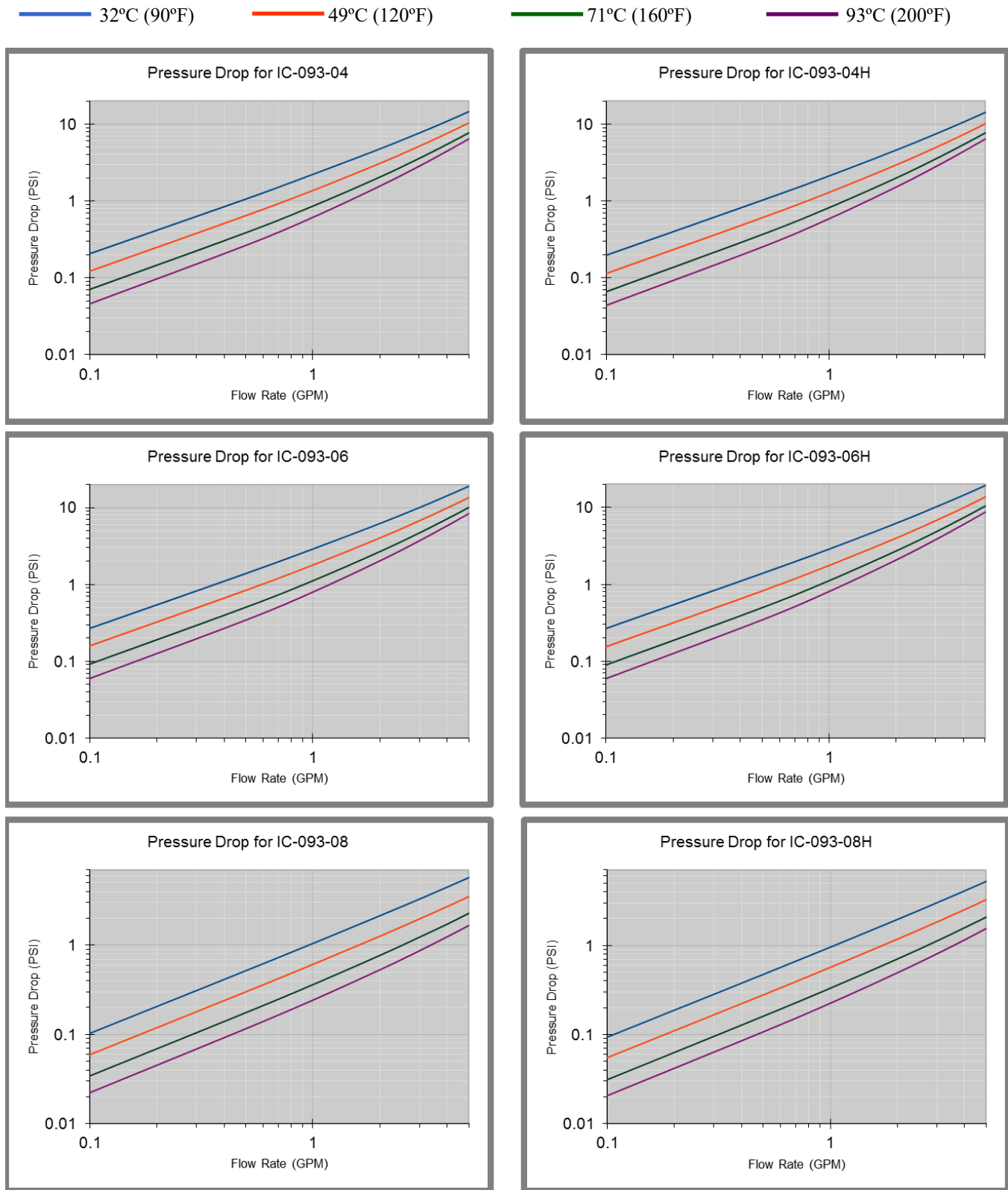
Hydraulic Properties: Low Conductivity Propylene Glycol 40% (LC-PG 40%)

— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

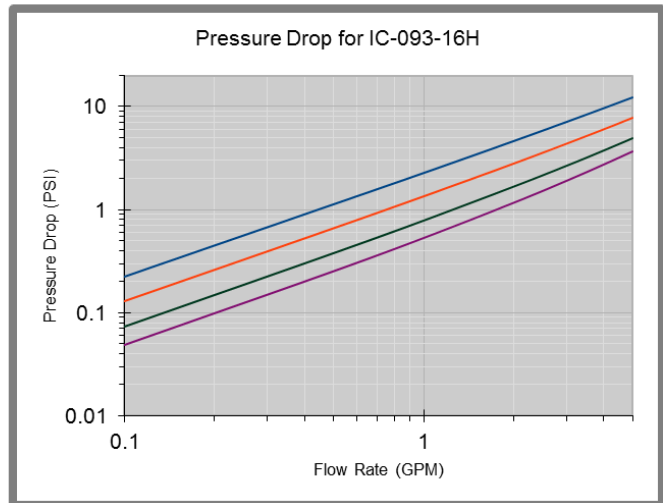
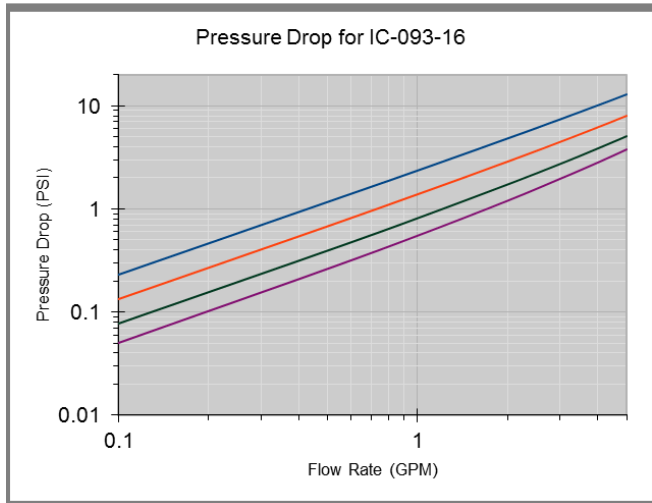
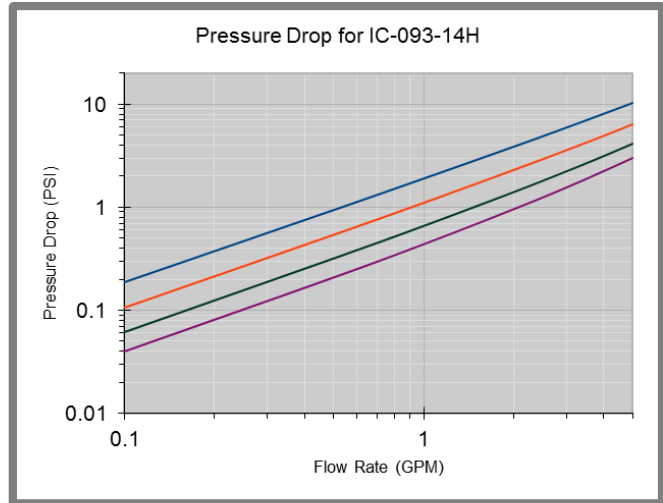
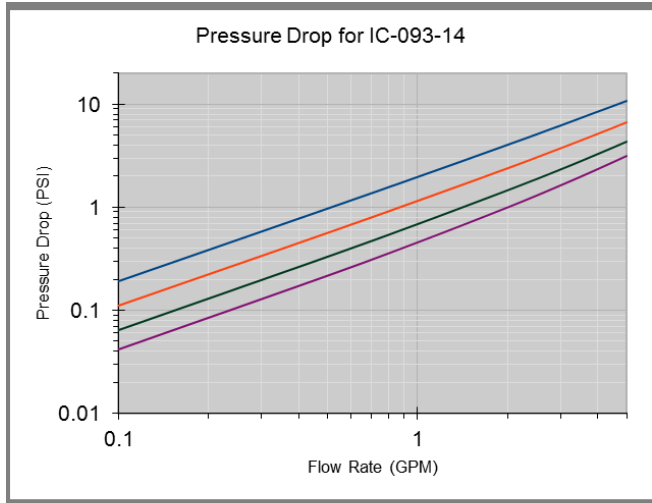
Hydraulic Properties: Low Conductivity Propylene Glycol 50% (LC-PG 50%)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 50% (LC-PG 50%)

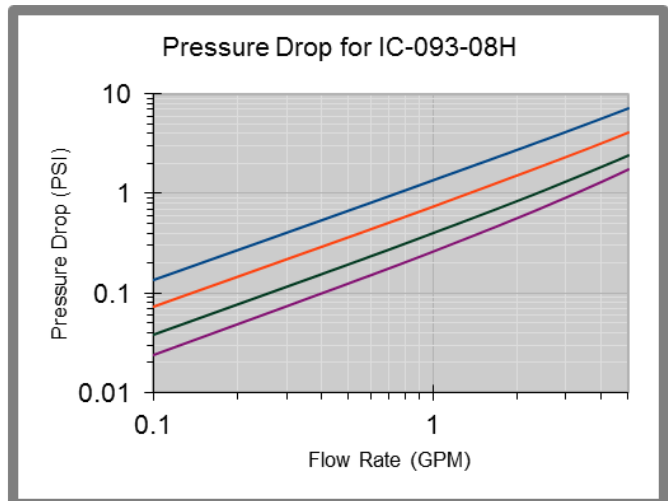
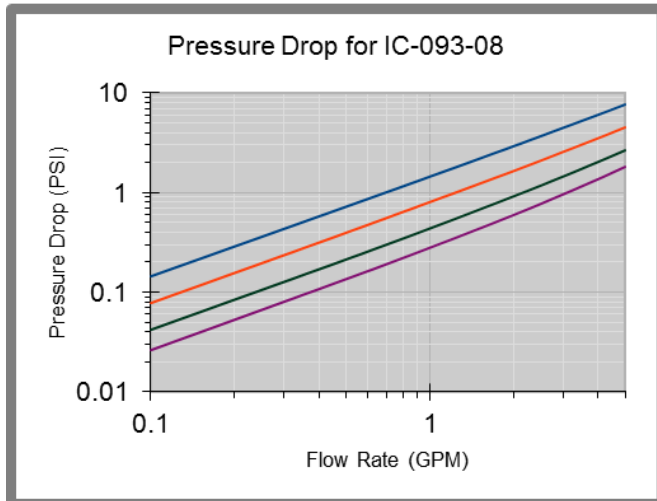
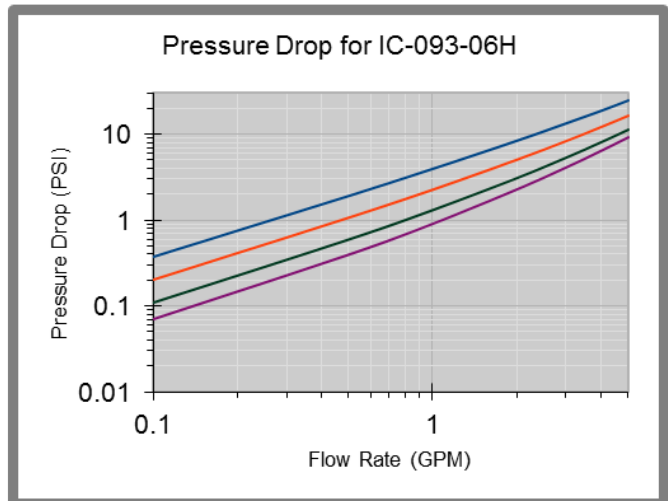
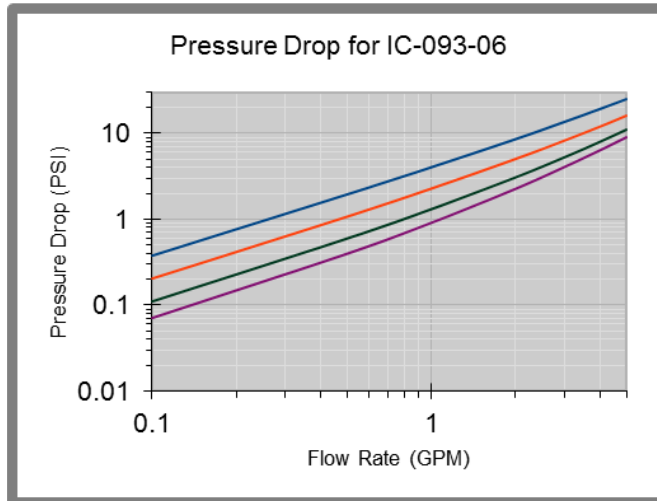
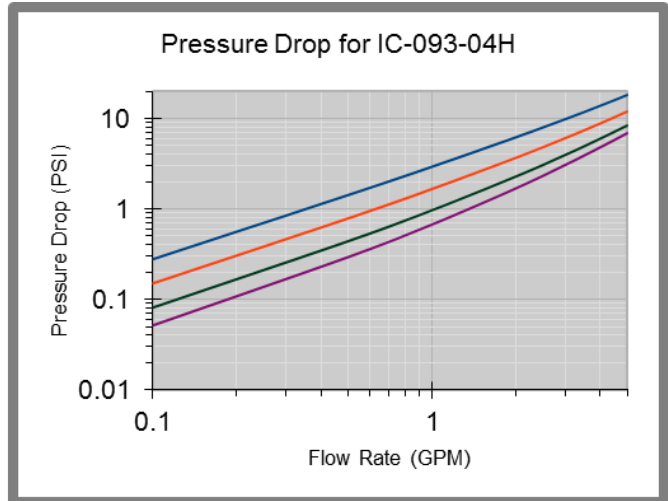
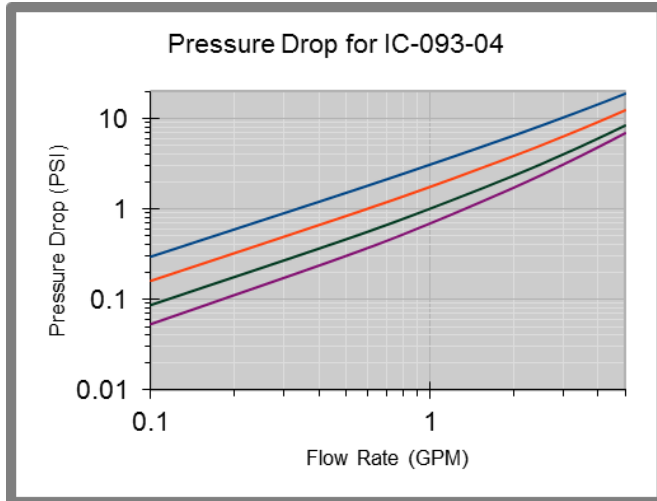
— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 60% (LC-PG 60%)

— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)



IC Series Cartridge

Hydraulic Properties: Low Conductivity Propylene Glycol 60% (LC-PG 60%)

— 32°C (90°F) — 49°C (120°F) — 71°C (160°F) — 93°C (200°F)

