

# **IDK-LOK**























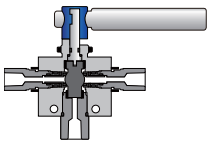




Fittings & Valves

## *DK-Lok High Pressure Series Fittings & Valves*

No.08-2  
April 2018



CRN ICHNP CE

High Pressure Needle Valve		High Pressure Fitting		High Pressure Union & Adapter	
Straight <b>DK-NV</b>	 04	Elbow <b>DK-L</b>	 10	Female Union <b>DK-FAU</b>	 16
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<b>High Pressure Relief Valve</b>		Factory Set <b>DK-RVS</b>	 13	Air Operated Valves <b>DK-NV</b>	 24
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## DK-Lok High Pressure Fittings

### General

- DK-Lok Corporation is specialized in the manufacturing of Instrument Fitting and Valve. The DK HP Series has been developed to satisfy customer requests for high pressure application.
- DK MP & HP Fittings and Valves are manufactured from 316 cold-worked stainless steel meeting NACE MR 0175.
- DK HP Valves are designed to operate safely and reliably against Medium Pressure for 20,000 psig service and High Pressure for 30,000 through 60,000 psig service and Ultra High Pressure for 100,000 through 150,000 psig service.
- Cone & thread design

				
Low Pressure Sleeve 5,500psig~11,500psig	Medium Pressure Collar 20,000psig	High Pressure Collar 30,000psig	High Pressure Collar 60,000psig	Ultra High Pressure Collar 100,000psig~150,000psig

### Working Pressure and size table

Type	Pressure	Tube Size						
		1/8"	1/4"	3/8"	1/2"	9/16"	3/4"	1"
NPT & PT thread	15,000	O	O	O	O			
	10,000						O	O
Low Pressure <sup>1)</sup>	11,000	O						
	11,500		O					
	7,500			O				
	5,500				O			
Medium Pressure	20,000		O	O		O	O	O
High Pressure	30,000	O	O	O		O		
	60,000		O			O		
Ultra-high Pressure	100,000		O					
	150,000			O				

Note: 1) Low pressure is according to tube thickness. See page 12.

### Application

- DBB
- High Pressure Test Equipment
- Subsea
- Chemical Injection System

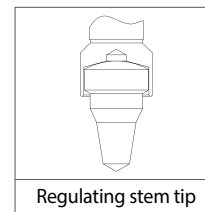
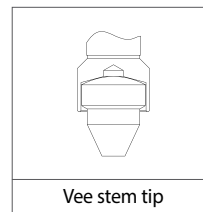
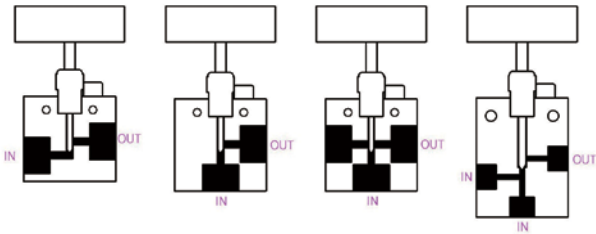


## High Pressure Needle Valve

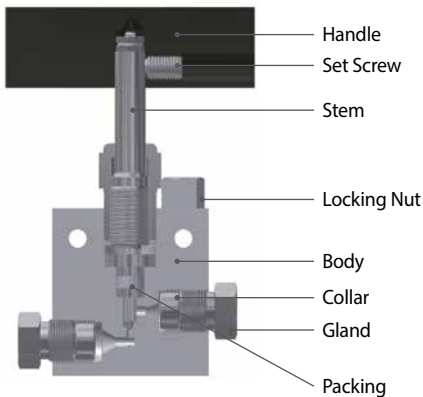


### Features

- Flow patterns are straight, angle, 3 way-1 inlet port, and 3 way-2 inlet ports.
- Non-rotating stem tip is prevent thread galling and assure long life cycle.
- Temperature range is from -100°F to 600°F (-73°C to 315°C) with standard PTFE packing and -100°F to 600°F (-73°C to 315°C) with optional Graphite packing.
- Stem tip are standard "Vee" and optional "Regulating" available.



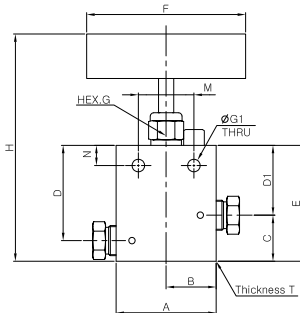
### Material of Construction



Parts	Materials
Handle	Aluminum
Set Screw	Stainless Steel
Stem	ASTM A564 TYPE630
Locking Nut	ASTM A276 TYPE304
Body	ASTM A276 TYPE316L
Collar	ASTM A276 TYPE304
Gland	ASTM A276 TYPE304
Packing	PTFE optional Graphite

Straight

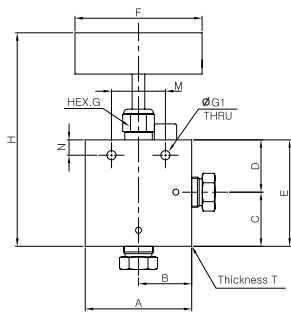
## DK-NV



Part No.	Pressure Rating	Tube Size	Cv	Orifice Size	Dimensions												
					A	B	C	D	D1	E	F	G	G1	H	M	N	T
DK11NV-02	11,000 psig	1/8"	0.12	2.39	38	19	22	30	23	45	50	13	5	82	12.8	8	20
DK11NV-04	11,500 psig	1/4"	0.2	3.18	50	25	20	40.3	30	50	80	17	6	118.2	15.6	9.7	20
DK07NV-06	7,500 psig	3/8"	0.2	3.18	50	25	20.5	40.3	29.5	50	80	17	6	116.9	15.7	9.7	20
DK05NV-08	5,500 psig	1/2"	1.62	7.54	63	31.5	30.5	60.5	44.5	75	100	24	9	151.8	17.5	12.7	25
DK20NV-04	20,000 psig	1/4"	0.31	3.18	50	25	20	40.3	30	50	80	17	6	118.2	15.7	9.7	20
DK20NV-06		3/8"	0.75	5.56	50	25	20	40.3	30	50	80	17	6	116.9	15.7	9.7	20
DK20NV-09		9/16"	1.3	7.94	63	31.5	29	60	44	73	80	22	8	143.1	15.7	12.7	25
DK20NV-12		3/4"	2.29	11.1	76	38	38	76	57	95	260	30	10	177.8	46	15.8	35
DK20NV-16	1"	4.78	14.3	105	52.5	46	96	72	118	260	41	14	214.8	63.5	28.5	45	
DK30NV-02	30,000 psig	1/8"	0.03	1.59	38	19	22	30	23	45	50	13	5	82.2	12.8	8	20
DK30NV-04		1/4"	0.12	2.4	50	25	21	43	33	54	80	20	6	114.9	17	9.7	25
DK30NV-06		3/8"	0.2	3.2	50	25	24	43	33	57	80	20	6	115.6	17	9.7	25
DK30NV-09	9/16"	0.33	3.2	67	33.5	29	43	33	62	80	20	6	130.3	17	9.7	38	
DK60NV-04	60,000 psig	1/4"	0.08	1.8	50	25	21	43	33	54	80	20	6	121.4	17	9.7	25
DK60NV-06		3/8"	0.09	1.8	50	25	24	43	33	57	80	20	6	124.9	17	9.7	25
DK60NV-09		9/16"	0.14	2	67	33.5	29	43	33	62	80	20	6	127.4	17	9.7	38
DK100NV-04	100,000 psig	1/4"	0.09	1.59	67	33.5	30.5	44	33	63.5	100	24	6	132.4	20	9.7	38
DK150NV-06	150,000 psig	3/8"	0.06	1.59	90	45	30	42	34	64	100	24	7	135	19	12.7	38

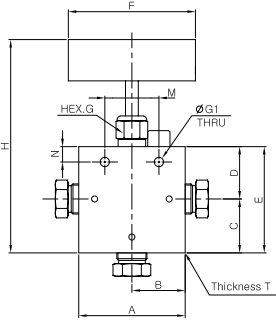
Angle

## DK-NV-A



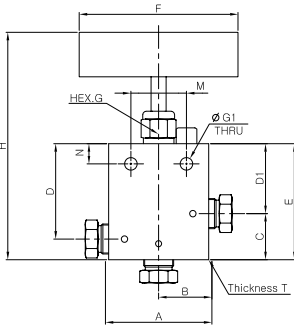
Part No.	Pressure Rating	Tube Size	Cv	Orifice Size	Dimensions												
					A	B	C	D	E	F	G	G1	H	M	N	T	
DK11NV-02-A	11,000 psig	1/8"	0.12	2.39	38	19	22	23	45	50	13	5	82	12.8	8	20	
DK11NV-04-A	11,500 psig	1/4"	0.2	3.18	50	25	32	30	62	80	17	6	130.2	15.6	9.7	20	
DK07NV-06-A	7,500 psig	3/8"	0.2	3.18	50	25	32	30	62	80	17	6	128.9	15.7	9.7	20	
DK05NV-08-A	5,500 psig	1/2"	1.62	7.54	63	31.5	41.5	44.5	86	100	24	9	162.8	17.6	12.7	25	
DK20NV-04-A	20,000 psig	1/4"	0.31	3.18	50	25	32	30	62	80	17	6	130.2	15.7	9.7	20	
DK20NV-06-A		3/8"	0.75	5.56	50	25	32	30	62	80	17	6	128.9	15.7	9.7	20	
DK20NV-09-A		9/16"	1.3	7.94	63	31.5	25.5	44.5	70	80	22	8	155.6	15.7	12.7	25	
DK20NV-12-A		3/4"	2.29	11.1	76	38	50.8	57.2	108	260	30	10	191	46	15.8	35	
DK20NV-16-A	1"	4.78	14.3	105	52.5	65	73	138	260	41	14	238.1	63.5	28.5	45		
DK30NV-02-A	30,000 psig	1/8"	0.03	1.59	38	19	22	23	45	50	13	5	82.2	12.8	8	20	
DK30NV-04-A		1/4"	0.12	2.4	50	25	33.5	28.5	62	80	20	6	126.4	17.2	9.7	25	
DK30NV-06-A		3/8"	0.2	3.2	50	25	33.5	28.5	62	80	20	6	126.5	17.2	9.7	25	
DK30NV-09-A		9/16"	0.33	3.2	67	33.5	33.5	28.5	62	80	20	6	130.3	17.2	9.7	38	
DK60NV-04-A	60,000 psig	1/4"	0.08	1.8	50	25	27.5	33	60.5	80	20	6	127.9	17	9.7	25	
DK60NV-06-A		3/8"	0.09	1.8	50	25	33.5	33	66.5	80	20	6	134.4	17	9.7	25	
DK60NV-09-A		9/16"	0.14	2	67	33.5	35.5	31.5	67	80	20	6	134.4	17	9.7	38	
DK100NV-04-A	100,000 psig	1/4"	0.09	1.59	67	33.5	32	30	62	100	24	6	130.2	20	9.7	38	
DK150NV-06-A	150,000 psig	3/8"	0.06	1.59	90	45	32	30	62	100	24	7	130.2	19	12.7	38	

## 3Way One Pressure DK-NV-O



Part No.	Pressure Rating	Tube Size	Cv	Orifice Size	Dimensions												
					A	B	C	D	E	F	G	G1	H	M	N	T	
DK11NV-02-O	11,000 psig	1/8"	0.12	2.39	38	19	22	23	45	50	13	5	82	12.8	8	20	
DK11NV-04-O	11,500 psig	1/4"	0.2	3.18	50	25	32	30	62	80	17	6	130.2	15.6	9.7	20	
DK07NV-06-O	7,500 psig	3/8"	0.2	3.18	50	25	32	30	62	80	17	6	128.9	15.7	9.7	20	
DK05NV-08-O	5,500 psig	1/2"	1.62	7.54	63	31.5	41.5	44.5	86	100	24	9	162.8	17.5	12.7	25	
DK20NV-04-O	20,000 psig	1/4"	0.31	3.18	50	25	32	30	62	80	17	6	130.2	15.7	9.7	20	
DK20NV-06-O		3/8"	0.75	5.56	50	25	32	30	62	80	17	6	128.9	15.7	9.7	20	
DK20NV-09-O		9/16"	1.3	7.94	63	31.5	41	45	86	80	22	8	155.1	15.7	12.7	25	
DK20NV-12-O		3/4"	2.29	11.1	76	38	50.8	57.2	108	260	30	10	191	46	15.8	35	
DK20NV-16-O		1"	4.78	14.3	105	52.5	65	73	138	260	41	14	238.1	63.5	28.5	45	
DK30NV-02-O	30,000 psig	1/8"	0.03	1.59	38	19	22	23	45	50	13	5	82.2	12.8	8	20	
DK30NV-04-O		1/4"	0.12	2.4	50	25	33.5	28.5	62	80	20	6	126.4	17.2	9.7	25	
DK30NV-06-O		3/8"	0.2	3.2	50	25	33.5	28.5	62	80	20	6	126.4	17.2	9.7	25	
DK30NV-09-O		9/16"	0.33	3.2	67	33.5	33.5	28.5	62	80	20	6	130.3	17.2	9.7	38	
DK60NV-04-O	60,000 psig	1/4"	0.08	1.8	50	25	27.5	33	60.5	80	20	6	127.9	17	9.7	25	
DK60NV-06-O		3/8"	0.09	1.8	50	25	37	33	70	80	20	6	137.4	17	9.7	25	
DK60NV-09-O		9/16"	0.14	2	67	33.5	35.5	32	67	80	20	6	134.4	17	9.7	38	
DK100NV-04-O	100,000 psig	1/4"	0.09	1.59	67	33.5	32	30	62	100	24	6	130.2	20	9.7	38	
DK150NV-06-O	150,000 psig	3/8"	0.06	1.59	90	45	32	30	62	100	24	7	130.2	19	12.7	38	

## 3Way Two Pressure DK-NV-T



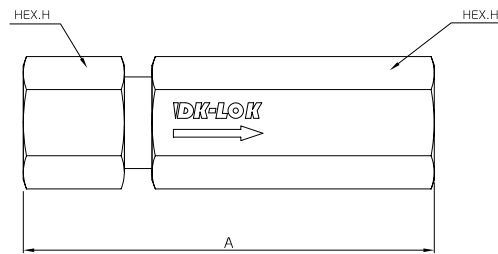
Part No.	Pressure Rating	Tube Size	Cv	Orifice Size	Dimensions												
					A	B	C	D	D1	E	F	G	G1	H	M	N	T
DK11NV-02-T	11,000 psig	1/8"	0.12	2.39	38	19	22	30	23	45	50	13	5	82	12.8	8	20
DK11NV-04-T	11,500 psig	1/4"	0.2	3.18	50	25	36.5	41	30	66.5	80	17	6	134.8	15.6	9.7	20
DK07NV-06-T	7,500 psig	3/8"	0.2	3.18	50	25	36.5	41	30	66.5	80	17	6	133.3	15.7	9.7	20
DK05NV-08-T	5,500 psig	1/2"	1.62	7.54	63	31.5	47.5	60.5	44.5	92	100	24	9	168.8	17.5	12.7	25
DK20NV-04-T	20,000 psig	1/4"	0.31	3.18	50	25	36.5	41	30	66.5	80	17	6	134.7	15.7	9.7	20
DK20NV-06-T		3/8"	0.75	5.56	50	25	36.5	41	30	66.5	80	17	6	133.3	15.7	9.7	20
DK20NV-09-T		9/16"	1.3	7.94	63	31.5	47.5	60	44.5	92	80	22	8	159.9	15.7	12.7	25
DK20NV-12-T		3/4"	2.29	11.1	76	38	60.3	50.8	57.2	117.5	260	30	10	200	46	15.8	35
DK20NV-16-T		1"	4.78	14.3	105	52.5	77.8	95	71.2	149	260	41	14	247.6	63.5	28.5	45
DK30NV-02-T	30,000 psig	1/8"	0.03	1.59	38	19	22	30	23	45	50	13	5	87.2	12.8	8	20
DK30NV-04-T		1/4"	0.12	2.4	50	25	33.5	38	28.5	62	80	20	6	126.4	17.2	9.7	25
DK30NV-06-T		3/8"	0.2	3.2	50	25	35	38	28.5	63.5	80	20	6	127.9	17.2	9.7	25
DK30NV-09-T		9/16"	0.33	3.2	67	33.5	50.5	39.5	28.5	79	80	20	6	141.3	17.2	9.7	38
DK60NV-04-T	60,000 psig	1/4"	0.08	1.8	50	25	27.2	43	33	60.5	80	20	6	127.9	17	9.7	25
DK60NV-06-T		3/8"	0.09	1.8	50	25	38.5	43	33	71.5	80	20	6	138.9	17	9.7	25
DK60NV-09-T		9/16"	0.14	2	67	33.5	45.5	41	31.5	77	80	20	6	144.4	17	9.7	38
DK100NV-04-T	100,000 psig	1/4"	0.09	1.59	67	33.5	36.5	41	30	66.5	100	24	6	134.7	20	9.7	38
DK150NV-06-T	150,000 psig	3/8"	0.06	1.59	90	45	36.5	41	30	66.5	100	24	7	134.7	19	12.7	38

## High Pressure Check Valve

### Features

- Reverse flow prevention which fully leak-tight performance.
- Two sealing Type : Standard FKM O-ring seat is excellent fast shut-off. Other material is available.  
Optional tungsten carbide Ball seat is metal to metal and continuous cycling.
- Spring material is stainless steel.
- Check valve that facilitates one-directional movement by blocking the reverse flow of gas or liquid

### Dimensions



Part No.	Pressure Rating	Tube Size	Orifice Size	Dimensions	
				A	HEX.H
DK11CV-02	11,000 psig	1/8"	1.4	68	22
DK11CV-04	11,500 psig	1/4"	3.2	81	25.4
DK07CV-06	7,500 psig	3/8"	5	93	35
DK05CV-08	5,500 psig	1/2"	8.35	108	41
DK20CV-04	20,000 psig	1/4"	2.8	77	25
DK20CV-06		3/8"	5.2	91	25
DK20CV-09		9/16"	5	107	35
DK20CV-12		3/4"	5	131	41
DK20CV-16		1"	6	165	55
DK30CV-02	30,000 psig	1/8"	1.2	66	20
DK60CV-04	60,000 psig	1/4"	2.4	85	32
DK60CV-06		3/8"	3.2	100	36
DK60CV-09		9/16"	4.8	118	38
DK100CV-04	100,000 psig	1/4"	2.4	129	ø50

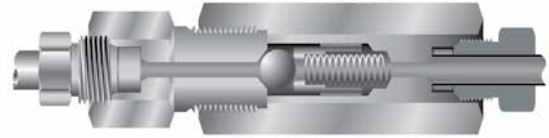


## Check Valves

### DK-CV



O-Ring Type Check Valve



Ball Type Check Valve

Pressure Rating	Tube Size	Union		Male to Male		Male to Female	
		O-Ring Type	Ball Type	O-Ring Type	Ball Type	O-Ring Type	Ball Type
11,000psig	1/8"	DK11CV-02-OR	DK11CV-02-BS	DK11CV-MM02-OR	DK11CV-MM02-BS	DK11CV-MF02-OR	DK11CV-MF02-BS
11,500psig	1/4"	DK11CV-04-OR	DK11CV-04-BS	DK11CV-MM04-OR	DK11CV-MM04-BS	DK11CV-MF04-OR	DK11CV-MF04-BS
7,500psig	3/8"	DK11CV-06-OR	DK11CV-06-BS	DK11CV-MM06-OR	DK11CV-MM06-BS	DK11CV-MF06-OR	DK11CV-MF06-BS
5,500psig	1/2"	DK11CV-08-OR	DK11CV-08-BS	DK11CV-MM08-OR	DK11CV-MM08-BS	DK11CV-MF08-OR	DK11CV-MF08-BS
20,000psig	1/4"	DK20CV-04-OR	DK20CV-04-BS	DK20CV-MM04-OR	DK20CV-MM04-BS	DK20CV-MF04-OR	DK20CV-MF04-BS
	3/8"	DK20CV-06-OR	DK20CV-06-BS	DK20CV-MM06-OR	DK20CV-MM06-BS	DK20CV-MF06-OR	DK20CV-MF06-BS
	9/16"	DK20CV-09-OR	DK20CV-09-BS	DK20CV-MM09-OR	DK20CV-MM09-BS	DK20CV-MF09-OR	DK20CV-MF09-BS
	3/4"	DK20CV-12-OR	DK20CV-12-BS	DK20CV-MM12-OR	DK20CV-MM12-BS	DK20CV-MF12-OR	DK20CV-MF12-BS
30,000psig	1"	DK20CV-16-OR	DK20CV-16-BS	DK20CV-MM16-OR	DK20CV-MM16-BS	DK20CV-MF16-OR	DK20CV-MF16-BS
	1/8"	DK30CV-02-OR	DK30CV-02-BS	DK30CV-MM02-OR	DK30CV-MM02-BS	DK30CV-MF02-OR	DK30CV-MF02-BS
60,000psig	1"	DK30CV-16-OR	DK30CV-16-BS	DK30CV-MM16-OR	DK30CV-MM16-BS	DK30CV-MF16-OR	DK30CV-MF16-BS
	1/4"	DK60CV-04-OR	DK60CV-04-BS	DK60CV-MM04-OR	DK60CV-MM04-BS	DK60CV-MF04-OR	DK60CV-MF04-BS
	3/8"	DK60CV-06-OR	DK60CV-06-BS	DK60CV-MM06-OR	DK60CV-MM06-BS	DK60CV-MF06-OR	DK60CV-MF06-BS
	9/16"	DK60CV-09-OR	DK60CV-09-BS	DK60CV-MM09-OR	DK60CV-MM09-BS	DK60CV-MF09-OR	DK60CV-MF09-BS

## Filter

### DK-FL



Cup Type Filter

Pressure Rating	Tube Size	Union		Male to Male		Male to Female	
		Cup Type	Plate Type	Cup Type	Plate Type	Cup Type	Plate Type
11,000psig	1/8"	DK11FL-02-CS	DK11FL-02-PL	DK11FL-MM02-CS	DK11FL-MM02-PL	DK11FL-MF02-CS	DK11FL-MF02-PL
11,500psig	1/4"	DK11FL-04-CS	DK11FL-04-PL	DK11FL-MM04-CS	DK11FL-MM04-PL	DK11FL-MF04-CS	DK11FL-MF04-PL
7,500psig	3/8"	DK11FL-06-CS	DK11FL-06-PL	DK11FL-MM06-CS	DK11FL-MM06-PL	DK11FL-MF06-CS	DK11FL-MF06-PL
5,500psig	1/2"	DK11FL-08-CS	DK11FL-08-PL	DK11FL-MM08-CS	DK11FL-MM08-PL	DK11FL-MF08-CS	DK11FL-MF08-PL
20,000psig	1/4"	DK20FL-04-CS	DK20FL-04-PL	DK20FL-MM04-CS	DK20FL-MM04-PL	DK20FL-MF04-CS	DK20FL-MF04-PL
	3/8"	DK20FL-06-CS	DK20FL-06-PL	DK20FL-MM06-CS	DK20FL-MM06-PL	DK20FL-MF06-CS	DK20FL-MF06-PL
	9/16"	DK20FL-09-CS	DK20FL-09-PL	DK20FL-MM09-CS	DK20FL-MM09-PL	DK20FL-MF09-CS	DK20FL-MF09-PL
	3/4"	DK20FL-12-CS	DK20FL-12-PL	DK20FL-MM12-CS	DK20FL-MM12-PL	DK20FL-MF12-CS	DK20FL-MF12-PL
30,000psig	1"	DK20FL-16-CS	DK20FL-16-PL	DK20FL-MM16-CS	DK20FL-MM16-PL	DK20FL-MF16-CS	DK20FL-MF16-PL
	1/8"	DK30FL-02-CS	DK30FL-02-PL	DK30FL-MM02-CS	DK30FL-MM02-PL	DK30FL-MF02-CS	DK30FL-MF02-PL
60,000psig	1"	DK30FL-16-CS	DK30FL-16-PL	DK30FL-MM16-CS	DK30FL-MM16-PL	DK30FL-MF16-CS	DK30FL-MF16-PL
	1/4"	DK60FL-04-CS	DK60FL-04-PL	DK60FL-MM04-CS	DK60FL-MM04-PL	DK60FL-MF04-CS	DK60FL-MF04-PL
	3/8"	DK60FL-06-CS	DK60FL-06-PL	DK60FL-MM06-CS	DK60FL-MM06-PL	DK60FL-MF06-CS	DK60FL-MF06-PL
	9/16"	DK60FL-09-CS	DK60FL-09-PL	DK60FL-MM09-CS	DK60FL-MM09-PL	DK60FL-MF09-CS	DK60FL-MF09-PL

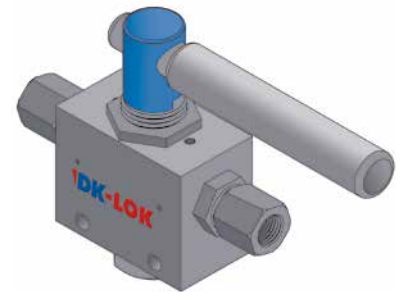


# High Pressure Ball Valve

## Features

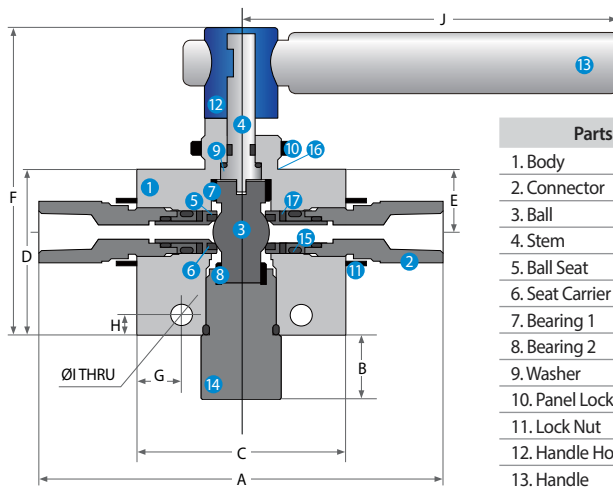
High pressure ball valves are designed with trunnion style ball so that it is possible to open and close the flow path only by 1/4 turn.

- 2-way ball valve; bi-directional, 3-way ball valve; inlet-bottom, outlet-left or right port.
- 2-way ball valve; 1/4 (90°) turn, 3-way ball valve; 1/2 (180°) turn.
- Applicable tubing size; 1/8", 1/4", 3/8", 9/16"
- Maximum working pressure; 20,000 psig
- Seat material uses PEEK, and is excellent in abrasion resistance, friction resistance and chemical resistance.
- O-ring material; standard-Viton



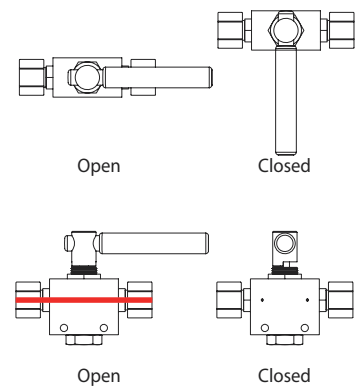
### 2-Way Ball Valve

## DK-BV



Parts	Material
1. Body	ASTM A276 TYPE316L
2. Connector	ASTM A276 TYPE316L
3. Ball	ASTM A276 TYPE316L
4. Stem	ASTM A276 TYPE316L
5. Ball Seat	PEEK
6. Seat Carrier	ASTM A276 TYPE316L
7. Bearing 1	PEEK
8. Bearing 2	PEEK
9. Washer	ASTM A276 TYPE316L
10. Panel Lock Nut	ASTM A276 TYPE316L
11. Lock Nut	ASTM A276 TYPE316L
12. Handle Holder	Stainless Steel
13. Handle	Stainless Steel
14. Bottom Connector	ASTM A276 TYPE316L
15. Seat Carrier Guide	ASTM A276 TYPE316L
16. Panel	Stainless Steel
17. Belleville Washers	ASTM A276 TYPE316L

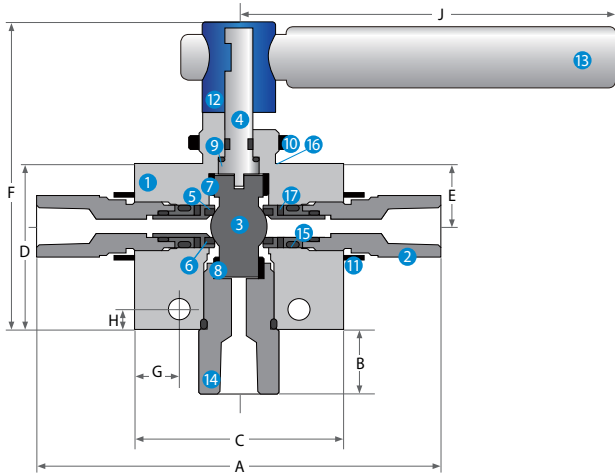
### 2-Way open & close position



Part No.	Pressure Rating	Tube / Port Type	Orifice Size	Min. Orifice	Cv	Dimensions											Panel			
						A	B	C	D	E	F	G	H	I	J	Block Thickness	Diameter	Max. Thickness		
DK11BV-02	11,000 psig	1/8"	4.8	1.4	0.09	118														
DK11BV-04	11,500 psig	1/4"		3.2	0.45	128														
DK11BV-06	7,500 psig	3/8"		4.8	1.45	128														
DK20BV-04	20,000 psig	1/4"		2.8	0.31	128														
DK20BV-06	20,000 psig	3/8"		4.8	1.45	128														
DK20BV-09	20,000 psig	9/16"		4.8	1.45	138														
DK60BV-04	20,000 psig	1/4"		2.4	0.2	128														
DK60BV-06	20,000 psig	3/8"		3.2	0.45	128	10	66.5	54	20.5	100	14.2	6.5	7	120	38	25.4	6.4		
DK60BV-09	20,000 psig	9/16"		4.8	1.45	138														
DK15BV-2N	15,000 psig	NPT 1/8"		4.8	1.45	128														
DK15BV-4N	15,000 psig	NPT 1/4"		4.8	1.45	128														
DK15BV-6N	15,000 psig	NPT 3/8"		4.8	1.45	128														
DK15BV-2R	15,000 psig	PT 1/8"		4.8	1.45	128														
DK15BV-4R	15,000 psig	PT 1/4"		4.8	1.45	128														
DK15BV-6R	15,000 psig	PT 3/8"		4.8	1.45	128														

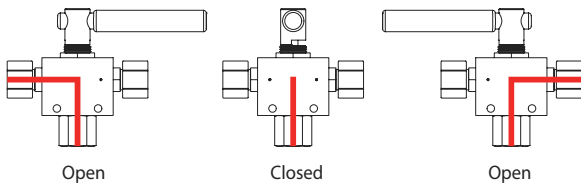
## 3-Way Ball Valve

### DK-BV

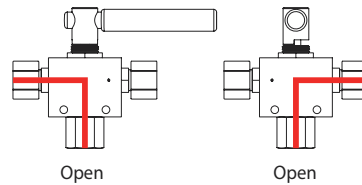


Parts	Material
1. Body	ASTM A276 TYPE316L
2. Connector	ASTM A276 TYPE316L
3. Ball	ASTM A276 TYPE316L
4. Stem	ASTM A276 TYPE316L
5. Ball Seat	PEEK
6. Seat Carrier	ASTM A276 TYPE316L
7. Bearing 1	PEEK
8. Bearing 2	PEEK
9. Washer	ASTM A276 TYPE316L
10. Panel Lock Nut	ASTM A276 TYPE316L
11. Lock Nut	ASTM A276 TYPE316L
12. Handle Holder	Stainless Steel
13. Handle	Stainless Steel
14. Bottom Connector	ASTM A276 TYPE316L
15. Seat Carrier Guide	ASTM A276 TYPE316L
16. Panel	Stainless Steel
17. Belleville Washers	ASTM A276 TYPE316L

3-Way open & close position – 180° Switching



3-Way open & close position – 90° Diverter



Part No.		Pressure Rating	Tube / Port Type	Orifice Size	Min. Orifice	Cv	Dimensions											Panel	
Switching Type	Diverting Type						A	B	C	D	E	F	G	H	I	J	Block Thickness	Diameter	Max. Thickness
DK11BV-02-SW	DK11BV-02-DV	11,000 psig	1/8"	4.8	1.4	0.04	118	13	66.5	54	20.5	100	14.2	6.5	7	120	38	25.4	6.4
DK11BV-04-SW	DK11BV-04-DV	11,500 psig	1/4"		3.2	0.22	128	17											
DK11BV-06-SW	DK11BV-06-DV	7,500 psig	3/8"		4.8	0.71	128	21											
DK20BV-04-SW	DK20BV-04-DV	20,000 psig	1/4"		2.8	0.15	128	17											
DK20BV-06-SW	DK20BV-06-DV	20,000 psig	3/8"		4.8	0.71	128	21											
DK20BV-09-SW	DK20BV-09-DV	20,000 psig	9/16"		4.8	0.71	138	25											
DK60BV-04-SW	DK60BV-04-DV	20,000 psig	1/4"		2.4	0.1	128	17											
DK60BV-06-SW	DK60BV-06-DV	20,000 psig	3/8"		3.2	0.22	128	21											
DK60BV-09-SW	DK60BV-09-DV	20,000 psig	9/16"		4.8	0.71	138	25											
DK15BV-2N-SW	DK15BV-2N-DV	15,000 psig	NPT 1/8"		4.8	0.71	128	13											
DK15BV-4N-SW	DK15BV-4N-DV	15,000 psig	NPT 1/4"		4.8	0.71	128	21											
DK15BV-6N-SW	DK15BV-6N-DV	15,000 psig	NPT 3/8"		4.8	0.71	128	21											
DK15BV-2R-SW	DK15BV-2R-DV	15,000 psig	PT 1/8"		4.8	0.71	128	13											
DK15BV-4R-SW	DK15BV-4R-DV	15,000 psig	PT 1/4"		4.8	0.71	128	21											
DK15BV-6R-SW	DK15BV-6R-DV	15,000 psig	PT 3/8"		4.8	0.71	128	21											

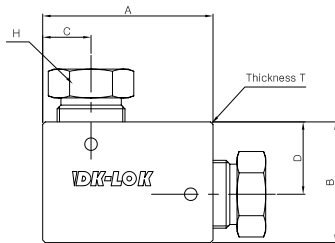
## High Pressure Fittings

### Features

- Flow patterns are elbow, tee, and cross.
- Temperature range is from -423°F to 1,200°F (-252°C to 649°C).
- Unless otherwise noted, it is supplied with standard gland and collar is assembled.

#### Elbow

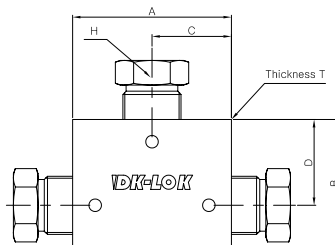
### DK-L



Part No.	Pressure Rating	Tube Size	Orifice Size	Dimensions					
				A	B	C	D	H	T
DK11L-02	11,000 psig	1/8"	1.4	25	25	7	19	12	15.5
DK11L-04	11,500 psig	1/4"	4	35	35	10	25	16	20
DK07L-06	7,500 psig	3/8"	5.5	35	35	10	25	17	20
DK05L-08	5,500 psig	1/2"	8.5	45	45	13.5	31.5	25.4	25
DK20L-04	20,000 psig	1/4"	2.8	30	25	8	17.5	12	16
DK20L-06		3/8"	5.2	35	35	10	25	16	20
DK20L-09		9/16"	9.1	45	45	13.5	31.5	22	25
DK20L-12		3/4"	1.3	57	57	19	38	27	35
DK30L-02	30,000 psig	1/8"	1.16	28	28	9	19	13	20
DK30L-16		1"	11.1	76	76	23.5	52.5	36	45
DK60L-04	60,000 psig	1/4"	2.4	35	35	12.5	22.5	16	25
DK60L-06		3/8"	3.2	45	38	13.5	25	20	25
DK60L-09		9/16"	4.8	67	47.5	19	28.5	30	38
DK100L-04	100,000 psig	1/4"	2.4	44.5	44.5	13	31.5	16	25
DK150L-06	150,000 psig	3/8"	2.4	67	67	22	45	20	38

#### Tee

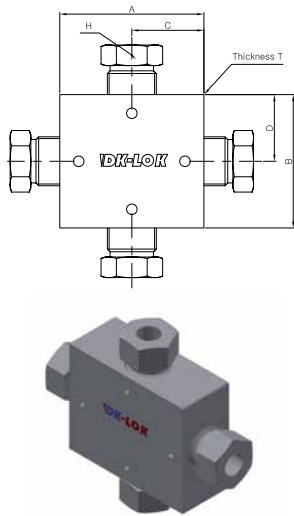
### DK-T



Part No.	Pressure Rating	Tube Size	Orifice Size	Dimensions					
				A	B	C	D	H	T
DK11T-02	11,000 psig	1/8"	1.4	38	25	19	19	12	15.5
DK11T-04	11,500 psig	1/4"	4	50	35	25	25	16	20
DK07T-06	7,500 psig	3/8"	5.5	50	35	25	25	17	20
DK05T-08	5,500 psig	1/2"	8.5	63	45	31.5	31.5	25.4	25
DK20T-04	20,000 psig	1/4"	2.8	44	25	22	17.5	12	16
DK20T-06		3/8"	5.2	50	35	25	25	16	20
DK20T-09		9/16"	9.1	63	45	31.5	31.5	22	25
DK20T-12		3/4"	1.3	76	57	38	38	27	35
DK30T-02	30,000 psig	1/8"	1.16	28	38	19	19	13	20
DK30T-16		1"	11.1	105	76	52.5	52.5	36	45
DK60T-04	60,000 psig	1/4"	2.4	50	35	25	22.5	16	25
DK60T-06		3/8"	3.2	50	40	25	27	20	25
DK60T-09		9/16"	4.8	67	54	33.25	35	30	38
DK100T-04	100,000 psig	1/4"	2.4	44.5	63	31.5	31.5	16	25
DK150T-06	150,000 psig	3/8"	2.4	67	90	45	45	20	38

Cross

## DK-X

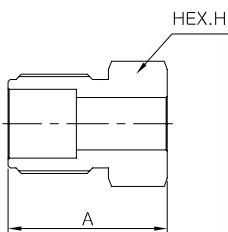


Part No.	Pressure Rating	Tube Size	Orifice Size	Dimensions					
				A	B	C	D	H	T
DK11X-02	11,000 psig	1/8"	1.4	38	38	19	19	12	15.5
DK11X-04	11,500 psig	1/4"	4	50	50	25	25	16	20
DK07X-06	7,500 psig	3/8"	5.5	50	50	25	25	17	20
DK05X-08	5,500 psig	1/2"	8.5	63	63	31.5	31.5	25.4	25
DK20X-04	20,000 psig	1/4"	2.8	44	35	22	17.5	12	16
DK20X-06		3/8"	5.2	50	50	25	25	16	20
DK20X-09		9/16"	9.1	63	63	31.5	31.5	22	25
DK20X-12		3/4"	1.3	76	76	38	38	27	35
DK20X-16	30,000 psig	1"	17.5	105	105	52.5	52.5	36	45
DK30X-02		1/8"	1.16	38	38	19	19	13	20
DK30X-16		1"	11.1	105	105	52.5	52.5	36	45
DK60X-04	60,000 psig	1/4"	2.4	50	38	25	19	16	25
DK60X-06		3/8"	3.2	54	50	27	25	20	25
DK60X-09		9/16"	4.8	70	67	35	33.25	30	38
DK100X-04	100,000 psig	1/4"	2.4	63	63	31.5	31.5	16	25
DK150X-06	150,000 psig	3/8"	2.4	90	90	45	45	20	38

## High Pressure Fitting Accessory

Grand

## DK-G



Part No.				Pressure Rating	Tube Size	Dimensions	
Sleeve	Collar	Plug	Gland			HEX.H	T
DK11S-02	-	-	DK11G-02	11,000 psig	1/8"	12	14.5
DK11S-04	-	-	DK11G-04	11,500 psig	1/4"	16	16
DK07S-06	-	-	DK07G-06	7,500 psig	3/8"	17	19
DK05S-02	-	-	DK05G-02	5,500 psig	1/2"	25.4	24
-	DK20C-04	DK20P-04	DK20G-04	20,000 psig	1/4"	12	16
-	DK20C-06	DK20P-06	DK20G-06		3/8"	16	16
-	DK20C-09	DK20P-09	DK20G-09		9/16"	22	20
-	DK30C-02	DK30P-02	DK30G-02	30,000 psig	1/8"	27	28
-	DK30C-04	DK30P-04	DK30G-04		1/4"	36	38
-	DK30C-06	DK30P-06	DK30G-06		3/8"	13	18
-	DK30C-09	DK30P-09	DK30G-09	60,000 psig	9/16"	36	38
-	DK60C-04	DK60P-04	DK60G-04		1/4"	16	20
-	DK60C-06	DK60P-06	DK60G-06		3/8"	20	30
-	DK60C-09	DK60P-09	DK60G-09	100,000 psig	9/16"	30	38
-	DK100C-04	DK100P-04	DK100G-04		1/4"	16	30
-	DK150C-06	DK150P-06	DK150G-06	150,000 psig	3/8"	20	30

Collar

## DK-C



Sleeve

## DK-S



Tube

**DK-TL**



Part No.	Pressure Rating	Tube Size	Cv		Thickness	Flow Area(mm <sup>2</sup> )	Working Pressure (bar)				
			Outside Diameter	Inside Diameter			-17.8~37.8°C 0~100°F	93°C 200°F	204°C 400°F	316°C 600°F	343°C 650°F
DK11TL-02	11,000 psig	1/8"	3.18	1.57	0.81	1.94	803.23	803.23	775.65	730.83	679.12
DK11TL-04	11,500 psig	1/4"	6.35	3.18	1.57	7.74	803.23	761.86	775.65	730.83	679.12
DK07TL-06	7,500 psig	3/8"	9.53	6.35	1.57	31.61	517.1	517.1	496.41	468.84	434.36
DK05TL-08	5,500 psig	1/2"	12.7	9.53	1.57	70.97	379.21	379.21	361.97	341.29	317.15
							-198~37.8°C -325~100°F	93°C 200°F	204°C 400°F	316°C 600°F	427°C 800°F
DK20TL-04	20,000 psig	1/4"	6.35	2.77	1.78	5.81	1378.93	1378.93	1378.93	1244.48	1158.3
DK20TL-06		3/8"	9.53	5.16	2.18	20.65	1378.93	1378.93	1378.93	1244.48	1158.3
DK20TL-09		9/16"	14.29	7.92	3.18	49.03	1378.93	1378.93	1378.93	1244.48	1158.3
DK20TL-12		3/4"	19.05	11.13	3.96	97.42	1378.93	1378.93	1378.93	1244.48	1158.3
DK20TL-16		1"	25.4	14.27	5.56	160	1378.93	1378.93	1378.93	1244.48	1158.3
DK30TL-02	30,000 psig	1/8"	3.18	1.02	1.08						
DK30TL-16		1"	25.4	11.1	7.15						
DK60TL-04	60,000 psig	1/4"	6.35	2.11	2.11	3.23	4136.79	4136.79	3981.66	3740.35	3495.59
DK60TL-06		3/8"	9.53	3.18	3.18	7.74	4136.79	4136.79	3981.66	3740.35	3495.59
DK60TL-09		9/16"	14.29	4.78	4.75	18.06	4136.79	4136.79	3981.66	3740.35	3495.59
DK100TL-04	100,000 psig	1/4"	6.35	1.59	2.38	3.23	6894.64	6894.64	6633.24	6230.55	5820.46
DK150TL-06	150,000 psig	3/8"	9.53	1.59	3.97	7.74	10341.97	10341.97	9955.87	9400.85	8738.97

Nipple

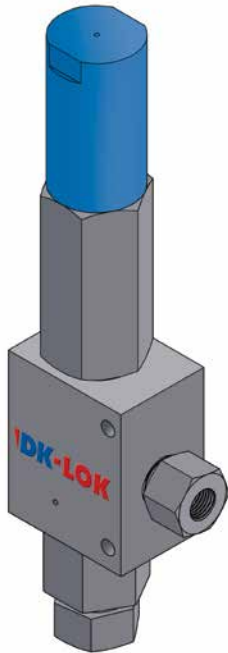
**DK-N**



Part No.	Pressure Rating	Tube Size	Cv		Thickness	Flow Area(mm <sup>2</sup> )	Working Pressure (bar)				
			Outside Diameter	Inside Diameter			-198~37.8°C -325~100°F	93°C 200°F	204°C 400°F	316°C 600°F	427°C 800°F
DK20N-04	20,000 psig	1/4"	6.35	2.77	1.78	5.81	1378.93	1378.93	1378.93	1244.48	1158.3
DK20N-06		3/8"	9.53	5.16	2.18	20.65	1378.93	1378.93	1378.93	1244.48	1158.3
DK20N-09		9/16"	14.29	7.92	3.18	49.03	1378.93	1378.93	1378.93	1244.48	1158.3
DK20N-12		3/4"	19.05	11.13	3.96	97.42	1378.93	1378.93	1378.93	1244.48	1158.3
DK20N-16		1"	25.4	14.27	5.56	160	1378.93	1378.93	1378.93	1244.48	1158.3
DK30N-02	30,000 psig	1/8"	3.18	1.02	1.08						
DK30N-16		1"	25.4	11.1	7.15						
DK60N-04	60,000 psig	1/4"	6.35	2.11	2.11	3.23	4136.79	4136.79	3981.66	3740.35	3495.59
DK60N-06		3/8"	9.53	3.18	3.18	7.74	4136.79	4136.79	3981.66	3740.35	3495.59
DK60N-09		9/16"	14.29	4.78	4.75	18.06	4136.79	4136.79	3981.66	3740.35	3495.59
DK100N-04	100,000 psig	1/4"	6.35	1.59	2.38	3.23	6894.64	6894.64	6633.24	6230.55	5820.46
DK150N-06	150,000 psig	3/8"	9.53	1.59	3.97	7.74	10341.97	10341.97	9955.87	9400.85	8738.97

## High Pressure Relief Valve – Factory Set

### Features



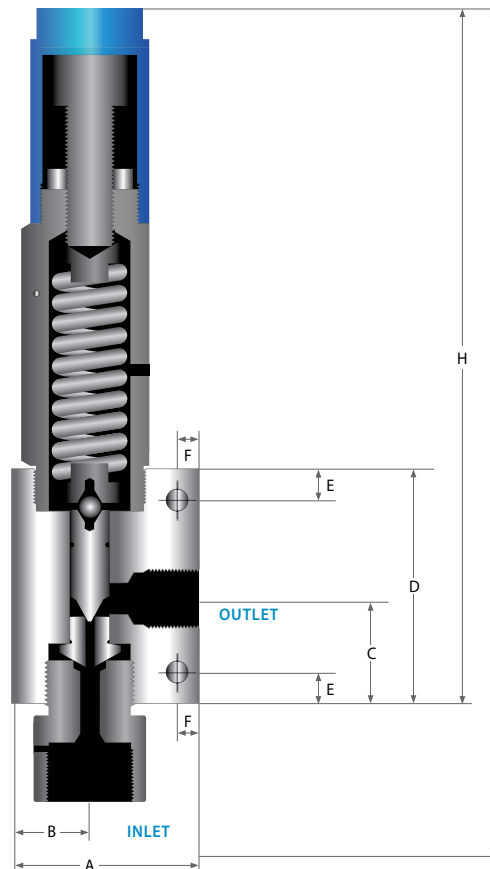
If system internal pressure rises above a set pressure due to system malfunction, etc., it will discharge pressure to protect system and other devices.

- Pressure range; 3,000 ~ 60,000 psig
- Setting pressure accuracy; ±8%
- Inlet port; 9/16", Outlet port; NPT 1/2"
- Operating temperature; up to 170°C
- Adapters allow connection of various pressure specifications and sizes.
- Apply a metal to metal contact method to extend the life of the seat.
- The set pressure is set before shipment and sealed with the pressure tag.

Relief Valve – Factory Set

### DK-RVS

Parts	Material
1. Cap	Aluminum 6061
2. Lock Nut	Stainless Steel 304
3. Spring Cap	Stainless Steel 304
4. Housing	Aluminum 6061 Stainless Steel 304
5. Body	Stainless Steel 304
6. Spindle	Stainless Steel 630
7. Plug	Stainless Steel 630
8. Seat	Stainless Steel 304
9. Adapter	Stainless Steel 304
10. Molding Spring	Stainless Steel 304
11. O-Ring	Viton



Part No.	Port Type		Orifice Size	Pressure Range		Dimensions								Block Thickness	
	Inlet	Outlet		Min.	Max.	A	B	C	D	E	F	G	H		I
DK10RVS-09-8N	9/16"	NPT 1/2"	6.4	3,000 psig	10,000 psig	60	25	33.5	75	10	7	7	222.5	253.8	44
DK15RVS-09-8N	9/16"	NPT 1/2"	4.8	10,000 psig	15,000 psig	60	25	33.5	75	10	7	7	222.5	253.8	44
DK30RVS-09-8N	9/16"	NPT 1/2"	3.2	15,000 psig	30,000 psig	60	25	33.5	75	10	7	7	222.5	253.8	44
DK60RVS-09-8N	9/16"	NPT 1/2"	2.4	30,000 psig	60,000 psig	60	25	33.5	75	10	7	7	222.5	253.8	44

## High Pressure Relief Valve – Field Adjustable

### Features

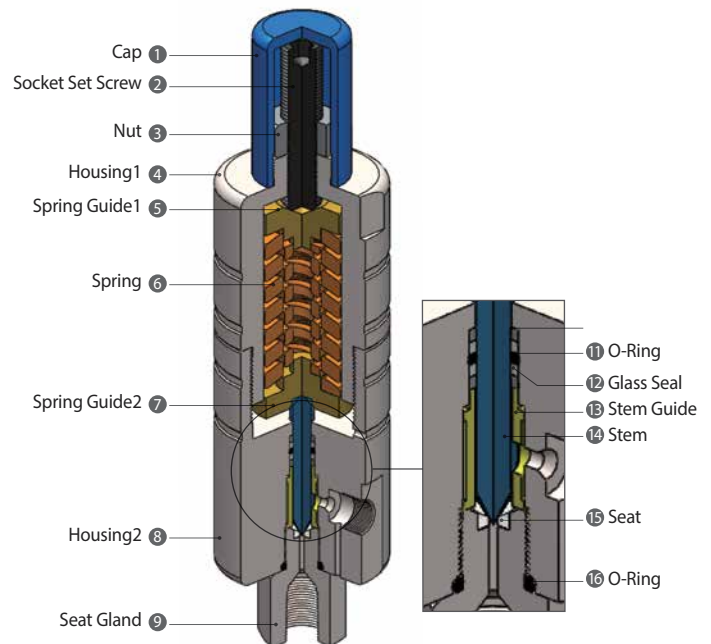
When the pressure inside the system rises above the set pressure, the pressure is released to protect the system from overpressure.

- Pressure range; 1,000 ~ 10,000 psig, 10,000 ~ 20,000 psig
- Setting pressure accuracy;  $\pm 8\%$
- Inlet port; NPT 1/4" or 1/4", Outlet port; NPT 1/4"
- Operating temperature; -20 ~ 65°C (Nylon), -20 ~ 204°C (PTFE)
- Adapters allow connection of various pressure specifications and sizes.
- Long Life due to mold springs and soft seat.
- The pressure setting is easily adjustable by the customer by directly adjusting the mood wrench bolt at the top of the valve.

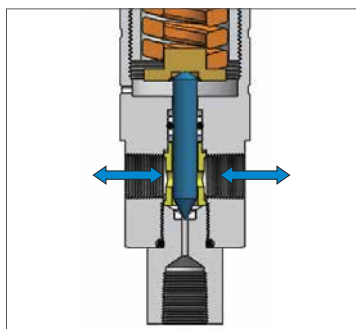
Relief Valve – Field Adjustable

### DK-RVS

Parts	Material
1. Cap	Aluminum 6061
2. Socket Set Screw	SCM435
3. Nut	Stainless Steel 304
4. Housing1	Aluminum 6061 Stainless Steel 304
5. Spring Guide1	Stainless Steel 304
6. Spring	Carbon Steel
7. Spring Guide2	Stainless Steel 304
8. Housing2	Stainless Steel 316
9. Seat Gland	Stainless Steel 316
10. Seal	Stainless Steel 316
11. O-Ring	Viton
12. Glass Seal	Glass Teflon
13. Stem Guide	Stainless Steel 316
14. Stem	Stainless Steel 630
15. Seat	Nylon/PTFE
16. O-Ring	Viton

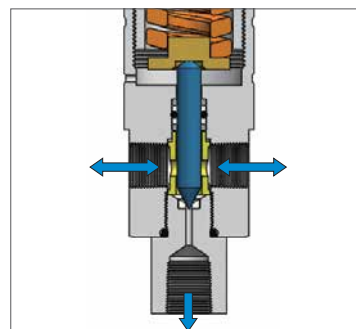


### Application



**Close**

Spring-proof pressure, Force >> Pressure applied to the stem, force



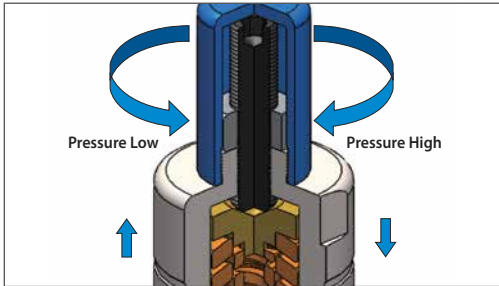
**Open**

Spring-proof pressure, Force << Pressure applied to the stem, force

The relief valve opens when the pressure applied to the stem exceeds the set pressure, and closes when the pressure falls below the set pressure.



## How to Use

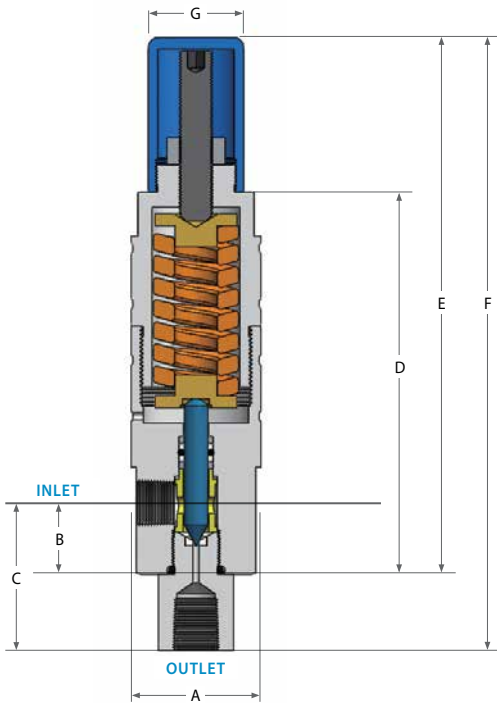


- The inlet pressure determines the set pressure.
- Turning to the right increases the set pressure.
- Turning to the left decreases the set pressure.
- Accuracy range is  $\pm 8\%$ .

## Set Pressure

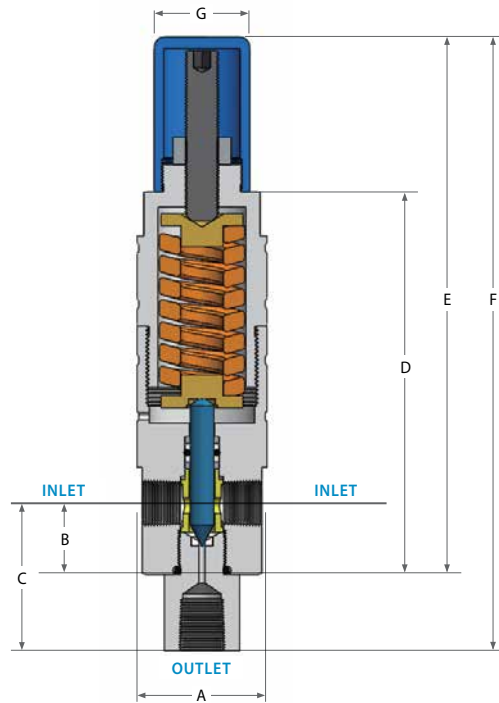
Part No.	Set Pressure [psig]	Spring Compression Length [mm]
DK10RV-F-4N 1,000 ~ 10,000 psig	2,500	2.58
	5,500	5.15
	7,500	7.73
	10,000	10.31
DK20RV-2H04-4N 10,000 ~ 20,000 psig	12,500	6.96
	15,000	8.35
	17,500	9.74
	20,000	11.13

## Application



### [1 Inlet Type]

Pressure : 1,000 psig ~ 10,000 psig



### [2 Inlet Type]

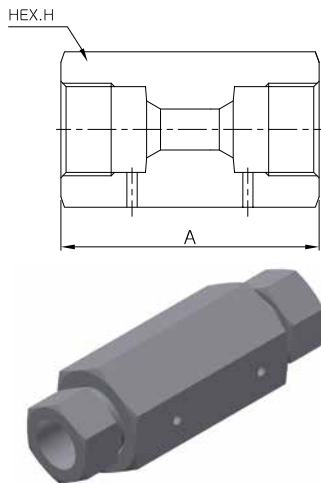
Pressure : 1,000 psig ~ 10,000 psig

Part No.	Port Type			Orifice Size	Pressure Range		Dimensions						
	Inlet1	Inlet2	Outlet		Min.	Max.	A	B	C	D	E	F	G
DK10RV-F-4N-1	NPT 1/4"		1/4" NPT	1.8	1,000 psig	10,000 psig	38	21	43.1	112.5	158	180.1	28
DK10RV-F-4N-2		NPT 1/4"											
DK20RV-04-4N-1	1/4"		1/4" NPT	1.8	10,000 psig	20,000 psig	49.5	21	43.1	120	165.5	187.6	28
DK20RV-04-4N-2		1/4"											

## High Pressure Union & Adapter

Female Union

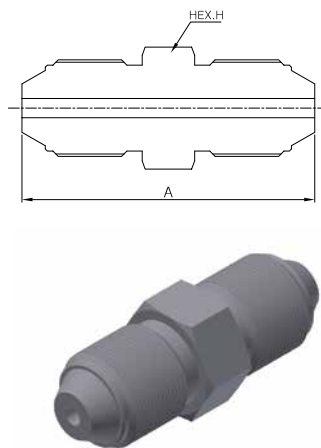
### DK-FAU



Part No.	Pressure Rating	Tube Size	Dimensions	
			HEX.H	A
DK11FAU-02	11,000 psig	1/8"	12.7	31
DK11FAU-04	11,500 psig	1/4"	16	41.5
DK07FAU-06	7,500 psig	3/8"	19	44.5
DK05FAU-08	5,500 psig	1/2"	25.4	50.5
DK20FAU-04	20,000 psig	1/4"	16	41.5
DK20FAU-06		3/8"	19	44.5
DK20FAU-09		9/16"	25.4	54
DK20FAU-12		3/4"	36	63.5
DK20FAU-16		1"	46	89
DK30FAU-02	30,000 psig	1/8"	20	31
DK30FAU-16		1"	46	91
DK60FAU-04	60,000 psig	1/4"	20	35
DK60FAU-06		3/8"	25.4	44.5
DK60FAU-09		9/16"	36	57

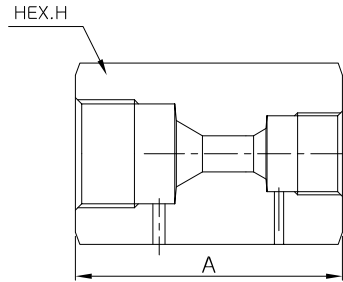
Male Union

### DK-MAU



Part No.	Pressure Rating	Tube Size	Dimensions	
			HEX.H	A
DK11MAU-02	11,000 psig	1/8"	12.7	35
DK11MAU-04	11,500 psig	1/4"	16	47
DK07MAU-06	7,500 psig	3/8"	19	54
DK05MAU-08	5,500 psig	1/2"	25.4	57.5
DK20MAU-04	20,000 psig	1/4"	12.7	44
DK20MAU-06		3/8"	16	54
DK20MAU-09		9/16"	25.4	64
DK20MAU-12		3/4"	30	82
DK20MAU-16		1"	36	107
DK30MAU-02	30,000 psig	1/8"	14	38
DK30MAU-16		1"	36	109
DK60MAU-04	60,000 psig	1/4"	16	43
DK60MAU-06		3/8"	20	58
DK60MAU-09		9/16"	30	68

## Female Union Reducer DK-FARU

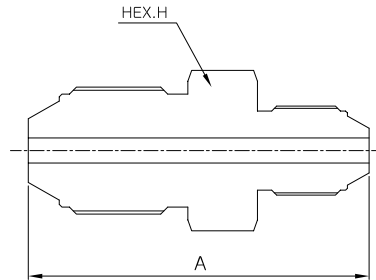


Part No.		Female End																	
		11,500 psig			7,500 psig			5,500 psig			20,000 psig				30,000 psig		60,000 psig		
		1/4"	3/8"	1/2"	1/4"	3/8"	9/16"	3/4"	1"	1/8"	1"	1/4"	3/8"	9/16"					
Female End	11,500 psig	1/8"	DK11FARU 02-L04	DK11FARU 02-L06	DK11FARU 02-L08	DK11FARU 02-M04	DK11FARU 02-M06	DK11FARU 02-M09			DK11FARU 02-3H02		DK11FARU 02-6H04	DK11FARU 02-6H06	DK11FARU 02-6H09				
	11,500 psig	1/4"		DK11FARU 04-L06	DK11FARU 04-L08	DK11FARU 04-M04	DK11FARU 04-M06	DK11FARU 04-M09	DK11FARU 04-M12		DK11FARU 04-3H02		DK11FARU 04-6H04	DK11FARU 04-6H06	DK11FARU 04-6H09				
	7,500 psig	3/8"			DK07FARU 06-L08	DK07FARU 06-M04	DK07FARU 06-M06	DK07FARU 06-M09	DK07FARU 06-M12	DK07FARU 06-M16	DK07FARU 06-3H02	DK07FARU 06-3H16	DK07FARU 06-6H04	DK07FARU 06-6H06	DK07FARU 06-6H09				
	5,500 psig	1/2"				DK07FARU 08-M04	DK07FARU 08-M06	DK07FARU 08-M09	DK07FARU 08-M12	DK07FARU 08-M16	DK07FARU 08-3H02	DK07FARU 08-3H16	DK07FARU 08-6H04	DK07FARU 08-6H06	DK07FARU 08-6H09				
	20,000 psig	1/4"					DK20FARU 04-M06	DK20FARU 04-M09	DK20FARU 04-M12	DK20FARU 04-M16	DK20FARU 04-3H02		DK20FARU 04-6H04	DK20FARU 04-6H06	DK20FARU 04-6H09				
		3/8"						DK20FARU 06-M09	DK20FARU 06-M12	DK20FARU 06-M16	DK20FARU 06-3H02	DK20FARU 06-3H16	DK20FARU 06-6H04	DK20FARU 06-6H06	DK20FARU 06-6H09				
		9/16"							DK20FARU 09-M12	DK20FARU 09-M16	DK20FARU 09-3H02	DK20FARU 09-3H16	DK20FARU 09-6H04	DK20FARU 09-6H06	DK20FARU 09-6H09				
		3/4"								DK20FARU 12-M16	DK20FARU 12-3H02	DK20FARU 12-3H16	DK20FARU 12-6H04	DK20FARU 12-6H06	DK20FARU 12-6H09				
		1"										DK20FARU 16-3H16	DK20FARU 16-6H04	DK20FARU 16-6H06	DK20FARU 16-6H09				
	30,000 psig	1/8"											DK60FARU 02-6H04	DK60FARU 02-6H06	DK60FARU 02-6H09				
		1"											DK60FARU 16-6H04	DK60FARU 16-6H06	DK60FARU 16-6H09				
	60,000 psig	1/4"												DK60FARU 04-6H06	DK60FARU 04-6H09				
		3/8"													DK60FARU 06-6H09				

Dimensions		Female End																												
		11,500 psig		7,500 psig		5,500 psig		20,000 psig				30,000 psig		60,000 psig																
		1/4"	3/8"	1/2"	1/4"	3/8"	9/16"	3/4"	1"	1/8"	1"	1/4"	3/8"	9/16"																
		HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A													
Female End	11,500 psig	1/8"	16	36.5	19	38	25.4	41.5	16	35	19	38	25.4	44.5					20	31			19	31.5	25.4	38	36	44.5		
	11,500 psig	1/4"			19	43	25.4	47.5	16	41.5	19	44.5	25.4	50.5	36	57					20	38			19	38	25.4	43	36	52
	7,500 psig	3/8"					25.4	47.5	19	41.5	19	44.5	25.4	50.5	36	57	46	76	20	38	46	76	19	41.5	25.4	46	36	51		
	5,500 psig	1/2"							25.4	41.5	25.4	47.5	25.4	50.5	36	57	46	76	25.4	43	46	76	25.4	43	25.4	47.5	36	52		
	20,000 psig	1/4"									19	44.5	25.4	50.5	36	57	46	70	20	38				19	35	25.4	41.5	36	47.5	
		3/8"											25.4	50.5	36	57	46	73	20	40	46	76	19	41.5	25.4	50.5	36	50.5		
		9/16"													36	63.5	46	76	25.4	48	46	76	25.4	50.5	25.4	50.5	36	57		
		3/4"															46	76	36	53.5	46	76	36	53.5	36	60	36	70		
		1"																					46	91	46	70	46	73	46	82.5
	30,000 psig	1/8"																							20	31	25.4	38	36	44.5
		1"																							46	68	46	73	46	78
	60,000 psig	1/4"																									25.4	44.5	36	57
		3/8"																											36	57

Male Union Reducer

## DK-MAUR

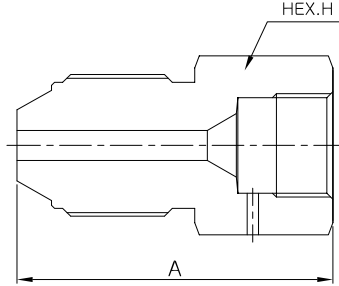


Part No.	Male End																	
	11,500 psig			7,500 psig			5,500 psig			20,000 psig				30,000 psig		60,000 psig		
	1/4"	3/8"	1/2"	1/4"	3/8"	9/16"	3/4"	1"	1/8"	1"	1/4"	3/8"	9/16"					
11,500 psig 1/8"	DK11MAUR 02-L04	DK11MAUR 02-L06	DK11MAUR 02-L08	DK11MAUR 02-M04	DK11MAUR 02-M06	DK11MAUR 02-M09			DK11MAUR 02-3H02		DK11MAUR 02-6H04	DK11MAUR 02-6H06	DK11MAUR 02-6H09					
11,500 psig 1/4"		DK11MAUR 04-L06	DK11MAUR 04-L08	DK11MAUR 04-M04	DK11MAUR 04-M06	DK11MAUR 04-M09	DK11MAUR 04-M12		DK11MAUR 04-3H02		DK11MAUR 04-6H04	DK11MAUR 04-6H06	DK11MAUR 04-6H09					
7,500 psig 3/8"			DK07MAUR 06-L08	DK07MAUR 06-M04	DK07MAUR 06-M06	DK07MAUR 06-M09	DK07MAUR 06-M12	DK07MAUR 06-M16	DK07MAUR 06-3H02	DK07MAUR 06-3H16	DK07MAUR 06-6H04	DK07MAUR 06-6H06	DK07MAUR 06-6H09					
5,500 psig 1/2"				DK05MAUR 08-M04	DK07MAUR 08-M06	DK07MAUR 08-M09	DK07MAUR 08-M12	DK07MAUR 08-M16	DK07MAUR 08-3H02	DK07MAUR 08-3H16	DK07MAUR 08-6H04	DK07MAUR 08-6H06	DK07MAUR 08-6H09					
20,000 psig	1/4"				DK20MAUR 04-M06	DK20MAUR 04-M09	DK20MAUR 04-M12	DK20MAUR 04-M16	DK20MAUR 04-3H02		DK20MAUR 04-6H04	DK20MAUR 04-6H06	DK20MAUR 04-6H09					
	3/8"					DK20MAUR 06-M09	DK20MAUR 06-M12	DK20MAUR 06-M16	DK20MAUR 06-3H02	DK20MAUR 06-3H16	DK20MAUR 06-6H04	DK20MAUR 06-6H06	DK20MAUR 06-6H09					
	9/16"						DK20MAUR 09-M12	DK20MAUR 09-M16	DK20MAUR 09-3H02	DK20MAUR 09-3H16	DK20MAUR 09-6H04	DK20MAUR 09-6H06	DK20MAUR 09-6H09					
	3/4"							DK20MAUR 12-M16	DK20MAUR 12-3H02	DK20MAUR 12-3H16	DK20MAUR 12-6H04	DK20MAUR 12-6H06	DK20MAUR 12-6H09					
	1"									DK20MAUR 16-3H16	DK20MAUR 16-6H04	DK20MAUR 16-6H06	DK20MAUR 16-6H09					
30,000 psig	1/8"										DK60MAUR 02-6H04	DK60MAUR 02-6H06	DK30MAUR 02-6H09					
	1"										DK60MAUR 16-6H04	DK60MAUR 16-6H06	DK30MAUR 16-6H09					
60,000 psig	1/4"											DK60MAUR 04-6H06	DK60MAUR 04-6H09					
	3/8"												DK60MAUR 06-6H09					

Dimensions	Male End																									
	11,500 psig			7,500 psig			5,500 psig			20,000 psig						30,000 psig				60,000 psig						
	1/4"	3/8"	1/2"	1/4"	3/8"	9/16"	3/4"	1"	1/8"	1"	1/4"	3/8"	9/16"			1/4"	3/8"	9/16"								
HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A	HEX.H	A			
11,500 psig 1/8"	16	41	19	46.5	25.4	49.5	14	39.5	16	43.5	25.4	49.5				14	36.5			16	41	25.4	50	30	54.5	
11,500 psig 1/4"			19	51.5	25.4	54.5	16	44.5	16	48.5	25.4	56.5	30	65		14	41.5			16	46	25.4	55	30	59.5	
7,500 psig 3/8"					25.4	57	19	47	19	51	25.4	59	30	67.5	36	77.5	19	44	36	78.5	19	48.5	25.4	57.5	30	62
5,500 psig 1/2"							25.4	54	25.4	58	25.4	62	30	70	36	80	25.4	51	36	81	25.4	51.5	25.4	60	30	64.5
20,000 psig	1/4"								16	48	25.4	56	30	64.5	36	78.5	14	41			16	45.5	20	54.5	30	61
	3/8"										25.4	60	30	70	36	84.5	16	45	36	85.5	16	49.5	20	58.5	30	65
	9/16"												30	70	36	91	25.4	53	36	92	22	56	22	62.5	30	69
	3/4"														36	97	30	65			36	98	30	62	30	75
30,000 psig	1/8"																				16	42.5	20	51.5	30	58
	1"																				36	81.5	36	87.5	36	91
60,000 psig	1/4"																						20	52	30	58.5
	3/8"																								30	64.5

Male Adapter \* Female Adapter

## DK-MAFA

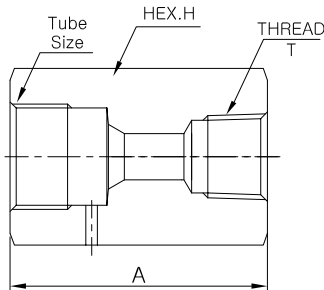


Part No.	Female End																				
	11,000 psig				7,500 psig				5,500 psig				20,000 psig				30,000 psig		60,000 psig		
	1/8"	1/4"	3/8"	1/2"	1/4"	3/8"	9/16"	3/4"	1"	1/8"	1"	1/4"	3/8"	9/16"							
11,000 psig	1/8"		DK11MAFA 02-L04	DK11MAFA 02-L06	DK11MAFA 02-L08	DK11MAFA 02-M04	DK11MAFA 02-M06	DK11MAFA 02-M09							DK11MAFA 02-3H02		DK11MAFA 02-6H04	DK11MAFA 02-6H06	DK11MAFA 02-6H09		
11,500 psig	1/4"	DK11MAFA 04-L02		DK11MAFA 04-L06	DK11MAFA 04-L08	DK11MAFA 04-M04	DK11MAFA 04-M06	DK11MAFA 04-M09	DK11MAFA 04-M12						DK11MAFA 04-3H02		DK11MAFA 04-6H04	DK11MAFA 04-6H06	DK11MAFA 04-6H09		
7,500 psig	3/8"	DK07MAFA 06-L02	DK07MAFA 06-L04		DK07MAFA 06-L08	DK07MAFA 06-M04	DK07MAFA 06-M06	DK07MAFA 06-M09	DK07MAFA 06-M12	DK07MAFA 06-M16	DK07MAFA 06-3H02	DK07MAFA 06-3H16	DK07MAFA 06-6H04	DK07MAFA 06-6H06	DK07MAFA 06-6H09						
5,500 psig	1/2"	DK07MAFA 08-L02	DK07MAFA 08-L04	DK07MAFA 08-L06		DK07MAFA 08-M04	DK07MAFA 08-M06	DK07MAFA 08-M09	DK07MAFA 08-M12	DK07MAFA 08-M16	DK07MAFA 08-H02	DK07MAFA 08-3H16	DK07MAFA 08-6H04	DK07MAFA 08-6H06	DK07MAFA 08-6H09						
20,000 psig	1/4"	DK20MAFA 04-L02	DK20MAFA 04-L04	DK20MAFA 04-L06	DK20MAFA 04-L08		DK20MAFA 04-M06	DK20MAFA 04-M09	DK20MAFA 04-M12	DK20MAFA 04-M16	DK20MAFA 04-3H02	DK20MAFA 04-3H16	DK20MAFA 04-6H04	DK20MAFA 04-6H06	DK20MAFA 04-6H09						
	3/8"	DK20MAFA 06-L02	DK20MAFA 06-L04	DK20MAFA 06-L06	DK20MAFA 06-L08	DK20MAFA 06-M04		DK20MAFA 06-M09	DK20MAFA 06-M12	DK20MAFA 06-M16	DK20MAFA 06-3H02	DK20MAFA 06-3H16	DK20MAFA 06-6H04	DK20MAFA 06-6H06	DK20MAFA 06-6H09						
	9/16"	DK20MAFA 09-L02	DK20MAFA 09-L04	DK20MAFA 09-L06	DK20MAFA 09-L08	DK20MAFA 09-M04	DK20MAFA 09-M06		DK20MAFA 09-M12	DK20MAFA 09-M16	DK20MAFA 09-3H02	DK20MAFA 09-3H16	DK20MAFA 09-6H04	DK20MAFA 09-6H06	DK20MAFA 09-6H09						
	3/4"		DK20MAFA 12-L04	DK20MAFA 12-L06	DK20MAFA 12-L08	DK20MAFA 12-M04	DK20MAFA 12-M06	DK20MAFA 12-M09		DK20MAFA 12-M16		DK20MAFA 12-3H16	DK20MAFA 12-6H04	DK20MAFA 12-6H06	DK20MAFA 12-6H09						
	1"		DK20MAFA 16-L04	DK20MAFA 16-L06	DK20MAFA 16-L08	DK20MAFA 16-M04	DK20MAFA 16-M06	DK20MAFA 16-M09	DK20MAFA 16-M12		DK20MAFA 16-M16		DK20MAFA 16-3H16	DK20MAFA 16-6H04	DK20MAFA 16-6H06	DK20MAFA 16-6H09					
30,000 psig	1/8"	DK60MAFA 02-L02	DK60MAFA 02-L04	DK60MAFA 02-L06	DK60MAFA 02-L08	DK60MAFA 02-M04	DK60MAFA 02-M06	DK60MAFA 02-M09									DK60MAFA 02-6H04	DK60MAFA 02-6H06	DK60MAFA 02-6H09		
	1"		DK60MAFA 16-L04	DK60MAFA 16-L06	DK60MAFA 16-L08	DK60MAFA 16-M04	DK60MAFA 16-M06	DK60MAFA 16-M09	DK60MAFA 16-M12	DK60MAFA 16-M16	DK60MAFA 16-3H02		DK60MAFA 16-6H04	DK60MAFA 16-6H06	DK60MAFA 16-6H09						
60,000 psig	1/4"	DK60MAFA 04-L02	DK60MAFA 04-L04	DK60MAFA 04-L06	DK60MAFA 04-L08	DK60MAFA 04-M04	DK60MAFA 04-M06	DK60MAFA 04-M09	DK60MAFA 04-M12		DK60MAFA 04-3H02	DK60MAFA 04-3H16		DK60MAFA 04-6H04	DK60MAFA 04-6H06	DK60MAFA 04-6H09					
	3/8"	DK60MAFA 06-L06	DK60MAFA 06-L04	DK60MAFA 06-L06	DK60MAFA 06-L08	DK60MAFA 06-M04	DK60MAFA 06-M06	DK60MAFA 06-M09	DK60MAFA 06-M12	DK60MAFA 06-M16	DK60MAFA 06-3H02	DK60MAFA 06-3H16	DK60MAFA 06-6H04		DK60MAFA 06-6H09						
	9/16"	DK60MAFA 09-L09	DK60MAFA 09-L04	DK60MAFA 09-L06	DK60MAFA 09-L08	DK60MAFA 09-M04	DK60MAFA 09-M06	DK60MAFA 09-M09	DK60MAFA 09-M12	DK60MAFA 09-M16	DK60MAFA 09-3H02	DK60MAFA 09-3H16	DK60MAFA 09-6H04	DK60MAFA 09-6H06							

Dimensions	Female End																															
	11,500 psig				7,500 psig				5,500 psig				20,000 psig				30,000 psig		60,000 psig													
	1/8"	1/4"	3/8"	1/2"	1/4"	3/8"	9/16"	3/4"	1"	1/8"	1"	1/4"	3/8"	9/16"																		
Male End	11,500 psig	1/8"																														
	11,500 psig	1/4"	16	27.5		19	41.5	25.4	44.5	16	35	19	42.5	25.4	48	36	57.5			20	35			19	29	25.4	39.5	36	45.5			
	7,500 psig	3/8"	19	30	19	35			25.4	45	19	35	19	40	25.4	48	36	57.5	46	70	20	35	46	70	19	35	25.4	42	36	45.5		
	5,500 psig	1/2"	25.4	33	25.4	33	25.4	37			25.4	37	25.4	40	25.4	48	36	57.5	46	70	25.4	37	46	70	25.4	35	25.4	42	36	45.5		
	20,000 psig	1/4"	16	34	16	40	19	40	25.4	43			19	40	25.4	50	36	57.5	46	70	20	37	46	70	19	32	25.4	42	36	45.5		
		3/8"	16	34	16	40	19	44	25.4	48	16	36			25.4	52	36	57.5	46	72	20	37	46	72	19	36.5	25.4	42	36	47		
		9/16"	22	40	22	44	22	45	25.4	49	24	40	24	46			36	62.5	46	75	22	40	46	75	22	40	25.4	47	36	52		
		3/4"			30	46	30	50	30	56	30	48	30	52	30	57						46	80		46	80	30	48	30	52	36	58
	30,000 psig	1"			36	54	36	54	36	54	36	56	36	59	36	63	36	70							46	81	36	54	36	60	36	64
		1/8"	16	29	16	34	19	37	25.4	40	16	31	19	37	25.4	44											19	30	25.4	36	36	46
	60,000 psig	1"			36	55	36	55	36	55	36	57	36	60	36	64	36	70	46	82							36	55	36	61	36	65
		1/4"	16	30	16	35	19	38	25.4	42	16	32	19	40	25.4	46	36	55			20	32						25.4	44.5	36	49.5	
		3/8"	20	35.5	20	41.5	20	42.5	25.4	44.5	20	42.5	20	43.5	25.4	50.5	36	57.5	46	74.5	20	35.5	46	74.5	20	38.5				36	44.5	
	9/16"	30	38	30	42.5	30	42.5	30	44.5	30	42.5	30	46	30	51	36	61	46	78	30	38	46	78	30	36.5	30	39					

Female Adapter \* Female Thread

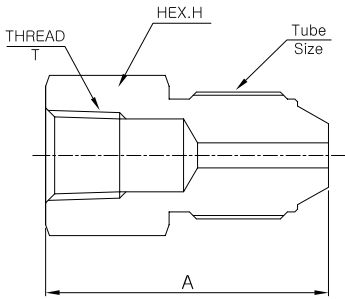
## DK-FAF



Connection Type	Part No.	Pressure Rating	Tube Size	Thread T F.NPT	Dimensions			
					HEX.H	A		
Low Pressure 11,500 psig	DK11FAF02-2N	11,000 psig	1/8"	1/8"	16	35		
	DK11FAF02-4N			1/4"	19	38		
	DK11FAF02-6N			3/8"	25.4	41		
	DK11FAF02-8N			1/2"	30	50.5		
	DK11FAF04-2N	11,500 psig	1/4"	1/8"	16	38		
	DK11FAF04-4N			1/4"	19	41.5		
	DK11FAF04-6N			3/8"	25.4	44.5		
	DK11FAF04-8N			1/2"	30	54		
	DK11FAF04-12N	7,500 psig	3/8"	1/8"	36	55.5		
	DK07FAF06-2N			1/8"	19	41.5		
	DK07FAF06-4N			1/4"	19	44.5		
	DK07FAF06-6N			3/8"	25.4	48		
	DK07FAF06-7N		1/2"	30	54			
	DK07FAF06-12N		3/4"	36	58.5			
	DK07FAF06-16N		1"	46	68			
	DK05FAF08-2N		5,500 psig	1/2"	1/8"	25.4	38	
	DK05FAF08-4N	1/4"			25.4	50.5		
	DK05FAF08-6N	3/8"			25.4	50.5		
	DK05FAF08-8N	1/2"			30	57		
	DK05FAF08-12N	3/4"		36	63.5			
	DK05FAF08-16N	1"		46	72			
	DK20FAF04-2N	15,000 psig		1/4"	1/8"	16	35	
	DK20FAF04-4N				1/4"	19	41.5	
	DK20FAF04-6N		3/8"		25.4	41.5		
DK20FAF04-8N	1/2"		30		50.5			
DK20FAF04-12N	10,000 psig	3/8"	3/4"	36	57			
DK20FAF06-2N	15,000 psig		1/8"	19	38			
DK20FAF06-4N			1/4"	19	44.5			
DK20FAF06-6N			3/8"	25.4	46			
DK20FAF06-8N		1/2"	30	54				
DK20FAF06-12N	10,000 psig	3/4"	3/4"	36	57			
DK20FAF06-16N			1"	46	66.5			
DK20FAF09-2N	15,000 psig	9/16"	1/8"	25.4	41.5			
DK20FAF09-4N			1/4"	25.4	50.5			
DK20FAF09-6N			3/8"	25.4	50.5			
DK20FAF09-8N			1/2"	30	57			
DK20FAF09-12N	10,000 psig	3/4"	3/4"	36	57			
DK20FAF09-16N			1"	46	66.5			
DK20FAF12-4N	15,000 psig	3/4"	1/4"	36	54.5			
DK20FAF12-6N			3/8"	36	60			
DK20FAF12-8N			1/2"	36	66.5			
DK20FAF12-12N			3/4"	36	66.5			
DK20FAF12-16N	10,000 psig	1"	1"	46	73			
DK20FAF16-4N	15,000 psig		1/4"	46	67			
DK20FAF16-6N			3/8"	46	67			
DK20FAF16-8N			1/2"	46	73			
DK20FAF16-12N		10,000 psig	3/4"	46	76			
DK20FAF16-16N	1"		46	83				
High Pressure	DK30FAF02-2N	15,000 psig	1/8"	1/8"	20	31		
				DK30FAF02-4N	1/4"	20	36	
				DK30FAF02-6N	3/8"	25.4	41	
				DK30FAF02-8N	1/2"	30	45.5	
	DK30FAF16-4N	15,000 psig	1"	1/4"	46	71		
				DK30FAF16-6N	3/8"	46	71	
				DK30FAF16-8N	1/2"	46	76	
				DK30FAF16-12N	3/4"	46	80	
	DK30FAF16-16N	10,000 psig	1"	1"	46	87		
	DK60FAF04-2N	15,000 psig		1/4"	1/8"	19	35	
					DK60FAF04-4N	1/4"	19	41.5
					DK60FAF04-6N	3/8"	25.4	41.5
			DK60FAF04-8N		1/2"	30	50.5	
	DK60FAF04-12N	10,000 psig	3/8"	3/4"	36	55.5		
	DK60FAF06-2N	15,000 psig		1/8"	25.4	41.5		
				DK60FAF06-4N	1/4"	25.4	47.5	
				DK60FAF06-6N	3/8"	25.4	47.5	
			DK60FAF06-8N	1/2"	30	54		
	DK60FAF06-12N	10,000 psig	3/4"	3/4"	36	58.5		
	DK60FAF06-16N			1"	46	65.5		
	DK60FAF09-2N	15,000 psig	9/16"	1/8"	36	46		
	DK60FAF09-4N			1/4"	36	50.5		
	DK60FAF09-6N			3/8"	36	50.5		
	DK60FAF09-8N			1/2"	36	56.5		
DK60FAF09-12N	10,000 psig	3/4"	3/4"	36	60			
DK60FAF09-16N			1"	46	68			

Male Adapter \* Female Thread

## DK-MAF

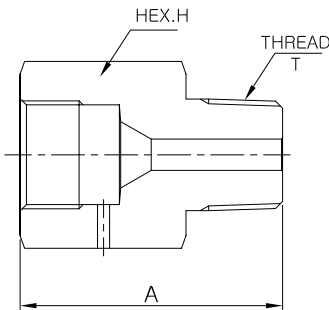


Connection Type	Part No.	Pressure Rating	Tube Size	Thread T F.NPT	Dimensions		
					HEX.H	A	
Low Pressure 11,500 psig	DK11MAF02-2N	11,000 psig	1/8"	1/8"	16	28	
	DK11MAF02-4N			1/4"	19	34	
	DK11MAF02-6N			3/8"	25.4	38	
	DK11MAF02-8N			1/2"	30	43	
	DK11MAF04-2N	11,500 psig	1/4"	1/8"	16	33	
	DK11MAF04-4N			1/4"	19	37	
	DK11MAF04-6N			3/8"	25.4	43	
	DK11MAF04-8N			1/2"	30	47.5	
	DK11MAF04-12N	7,500 psig	3/8"	3/4"	36	55.5	
	DK07MAF06-2N			1/8"	19	35	
	DK07MAF06-4N			1/4"	19	37	
	DK07MAF06-6N			3/8"	25.4	43	
	DK07MAF06-7N	5,500 psig	1/2"	1/2"	30	50	
	DK07MAF06-12N			3/4"	36	57.5	
	DK07MAF06-16N			1"	46	70	
	DK05MAF08-2N			1/8"	19	35	
	DK05MAF08-4N	5,500 psig	1/2"	1/4"	19	37	
	DK05MAF08-6N			3/8"	25.4	43	
	DK05MAF08-8N			1/2"	30	50	
	DK05MAF08-12N			3/4"	36	57.5	
	DK05MAF08-16N	Medium Pressure 20,000 psig	15,000 psig	1/4"	1"	46	70
	DK20MAF04-2N				1/8"	16	33
	DK20MAF04-4N				1/4"	19	37
	DK20MAF04-6N				3/8"	25.4	43
DK20MAF04-8N	10,000 psig		3/8"	1/2"	30	50	
DK20MAF04-12N				3/4"	36	57.5	
DK20MAF06-2N				1/8"	16	34	
DK20MAF06-4N				1/4"	19	39.5	
DK20MAF06-6N	15,000 psig		3/8"	3/8"	25.4	45	
DK20MAF06-8N				1/2"	30	50	
DK20MAF06-12N				3/4"	36	57.5	
DK20MAF06-16N				1"	46	70	
DK20MAF09-2N	10,000 psig		9/16"	1/8"	22	40	
DK20MAF09-4N				1/4"	22	43	
DK20MAF09-6N				3/8"	25.4	47	
DK20MAF09-8N				1/2"	30	54	
DK20MAF09-12N	15,000 psig		3/4"	3/4"	36	62	
DK20MAF09-16N				1"	46	73	
DK20MAF12-4N				1/4"	30	48	
DK20MAF12-6N				3/8"	30	52	
DK20MAF12-8N	10,000 psig		1"	1/2"	30	56	
DK20MAF12-12N				3/4"	36	68	
DK20MAF12-16N				1"	46	78	
DK20MAF16-4N				1/4"	36	60	
DK20MAF16-6N	15,000 psig	3/4"	3/8"	36	60		
DK20MAF16-8N			1/2"	36	60		
DK20MAF16-12N			3/4"	36	68		
DK20MAF16-16N			1"	46	78		
High Pressure	30,000 psig	15,000 psig	1/8"	1/8"	16	29	
				DK30MAF02-4N	1/4"	19	36
				DK30MAF02-6N	3/8"	25.4	39
				DK30MAF02-8N	1/2"	30	43
		DK30MAF16-4N	15,000 psig	1"	1/4"	36	61
		DK30MAF16-6N			3/8"	36	61
		DK30MAF16-8N			1/2"	36	61
		DK30MAF16-12N			3/4"	36	69
		DK30MAF16-16N	10,000 psig	1"	1"	46	79
		DK60MAF04-2N			1/8"	16	30
		DK60MAF04-4N			1/4"	19	36
		DK60MAF04-6N			3/8"	25.4	42
	DK60MAF04-8N	15,000 psig	1/4"	1/2"	30	46	
	DK60MAF04-12N			3/4"	36	53	
	DK60MAF06-2N			1/8"	20	35.5	
	DK60MAF06-4N			1/4"	20	40.5	
	DK60MAF06-6N	15,000 psig	3/8"	3/8"	25.4	45.5	
	DK60MAF06-8N			1/2"	30	52.5	
	DK60MAF06-12N			3/4"	36	58.5	
	DK60MAF06-16N			1"	46	65.5	
	DK60MAF09-2N	10,000 psig	9/16"	1/8"	30	38	
	DK60MAF09-4N			1/4"	30	41	
	DK60MAF09-6N			3/8"	30	49	
	DK60MAF09-8N			1/2"	30	54	
DK60MAF09-12N	15,000 psig	9/16"	3/4"	36	59		
DK60MAF09-16N			1"	46	70		



Female Adapter \* Male Thread

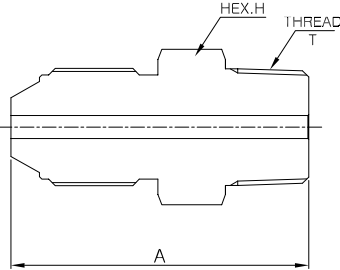
## DK-FAM



Connection Type	Part No.	Pressure Rating	Tube Size	Thread T F.NPT	Dimensions		
					HEX.H	A	
Low Pressure 11,500 psig	DK11FAM02-2N	11,000 psig	1/8"	1/8"	12.7	25	
	DK11FAM02-4N			1/4"	16	28	
	DK11FAM02-6N			3/8"	19	30	
	DK11FAM02-8N			1/2"	25.4	37	
	DK11FAM04-2N	11,500 psig	1/4"	1/8"	16	31	
	DK11FAM04-4N			1/4"	16	35	
	DK11FAM04-6N			3/8"	19	35	
	DK11FAM04-8N			1/2"	25.4	41	
	DK11FAM04-12N	7,500 psig	3/8"	1/8"	16	36	
	DK07FAM06-2N			1/4"	19	38	
	DK07FAM06-4N			3/8"	19	38	
	DK07FAM06-6N			1/2"	25.4	43	
	DK07FAM06-7N	5,500 psig	1/2"	1/2"	25.4	43	
	DK07FAM06-12N			3/4"	30	44.5	
	DK07FAM06-16N			1"	36	45	
	DK05FAM08-2N			1/8"	25.4	38	
	DK05FAM08-4N	5,500 psig	1/2"	1/4"	25.4	41	
	DK05FAM08-6N			3/8"	25.4	42	
	DK05FAM08-8N			1/2"	25.4	47	
	DK05FAM08-12N			3/4"	30	46.5	
DK05FAM08-16N	15,000 psig	1/4"	1"	36	45		
DK20FAM04-2N			1/8"	16	28		
DK20FAM04-4N			1/4"	16	33		
DK20FAM04-6N			3/8"	19	35		
DK20FAM04-8N	10,000 psig	3/8"	1/2"	25.4	37		
DK20FAM04-12N			3/4"	30	44.5		
DK20FAM06-2N			1/8"	19	36		
DK20FAM06-4N			1/4"	19	36		
DK20FAM06-6N	15,000 psig	3/8"	3/8"	19	38		
DK20FAM06-8N			1/2"	25.4	43		
DK20FAM06-12N			3/4"	30	44.5		
DK20FAM06-16N			1"	36	50		
DK20FAM09-2N	10,000 psig	9/16"	1/8"	25.4	42		
DK20FAM09-4N			1/4"	25.4	44		
DK20FAM09-6N			3/8"	25.4	42		
DK20FAM09-8N			1/2"	25.4	47		
DK20FAM09-12N	15,000 psig	3/4"	3/4"	30	50.5		
DK20FAM09-16N			1"	36	55		
DK20FAM12-4N			1/4"	36	52		
DK20FAM12-6N			3/8"	36	52		
DK20FAM12-8N	10,000 psig	1"	1/2"	36	52		
DK20FAM12-12N			3/4"	36	57		
DK20FAM12-16N			1"	36	57		
DK20FAM16-4N			1/4"	46	68		
DK20FAM16-6N	15,000 psig	3/8"	3/8"	46	68		
DK20FAM16-8N			1/2"	46	68		
DK20FAM16-12N			3/4"	46	68		
DK20FAM16-16N			1"	46	70		
High Pressure	30,000 psig	15,000 psig	1/8"	1/8"	20	25	
				DK30FAM02-4N	1/4"	20	30
				DK30FAM02-6N	3/8"	20	30
				DK30FAM02-8N	1/2"	25.4	37
		DK30FAM02-12N	15,000 psig	1"	3/4"	30	44.5
		DK30FAM16-4N			1/4"	46	68
		DK30FAM16-6N			3/8"	46	68
		DK30FAM16-8N			1/2"	46	68
	DK30FAM16-12N	10,000 psig	3/8"	3/4"	46	68	
	DK30FAM16-16N			1"	46	70	
	DK60FAM04-2N			1/8"	19	28	
	DK60FAM04-4N			1/4"	19	33	
	DK60FAM04-6N	15,000 psig	1/4"	3/8"	19	33	
	DK60FAM04-8N			1/2"	25.4	37	
	DK60FAM04-12N			3/4"	30	44.5	
	DK60FAM06-2N			1/8"	25.4	36	
	DK60FAM06-4N	15,000 psig	3/8"	1/4"	25.4	38	
	DK60FAM06-6N			3/8"	25.4	38	
	DK60FAM06-8N			1/2"	25.4	43	
	DK60FAM06-12N			3/4"	30	50.5	
DK60FAM06-16N	10,000 psig	9/16"	1"	36	50		
DK60FAM09-2N			1/8"	36	41		
DK60FAM09-4N			1/4"	36	43		
DK60FAM09-6N			3/8"	36	44		
DK60FAM09-8N	15,000 psig	9/16"	1/2"	36	47		
DK60FAM09-12N			3/4"	36	54		
DK60FAM09-16N			1"	36	57		

Male Adapter \* Male Thread

## DK-MAM



Connection Type	Part No.	Pressure Rating	Tube Size	Thread T F.NPT	Dimensions			
					HEX.H	A		
Low Pressure 11,500 psig	DK11MAM02-2N	11,000 psig	1/8"	1/8"	12.7	34.5		
	DK11MAM02-4N			1/4"	16	41.5		
	DK11MAM02-6N			3/8"	19	44.5		
	DK11MAM02-8N			1/2"	25.4	49.5		
	DK11MAM04-2N	11,500 psig	1/4"	1/8"	16	39.5		
	DK11MAM04-4N			1/4"	16	44.5		
	DK11MAM04-6N			3/8"	19	47.5		
	DK11MAM04-8N			1/2"	25.4	54.5		
	DK11MAM04-12N	7,500 psig	3/8"	3/4"	30	57.5		
	DK07MAM06-2N			1/8"	19	42		
	DK07MAM06-4N			1/4"	19	47		
	DK07MAM06-6N			3/8"	19	50		
	DK07MAM06-7N			1/2"	25.4	57		
	DK07MAM06-12N			3/4"	30	60		
	DK07MAM06-16N			1"	36	60		
	DK05MAM08-2N			5,500 psig	1/2"	1/8"	25.4	44.5
	DK05MAM08-4N	1/4"	25.4			47.5		
	DK05MAM08-6N	3/8"	25.4			50.5		
	DK05MAM08-8N	1/2"	25.4			57.5		
	DK05MAM08-12N	3/4"	30			60.5		
	DK05MAM08-16N	1"	36			66.5		
	Medium Pressure 20,000 psig	DK20MAM04-2N	15,000 psig	1/4"	1/8"	12.7	41	
		DK20MAM04-4N			1/4"	16	44	
		DK20MAM04-6N			3/8"	19	46	
DK20MAM04-8N		1/2"			25.4	54		
DK20MAM04-12N		10,000 psig	3/8"	3/4"	30	59		
DK20MAM06-2N		15,000 psig		1/8"	16	45		
DK20MAM06-4N				1/4"	16	49		
DK20MAM06-6N				3/8"	19	50		
DK20MAM06-8N				1/2"	25.4	58		
DK20MAM06-12N		10,000 psig		9/16"	3/4"	30	63	
DK20MAM06-16N		15,000 psig			1"	36	69	
DK20MAM09-2N					1/8"	22	50.5	
DK20MAM09-4N			1/4"		22	55		
DK20MAM09-6N			3/8"	22	54			
DK20MAM09-8N		10,000 psig	3/4"	1/2"	25.4	62		
DK20MAM09-12N				3/4"	30	67		
DK20MAM09-16N				1"	36	73		
DK20MAM12-4N				15,000 psig	1"	1/4"	30	63
DK20MAM12-6N		3/8"	30			64		
DK20MAM12-8N		1/2"	30			68		
DK20MAM12-12N		3/4"	30			73		
DK20MAM12-16N		10,000 psig	3/8"	1"	36	79		
DK20MAM16-4N				15,000 psig	1"	1/4"	36	80
DK20MAM16-6N						3/8"	36	81
DK20MAM16-8N	1/2"					36	84	
DK20MAM16-12N	3/4"	36	85					
DK20MAM16-16N	10,000 psig	30,000 psig	1/8"	1"	36	89		
DK30MAM02-2N	15,000 psig			1"	1/8"	14	36	
DK30MAM02-4N					1/4"	14	41	
DK30MAM02-6N					3/8"	19	46	
DK30MAM02-8N		1/2"	25.4		51			
DK30MAM16-4N	15,000 psig	3/8"	1/4"	36	79			
DK30MAM16-6N			3/8"	36	80			
DK30MAM16-8N			1/2"	36	83			
DK30MAM16-12N			3/4"	36	84			
DK30MAM16-16N	10,000 psig	60,000 psig	1/4"	1"	36	88		
DK60MAM04-2N	15,000 psig			1/8"	1/8"	16	41.5	
DK60MAM04-4N					1/4"	16	44.5	
DK60MAM04-6N					3/8"	19	46.5	
DK60MAM04-8N			1/2"		25.4	51.5		
DK60MAM04-12N	10,000 psig		3/8"	3/4"	30	56.5		
DK60MAM06-2N				15,000 psig	1"	1/8"	20	47.5
DK60MAM06-4N						1/4"	20	50.5
DK60MAM06-6N						3/8"	20	52.5
DK60MAM06-8N	1/2"		25.4			57.5		
DK60MAM06-12N	10,000 psig		9/16"	3/4"	30	62.5		
DK60MAM06-16N				1"	36	68.5		
DK60MAM09-2N		15,000 psig		1"	1/8"	30	53	
DK60MAM09-4N					1/4"	30	56	
DK60MAM09-6N	3/8"		30		57			
DK60MAM09-8N	1/2"		30		61			
DK60MAM09-12N	10,000 psig	9/16"	3/4"	30	66			
DK60MAM09-16N			1"	36	72			

## High Pressure Air Operated Valves

### Features

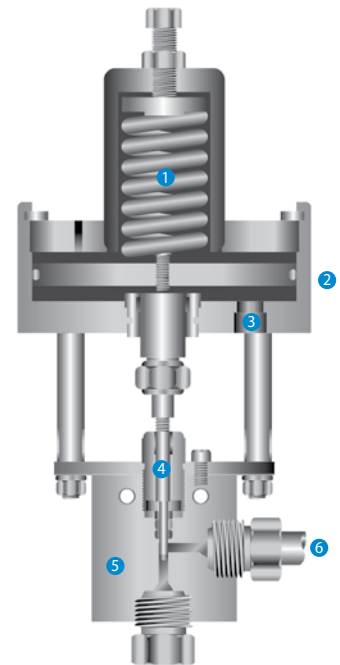
It is an air pressure valve that automatically opens and closes the valve at the bottom by using air pressure.

- Normal open or normal close type are available.
- Normal open type; Normally, when the valve is open, air is supplied and the valve is closed.
- Normal close type; Normally, when the valve is close, air is supplied and the valve is open.
- Minimum air pressure for operation; 5 kgf/cm<sup>2</sup>
- The lower body through which the fluid or gas flows is of the same type as the high pressure needle valve.
- It is possible to adjust the tension of the spring by adjusting the upper bolt.
- When control of the system is required, the valve can be operated remotely via AOV.
- Because it uses air as the driving pressure, it is safer than electrical control which is dangerous for explosion.

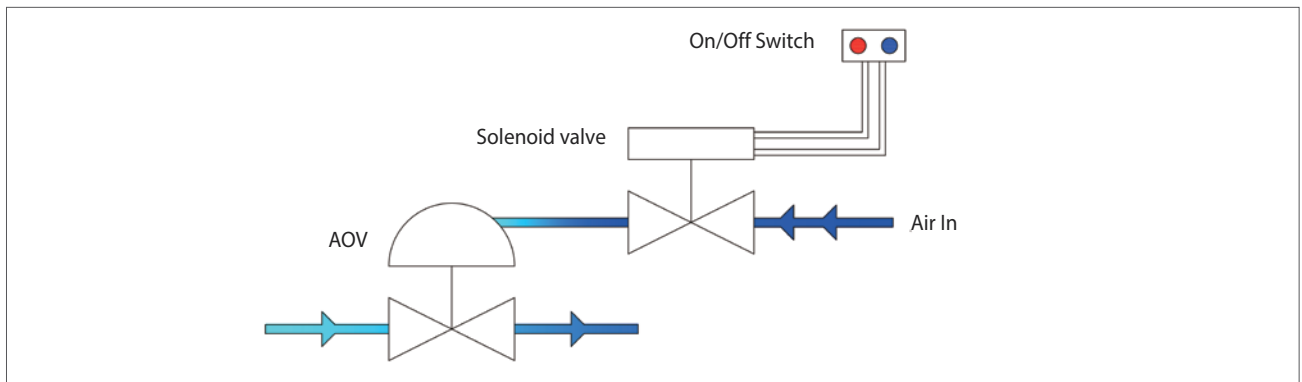
Air Operated Valves

### DK-NV

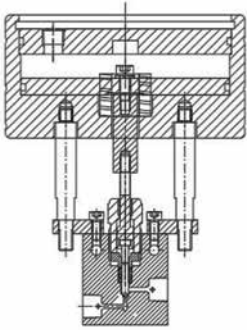
Parts	Material
1. Spring	Carbon Steel
2. Housing	Aluminum 6061
3. Air Inlet Port	-
4. Stem	Stainless Steel 316
5. Body	Stainless Steel 316
6. Connection	Stainless Steel 316



### Performance Property

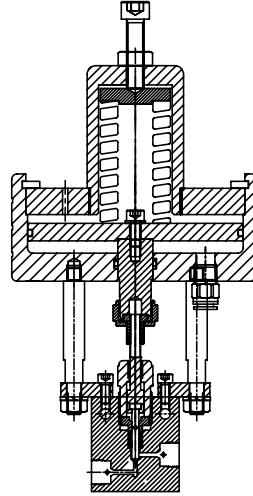


## Description of Operation



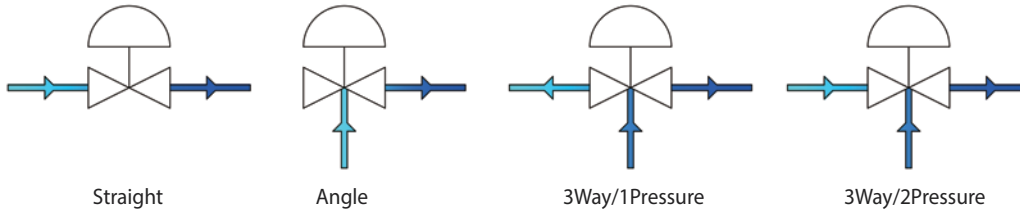
### Normal-Open Type

1. In normal operation, the stem connected to the circular plate is lifted up and the valve remains open.
2. At this time, when the air pressure is applied from above, the circular plate moves downward due to the air pressure.
3. The stem connected to the circular plate is also moved downwards to block the open orifice, thus blocking the fluid flow.
4. To reopen the valve, shut off the incoming air pressure and exhaust the air already in the product.
5. The restoring force of the spring at the bottom causes the circular plate and the stem to move up again, and the valve opens and the fluid flows again.



### Normal-Close Type

1. In normal operation, the stem connected to the circular plate is lifted down and the valve remains close.
2. At this time, if the air pressure is applied from the lower side, the circular plate moves upward due to the inflating air pressure.
3. The closed orifice is opened and fluid flows.
4. To close the valve again, shut off the incoming air pressure and exhaust the air already in the product.
5. The restoring force of the spring at the upper part causes the circular plate and the stem to come down again, closing the valve to block the flow of the fluid.



Pressure Rating	Tube Size	Normal-Open				Normal-Close			
		Straight	Angle	3Way/1 Pressure	3Way/2 Pressure	Straight	Angle	3Way/1on	3Way/2on
11,000 psig	1/8"	DK11NV-02-AC	DK11NV-02-A-AC	DK11NV-02-O-AC	DK11NV-02-T-AC	DK11NV-02-AO	DK11NV-02-A-AO	DK11NV-02-O-AO	DK11NV-02-T-AO
11,500 psig	1/4"	DK11NV-04-AC	DK11NV-04-A-AC	DK11NV-04-O-AC	DK11NV-04-T-AC	DK11NV-04-AO	DK11NV-04-A-AO	DK11NV-04-O-AO	DK11NV-04-T-AO
7,500 psig	3/8"	DK11NV-06-AC	DK11NV-06-A-AC	DK11NV-06-O-AC	DK11NV-06-T-AC	DK11NV-06-AO	DK11NV-06-A-AO	DK11NV-06-O-AO	DK11NV-06-T-AO
5,500 psig	1/2"	DK11NB-08-AC	DK11NB-08-A-AC	DK11NB-08-O-AC	DK11NB-08-T-AC	DK11NB-08-AO	DK11NB-08-A-AO	DK11NB-08-O-AO	DK11NB-08-T-AO
20,000 psig	1/4"	DK20NV-04-AC	DK20NV-04-A-AC	DK20NV-04-O-AC	DK20NV-04-T-AC	DK20NV-04-AO	DK20NV-04-A-AO	DK20NV-04-O-AO	DK20NV-04-T-AO
	3/8"	DK20NV-06-AC	DK20NV-06-A-AC	DK20NV-06-O-AC	DK20NV-06-T-AC	DK20NV-06-AO	DK20NV-06-A-AO	DK20NV-06-O-AO	DK20NV-06-T-AO
	9/16"	DK20NV-09-AC	DK20NV-09-A-AC	DK20NV-09-O-AC	DK20NV-09-T-AC	DK20NV-09-AO	DK20NV-09-A-AO	DK20NV-09-O-AO	DK20NV-09-T-AO
	3/4"	DK20NV-12-AC	DK20NV-12-A-AC	DK20NV-12-O-AC	DK20NV-12-T-AC	DK20NV-12-AO	DK20NV-12-A-AO	DK20NV-12-O-AO	DK20NV-12-T-AO
	1"	DK20NV-16-AC	DK20NV-16-A-AC	DK20NV-16-O-AC	DK20NV-16-T-AC	DK20NV-16-AO	DK20NV-16-A-AO	DK20NV-16-O-AO	DK20NV-16-T-AO
60,000 psig	1/4"	DK60NV-04-AC	DK60NV-04-A-AC	DK60NV-04-O-AC	DK60NV-04-T-AC	DK60NV-04-AO	DK60NV-04-A-AO	DK60NV-04-O-AO	DK60NV-04-T-AO
	3/8"	DK60NV-06-AC	DK60NV-06-A-AC	DK60NV-06-O-AC	DK60NV-06-T-AC	DK60NV-06-AO	DK60NV-06-A-AO	DK60NV-06-O-AO	DK60NV-06-T-AO
	9/16"	DK60NV-09-AC	DK60NV-09-A-AC	DK60NV-09-O-AC	DK60NV-09-T-AC	DK60NV-09-AO	DK60NV-09-A-AO	DK60NV-09-O-AO	DK60NV-09-T-AO

## High Pressure Tooling



The Coning and Threading tools are designed for simple accurate preparation of tubing ends for the 20,000psig, 60,000psig and ultra high pressure connection. The spare parts are interchangeable and easy to install and work for the coned tubing ends. (They are not required to reseating job)

### Coning Tool

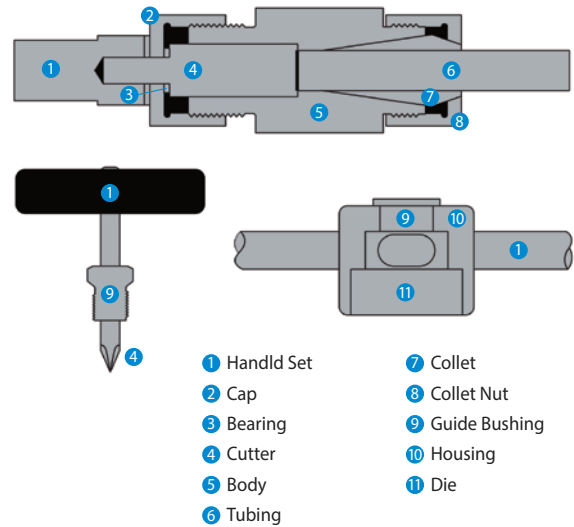
The Coning tool is designed for preparing to cone on the tubing ends for the 20,000psig, 60,000psig and ultra high pressure connections. The cone degrees are approximately 57 to 59°. The cutter and collets are interchangeable each other. (except 9/16" sizes)

### Threading Tool

The Threading tool is designed for preparing a thread which is left hand type for the 20,000psig, 60,000psig and ultra high pressure connections. The threaded die and guide busings are interchangeable for all. (except 1/8" sizes)

### Reseating Tool

The reseating tool is designed for repairing old or damaged tubing connection seats for valves and fittings. This does not require to have coning and threading tools.



- 1 Handl Set
- 2 Cap
- 3 Bearing
- 4 Cutter
- 5 Body
- 6 Tubing
- 7 Collet
- 8 Collet Nut
- 9 Guide Bushing
- 10 Housing
- 11 Die

Pressure Rating	Tube Size	Part No.						
		Coning Tool			Threading Tool			Reseating Tool
		Set	Spare Cutter	Spare Collet	Set	Die	Guide Bushing	
20,000 psig	1/4"	DK20-CT-4	DK20-CT-4U	DK60-CT-40	DK20-TT-4	DK20-TT-4D	DK20-TT-4B	DK20-RT-4
	3/8"	DK20-CT-6	DK20-CT-6U	DK60-CT-60	DK20-TT-6	DK20-TT-6D	DK20-TT-6B	DK20-RT-6
	9/16"	DK20-CT-9	DK20-CT-9U	DK60-CT-90	DK20-TT-9	DK20-TT-9D	DK20-TT-9B	DK20-RT-9
60,000 psig	1/4"	DK60-CT-4	DK60-CT-4U	DK60-CT-40	DK60-TT-4	DK60-TT-4D	DK60-TT-4B	DK60-RT-4
	3/8"	DK60-CT-6	DK60-CT-6U	DK60-CT-60	DK60-TT-6	DK60-TT-6D	DK60-TT-6B	DK60-RT-6
	9/16"	DK60-CT-9	DK60-CT-9U	DK60-CT-90	DK60-TT-9	DK60-TT-9D	DK60-TT-9B	DK60-RT-9

