

# iP-Lok

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## ECO Series Tube Fittings & Valves



iP-Lok Eco Series tube fittings and valves are precision-engineered to meet the ordinary demands of diverse industries, including chemical processing, oil refining, power generation, shipbuilding and micro-electronics.

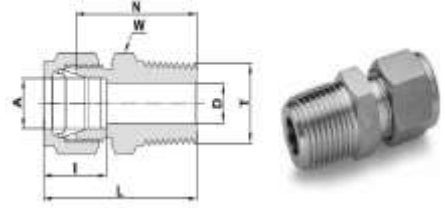
## Features:

- **Four-Part Precision System:** Each iP-Lok tube fitting is comprised of four high-integrity components: Body, Front Ferrule, Back Ferrule, and Nut.
- **Advanced Sealing Technology:** Our two-ferrule design compensates for tolerances in tube O.D., wall thickness, and material hardness. This ensures an outstanding, leak-tight connection that maintains integrity even under extreme vibration or thermal cycling. The maximum working pressure of Eco Series tube fittings is up to 3000 psi.
- **Material Integrity:** We utilize 316L stainless steel, sourced from high-quality forgings and bar stock, to ensure superior corrosion resistance.

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## Male Connector



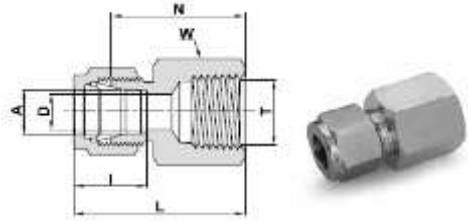
### Fractional Tube

New Part No.	A	T	D	W	N	L	I
	Tube O.D.	(NPT)	mm	mm	mm	mm	mm
E-MC-2-2N	1/8"	1/8"	2.28	11.1	23.9	30.48	12.7
E-MC-2-4N	1/8"	1/4"	2.28	14.29	28.95	35.56	12.7
E-MC-4-2N	1/4"	1/8"	4.82	12.7	25.4	32.76	15.2
E-MC-4-4N	1/4"	1/4"	4.82	14.29	30.5	37.85	15.2
E-MC-4-6N	1/4"	3/8"	4.82	17.46	30.98	38.35	15.2
E-MC-4-8N	1/4"	1/2"	4.82	22.23	37.34	44.7	15.2
E-MC-6-2N	3/8"	1/8"	4.82	15.88	27.9	35.3	16.8
E-MC-6-4N	3/8"	1/4"	7.11	15.88	32.51	39.87	16.8
E-MC-6-6N	3/8"	3/8"	7.11	17.46	32.51	39.87	16.8
E-MC-6-8N	3/8"	1/2"	7.11	22.23	38.9	46.23	16.8
E-MC-8-4N	1/2"	1/4"	7.11	20.64	33.27	43.43	22.9
E-MC-8-6N	1/2"	3/8"	9.65	20.64	33.27	43.43	22.9
E-MC-8-8N	1/2"	1/2"	10.41	22.23	38.9	49.02	22.9

### Metric Tube

Part No.	A	T	D	W	N	L	I
	Tube O.D.	(NPT)	mm	mm	mm	mm	mm
E-MC-3M-2N	3mm	1/8"	2.4	12	23.9	30.5	12.9
E-MC-3M-4N	3mm	1/4"	2.4	14	29	35.6	12.9
E-MC-6M-2N	6mm	1/8"	4.8	14	25.4	32.8	15.3
E-MC-6M-4N	6mm	1/4"	4.8	14	30.5	37.9	15.3
E-MC-6M-6N	6mm	3/8"	4.8	18	31	38.4	15.3
E-MC-6M-8N	6mm	1/2"	4.8	22	37.3	44.7	15.3
E-MC-8M-4N	8mm	1/4"	6.4	15	31.2	38.7	16.2
E-MC-8M-6N	8mm	3/8"	6.4	18	31.8	39.3	16.2
E-MC-8M-8N	8mm	1/2"	6.4	22	38.1	45.6	16.2
E-MC-10M-4N	10mm	1/4"	7.9	18	33.3	40.9	17.2
E-MC-10M-6N	10mm	3/8"	7.9	18	33.3	40.9	17.2
E-MC-10M-8N	10mm	1/2"	7.9	22	38.9	46.5	17.2
E-MC-12M-4N	12mm	1/4"	7.1	22	33.3	43.4	22.8
E-MC-12M-6N	12mm	3/8"	9.5	22	33.3	43.4	22.8
E-MC-12M-8N	12mm	1/2"	9.5	22	38.9	49	22.8

## Female Connector



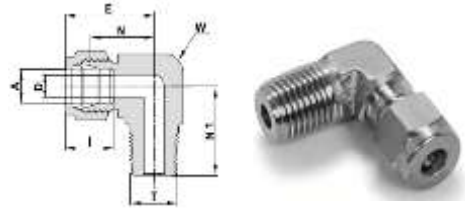
### Fractional Tube

Part No.	A	T	D	W	N	L	I
	Tube O.D.	(NPT)	mm	mm	mm	mm	mm
E-FC-2-2N	1/8"	1/8"	2.28	14.29	22.1	28.7	12.7
E-FC-2-4N	1/8"	1/4"	2.28	19.05	26.92	33.52	12.7
E-FC-4-2N	1/4"	1/8"	4.82	14.29	23.87	31.24	15.2
E-FC-4-4N	1/4"	1/4"	4.82	19.05	28.44	35.81	15.2
E-FC-4-6N	1/4"	3/8"	4.82	22.23	30.22	37.59	15.2
E-FC-6-4N	3/8"	1/4"	7.11	19.05	30.22	37.59	16.8
E-FC-6-6N	3/8"	3/8"	7.11	22.23	31.75	39.11	16.8
E-FC-6-8N	3/8"	1/2"	7.11	27	36.57	43.94	16.8
E-FC-8-4N	1/2"	1/4"	10.41	20.64	30.22	40.38	22.9
E-FC-8-6N	1/2"	3/8"	10.41	22.23	31.75	41.91	22.9
E-FC-8-8N	1/2"	1/2"	10.41	27	36.57	46.73	22.9

### Metric Tube

Part No.	A	T	D	W	N	L	I
	Tube O.D.	(NPT)	mm	mm	mm	mm	mm
E-FC-3M-2	3mm	1/8"	2.4	14	22.1	28.7	12.9
E-FC-3M-4	3mm	1/4"	2.4	19	26.9	33.5	12.9
E-FC-6M-2	6mm	1/8"	4.8	14	23.9	31.3	15.3
E-FC-6M-4	6mm	1/4"	4.8	19	28.4	35.8	15.3
E-FC-6M-6	6mm	3/8"	4.8	22	30.2	37.6	15.3
E-FC-8M-4	8mm	1/4"	6.4	19	29.5	37	16.2
E-FC-8M-6	8mm	3/8"	6.4	22	31	38.5	16.2
E-FC-8M-8	8mm	1/2"	6.4	27	35.8	43.3	16.2
E-FC-10M-4	10mm	1/4"	7.9	19	30.2	37.8	17.2
E-FC-10M-6	10mm	3/8"	7.9	22	31.8	39.4	17.2
E-FC-10M-8	10mm	1/2"	7.9	27	36.6	44.2	17.2
E-FC-12M-4	12mm	1/4"	9.5	22	30.2	40.3	22.8
E-FC-12M-6	12mm	3/8"	9.5	22	31.8	41.9	22.8
E-FC-12M-8	12mm	1/2"	9.5	27	36.6	46.7	22.8

## Male Elbow



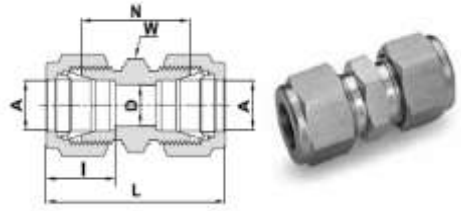
### Fractional Tube

Part No.	A	T	D	W	N	E	N1	I
	Tube O.D.	(NPT)	mm	mm	mm	mm	mm	mm
E-ME-2-2N	1/8"	1/8"	2.28	12.7	17.02	23.62	17.78	12.7
E-ME-2-4N	1/8"	1/4"	2.28	12.7	18.03	24.64	23.37	12.7
E-ME-4-2N	1/4"	1/8"	4.82	12.7	19.56	26.92	18.8	15.2
E-ME-4-4N	1/4"	1/4"	4.82	12.7	19.56	26.92	23.37	15.2
E-ME-4-6N	3/8"	1/4"	7.11	15.9	23.11	30.48	25.4	16.8
E-ME-6-6N	3/8"	3/8"	7.11	17.5	23.87	31.24	26.16	16.8
E-ME-8-4N	1/2"	1/4"	7.11	20.6	25.9	36.07	28.19	22.9
E-ME-8-6N	1/2"	3/8"	9.5	20.6	25.9	36.07	28.19	22.9
E-ME-8-8N	1/2"	1/2"	10.41	20.6	25.9	36.07	33.02	22.9

### Metric Tube

Part No.	A	T	D	W	N	E	N1	I
	Tube O.D.	(NPT)	mm	mm	mm	mm	mm	mm
E-ME-3M-2N	3mm	1/8"	2.4	12.7	17	23.6	17.8	12.9
E-ME-3M-4N	3mm	1/4"	2.4	12.7	18	24.6	23.4	12.9
E-ME-6M-2N	6mm	1/8"	4.8	12.7	19.6	27	18.8	15.3
E-ME-6M-4N	6mm	1/4"	4.8	12.7	19.6	27	23.4	15.3
E-ME-8M-2N	8mm	1/8"	4.8	14.3	21.3	28.8	19.8	16.2
E-ME-8M-4N	8mm	1/4"	6.4	14.3	21.3	28.8	24.4	16.2
E-ME-10M-4N	10mm	1/4"	7.1	17.5	23.9	31.5	26.2	17.2
E-ME-10M-6N	10mm	3/8"	7.9	17.5	23.9	31.5	26.2	17.2
E-ME-10M-8N	10mm	1/2"	7.9	20.6	25.9	33.5	33	17.2
E-ME-12M-8N	12mm	1/2"	9.5	20.6	25.9	36	33	22.8

## Union Straight



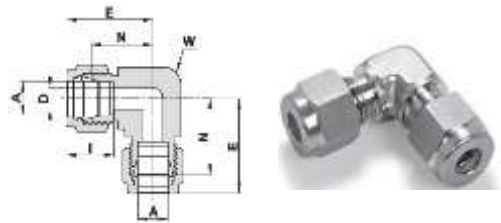
### Fractional Tube

Part No.	A	D	W	N	E	I
	Tube O.D.	mm	mm	mm	mm	mm
E-UE-2	1/8"	2.28	9.5	15.74	22.35	12.7
E-UE-4	1/4"	4.82	12.7	19.55	26.92	15.2
E-UE-6	3/8"	7.11	15.9	23.11	30.48	16.8
E-UE-8	1/2"	10.41	20.6	25.9	36.06	22.9

### Metric Tube

Part No.	A	D	W	N	E	I
	Tube O.D.	mm	mm	mm	mm	mm
E-UE-3M	3mm	2.4	9.5	15.7	22.3	12.9
E-UE-6M	6mm	4.8	12.7	19.6	27	15.3
E-UE-8M	8mm	6.4	14.3	21.3	28.8	16.2
E-UE-10M	10mm	7.9	17.5	23.9	31.5	17.2
E-UE-12M	12mm	9.5	20.6	25.9	36	22.8

## Union Elbow



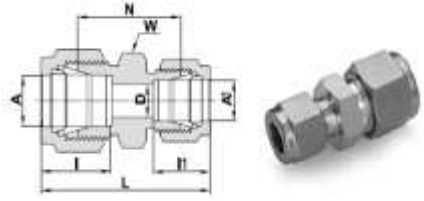
### Fractional Tube

Part No.	A	D	W	N	E	I
	Tube O.D.	mm	mm	mm	mm	mm
E-UE-2	1/8"	2.28	9.5	15.74	22.35	12.7
E-UE-4	1/4"	4.82	12.7	19.55	26.92	15.2
E-UE-6	3/8"	7.11	15.9	23.11	30.48	16.8
E-UE-8	1/2"	10.41	20.6	25.9	36.06	22.9

### Metric Tube

Part No.	A	D	W	N	E	I
	Tube O.D.	mm	mm	mm	mm	mm
E-UE-3M	3mm	2.4	9.5	15.7	22.3	12.9
E-UE-6M	6mm	4.8	12.7	19.6	27	15.3
E-UE-8M	8mm	6.4	14.3	21.3	28.8	16.2
E-UE-10M	10mm	7.9	17.5	23.9	31.5	17.2
E-UE-12M	12mm	9.5	20.6	25.9	36	22.8

## Reducing Union



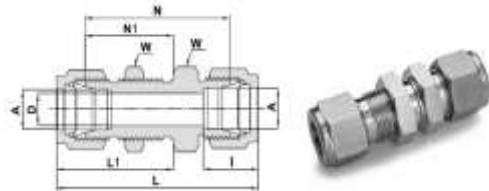
### Fractional Tube

Part No.	A	A1	D	W	N	L	I	I1
	Tube O.D.	Tube O.D.	mm	mm	mm	mm	mm	mm
E-RU-4-2	1/4"	1/8"	2.28	12.7	24.63	38.6	15.2	12.7
E-RU-6-2	3/8"	1/8"	2.28	15.88	26.92	40.89	16.8	12.7
E-RU-6-4	3/8"	1/4"	4.82	15.88	28.44	43.18	16.8	15.2
E-RU-8-4	1/2"	1/4"	4.82	20.64	29.46	46.99	22.9	15.2
E-RU-8-6	1/2"	3/8"	7.11	20.64	30.98	48.51	22.9	16.8

### Metric Tube

Part No.	A	A1	D	W	N	L	I	I1
	Tube O.D.	Tube O.D.	mm	mm	mm	mm	mm	mm
E-RU-6M-3M	6mm	3mm	2.4	14	24.6	38.6	15.3	12.9
E-RU-8M-6M	8mm	6mm	4.8	15	27.4	42.3	16.2	15.3
E-RU-10M-6M	10mm	6mm	4.8	18	29.5	44.5	17.2	15.3
E-RU-12M-6M	12mm	6mm	4.8	22	29.5	47	22.8	15.3
E-RU-10M-8M	10mm	8mm	6.4	18	30	45.1	17.2	16.2
E-RU-12M-8M	12mm	8mm	6.4	22	30.2	47.8	22.8	16.2
E-RU-12M-10M	12mm	10mm	7.9	22	31	48.7	22.8	17.2

## Bulkhead Union



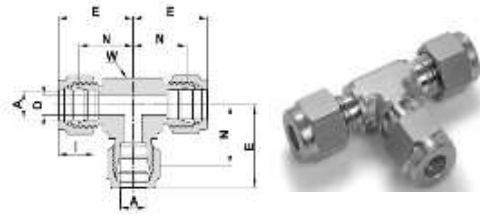
### Fractional Tube

Part No.	A	D	W	N	N1	L	L1	I
	Tube O.D.	mm	mm	mm	mm	mm	mm	mm
E-BU-2	1/8"	2.28	14	38.1	24.63	51.3	31.24	12.7
E-BU-4	1/4"	4.82	16	42.92	26.16	57.65	33.52	15.2
E-BU-6	3/8"	7.2	19	47.5	29.46	62.2	36.83	16.8
E-BU-8	1/2"	10.41	24	50.8	31.75	71.12	41.91	22.9

### Metric Tube

Part No.	A	D	W	N	N1	L	L1	I
	Tube O.D.	mm	mm	mm	mm	mm	mm	mm
E-BU-3M	3mm	2.4	14	38.1	24.6	51.3	31.2	12.9
E-BU-6M	6mm	4.8	16	42.9	26.2	57.7	33.6	15.3
E-BU-8M	8mm	6.4	18	46	28.6	61	36.1	16.2
E-BU-10M	10mm	7.9	22	48.5	29.4	63.7	37	17.2
E-BU-12M	12mm	9.5	24	50.8	31.8	71	41.9	22.8

## Union Tee



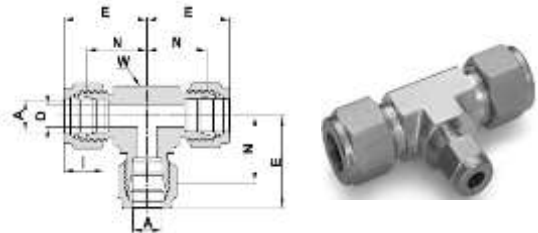
### Fractional Tube

Part No.	A	D	W	N	E	I
	Tube O.D.	mm	mm	mm	mm	mm
E-UT-2	1/8"	2.4	9.5	15.74	22.35	12.7
E-UT-4	1/4"	4.8	12.7	19.55	26.9	15.2
E-UT-6	3/8"	7.2	15.88	23.11	30.48	16.8
E-UT-8	1/2"	10.5	20.64	25.9	36.06	22.9

### Metric Tube

Part No.	A	D	W	N	E	I
	Tube O.D.	mm	mm	mm	mm	mm
E-UT-3M	3mm	2.4	9.5	15.7	22.3	12.9
E-UT-6M	6mm	4.8	12.7	19.6	27	15.3
E-UT-8M	8mm	6.4	15.9	22.4	29.9	16.2
E-UT-10M	10mm	7.9	17.5	23.9	31.5	17.2
E-UT-12M	12mm	9.5	20.6	25.9	36	22.8

## Reducing Union Tee



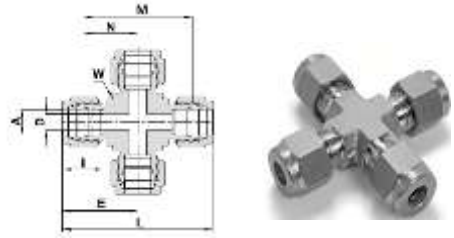
### Fractional Tube

Part No.	A	A1	E	E1	I	I1	D	W	N	N1
	Tube O.D.	Tube O.D.	mm	mm	mm	mm	mm	mm	mm	mm
E-RUT-4-2	1/4"	1/8"	26.9	26.2	15.2	12.7	2.28	12.7	19.6	19.6
E-RUT-8-4	1/2"	1/4"	36.1	31.8	22.9	15.2	4.82	20.6	25.9	24.4
E-RUT-8-6	1/2"	3/8"	36.1	33.3	22.9	16.8	7.11	20.6	25.9	25.9

### Metric Tube

Part No.	A	A1	E	E1	I	I1	D	W	N	N1
	Tube O.D.	Tube O.D.	mm	mm	mm	mm	mm	mm	mm	mm
E-RUT-8M-6M	8mm	6mm	29.9	29.8	16.2	15.3	4.8	15.88	22.4	22.4
E-RUT-10M-6M	10mm	6mm	31.5	31.3	17.2	15.3	4.8	17.5	23.9	23.9
E-RUT-12M-6M	12mm	6mm	36	31.8	22.8	15.3	4.8	20.6	25.9	24.4
E-RUT-12M-10M	12mm	10mm	36	33.5	22.8	17.2	7.9	20.6	25.9	25.9

## Union Cross



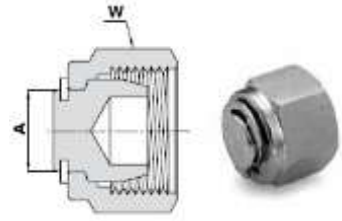
### Fractional Tube

Part No.	A	D	W	N	E	M	L	I
	Tube O.D.	mm	mm	mm	mm	mm	mm	mm
E-UC-2	1/8"	2.28	9.5	15.74	22.35	31.48	44.7	12.7
E-UC-4	1/4"	4.82	12.7	19.56	26.92	39.12	53.84	15.2
E-UC-6	3/8"	7.11	15.9	23.11	30.48	46.22	60.96	16.8
E-UC-8	1/2"	10.41	20.6	25.9	36.07	51.8	72.14	22.9

### Metric Tube

Part No.	A	D	W	N	E	M	L	I
	Tube O.D.	mm	mm	mm	mm	mm	mm	mm
E-UC-3M	3mm	2.4	9.5	15.7	22.3	31.5	44.7	12.9
E-UC-6M	6mm	4.8	12.7	19.6	27	39.1	53.9	15.3
E-UC-8M	8mm	6.4	15.9	22.4	29.9	44.7	59.7	16.2
E-UC-10M	10mm	7.9	20.6	25.9	33.5	51.8	67	17.2
E-UC-12M	12mm	9.5	20.6	25.9	36	51.8	72	22.8

## Plug



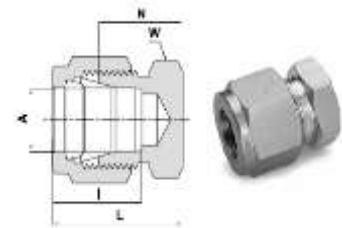
### Fractional Tube

Part No.	A	W
	Tube O.D.	mm
E-PLUG-2	1/8"	12.7
E-PLUG-4	1/4"	14.29
E-PLUG-6	3/8"	17.46
E-PLUG-8	1/2"	22.22

### Metric Tube

Part No.	A	W
	Tube O.D.	mm
E-PLUG-3M	3mm	12
E-PLUG-6M	6mm	14
E-PLUG-8M	8mm	17
E-PLUG-10M	10mm	19
E-PLUG-12M	12mm	22

## Cap



### Fractional Tube

Part No.	A	W	N	L	I
	Tube O.D.	mm	mm	mm	mm
E-CAP-2	1/8"	11.11	13.46	20.06	12.7
E-CAP-4	1/4"	12.7	16	23.37	15.2
E-CAP-6	3/8"	15.88	18.28	26.65	16.8
E-CAP-8	1/2"	20.64	19.05	29.21	22.9

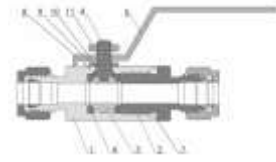
### Metric Tube

Part No.	A	W	N	L	I
	Tube O.D.	mm	mm	mm	mm
E-CAP-3M	3mm	12	13.5	20.1	12.9
E-CAP-6M	6mm	14	15.7	23.1	15.3
E-CAP-8M	8mm	15	17	24.5	16.2
E-CAP-10M	10mm	18	19	26.6	17.2
E-CAP-12M	12mm	22	19	29.1	22.8

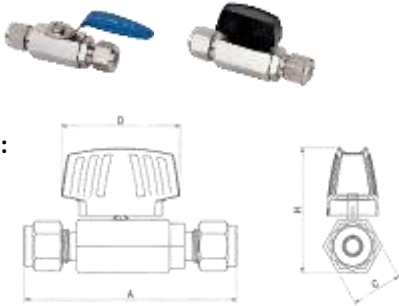
## E-GB Instrumentation Ball Valve

### Features:

- 2-Piece Ball Valve
- Compact design
- Cost-effective
- Maximum Pressure: 1000 psi
- Working temperature: -40 °C~74 °C



### Dimensions:



Fractional Tube Short Handle (Plastic Handle)

No.	Part	Material
1	Body	SS316
2	Connector	SS316
3	Ball	SS316
4	Stem	SS316
5	Handle	Plastic / SS304
6	Packing Seat	PTFE
7	Sealing	PTFE
8	Stem Bearing	PTFE
9	Stem Packing	PTFE
10	Stem Washer	SS304
11	Nut	SS304

Part No.	Tube OD	Orifice	A	C	D	H
		mm	mm	mm	mm	mm
E-GB-2	1/8"	2.8	68	17	40	41
E-GB-4	1/4"	4.8	74	17	40	41
E-GB-6	3/8"	7	80	22	40	46
E-GB-8	1/2"	9	95	27	50	54.5

Fractional Tube Long Handle (Plastic Handle)

Part No.	Tube OD	Orifice	A	C	D	H
		mm	mm	mm	mm	mm
E-GB-2-J	1/8"	2.8	68	17	65	41
E-GB-4-J	1/4"	4.8	74	17	65	41
E-GB-6-J	3/8"	7	80	22	85	46
E-GB-8-J	1/2"	9	95	27	85	54.5

Fractional Tube Short Handle (Plastic Handle)

Part No.	Tube OD	Orifice	A	C	D	H
		mm	mm	mm	mm	mm
E-GB-3M	3mm	2.8	68	17	40	41
E-GB-6M	6mm	4.8	74	17	40	41
E-GB-8M	8mm	4.8	74	17	40	41
E-GB-10M	10mm	7	80	22	40	46
E-GB-12M	12mm	9	95	27	50	54.5

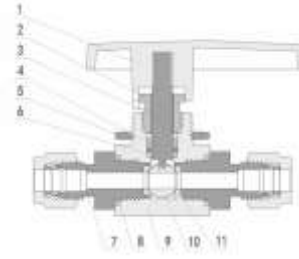
Fractional Tube Long Handle (Plastic Handle)

Part No.	Tube OD	Orifice	A	C	D	H
		mm	mm	mm	mm	mm
E-GB-3M-J	3mm	2.8	68	17	65	41
E-GB-6M-J	6mm	4.8	74	17	65	41
E-GB-8M-J	8mm	4.8	74	17	65	41
E-GB-10M-J	10mm	7	80	22	85	46
E-GB-12M-J	12mm	9	95	27	85	54.5

## E-BV Instrumentation Ball Valve

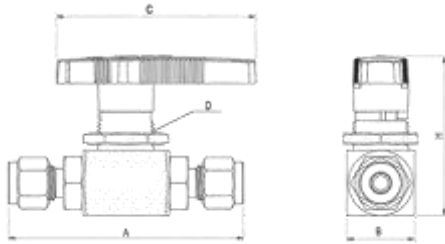
### Features:

- 3-Piece Ball Valve
- Compact design
- Maximum Pressure: 2500 psi
- Working temperature: -40 °C~74 °C
- Capable of panel mounted



No.	Part	Material
1	Handle	Nylon
2	Nut	SS304
3	Stem	SS316
4	Sealing	PTFE
5	Panel Nut	SS304
6	Stem Bearing	PTFE
7	Connector	SS316
8	Sealing	PTFE
9	Body	SS316
10	Ball	SS316
11	Packing Seat	PTFE

### Dimensions:



### Fractional Tube

Part No.	Tube OD	Orifice	A	B	C	D	H
		mm	mm	mm	mm	mm	mm
E-BV-2	1/8"	2.8	73	22	65	18	52.5
E-BV-4	1/4"	4.8	74	22	65	18	52.5
E-BV-6	3/8"	4.8	79	22	65	18	52.5
E-BV-8	1/2"	7	90	25	65	18	56.5

### Metric Tube

Part No.	Tube OD	Orifice	A	B	C	D	H
		mm	mm	mm	mm	mm	mm
E-BV-3M	3mm	2.8	73	22	65	18	52.5
E-BV-6M	6mm	4.8	74	22	65	18	52.5
E-BV-8M	8mm	4.8	74	22	65	18	52.5
E-BV-10M	10mm	4.8	79	22	65	18	52.5
E-BV-12M	12mm	7	90	25	65	18	56.5

~ End Of Catalog ~