

# DR2000 series



DR2001, DR2002,  
DR2021, DR2022



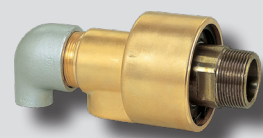
DR2011, DR2012



DR2005, DR2025



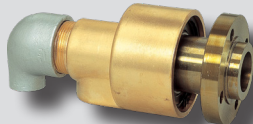
DR2015



DR2201, DR2202,  
DR2221, DR2222



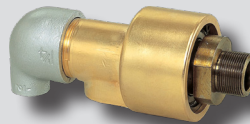
DR2211, DR2212



DR2205, DR2225



DR2215



DR2206, DR2207



DR2216, DR2217

## How to Order

DR20 0 1 - 10A

①      ②      ③      ④

### ① Series

DR20	Aluminium body
DR22	Brass body
DR25	SUS body

### ② Head compartment

0	Duplex with fixed internal pipe
1	Simplex L
2	Duplex with rotating internal pipe

### ③ Connection type

1	Right-hand screw
2	Left-hand screw
5	Flange
6	Metric, Right-hand screw
7	Metric, Left-hand screw

### ④ Shaft size

R(PT)		Metric	
6A	1/8	M10	10×P1.25
8A	1/4	M14	14×P1.5
10A	3/8	M16	16×P1.5
15A	1/2	M18	18×P1.5
20A	3/4	M22	22×P1.5
25A	1	M26	26×P1.5
32A	1 1/4	M30	30×P1.5
40A	1 1/2	M42	42×P2.0
50A	2	M48	48×P2.0
65A	2 1/2		

※ Metric type is applicable with DR2206, DR2207, DR2216, and DR2217.

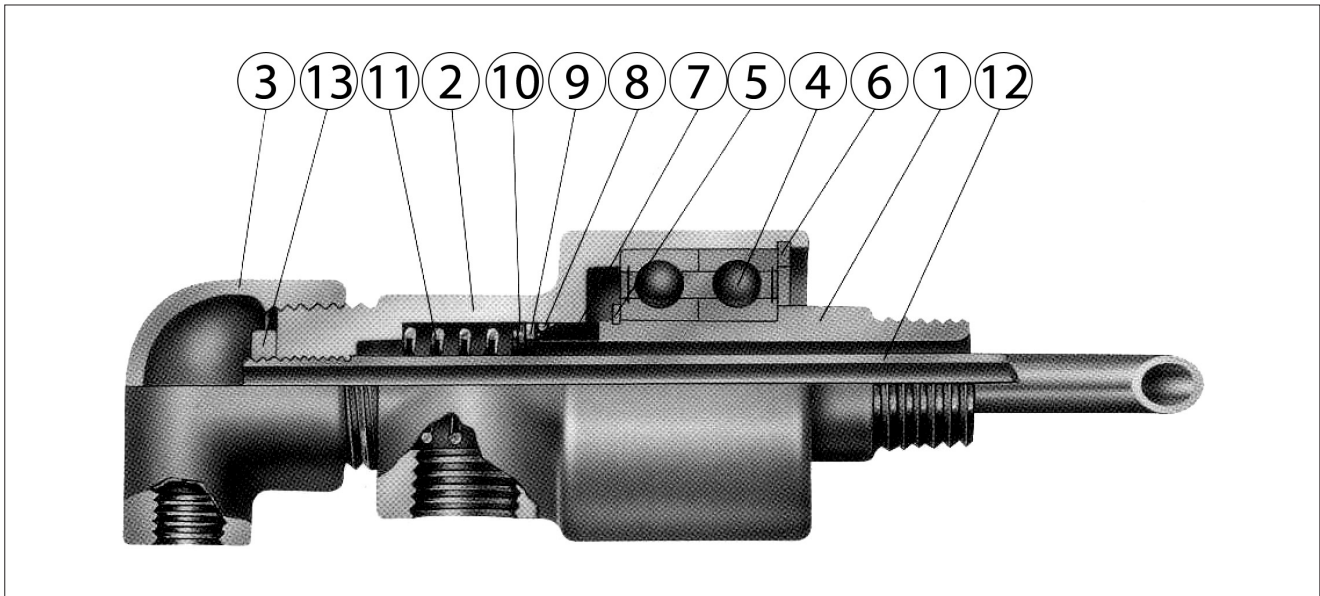
## Specifications

Max. pressure	10kgf/cm <sup>2</sup> (7kgf/cm <sup>2</sup> )	
Max. temperature	100°C (80°C)	
Max. rotation	6A~25A	1500rpm
	32A~65A	1000rpm
Fluid	Water, air, medicine, oil	

## Features

The DR-2000 Series Rotary joints have low rotation resistance at high speed operation and are economical to operate. Their unique sealed ball bearing mechanism eliminates the need for lubrication and they have a high resistance to corrosion in the area that comes in contact with fluid due to the use of a Teflon coated, aluminum alloy, specially formulated resins, a copper alloy and stainless steel. Their special design allows for easy maintenance and the joints are lighter and more compact.

**Structure**



Part no.	Parts	Part no.	Parts
1	Shaft	8	O-Ring
2	Body	9	Rubber Sheet
3	Elbow	10	Washer
4	Bearing	11	Spring
5	Shaft Snapping	12	Inner Pipe
6	Bearing Snapping	13	Lock Nut
7	Carbon		

**SHAFT**

The shaft is made to rotate by attaching it by either a screw or a flange to a rotating roll or drum.

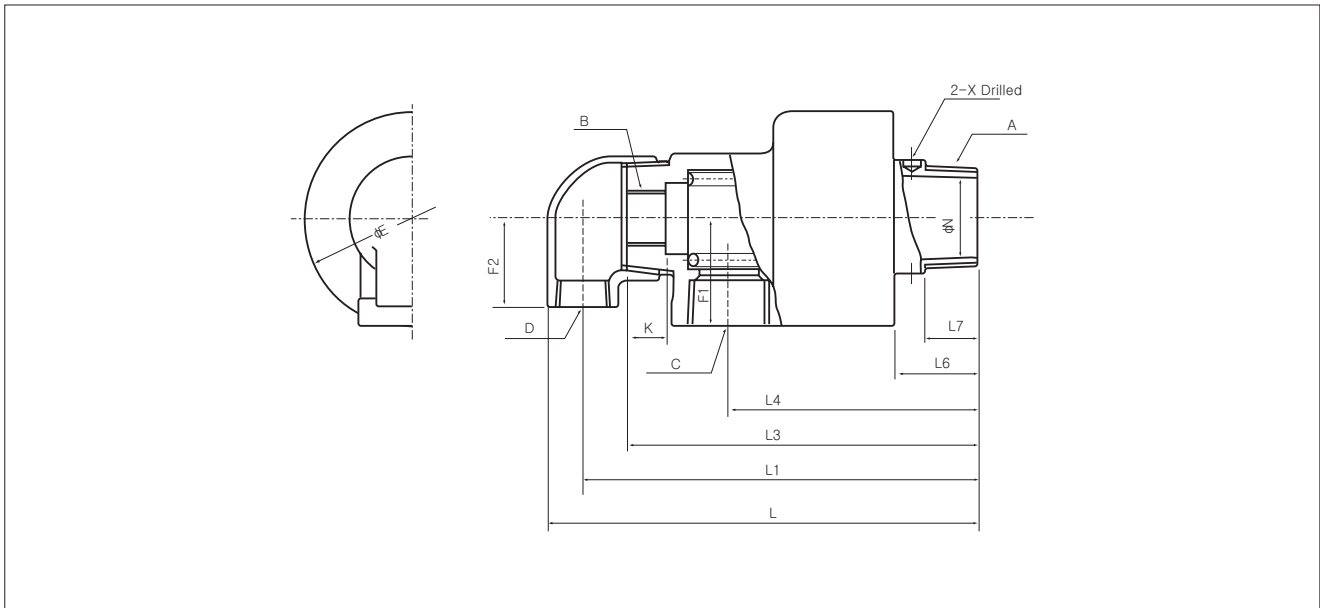
With the screw-in method, the Korean Standards (KS) taper pipe thread is used. The screws must be allowed to tighten freely against the direction of rotation of the roll or drum to which the shaft is connected.

When the flange method is used, there is no problem with screw-in direction and the end of the rotating stainless steel shaft not in contact with the roll or drum is lapped finished after quench hardening.

**BODY**

This series Rotary Joint does not have a head block. The fluid feed inlet and discharge outlet are incorporated into the body. In the fixed internal pipe duplex type joint the internal pipe is connected directly to the body, using the KS parallel pipe thread (usually the right-hand screw). The screw is made a little longer on the internal pipe side than on the head block side, letting the screws jut out in the direction of the elbow and providing the screws with lock nuts to ensure that the screws do not loosen in whichever direction the internal pipe is made to rotate. The Sealed Ball Bearing Mechanism built into the body receives the weight of the rotary joint. It is fitted with Snap Rings. The sealing mechanism consists mainly of the Seal Ring, O-ring, Rubber Sheet, Washer and Spring. Integrated with the washer and the rubber sheet, these springs impart appropriate pressure to the seal ring and the rotating shaft's seal surface. This sealing mechanism accuracy increases or decreases sealing face pressure automatically in proportion to changes taking place in the inner fluid pressure and the airtightness of the rotary joint is maintained perfectly.

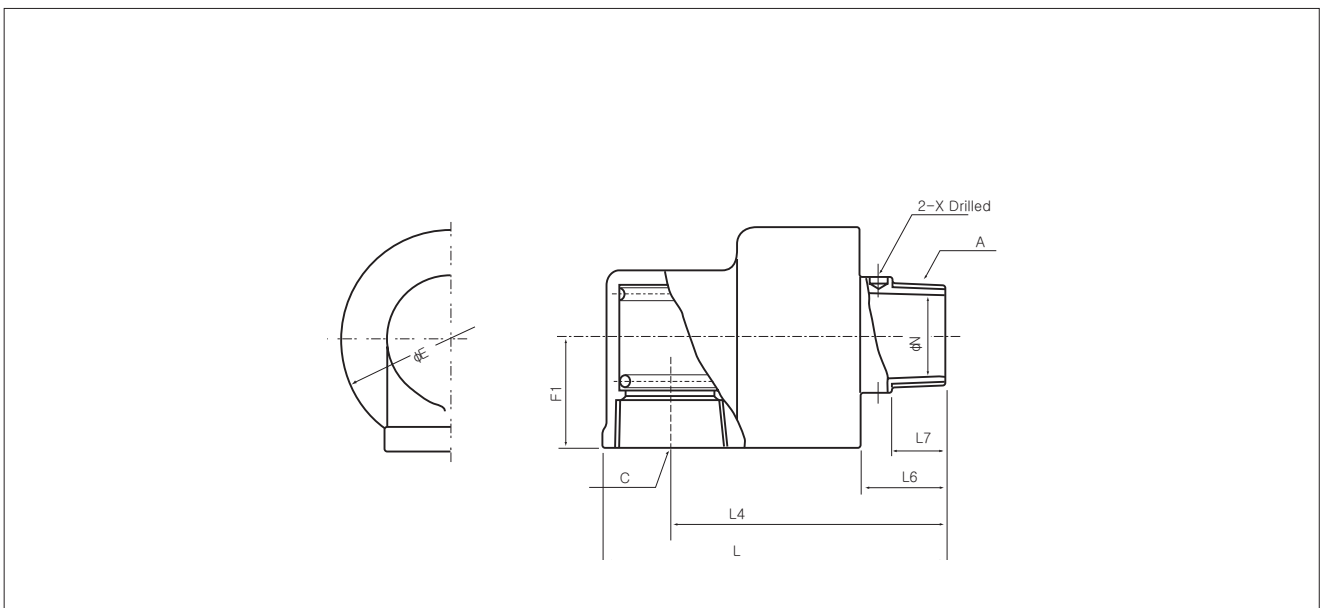
**Dimensions-DR2001, DR2002 (Duplex With Fixed Internal Pipe)**



Unit:mm

Size	A R(PT)	B (PF)	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	L7	N	X	Weight kg
50A	2	1	1 1/2	1	122	61	51	22	247	226	201	146	48	30	48	Ø10	4.19
65A	2 1/2	1 1/4	2	1 1/2	145	72.5	62	25	296	268	234	166	49	30	60	Ø10	7.24

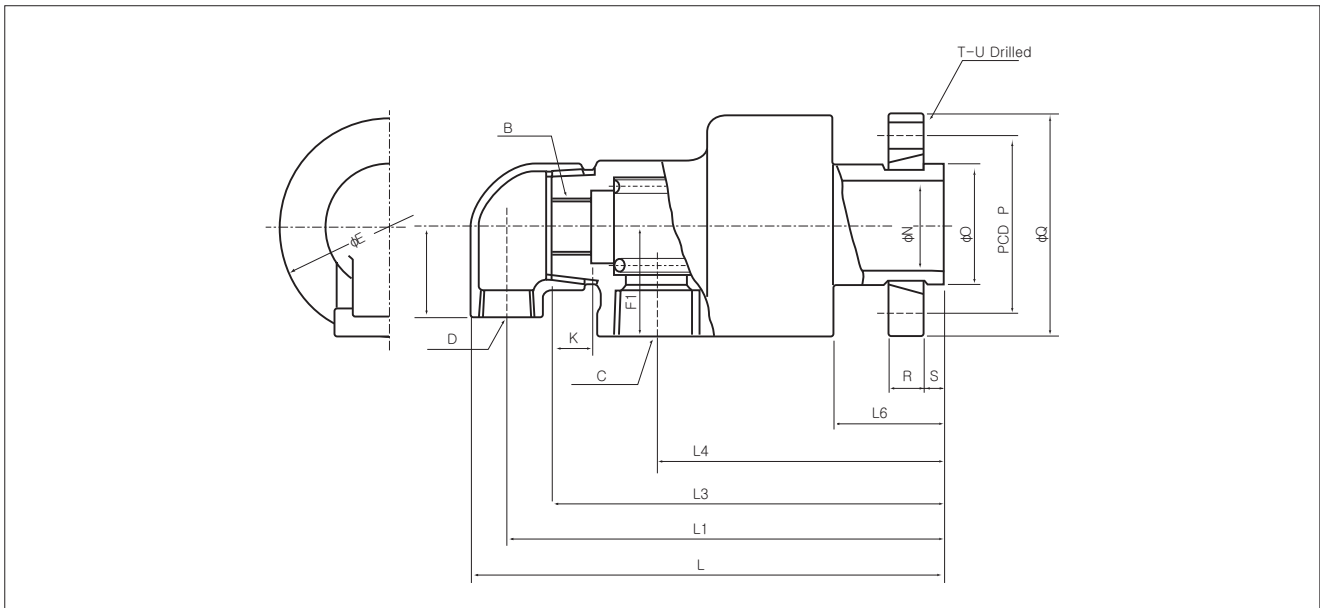
**Dimensions-DR2011, DR2012 (Simplex L)**



Unit:mm

Size	A R(PT)	C Rc(PT)	E	F1	L	L4	L6	L7	N	X	Weight kg
50A	2	2	122	61	190	153	48	30	48	Ø10	3.61
65A	2 1/2	2 1/2	145	72.5	221	175	49	30	60	Ø10	6.38

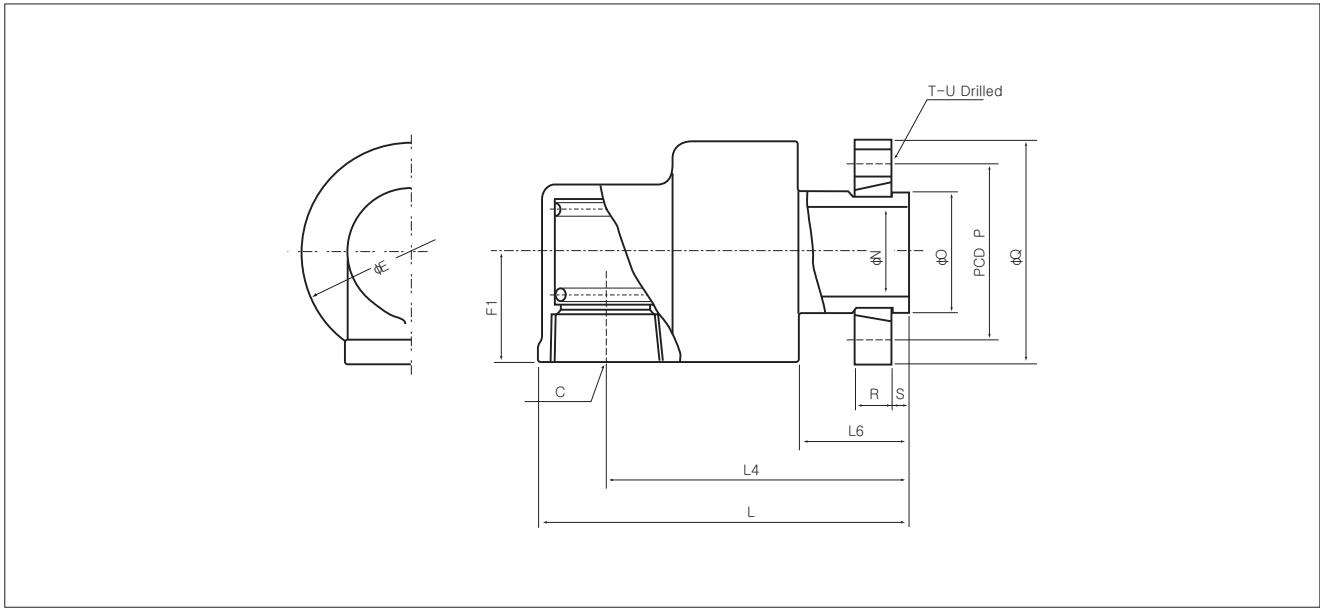
**Dimensions-DR2005 (Duplex With Fixed Internal Pipe, Flange)**



Unit:mm

Size	B(PF)	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	N	O	P	Q	R	S	T	U	Weight kg
50A	1	1 1/2	1	122	61	51	22	263	241	213	158	60	48	65	95	120	19	10	4	Ø14	5.56
65A	1 1/4	2	1 1/2	145	72.5	62	25	308	278	246	178	61	60	80	110	136	20	12	4	Ø14	8.86

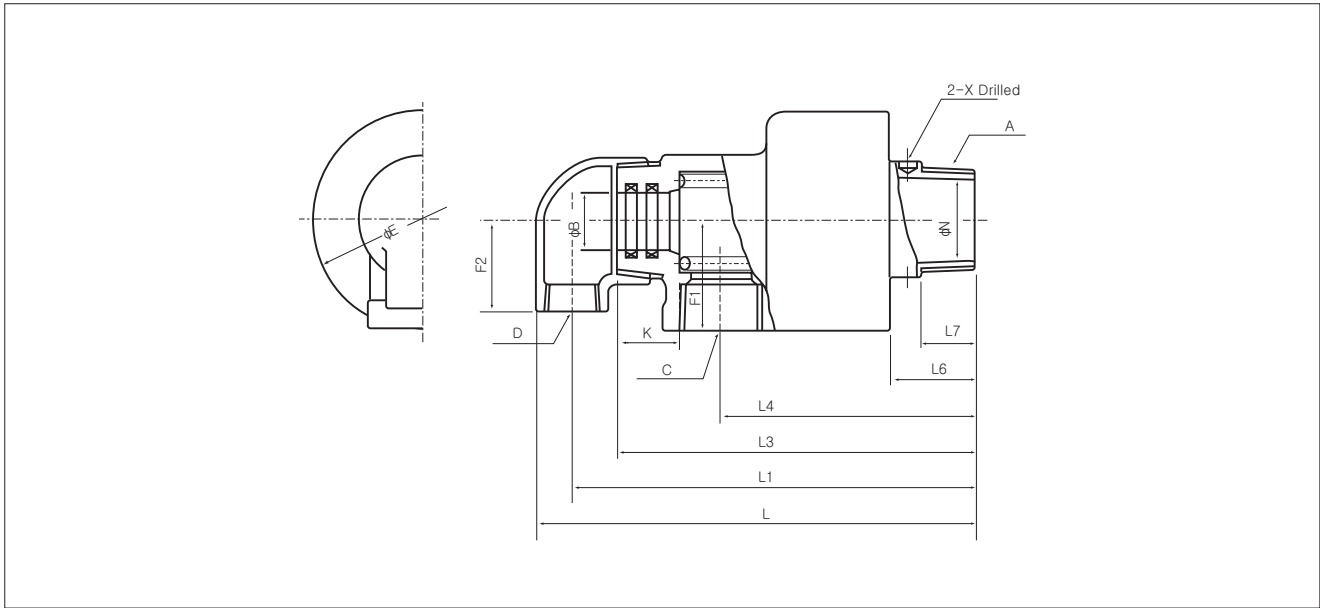
**Dimensions-DR2015 (Simplex L, Flange)**



Unit:mm

Size	C Rc(PT)	E	F1	L	L4	L6	N	O	P	Q	R	S	T	U	Weight kg
50A	2	122	61	202	165	60	48	65	95	120	19	10	4	Ø14	4.98
65A	2 1/2	145	72.5	233	187	61	60	80	110	136	20	12	4	Ø14	8.00

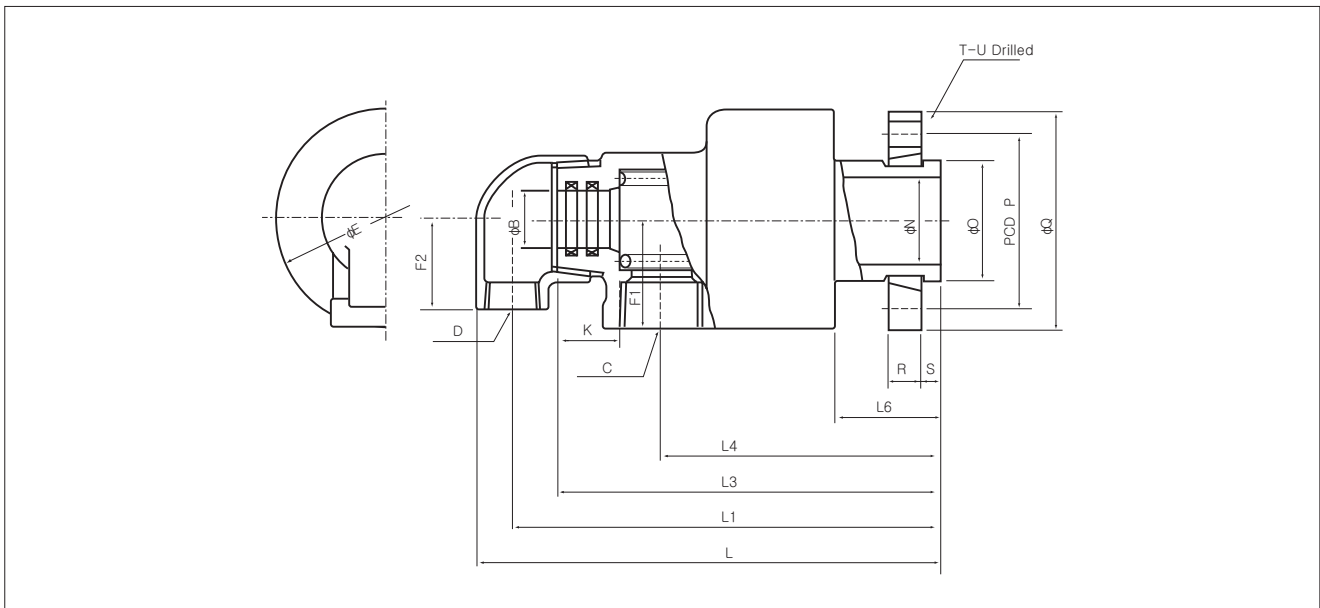
**Dimensions-DR2021, DR2022 (Duplex With Rotating Internal Pipe)**



Unit:mm

Size	A R(PT)	B	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	L7	N	X	Weight kg
50A	2	Ø26, Ø32	1 1/2	1	122	61	51	34	251	229	201	146	48	30	48	Ø10	4.11
65A	2 1/2	Ø32, Ø40, Ø48	2	1 1/2	145	72.5	62	40	296	266	234	166	49	30	60	Ø10	7.16

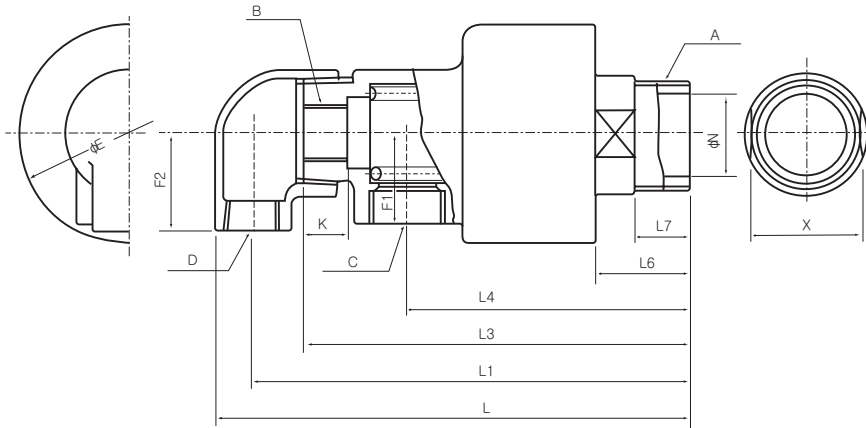
**Dimensions-DR2025 (Duplex With Rotating Internal Pipe, Flange)**



Unit:mm

Size	B	C Rc(PT)	D Rc(PT)	D	F1	F2	K	L	L1	L3	L4	L6	N	O	P	Q	R	S	T	U	Weight kg
50A	Ø26, Ø32	1 1/2	1	122	61	51	34	259	238	213	158	60	48	65	95	120	19	10	4	Ø14	5.48
65A	Ø32, Ø40, Ø48	2	1 1/2	145	72.5	62	40	308	280	246	178	61	60	80	110	136	20	12	4	Ø14	8.78

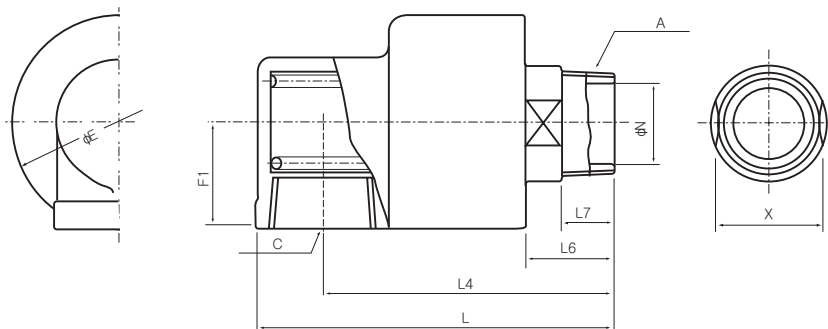
**Dimensions-DR2201, DR2202 (Duplex With Fixed Internal Pipe)**



Size	A R(PT)	B(PF)	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	L7	N	X	Weight kg
15A	1/2	1/8	1/2	3/8	54	24	28	15	156	141	123	90	30	18	12	21	1.00
20A	3/4	1/4	1/2	3/8	60	26	31	15	164	149	132	96	31	19	16	26	1.35
25A	1	3/8	3/4	1/2	74	30	38	15	177	163	145	103	33	20	20	32	2.30
32A	1 1/4	1/2	1	3/4	95	40	43	20	212	194	169	124	40	25	30	46	3.90
40A	1 1/2	3/4	1	3/4	95	40	43	20	212	194	169	124	40	25	35	46	3.60

Unit:mm

**Dimensions-DR2211, DR2212 (Simplex L)**

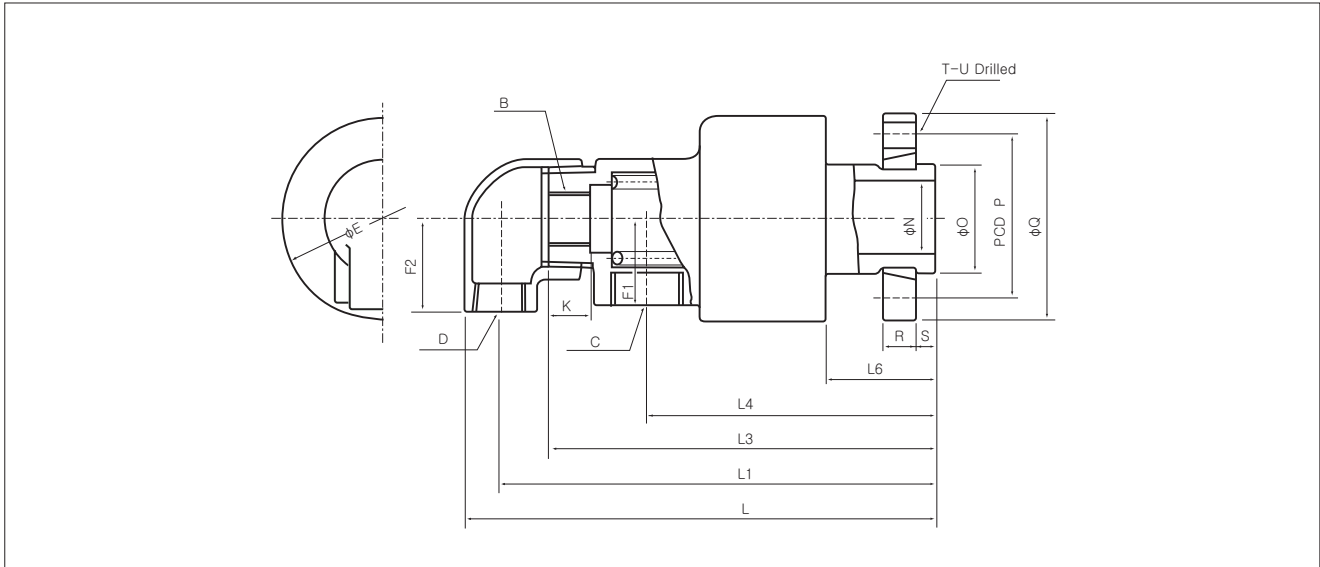


Size	A R(PT)	C Rc(PT)	E	F1	L	L4	L6	L7	N	X	Weight kg
6A	1/8	1/4	40	20	76	66	22	12	5	14	0.45
8A	1/4	1/4	40	20	76	66	22	12	5	14	0.45
10A	3/8	1/2	54	27	105	90	30	18	9	21	0.84
15A	1/2	1/2	54	27	105	90	30	18	12	21	0.82
20A	3/4	3/4	60	30	115	96	31	19	16	26	1.20
25A	1	1	74	37	127	105	33	20	20	32	1.80
32A	1 1/4	1 1/2	95	47.5	159	130	40	25	30	46	3.50
40A	1 1/2	1 1/2	95	47.5	159	130	40	25	35	46	3.20

Unit:mm

※ Body shape of 6A, 8A is cylindrical.

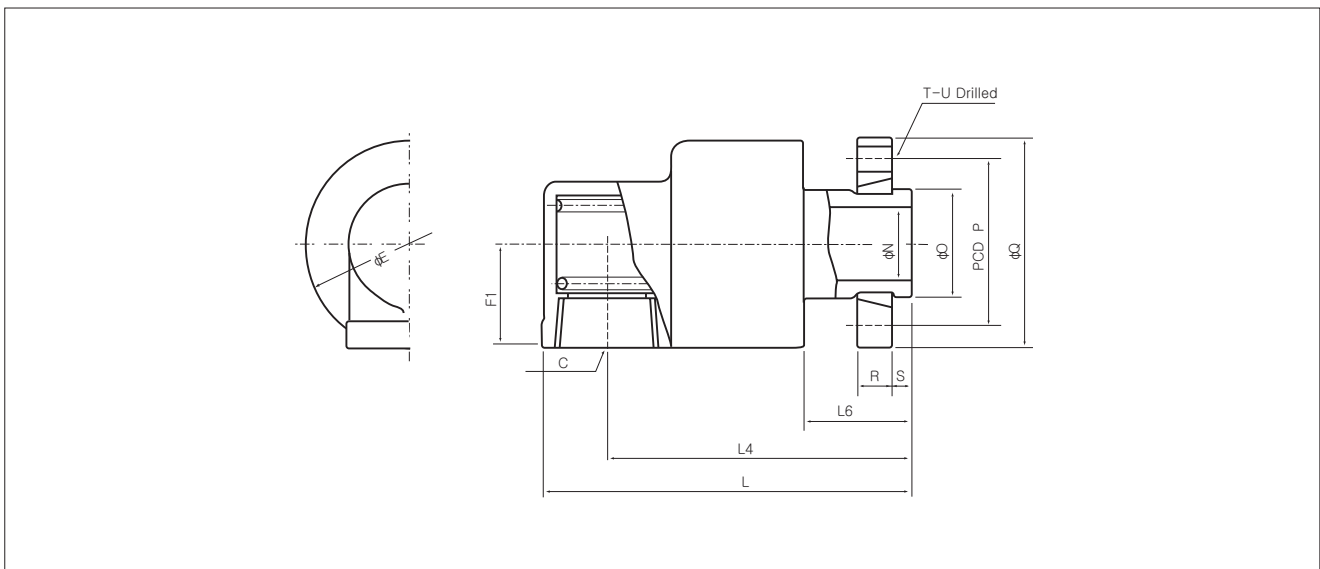
**Dimensions-DR2205 (Duplex With Fixed Internal Pipe, Flange)**



Unit:mm

Size	B(PF)	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	N	O	P	Q	R	S	4T	U	Weight kg
15A	1/8	1/2	3/8	54	24	28	15	160	150	132	99	39	12	25	45	62	11	8	4	Ø9	1.25
20A	1/4	1/2	3/8	60	26	31	15	171	160	143	107	42	16	30	54	74	13	8	4	Ø11	1.74
25A	3/8	3/4	1/2	74	30	38	15	192	178	160	118	48	20	35	60	80	14	9	4	Ø11	2.79
40A	3/4	1	3/4	95	40	43	20	223	205	180	135	51	35	50	75	96	16	9	4	Ø11	4.33

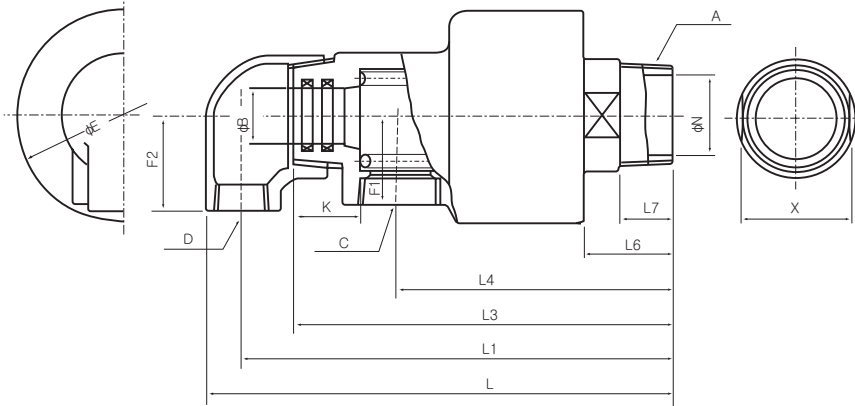
**Dimensions-DR2215 (Simplex L, Flange)**



Unit:mm

Size	C Rc(PT)	D	F1	L	L4	L6	N	O	P	Q	R	S	T	U	Weight kg
15A	1/2	54	27	114	99	39	12	25	45	62	11	8	4	Ø9	1.07
20A	3/4	60	30	126	107	42	16	30	54	74	13	8	4	Ø11	1.59
25A	1	74	37	142	120	48	20	35	60	80	14	9	4	Ø11	2.29
40A	1 1/2	95	47.5	170	141	51	35	50	75	96	16	9	4	Ø11	3.93

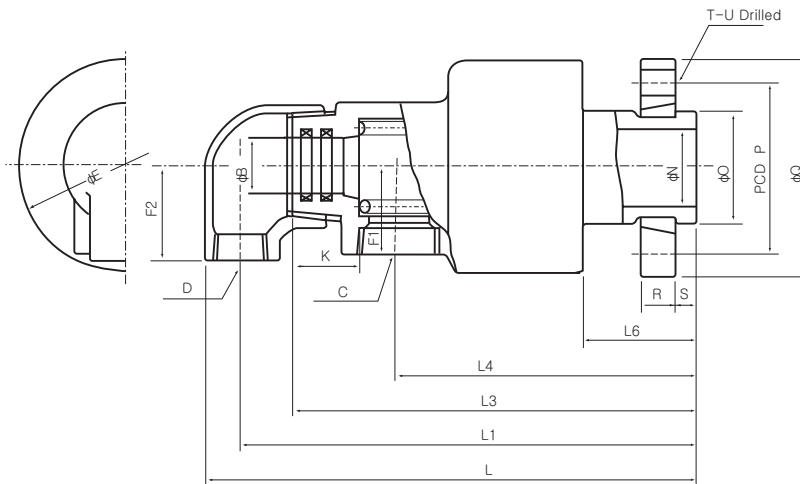
**Dimensions-DR2221, DR2222 (Duplex With Rotating Internal Pipe)**



Unit:mm

Size	A R(PT)	B	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	L7	N	X	Weight kg
15A	1/2	Ø9	1/2	3/8	54	24	28	25	151	139	123	90	30	18	12	21	0.98
20A	3/4	Ø9,Ø13	1/2	3/8	60	26	31	24	160	148	132	96	31	19	16	26	1.15
25A	1	Ø13,Ø16	3/4	1/2	74	30	38	26	177	163	145	103	33	20	20	32	2.23
32A	1 1/4	Ø20	1	3/4	95	40	43	30	208	191	169	124	40	25	30	46	4.09
40A	1 1/2	Ø20, Ø26	1	3/4	95	40	43	30	208	191	169	124	40	25	35	46	3.49

**Dimensions-DR2225 (Duplex with rotating internal pipe, Flange)**

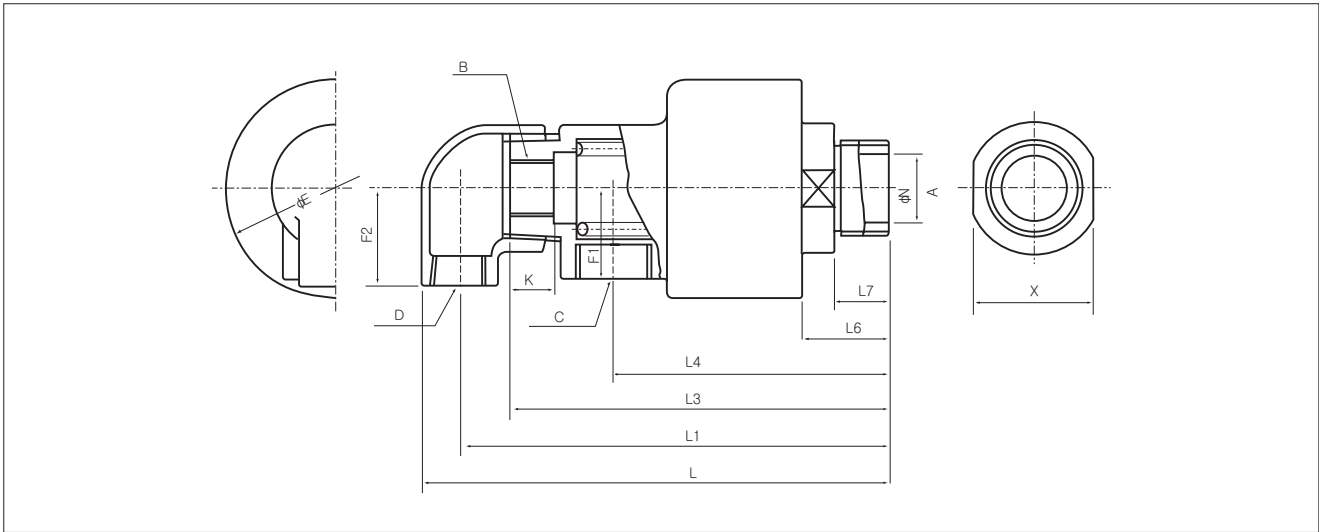


Unit:mm

Size	B	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	N	O	P	Q	R	S	T	U	Weight kg
6A	Ø9	1/2	3/8	54	24	28	25	160	148	132	99	39	12	25	45	62	11	8	4	Ø9	1.05
8A	Ø9, Ø13	1/2	3/8	60	26	31	24	171	159	143	107	42	16	30	54	74	13	8	4	Ø11	1.54
10A	Ø13, Ø16	3/4	1/2	74	30	38	26	192	178	160	118	48	20	35	60	80	14	9	4	Ø11	2.49
15A	Ø20, Ø26	1	3/4	95	40	43	30	219	202	180	135	51	35	50	75	96	16	9	4	Ø11	4.03



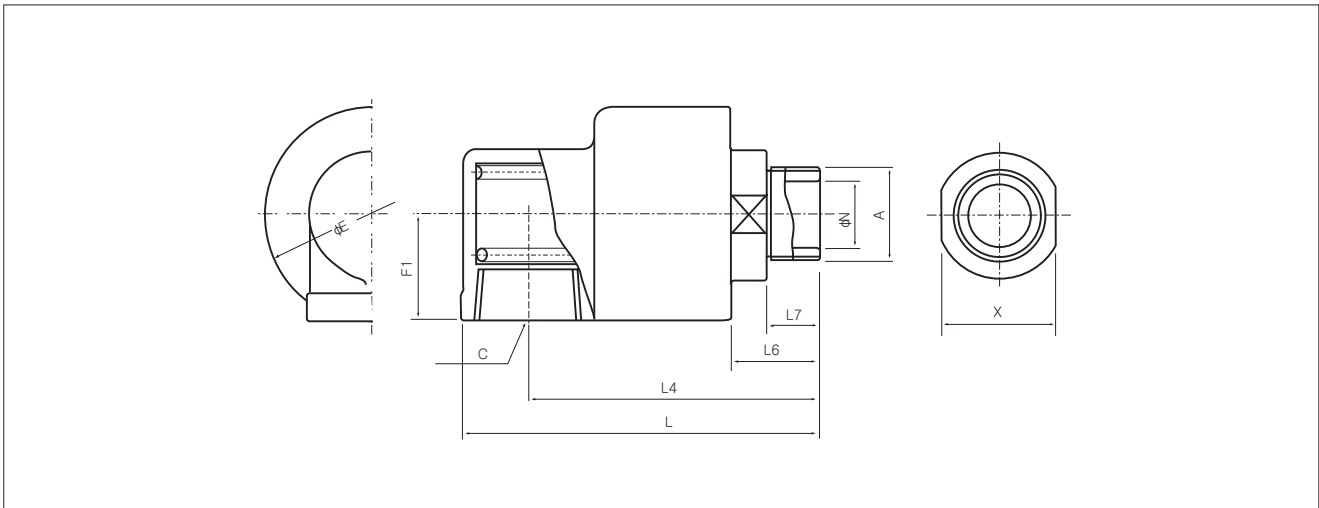
**Dimensions-DR2206, DR2207 (Duplex With Fixed Internal Pipe)**



Unit:mm

Size	A	B(PF)	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	L7	N	X	Weight kg
M22	22×P1.5	1/8	1/2	3/8	54	24	28	15	151	139	123	90	30	18	12	29	1.40
M26	26×P1.5	1/4	1/2	3/8	60	26	31	15	160	148	132	96	31	19	16	32	1.69
M30	30×P1.5	3/8	3/4	1/2	74	30	38	15	177	163	145	103	33	20	20	41	2.70
M42	42×P2.0	1/2	1	3/4	95	40	43	20	208	191	169	124	40	25	30	55	4.30
M48	48×P2.0	3/4	1	3/4	95	40	43	20	208	191	169	124	40	25	35	60	4.24

**Dimensions-DR2216, DR2217 (Simplex L)**

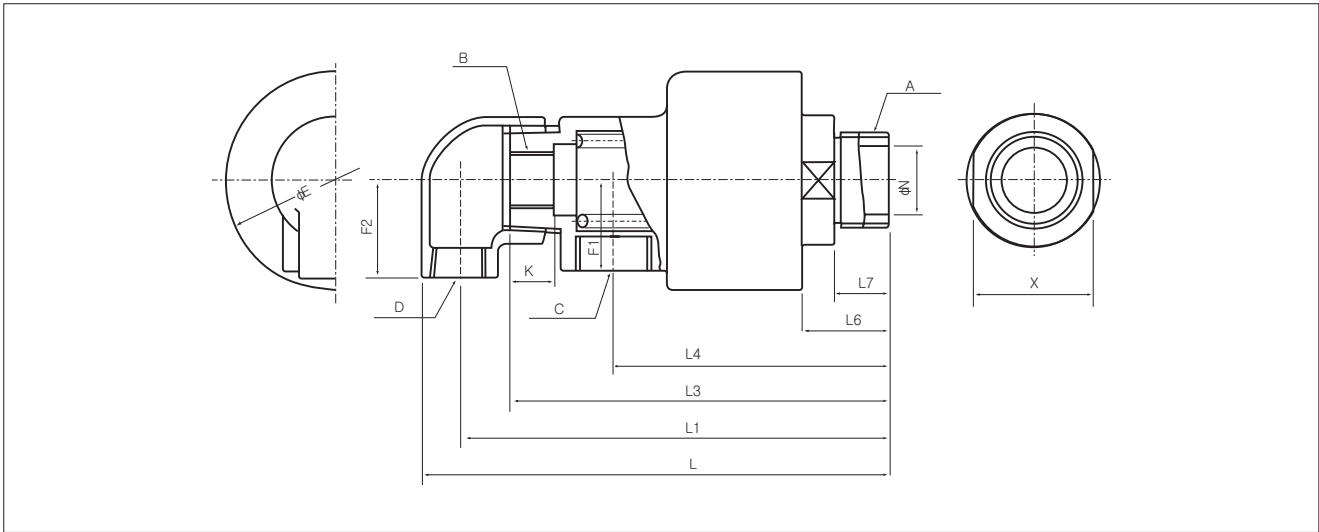


Unit:mm

Size	A	C Rc(PT)	E	F1	L	L4	L6	L7	N	X	Weight kg
M10	10×P1.25	1/4	39	18.5	76	66	22	12	4	17	0.75
M14	14×P1.5	1/4	39	18.5	76	66	22	12	5	22	0.87
M16	16×P1.5										
M18	18×P1.5	1/2	54	27	105	90	30	18	9	29	0.87
M22	22×P1.5	1/2	54	27	105	90	30	18	12	29	1.24
M26	26×P1.5	3/4	60	30	115	96	31	19	16	32	1.54
M30	30×P1.5	1	74	37	127	105	33	20	20	41	2.20
M42	42×P2.0	1 1/2	95	47.5	159	130	40	25	30	55	3.90
M48	48×P2.0	1 1/2	95	47.5	159	130	40	25	35	60	3.86

※ Body shape of M10, M14, M16 is cylindrical.

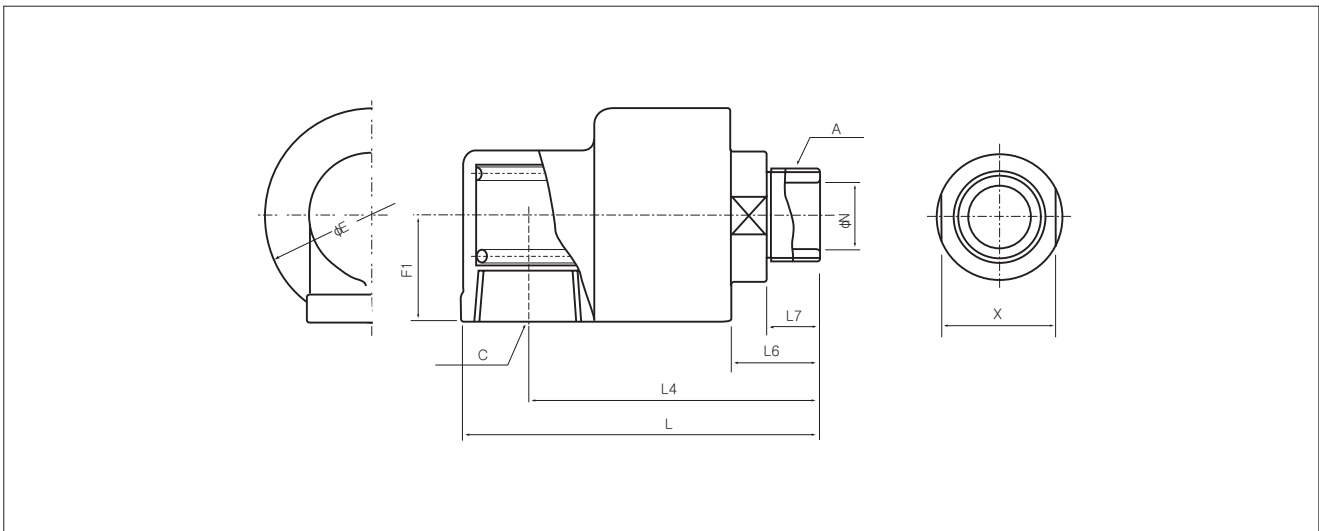
**Dimensions-DR2501, DR2502 (Duplex With Fixed Internal Pipe)**



Unit:mm

Size	A R(PT)	B(PF)	C Rc(PT)	D Rc(PT)	E	F1	F2	K	L	L1	L3	L4	L6	L7	N	X
15A	1/2	1/8	1/2	3/8	56	28	28	16	150	139	122	90	31	18	12	21
20A	3/4	1/4	1/2	3/8	61	30.5	28	14	160	149	131	96	32	19	16	26
25A	1	3/8	3/4	1/2	74	37	33	15	178	165	143.5	103	34	20	20	32

**Dimensions-DR2511, DR2512 (Simplex L)**



Unit:mm

Size	A R(PT)	C Rc(PT)	E	F1	L	L4	L6	L7	N	X
15A	1/2	1/2	56	28	105	90	31	18	12	21
20A	3/4	3/4	61	30.5	114	96	32	19	16	26
25A	1/2	1/2	74	37	125	104	34	20	20	32