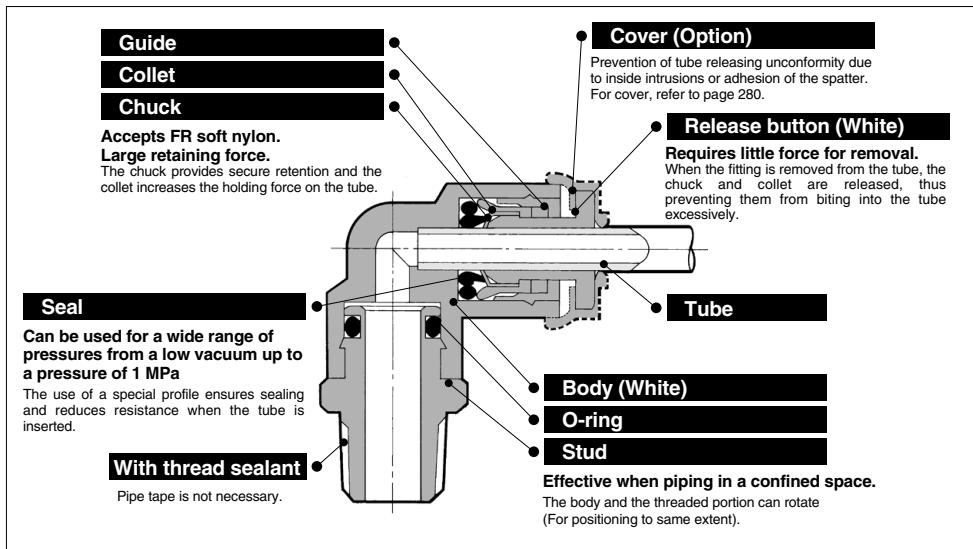


# Flame Resistant (Equivalent to UL-94 Standard V-0) FR One-touch Fittings **KR-W2 Series**



**Made to Order**

Symbol	Specifications
X2	Copper-free (With electroless nickel plated)

Suffix "-X2" to the end of part number.  
Example) KRH06-01SW2-X2

### Applicable Tubing

Tubing material	FR double layer, FR soft nylon
Tubing O.D.	ø6, ø8, ø10, ø12

### Specifications

<b>Fluid</b>		Air/Water <sup>(1, 2)</sup>
<b>Operating pressure range <sup>(3)</sup></b>		-100 kPa to 1 MPa
<b>Proof pressure</b>		3 MPa
<b>Ambient and fluid temperature</b>		-5 to 60°C (Water: 0 to 60°C) (No freezing)
<b>Thread</b>	<b>Mounting section</b>	JIS B 0203 (Taper thread for piping)
	<b>Nut section</b>	JIS B 0205 (Metric fine thread)
<b>Seal on the threads</b>		With sealant

- Note 1) The surge pressure must be under the maximum operating pressure.  
 Note 2) Deionized water is not recommended for use as it may affect the material used in the fittings.  
 In addition, it is known to degrade the water quality.  
 Note 3) Do not use the fittings with a leak tester or for vacuum retention because they are not guaranteed for zero leakage.

### Principal Parts Material

Body	C3604, Flame resistant PBT (UL-94 standard V-0)
Stud	C3604 (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, Flame resistant PBT (UL-94 standard V-0)
Collet	POM
Release button	Flame resistant PBT (UL-94 standard V-0)
Seal, O-ring	NBR
Cover (Option)	Flame resistant PBT, Flame resistant CR (UL-94 standard V-0)



**Model**

**Male connector**

**KRH-W2**

P.276



Use to pipe in the same direction from female thread. Most general type.

**Union elbow**

**KRL-W2**

P.277



Use to connect tubes at right angles.

**Plug-in reducer**

**KRR-W2**

P.279



Use to size down One-touch fittings.

**Straight union**

**KRH-W2**

P.276



Use to connect tubes in the same direction.

**Extended male elbow**

**KRW-W2**

P.277



Basically, it is used together with male elbow. Different point is that it is used for fittings to avoid from interfering with each other by making the piping two-level.

**Union "Y"**

**KRU-W2**

P.278



Use to branch line in the same direction.

**Male elbow**

**KRL-W2**

P.276



Use to pipe at right angles to female thread. Most general type.

**Extended plug-in elbow**

**KRW-W2**

P.279



Use to change by 90° in a tube fetching direction from One-touch fittings. Can be used with the plug-in elbow for three-dimensional pipe arrangement.

**Plug-in "Y"**

**KRU-W2**

P.278



Use to branch line in the same direction from One-touch fittings.

**45° male elbow**

**KRK-W2**

P.276



Use to pipe in 45° angle direction from female thread. Model in-between of male connector and male elbow.

**Male branch tee**

**KRT-W2**

P.277



Use to branch line from female thread in both 90° directions.

**Branch**

**KRU-W2**

P.278



Use to branch line in the same direction from female thread.

**Universal male elbow**

**KRV-W2**

P.277



Universal male elbow allows thread connection by using a socket wrench for confined spaces.

**Union tee**

**KRT-W2**

P.277



Use to connect tubes in both 90° directions.

**Bulkhead union**

**KRE-W2**

P.279



Use to connect tubes through a panel.

**Plug-in elbow**

**KRL-W2**

P.279



Use to change by 90° in a tube fetching direction from One-touch fittings.

**Male run tee**

**KRY-W2**

P.278



Use to branch line in the same direction from female thread and in 90° direction.

**Bulkhead Connector**

**KRE-W2**

P.279



Use to connect male thread and tube through a panel.

**Spatter cover**

**KR**

P.280



Prevention of tube releasing unconformity due to an inside intrusion or adhesion of the spatter.

**Spatter cover**

**KR-□C1**

P.280



Prevention of tube releasing unconformity due to an inside intrusion or adhesion of the spatter.

**Plug**

**KRP**

P.280



Use to plug unused One-touch fittings.

KQ2

KQG2

KS  
KX

KM

KF

M

H/DL  
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

LQ

MQR

T

IDK

# KR-W2 Series

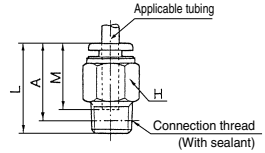
## Dimensions

### Male Connector: KRH-W2



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	L	A <sup>①</sup>	M	Effective area (mm <sup>2</sup> )		Weight (g)
							FR double layer	FR soft nylon	
6	1/8	KRH06-01SW2	12	21.6	18.5	17	10.4	5.6	16
	1/4	KRH06-02SW2	14	22.5	17				14
	3/8	KRH06-03SW2	17	20.9	15.5				27
8	1/8	KRH08-01SW2	14	27.1	24	18.5	26.1	18.0	21
	1/4	KRH08-02SW2		26	20.5				19
	3/8	KRH08-03SW2		17	20.9				15.5
10	1/8	KRH10-01SW2	17	29.1	26	21	41.5	29.5	19
	1/4	KRH10-02SW2		33	27.5				30
	3/8	KRH10-03SW2		27.9	22.5				53
	1/2	KRH10-04SW2		22	26.1				
12	1/4	KRH12-02SW2	19	34	28.5	22	58.3	46.1	42
	3/8	KRH12-03SW2		28.9	23.5				34
	1/2	KRH12-04SW2		22	29.1				22

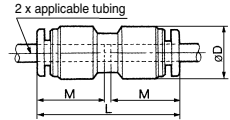
① Reference dimensions after R thread installation.



### Straight Union: KRH-W2



Applicable tubing O.D. (mm)	Model	øD	L	M	Effective area (mm <sup>2</sup> )		Weight (g)
					FR double layer	FR soft nylon	
6	KRH06-00W2	12.8	34.5	17	10.4	5.6	4
8	KRH08-00W2	15.2	38.5	18.5	26.1	18.0	6
10	KRH10-00W2	18.5	42.5	21	41.5	29.5	11
12	KRH12-00W2	20.9	44.5	22	58.3	46.1	14

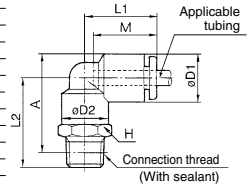


### Male Elbow: KRL-W2



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	A <sup>①</sup>	M	Effective area (mm <sup>2</sup> )		Weight (g)		
										FR double layer	FR soft nylon			
6	1/8	KRL06-01SW2	10	12.8	10	20	22.1	25.5	17	9.0	4.2	12		
	1/4	KRL06-02SW2	14				26.5	27.5				22		
	3/8	KRL06-03SW2	17				27.9	29				33		
8	1/8	KRL08-01SW2	12	15.2	12	23	23.6	28	18.5	21.6	14.9	13		
	1/4	KRL08-02SW2	14				28	30				21		
	3/8	KRL08-03SW2	17				29.4	31.5				35		
10	1/8	KRL10-01SW2	17	18.5	17	26.5	26.1	32	21	21.6	14.9	25		
	1/4	KRL10-02SW2					29.5	33				26		
	3/8	KRL10-03SW2					30.9	34.5				35.2	25.0	36
	1/2	KRL10-04SW2					22	35.1				37	63	
12	1/4	KRL12-02SW2	17	20.9	17	28.5	30.5	35.5	22	50.2	39.7	28		
	3/8	KRL12-03SW2					31.9	37				38		
	1/2	KRL12-04SW2					22	36.1				39.5	65	

① Reference dimensions after R thread installation.

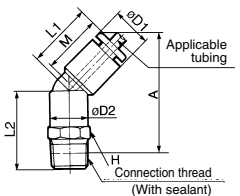


### 45° Male Elbow: KRK-W2



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	A <sup>①</sup>	M	Effective area (mm <sup>2</sup> )		Weight (g)
										FR double layer	FR soft nylon	
6	1/8	KRK06-01SW2	10	12.8	10	18	19.6	33	17	6.9	3.4	12
	1/4	KRK06-02SW2	14				24	35				10
	3/8	KRK06-03SW2	17				25.4	36.5				33
8	1/8	KRK08-01SW2	12	15.2	12	20.5	21.1	37	18.5	19.7	21	13
	1/4	KRK08-02SW2	14				25.5	39				35
	3/8	KRK08-03SW2	17				26.9	41				31
10	1/8	KRK10-01SW2	17	18.5	17	24	23.1	42	21	30.9	23.2	25
	1/4	KRK10-02SW2					26.5	43.5				26
	3/8	KRK10-03SW2					27.9	45				36
	1/2	KRK10-04SW2					22	32.1				47.5
12	1/4	KRK12-02SW2	17	20.9	17	25	27	45.5	22	44.5	35.1	28
	3/8	KRK12-03SW2					28.4	47.5				38
	1/2	KRK12-04SW2					22	32.6				49.5

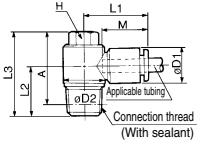
① Reference dimensions after R thread installation.



**Universal Male Elbow: KRV-W2**



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	L3	A*	M	Effective area (mm <sup>2</sup> )		Weight (g)							
											FR double layer	FR soft nylon								
6	1/8	KRV06-01SW2	8	12.8	13.4	24	13.6	25.6	22.5	17	5.9	2.9	15							
	1/4	KRV06-02SW2	10										15.4	23.5	18	30.5	25	26		
	3/8	KRV06-03SW2	12										17.6	28.5	14.6	27.6	24.5	24		
8	1/8	KRV08-01SW2	12	15.2	17.6	28.5	19.4	35.4	30	18.5	16	11.2	30							
	1/4	KRV08-02SW2											14	20.6	27.5	19.4	35.4	30	47	
	3/8	KRV08-03SW2											14	19	35	29.5	21	27	20.3	40
10	1/4	KRV10-02SW2	14	18.5	20.6	31	19.4	35.4	30	21	27	20.3	49							
	3/8	KRV10-03SW2											17	20.9	37.4	32	22	39	30.8	63
	1/2	KRV10-04SW2											17	20.9	40.6	33.5	22	39	30.8	80

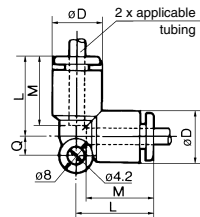


\* Reference dimensions after R thread installation.

**Union Elbow: KRL-W2**



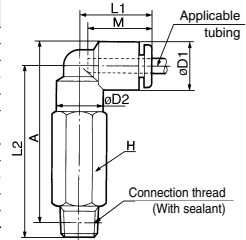
Applicable tubing O.D. (mm)	Model	øD	L	Q	M	Effective area (mm <sup>2</sup> )		Weight (g)
						FR double layer	FR soft nylon	
6	KRL06-00W2	12.8	20	5.3	17	9.0	4.2	6
8	KRL08-00W2	15.2	23	6	18.5	21.6	14.9	10
10	KRL10-00W2	18.5	26.5	6.8	21	35.2	25.0	17
12	KRL12-00W2	20.9	28.5	7.5	22	50.2	39.7	21



**Extended Male Elbow: KRW-W2**



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm <sup>2</sup> )		Weight (g)					
										FR double layer	FR soft nylon						
6	1/8	KRW06-01SW2	10	12.8	10	20	39.1	42.5	17	8.6	4.0	26					
	1/4	KRW06-02SW2	14									45.5	46.5	46.9	48	41	
	3/8	KRW06-03SW2	17									46.9	48	42.6	47	67	
8	1/8	KRW08-01SW2	12	15.2	12	23	49	51	18.5	20.5	14.2	47					
	1/4	KRW08-02SW2										14	50.4	52.5	50.4	52.5	74
	3/8	KRW08-03SW2										17	56	59.5	56	59.5	66
10	1/4	KRW10-02SW2	17	18.5	17	26.5	57.4	61	21	33.5	23.8	76					
	3/8	KRW10-03SW2										17	64.1	66	64.1	66	145
	1/2	KRW10-04SW2										22	57	62	57	62	68
12	1/4	KRW12-02SW2	17	20.9	17	28.5	58.4	63.5	22	47.7	37.7	78					
	3/8	KRW12-03SW2										22	65.1	68.5	65.1	68.5	147
	1/2	KRW12-04SW2										22					

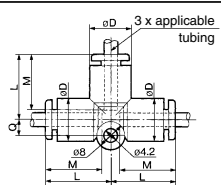


\* Reference dimensions after R thread installation.

**Union Tee: KRT-W2**



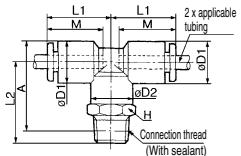
Applicable tubing O.D. (mm)	Model	øD	L	Q	M	Effective area (mm <sup>2</sup> )		Weight (g)
						FR double layer	FR soft nylon	
6	KRT06-00W2	12.8	20	5.3	17	10.6	6.4	10
8	KRT08-00W2	15.2	23	6	18.5	25.6	17.7	15
10	KRT10-00W2	18.5	26.5	6.8	21	40	28.4	25
12	KRT12-00W2	20.9	28.5	7.5	22	57.4	45.4	29



**Male Branch Tee: KRT-W2**



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm <sup>2</sup> )		Weight (g)					
										FR double layer	FR soft nylon						
6	1/8	KRT06-01SW2	10	12.8	10	20	22.1	25.5	17	11.0	6.0	12					
	1/4	KRT06-02SW2	14									26.5	27.5	27.9	29	30	
	3/8	KRT06-03SW2	17									27.9	29	23.6	28	22	
8	1/8	KRT08-01SW2	12	15.2	12	23	28	30	18.5	26.3	18.2	22					
	1/4	KRT08-02SW2										14	29.4	31.5	29.4	31.5	36
	3/8	KRT08-03SW2										17	26.1	32	29.5	33	31
10	1/4	KRT10-02SW2	17	18.5	17	26.5	30.9	34.5	21	40.8	29.0	39					
	3/8	KRT10-03SW2										17	35.1	37	35.1	37	66
	1/2	KRT10-04SW2										22	30.5	35.5	31.9	37	31
12	1/4	KRT12-02SW2	17	20.9	17	28.5	36.1	39.5	22	57.2	45.2	41					
	3/8	KRT12-03SW2										22					68
	1/2	KRT12-04SW2										22					



\* Reference dimensions after R thread installation.

KQ2

KQB2

KS  
KX

KM

KF

M

H/DL  
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

LQ

MQR

T

IDK

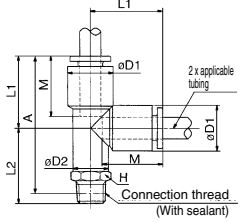
# KR-W2 Series

## Male Run Tee: KRY-W2



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	A *	M	Effective area (mm <sup>2</sup> )		Weight (g)
										FR double layer	FR soft nylon	
6	1/8	KRY06-01SW2	10	12.8	10	20	22.1	39	17	10.6	6.4	12
	1/4	KRY06-02SW2	14				26.5	41				20
	3/8	KRY06-03SW2	17				27.9	42.5				34
8	1/8	KRY08-01SW2	12	15.2	12	23	23.6	43.5	18.5	25.6	17.7	22
	1/4	KRY08-02SW2	14				28	44.5				22
	3/8	KRY08-03SW2	17				29.4	47				36
10	1/8	KRY10-01SW2	17	18.5	17	26.5	26.1	49.5	21	40.0	28.4	31
	1/4	KRY10-02SW2					29.5	50.5				29
	3/8	KRY10-03SW2					30.9	52				39
12	1/4	KRY12-02SW2	22	20.9	17	28.5	35.1	54.5	22	57.4	45.4	41
	3/8	KRY12-03SW2	30.5				53.5	31				
	1/2	KRY12-04SW2	36.1				57.5	68				

\* Reference dimensions after R thread installation.

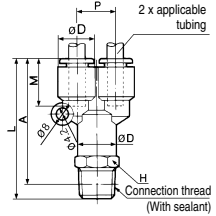


## Branch: KRU-W2



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD	L	P	A *	M	Effective area (mm <sup>2</sup> )		Weight (g)	
									FR double layer	FR soft nylon		
6	1/8	KRU06-01SW2	13	12.8	44.6	12.8	41.5	17	10.4	4.2	12	
	1/4	KRU06-02SW2	14		48.5		43					22
	3/8	KRU06-03SW2	17		49.9		44.5					35
8	1/8	KRU08-01SW2	17	15.2	51.6	15.2	48.5	18.5	25.6	17.7	24	
	1/4	KRU08-02SW2			55		50					36
	3/8	KRU08-03SW2			55.4		50					40
10	1/4	KRU10-02SW2	19	18.5	60.5	18.5	55	21	40	28.4	40	
	3/8	KRU10-03SW2	60.9		55.5		40					
	1/2	KRU10-04SW2	64.1		57		65					
12	1/4	KRU12-02SW2	22	20.9	64	20.9	58.5	22	57.4	45.4	40	
	3/8	KRU12-03SW2	67.6		59		40					
	1/2	KRU12-04SW2	67.6		60.5		65					

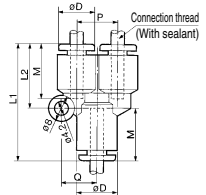
\* Reference dimensions after R thread installation.



## Union "Y": KRU-W2



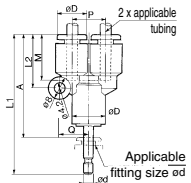
Applicable tubing O.D. (mm)	Model	øD	L1	L2	P	Q	M	Effective area (mm <sup>2</sup> )		Weight (g)
								FR double layer	FR soft nylon	
6	KRU06-00W2	12.8	37	20	12.8	11.7	17	10.4	4.2	10
8	KRU08-00W2	15.2	42.5	24.5	15.2	13.7	18.5	25.6	17.7	12
10	KRU10-00W2	18.5	48	27.5	18.5	16.1	21	40	28.4	16
12	KRU12-00W2	20.9	51	30	20.9	18.1	22	57.4	45.4	23



## Plug-in "Y": KRU-W2



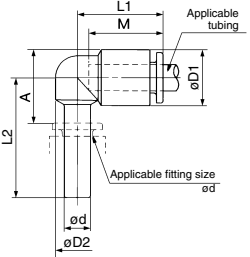
Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	øD	L1	L2	P	Q	A	M	Effective area (mm <sup>2</sup> )		Weight (g)
										FR double layer	FR soft nylon	
6	6	KRU06-99W2	12.8	55.5	20	12.8	11.7	38.5	17	10.4	4.2	19
8	8	KRU08-99W2	15.2	64.5	24.5	15.2	13.7	46	18.5	25.6	17.7	22
10	10	KRU10-99W2	18.5	71.5	27.5	18.5	16.1	50.5	21	40	28.4	26
12	12	KRU12-99W2	20.9	75.5	30	20.9	18.1	53.5	22	57.4	45.4	32



## Plug-in Elbow: KRL-W2



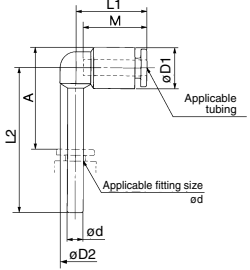
Applicable tubing O.D. (mm)	Applicable fitting size $\phi d$	Model	$\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm <sup>2</sup> )		Weight (g)
									FR double layer	FR soft nylon	
6	6	KRL06-99W2	12.8	10	20	27.5	17	17	9.0	4.2	3
8	8	KRL08-99W2	15.2	12	22.5	31.5	21	18.5	21.6	14.9	5
10	10	KRL10-99W2	18.5	14	25.5	35.5	23.5	21	35.2	25.0	9
12	12	KRL12-99W2	20.9	16	27	37.5	26	22	50.2	39.7	10



## Extended Plug-in Elbow: KRW-W2



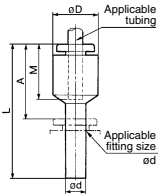
Applicable tubing O.D. (mm)	Applicable fitting size $\phi d$	Model	$\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm <sup>2</sup> )		Weight (g)
									FR double layer	FR soft nylon	
6	6	KRW06-99W2	12.8	10	20	41.5	31	17	9.0	4.2	4
8	8	KRW08-99W2	15.2	10	22.5	48	37	18.5	21.6	14.9	6
10	10	KRW10-99W2	18.5	14	25.5	55	43.5	21	35.2	25.0	9
12	12	KRW12-99W2	20.9	16	27	59.5	48	22	50.2	39.7	13



## Plug-in Reducer: KRR-W2



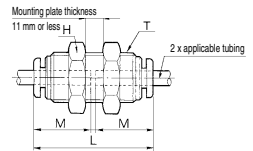
Applicable tubing O.D. (mm)	Applicable fitting size $\phi d$	Model	$\phi D1$	L	A	M	Effective area (mm <sup>2</sup> )		Weight (g)	
							FR double layer	FR soft nylon	FR double layer	FR soft nylon
6	8	KRR06-08W2	12.8	37	18.5	17	10.4	5.6	2.5	
	10	KRR06-10W2		39.5					9.3	
8	10	KRR08-10W2	15.2	41	20	18.5	26.1	18.0	4.0	
	12	KRR08-12W2		42					4.6	
10	12	KRR10-12W2	18.5	44.5	23	21	41.5	32.8	33	



## Bulkhead Union: KRE-W2



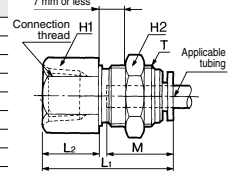
Applicable tubing O.D. (mm)	Model	T (M)	H (width across flats)	L	Mounting hole	M	Effective area (mm <sup>2</sup> )		Weight (g)
							FR double layer	FR soft nylon	
6	KRE06-00W2	M14 x 1	17	34.5	15	17	10.4	5.6	33
8	KRE08-00W2	M16 x 1	19	38	17	18.5	26.1	18.0	52
10	KRE10-00W2	M20 x 1	24	42.5	21	21	41.5	29.5	70
12	KRE12-00W2	M22 x 1	27	44	23	22	58.3	46.1	90



## Bulkhead Connector: KRE-W2



Applicable tubing O.D. (mm)	Connection thread Rc	Model	T (M)	H1 (width across flats)	H2 (width across flats)	L1	L2	Mounting hole	M	Effective area (mm <sup>2</sup> )		Weight (g)
										FR double layer	FR soft nylon	
6	1/8	KRE06-01W2	M14 x 1	17	17	28	11	15	17	10.4	5.6	25
	1/4	KRE06-02W2				31.5	15					
	3/8	KRE06-03W2				33.5	17					
8	1/8	KRE08-01W2	M16 x 1	17	17	27.5	7.5	17	18.5	26.1	18.0	27
	1/4	KRE08-02W2				33	13					
	3/8	KRE08-03W2				35	15					
10	1/4	KRE10-02W2	M20 x 1	22	24	34.5	12.5	21	21	41.5	29.5	53
	3/8	KRE10-03W2				36.5	15					
	1/2	KRE10-04W2				37	14					
12	3/8	KRE12-03W2	M22 x 1	24	27	37	14	23	22	58.3	46.1	92
	1/2	KRE12-04W2				41	18					



- KQ2
- KQB2
- KS
- KX
- KM
- KF
- M
- H/DL
- L/LL
- KC
- KK
- KK130
- DM
- KDM
- KB
- KR
- KA
- KQG2
- KG
- KFG2
- MS
- KKA
- KP
- LQ
- MQR
- T
- IDK

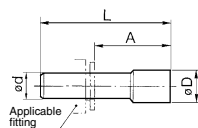
# KR-W2 Series

## Plug: KRP



Applicable fitting size $\phi D$	Model	$\phi D$	L	A	Weight (g)
6	<b>KRP-06</b>	8	35	18	1
8	<b>KRP-08</b>	10	39	20.5	2
10	<b>KRP-10</b>	12	43	22	3.5
12	<b>KRP-12</b>	14	45.5	24	5

\* Color: Green



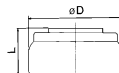
## Spatter Cover 1: KR (Applicable tube: FR soft nylon)



Applicable fitting size	Model	$\phi D$	L	Weight (g)
6	<b>KR-06C</b>	15.5	9	0.9
8	<b>KR-08C</b>	17	9	1.0
10	<b>KR-10C</b>	20.8	10.5	1.5
12	<b>KR-12C</b>	22.8	10.5	1.6

\* When tube insert parts are in line as KQU Union "Y", use KR-□□C1.

\* Color: Gray

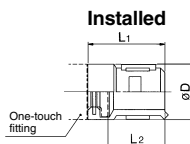


## Spatter Cover 2: KR (Applicable tube: FR soft nylon, FR double layer)

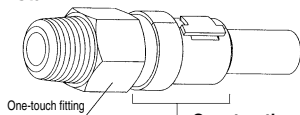


Applicable fitting size	Model	L <sub>1</sub>	L <sub>2</sub>	$\phi D$
6	<b>KR-06C1</b>	18	13.7	12.8
8	<b>KR-08C1</b>	20	15.7	15
10	<b>KR-10C1</b>	22	17.2	18
12	<b>KR-12C1</b>	22	17.2	20

\* Color: Gray



## How to install



### Construction of spatter cover

