

Fittings and tubing 10

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KJ – miniature fittings

	Medium	Compressed air, water
	Working pressure	–100 kPa to 1 MPa (–1 bar to 10 bar)
	Test pressure	3 MPa (30 bar)
	Operating temperature	0 to 60 °C
Connection options	M3/M5	Metric thread, with sealing
	tube outer diameter 3.2–6 mm	Nylon, soft nylon, polyurethane
Materials	body	C3604BD, POM, PBT
	stud	C3604BD (threaded part)
	chuck	SUS 304
	guide, release bush	POM
	packing, O-ring	NBR



■ Perfect for miniature pneumatics

Straight connector KJH

Part number	Tube outer diameter	Thread
KJH02-M3	2 mm	M3
KJH02-M5	2 mm	M5
KJH23-M3	3.2 mm	M3
KJH23-M5	3.2 mm	M5
KJH04-M3	4 mm	M3
KJH04-M5	4 mm	M5
KJH06-M5	6 mm	M5
KJH06-01S	6 mm	R1/8

Straight connector KJS – with hex socket

Part number	Tube outer diameter	Thread
KJS02-M3	2 mm	M3
KJS23-M3	3.2 mm	M3
KJS23-M5	3.2 mm	M5
KJS04-M3	4 mm	M3
KJS04-M5	4 mm	M5
KJS06-M5	6 mm	M5
KJS06-01S	6 mm	R1/8

Straight connector KJF – for female thread

Part number	Tube outer diameter	Thread
KJF23-M3	3.2 mm	M3
KJF23-M5	3.2 mm	M5
KJF04-M3	4 mm	M3
KJF04-M5	4 mm	M5
KJF06-M5	6 mm	M5

Elbow connector KJL

Part number	Tube outer diameter	Thread
KJL02-M3	2 mm	M3
KJL02-M5	2 mm	M5
KJL23-M3	3.2 mm	M3
KJL23-M5	3.2 mm	M5
KJL04-M3	4 mm	M3
KJL04-M5	4 mm	M5
KJL06-M5	6 mm	M5
KJL06-01S	6 mm	R1/8

Straight union KJH

Part number	Tube outer diameter	
	a	b
KJH02-00	2 mm	2 mm
KJH02-23	2 mm	3.2 mm
KJH02-04	2 mm	4 mm
KJH23-00	3.2 mm	3.2 mm
KJH23-04	3.2 mm	4 mm
KJH23-06	3.2 mm	6 mm
KJH04-00	4 mm	4 mm
KJH04-06	4 mm	6 mm
KJH06-00	6 mm	6 mm



Straight connector KJH



Straight connector KJS



Elbow connector KJL



Straight union KJH

KJ – miniature fittings

Union Tee KJT

Part number	Tube outer diameter	
	a	b
KJT02-00	2 mm	2 mm
KJT23-00	3.2 mm	3.2 mm
KJT23-04	3.2 mm	4 mm
KJT04-00	4 mm	4 mm
KJT04-06	4 mm	6 mm
KJT06-00	6 mm	6 mm

Union elbow KJL

Part number	Tube outer diameter
KJL23-00	3.2 mm
KJL04-00	4 mm
KJL06-00	6 mm



Union Tee KJT



Union elbow KJL

Union “Y” KJU

Part number	Tube outer diameter	
	a	b
KJU02-00	2 mm	2 mm
KJU02-04	2 mm	4 mm
KJU23-04	3.2 mm	4 mm
KJU04-00	4 mm	4 mm
KJU04-06	4 mm	6 mm
KJU06-00	6 mm	6 mm

Bulkhead union KJE

Part number	Tube outer diameter
KJE02-00	2 mm
KJE23-00	3.2 mm
KJE04-00	4 mm
KJE06-00	6 mm



Union “Y” KJU

KQ2 – standard fittings

Medium		Compressed air
Working pressure		–100 kPa to 1 MPa (–1 bar to 10 bar)
Test pressure		3 MPa (30 bar)
Operating temperature		0 to 60 °C
Connection options	M3/M5, 1/8–1/2	Metric-, conical- and G thread
	tube outer diameter	Nylon, soft nylon, polyurethane
	3.2–16 mm	
Materials	body	Brass, PBT
	stud	Brass
	chuck	Stainless steel
	guide	Brass, stainless steel, PBT
	collet, release bush	PBT
packing		NBR



■ Quick assembly and disassembly

■ Intended for pressure ranges from –100 kPa to 1 MPa ■ For nylon and polyurethane tubing

Straight connector KQ2H – for female thread

Part number	Tube outer diameter	M or R thread
KQ2H23-M5	3.2 mm	M5
KQ2H23-01S	3.2 mm	1/8
KQ2H23-02S	3.2 mm	1/4
KQ2H04-M5	4 mm	M5
KQ2H04-01S	4 mm	1/8
KQ2H04-02S	4 mm	1/4
KQ2H06-M5	6 mm	M5
KQ2H06-01S	6 mm	1/8
KQ2H06-02S	6 mm	1/4
KQ2H06-03S	6 mm	3/8
KQ2H08-01S	8 mm	1/8
KQ2H08-02S	8 mm	1/4
KQ2H08-03S	8 mm	3/8
KQ2H10-01S	10 mm	1/8
KQ2H10-02S	10 mm	1/4
KQ2H10-03S	10 mm	3/8
KQ2H10-04S	10 mm	1/2
KQ2H12-02S	12 mm	1/4
KQ2H12-03S	12 mm	3/8
KQ2H12-04S	12 mm	1/2
KQ2H16-03S	16 mm	3/8
KQ2H16-04S	16 mm	1/2

Straight connector KQ2H – for G thread

Part number	Tube outer diameter	G thread
KQ2H04-G01	4 mm	1/8
KQ2H04-G02	4 mm	1/4
KQ2H06-G01	6 mm	1/8
KQ2H06-G02	6 mm	1/4
KQ2H06-G03	6 mm	3/8
KQ2H08-G01	8 mm	1/8
KQ2H08-G02	8 mm	1/4
KQ2H08-G03	8 mm	3/8
KQ2H10-G01	10 mm	1/8
KQ2H10-G02	10 mm	1/4
KQ2H10-G03	10 mm	3/8
KQ2H10-G04	10 mm	1/2
KQ2H12-G02	12 mm	1/4
KQ2H12-G03	12 mm	3/8
KQ2H12-G04	12 mm	1/2
KQ2H16-G03	16 mm	3/8
KQ2H16-G04	16 mm	1/2



Straight connector
KQ2H



Straight connector
KQ2H – G thread



Straight connector
KQ2S – hex socket

Straight connector
KQ2S – G thread;
hex socket

Straight connector KQ2S – with hex socket

Part number	Tube outer diameter	M or R thread
KQ2S04-M5	4 mm	M5
KQ2S04-01S	4 mm	1/8
KQ2S06-M5	6 mm	M5
KQ2S06-01S	6 mm	1/8
KQ2S06-02S	6 mm	1/4
KQ2S08-01S	8 mm	1/8
KQ2S08-02S	8 mm	1/4
KQ2S08-03S	8 mm	3/8
KQ2S10-01S	10 mm	1/8
KQ2S10-02S	10 mm	1/4
KQ2S10-03S	10 mm	3/8
KQ2S10-04S	10 mm	1/2
KQ2S12-02S	12 mm	1/4
KQ2S12-03S	12 mm	3/8
KQ2S12-04S	12 mm	1/2

Straight connector KQ2S

– for G thread; with hex socket

Part number	Tube outer diameter	G thread
KQ2S04-G01	4 mm	1/8
KQ2S06-G01	6 mm	1/8
KQ2S06-G02	6 mm	1/4
KQ2S08-G01	8 mm	1/8
KQ2S08-G02	8 mm	1/4
KQ2S08-G03	8 mm	3/8
KQ2S10-G01	10 mm	1/8
KQ2S10-G02	10 mm	1/4
KQ2S10-G03	10 mm	3/8
KQ2S10-G04	10 mm	1/2
KQ2S12-G02	12 mm	1/4
KQ2S12-G03	12 mm	3/8
KQ2S12-G04	12 mm	1/2

KQ2 – standard fittings



Straight connector
KQ2F

Straight connector KQ2F – for male thread

Part number	Tube outer diameter	G thread
KQ2F04-G01	4 mm	1/8
KQ2F04-G02	4 mm	1/4
KQ2F06-G01	6 mm	1/8
KQ2F06-G02	6 mm	1/4
KQ2F06-G03	6 mm	3/8
KQ2F08-G01	8 mm	1/8
KQ2F08-G02	8 mm	1/4
KQ2F08-G03	8 mm	3/8
KQ2F10-G02	10 mm	1/4
KQ2F10-G03	10 mm	3/8
KQ2F12-G02	12 mm	1/4
KQ2F12-G03	12 mm	3/8
KQ2F12-G04	12 mm	1/2



Straight union KQ2H –
same diameter



Straight union KQ2H –
different diameter

Straight union KQ2H

– uniting same diameter tubing

Part number	Tube outer diameter
KQ2H23-00	3.2 mm
KQ2H04-00	4 mm
KQ2H06-00	6 mm
KQ2H08-00	8 mm
KQ2H10-00	10 mm
KQ2H12-00	12 mm
KQ2H16-00	16 mm

Straight union KQ2H

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQ2H23-04	3.2 mm	4 mm
KQ2H04-06	4 mm	6 mm
KQ2H06-08	6 mm	8 mm
KQ2H08-10	8 mm	10 mm
KQ2H10-12	10 mm	12 mm

Bulkhead connector KQ2E

– for going through walls

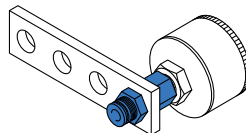
Part number	Tube outer diameter	G thread
KQ2E04-G01	4 mm	1/8
KQ2E04-G02	4 mm	1/4
KQ2E06-G01	6 mm	1/8
KQ2E06-G02	6 mm	1/4
KQ2E06-G03	6 mm	3/8
KQ2E08-G02	8 mm	1/4
KQ2E08-G03	8 mm	3/8
KQ2E10-G02	10 mm	1/4
KQ2E10-G03	10 mm	3/8
KQ2E12-G03	12 mm	3/8
KQ2E12-G04	12 mm	1/2
KQ2E16-G03	16 mm	3/8
KQ2E16-G04	16 mm	1/2

Bulkhead union KQ2E – for going through walls

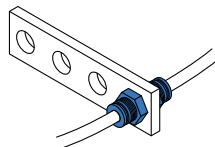
Part number	Tube outer diameter
KQ2E23-00	3.2 mm
KQ2E04-00	4 mm
KQ2E06-00	6 mm
KQ2E08-00	8 mm
KQ2E10-00	10 mm
KQ2E12-00	12 mm
KQ2E16-00	16 mm



Bulkhead connector
KQ2E



Bulkhead union KQ2E



Connection 3.2–8 mm: 10 fittings/pack

Connection 10–16 mm: 5 fittings/pack

KQ2 – standard fittings



Elbow connector KQ2L

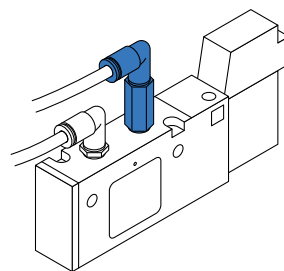

Elbow connector KQ2L
– G thread

Elbow connector KQ2L – for female thread

Part number	Tube outer diameter	M or R thread
KQ2L23-M5	3.2 mm	M5
KQ2L23-01S	3.2 mm	1/8
KQ2L23-02S	3.2 mm	1/4
KQ2L04-M5	4 mm	M5
KQ2L04-01S	4 mm	1/8
KQ2L04-02S	4 mm	1/4
KQ2L06-M5	6 mm	M5
KQ2L06-01S	6 mm	1/8
KQ2L06-02S	6 mm	1/4
KQ2L06-03S	6 mm	3/8
KQ2L08-01S	8 mm	1/8
KQ2L08-02S	8 mm	1/4
KQ2L08-03S	8 mm	3/8
KQ2L10-01S	10 mm	1/8
KQ2L10-02S	10 mm	1/4
KQ2L10-03S	10 mm	3/8
KQ2L10-04S	10 mm	1/2
KQ2L12-02S	12 mm	1/4
KQ2L12-03S	12 mm	3/8
KQ2L12-04S	12 mm	1/2
KQ2L16-03S	16 mm	3/8
KQ2L16-04S	16 mm	1/2

Elbow connector KQ2L – for G thread

Part number	Tube outer diameter	G thread
KQ2L04-G01	4 mm	1/8
KQ2L04-G02	4 mm	1/4
KQ2L06-G01	6 mm	1/8
KQ2L06-G02	6 mm	1/4
KQ2L06-G03	6 mm	3/8
KQ2L08-G01	8 mm	1/8
KQ2L08-G02	8 mm	1/4
KQ2L08-G03	8 mm	3/8
KQ2L10-G01	10 mm	1/8
KQ2L10-G02	10 mm	1/4
KQ2L10-G03	10 mm	3/8
KQ2L10-G04	10 mm	1/2
KQ2L12-G02	12 mm	1/4
KQ2L12-G03	12 mm	3/8
KQ2L12-G04	12 mm	1/2
KQ2L16-G03	16 mm	3/8
KQ2L16-G04	16 mm	1/2


Extended elbow
connector KQ2W

Extended elbow con-
nector KQ2W
– G thread

Extended elbow connector KQ2W

– for female thread; for connecting tubes on top of each other

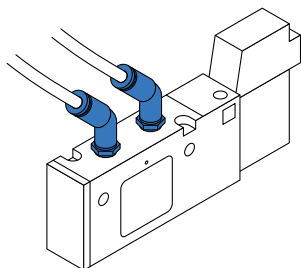
Part number	Tube outer diameter	M or R thread
KQ2W23-M5	3.2 mm	M5
KQ2W23-01S	3.2 mm	1/8
KQ2W23-02S	3.2 mm	1/4
KQ2W04-M5	4 mm	M5
KQ2W04-01S	4 mm	1/8
KQ2W04-02S	4 mm	1/4
KQ2W06-M5	6 mm	M5
KQ2W06-01S	6 mm	1/8
KQ2W06-02S	6 mm	1/4
KQ2W06-03S	6 mm	3/8
KQ2W08-01S	8 mm	1/8
KQ2W08-02S	8 mm	1/4
KQ2W08-03S	8 mm	3/8
KQ2W10-02S	10 mm	1/4
KQ2W10-03S	10 mm	3/8
KQ2W10-04S	10 mm	1/2
KQ2W12-02S	12 mm	1/4
KQ2W12-03S	12 mm	3/8
KQ2W12-04S	12 mm	1/2

Extended elbow connector KQ2W

– for G thread; for connecting tubes on top of each other

Part number	Tube outer diameter	G thread
KQ2W04-G01	4 mm	1/8
KQ2W04-G02	4 mm	1/4
KQ2W06-G01	6 mm	1/8
KQ2W06-G02	6 mm	1/4
KQ2W06-G03	6 mm	3/8
KQ2W08-G01	8 mm	1/8
KQ2W08-G02	8 mm	1/4
KQ2W08-G03	8 mm	3/8
KQ2W10-G02	10 mm	1/4
KQ2W10-G03	10 mm	3/8
KQ2W10-G04	10 mm	1/2
KQ2W12-G03	12 mm	3/8
KQ2W12-G04	12 mm	1/2

KQ2 – standard fittings



45° elbow connector
KQ2K



45° elbow connector KQ2K – for female thread;
for connecting tubes on top of each other

Part number	Tube outer diameter	M or R thread
KQ2K04-M5	4 mm	M5
KQ2K04-01S	4 mm	1/8
KQ2K04-02S	4 mm	1/4
KQ2K06-M5	6 mm	M5
KQ2K06-01S	6 mm	1/8
KQ2K06-02S	6 mm	1/4
KQ2K06-03S	6 mm	3/8
KQ2K08-01S	8 mm	1/8
KQ2K08-02S	8 mm	1/4
KQ2K08-03S	8 mm	3/8
KQ2K10-01S	10 mm	1/8
KQ2K10-02S	10 mm	1/4
KQ2K10-03S	10 mm	3/8
KQ2K10-04S	10 mm	1/2
KQ2K12-02S	12 mm	1/4
KQ2K12-03S	12 mm	3/8
KQ2K12-04S	12 mm	1/2

KQ2K also available with UNI thread – for when parallel thread is required.



Union elbow KQ2L

Union elbow KQ2L

– uniting same diameter tubing

Part number	Tube outer diameter
KQ2L23-00	3.2 mm
KQ2L04-00	4 mm
KQ2L06-00	6 mm
KQ2L08-00	8 mm
KQ2L10-00	10 mm
KQ2L12-00	12 mm
KQ2L16-00	16 mm

Connection 3.2–8 mm: 10 fittings/pack

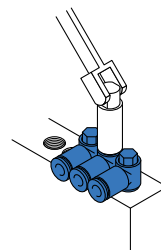
Connection 10–16 mm: 5 fittings/pack



Elbow connector KQ2V
– banjo type



Elbow connector KQ2V
– banjo type, G thread



Elbow connector KQ2V – banjo type, for female thread;
space-saving assembly with hex socket head

Part number	Tube outer diameter	M or R thread
KQ2V04-M5	4 mm	M5
KQ2V04-01S	4 mm	1/8
KQ2V06-M5	6 mm	M5
KQ2V06-01S	6 mm	1/8
KQ2V06-02S	6 mm	1/4
KQ2V08-01S	8 mm	1/8
KQ2V08-02S	8 mm	1/4
KQ2V08-03S	8 mm	3/8
KQ2V10-02S	10 mm	1/4
KQ2V10-03S	10 mm	3/8
KQ2V12-03S	12 mm	3/8
KQ2V12-04S	12 mm	1/2

Elbow connector KQ2V – banjo type, for G thread;
space-saving assembly with hex socket head

Part number	Tube outer diameter	G thread
KQ2V04-G01	4 mm	1/8
KQ2V06-G01	6 mm	1/8
KQ2V06-G02	6 mm	1/4
KQ2V08-G01	8 mm	1/8
KQ2V08-G02	8 mm	1/4
KQ2V08-G03	8 mm	3/8
KQ2V10-G02	10 mm	1/4
KQ2V10-G03	10 mm	3/8
KQ2V12-G03	12 mm	3/8
KQ2V12-G04	12 mm	1/2

KQ2 – standard fittings



Elbow connector KQ2L
– push-in



Elbow connector KQ2L
– push-in, reduction

Elbow connector KQ2L – push-in connection

Part number	Tube outer diameter	Connection diameter
KQ2L23-99	3.2 mm	3.2 mm
KQ2L04-99	4 mm	4 mm
KQ2L06-99	6 mm	6 mm
KQ2L08-99	8 mm	8 mm
KQ2L10-99	10 mm	10 mm
KQ2L12-99	12 mm	12 mm

Elbow connector KQ2L – push-in connection with reduction

Part number	Tube outer diameter	Connection diameter
KQ2L23-04	3.2 mm	4 mm
KQ2L04-06	4 mm	6 mm
KQ2L04-08	4 mm	8 mm
KQ2L06-08	6 mm	8 mm
KQ2L06-10	6 mm	10 mm
KQ2L08-10	8 mm	10 mm
KQ2L08-12	8 mm	12 mm
KQ2L10-12	10 mm	12 mm



Branch Tee KQ2T



Branch Tee KQ2T – G thread

Branch Tee KQ2T – for female thread

Part number	Tube outer diameter	M or R thread
KQ2T23-M5	3.2 mm	M5
KQ2T23-01S	3.2 mm	1/8
KQ2T23-02S	3.2 mm	1/4
KQ2T04-M5	4 mm	M5
KQ2T04-01S	4 mm	1/8
KQ2T04-02S	4 mm	1/4
KQ2T06-M5	6 mm	M5
KQ2T06-01S	6 mm	1/8
KQ2T06-02S	6 mm	1/4
KQ2T06-03S	6 mm	3/8
KQ2T08-01S	8 mm	1/8
KQ2T08-02S	8 mm	1/4
KQ2T08-03S	8 mm	3/8
KQ2T10-01S	10 mm	1/8
KQ2T10-02S	10 mm	1/4
KQ2T10-03S	10 mm	3/8
KQ2T10-04S	10 mm	1/2
KQ2T12-02S	12 mm	1/4
KQ2T12-03S	12 mm	3/8
KQ2T12-04S	12 mm	1/2
KQ2T16-03S	16 mm	3/8
KQ2T16-04S	16 mm	1/2

Branch Tee KQ2T – for G thread

Part number	Tube outer diameter	G thread
KQ2T04-G01	4 mm	1/8
KQ2T04-G02	4 mm	1/4
KQ2T06-G01	6 mm	1/8
KQ2T06-G02	6 mm	1/4
KQ2T06-G03	6 mm	3/8
KQ2T08-G01	8 mm	1/8
KQ2T08-G02	8 mm	1/4
KQ2T08-G03	8 mm	3/8
KQ2T10-G01	10 mm	1/8
KQ2T10-G02	10 mm	1/4
KQ2T10-G03	10 mm	3/8
KQ2T10-G04	10 mm	1/2
KQ2T12-G03	12 mm	3/8
KQ2T12-G04	12 mm	1/2
KQ2T16-G04	16 mm	1/2

KQ2 – standard fittings



Run Tee KQ2Y

Run Tee KQ2Y
– G threadUnion Tee KQ2T
– same diameterUnion Tee KQ2T
– different diameter

Run Tee KQ2Y – for female thread

Part number	Tube outer diameter	M or R thread
KQ2Y23-M5	3.2 mm	M5
KQ2Y23-01S	3.2 mm	1/8
KQ2Y23-02S	3.2 mm	1/4
KQ2Y04-M5	4 mm	M5
KQ2Y04-01S	4 mm	1/8
KQ2Y04-02S	4 mm	1/4
KQ2Y06-M5	6 mm	M5
KQ2Y06-01S	6 mm	1/8
KQ2Y06-02S	6 mm	1/4
KQ2Y06-03S	6 mm	3/8
KQ2Y08-01S	8 mm	1/8
KQ2Y08-02S	8 mm	1/4
KQ2Y08-03S	8 mm	3/8
KQ2Y10-01S	10 mm	1/8
KQ2Y10-02S	10 mm	1/4
KQ2Y10-03S	10 mm	3/8
KQ2Y10-04S	10 mm	1/2
KQ2Y12-02S	12 mm	1/4
KQ2Y12-03S	12 mm	3/8
KQ2Y12-04S	12 mm	1/2
KQ2Y16-03S	16 mm	3/8
KQ2Y16-04S	16 mm	1/2

Run Tee KQ2Y – for G thread

Part number	Tube outer diameter	G thread
KQ2Y04-G01	4 mm	1/8
KQ2Y04-G02	4 mm	1/4
KQ2Y06-G01	6 mm	1/8
KQ2Y06-G02	6 mm	1/4
KQ2Y06-G03	6 mm	3/8
KQ2Y08-G01	8 mm	1/8
KQ2Y08-G02	8 mm	1/4
KQ2Y08-G03	8 mm	3/8
KQ2Y10-G01	10 mm	1/8
KQ2Y10-G03	10 mm	3/8
KQ2Y10-G04	10 mm	1/2
KQ2Y12-G02	12 mm	1/4
KQ2Y12-G03	12 mm	3/8
KQ2Y12-G04	12 mm	1/2
KQ2Y16-G03	16 mm	3/8
KQ2Y16-G04	16 mm	1/2

Union Tee KQ2T

– uniting same diameter tubing

Part number	Tube outer diameter
KQ2T23-00	3.2 mm
KQ2T04-00	4 mm
KQ2T06-00	6 mm
KQ2T08-00	8 mm
KQ2T10-00	10 mm
KQ2T12-00	12 mm
KQ2T16-00	16 mm

Union Tee KQ2T

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQ2T23-04	3.2 mm	4 mm
KQ2T04-06	4 mm	6 mm
KQ2T06-08	6 mm	8 mm
KQ2T08-10	8 mm	10 mm
KQ2T10-12	10 mm	12 mm

Union “Y” KQ2U
– same diameterUnion “Y” KQ2U
– different diameter

Union “Y” KQ2U

– uniting same diameter tubing

Part number	Tube outer diameter
KQ2U23-00	3.2 mm
KQ2U04-00	4 mm
KQ2U06-00	6 mm
KQ2U08-00	8 mm
KQ2U10-00	10 mm
KQ2U12-00	12 mm
KQ2U16-00	16 mm

Union “Y” KQ2U

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQ2U23-04	3.2 mm	4 mm
KQ2U04-06	4 mm	6 mm
KQ2U06-08	6 mm	8 mm
KQ2U08-10	8 mm	10 mm
KQ2U10-12	10 mm	12 mm

Connection 3.2–8 mm: 10 fittings/pack

Connection 10–16 mm: 5 fittings/pack

KQ2 – standard fittings

Branch “Y” KQ2U – push-in connection

Part number	Tube outer diameter	Connection diameter
KQ2U23-99	3.2 mm	3.2 mm
KQ2U04-99	4 mm	4 mm
KQ2U06-99	6 mm	6 mm
KQ2U08-99	8 mm	8 mm
KQ2U10-99	10 mm	10 mm
KQ2U12-99	12 mm	12 mm



Branch “Y” KQ2U –
push-in



Branch “Y” KQ2U



Push-in reducer KQ2R

Branch “Y” KQ2U – for female thread

Part number	Tube outer diameter	M or R thread
KQ2U23-M5	3.2 mm	M5
KQ2U23-01S	3.2 mm	1/8
KQ2U23-02S	3.2 mm	1/4
KQ2U04-M5	4 mm	M5
KQ2U04-01S	4 mm	1/8
KQ2U04-02S	4 mm	1/4
KQ2U06-M5	6 mm	M5
KQ2U06-01S	6 mm	1/8
KQ2U06-02S	6 mm	1/4
KQ2U06-03S	6 mm	3/8
KQ2U08-01S	8 mm	1/8
KQ2U08-02S	8 mm	1/4
KQ2U08-03S	8 mm	3/8
KQ2U10-02S	10 mm	1/4
KQ2U10-03S	10 mm	3/8
KQ2U10-04S	10 mm	1/2
KQ2U12-02S	12 mm	1/4
KQ2U12-03S	12 mm	3/8
KQ2U12-04S	12 mm	1/2
KQ2U16-03S	16 mm	3/8
KQ2U16-04S	16 mm	1/2

Push-in reducer KQ2R – reducing dimension

Part number	Tube outer diameter	Connection diameter
KQ2R23-04	3.2 mm	4 mm
KQ2R04-06	4 mm	6 mm
KQ2R04-08	4 mm	8 mm
KQ2R04-10	4 mm	10 mm
KQ2R06-04	6 mm	4 mm
KQ2R06-08	6 mm	8 mm
KQ2R06-10	6 mm	10 mm
KQ2R06-12	6 mm	12 mm
KQ2R08-10	8 mm	10 mm
KQ2R08-12	8 mm	12 mm
KQ2R10-12	10 mm	12 mm
KQ2R10-16	10 mm	16 mm
KQ2R12-16	12 mm	16 mm

KQ2 – standard fittings

Blanking plug KQ2P – plugging connections

Part number	Connection diameter
KQ2P-23	3.2 mm
KQ2P-04	4 mm
KQ2P-06	6 mm
KQ2P-08	8 mm
KQ2P-10	10 mm
KQ2P-12	12 mm
KQ2P-16	16 mm



Blanking plug KQ2P

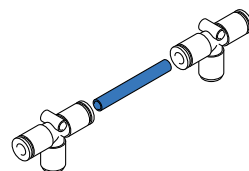
Nipple KQ2N

– uniting same diameter fittings

Part number	Connection diameter
KQ2N04-99	4 mm
KQ2N06-99	6 mm
KQ2N08-99	8 mm
KQ2N10-99	10 mm
KQ2N12-99	12 mm



Nipple KQ2N
– same diameter



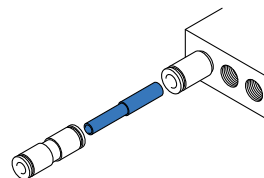
Nipple KQ2N

– uniting different diameter fittings

Part number	Tube outer diameter	
	a	b
KQ2N04-06	4 mm	6 mm
KQ2N06-08	6 mm	8 mm
KQ2N08-10	8 mm	10 mm
KQ2N10-12	10 mm	12 mm



Nipple KQ2N
– different diameter



Gasket – for KQ2 with G thread

Part number	Thread
KQ-G01	G1/8
KQ-G02	G1/4
KQ-G03	G3/4
KQ-G04	G1/2



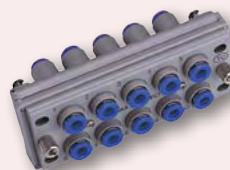
Gasket

Connection 3.2–8 mm: 10 fittings/pack
Connection 10–16 mm: 5 fittings/pack

KDM – multi-connector

Medium	Compressed air, water
Working pressure	–0.1 to 1 MPa (–1 to 10 bar)
Operating temperature	0 to 60 °C
Tube outer diameter 4, 6, 8 mm	Nylon, soft nylon, polyurethane

- Provides quick removal and connection of machine modules
- Different sizes can be mixed
- Prevents incorrect connection



Multi-connector – complete, 10 connections

Part number	Tube outer diameter
KDM10-04	4 mm
KDM10-06	6 mm
KDM10-08	8 mm

Multi-connector – complete, 20 connections

Part number	Tube outer diameter
KDM20-04	4 mm
KDM20-06	6 mm
KDM20-08	8 mm

Multi-connector – male, 10 connections

Part number	Tube outer diameter
KDM10P-04	4 mm
KDM10P-06	6 mm
KDM10P-08	8 mm

Multi-connector – male, 20 connections

Part number	Tube outer diameter
KDM20P-04	4 mm
KDM20P-06	6 mm
KDM20P-08	8 mm

Multi-connector – female, 10 connections

Part number	Tube outer diameter
KDM10S-04	4 mm
KDM10S-06	6 mm
KDM10S-08	8 mm

Multi-connector – female, 20 connections

Part number	Tube outer diameter
KDM20S-04	4 mm
KDM20S-06	6 mm
KDM20S-08	8 mm

Mixing different tube diameters

As both parts of the quick fitting can be disconnected, it is possible to mix diameters.

Insert – male

Part number	Tube outer diameter
KDMP-04	4 mm
KDMP-06	6 mm
KDMP-08	8 mm

Insert – female; seal included

Part number	Tube outer diameter
KDMS-04	4 mm
KDMS-06	6 mm
KDMS-08	8 mm

DMK – multi-connector



- 6 or 12 connections

Multi-connector

Part number	Tube outer diameter
DMK6-04	4 mm
DMK12-04	4 mm
DMK6-23	3.2 mm
DMK12-23	3.2 mm

KM – manifold

Medium	Compressed air, water
Max. working pressure	1 MPa (10 bar)
Test pressure	3 MPa (30 bar)
Operating temperature	0 to 60 °C
Tube outer diameter 4, 6, 8, 10, 12 mm	Nylon, soft nylon, polyurethane

■ Space-saving piping ■ Quick assembly



Manifold – 6 connections

Part number	Connection diameter	
	a	b
KM11-04-08-6	4 mm	8 mm
KM11-06-10-6	6 mm	10 mm
KM11-08-12-6	8 mm	12 mm



Manifold – 6 connections



Manifold – 10 connections

Manifold – 10 connections

Part number	Connection diameter	
	a	b
KM11-04-08-10	4 mm	8 mm
KM11-06-10-10	6 mm	10 mm
KM11-08-12-10	8 mm	12 mm

Manifold – 3 connections

Part number	Connection diameter	
	a	b
KM13-04-06-3	4 mm	6 mm
KM13-04-08-3	4 mm	8 mm
KM13-06-08-3	6 mm	8 mm
KM13-06-10-3	6 mm	10 mm
KM13-08-10-3	8 mm	10 mm

M – miniature fittings

- Less space requirement
- Cap nut ensures easy installation and removal of large holding force of plastic pipes
- Extensive product range
- Used for nylon and polyurethane tubing



Series M3

Straight connector, push-on

Part number	Tubing	Outer/inner Ø	Thread
M-3AU-2	Polyurethane	2/1.2 mm	M3
M-3AU-3	Polyurethane	3.18/2 mm	M3
M-3AU-4	Polyurethane	4/2.5 mm	M3



Elbow connector, push-on 360°

Part number	Tubing	Outer/inner Ø	Thread
M-3ALU-2	Polyurethane	2/1.2 mm	M3
M-3ALU-3	Polyurethane	3.18/2 mm	M3
M-3ALU-4	Polyurethane	4/2.5 mm	M3



Universal elbow 360°

Part number	Thread
M-3UL	M3



Universal Tee 360°

Part number	Thread
M-3UT	M3



Double nipple

Part number	Thread
M-3N	M3



Blanking plug

Part number	Thread
M-3P	M3



Gasket for M3

Part number
M-3G



Series R1/8

Straight connector, push-on

Part number	Tubing	Outer/inner Ø	Thread
M-01AN-4	Nylon	4/2.5 mm	R1/8
M-01AN-6	Nylon	6/4 mm	R1/8



Straight connector, push-on

Part number	Tubing	Outer/inner Ø	Thread
M-01AU-4	Polyurethane	4/2.5 mm	R1/8
M-01AU-6	Polyurethane	6/4 mm	R1/8



Straight connector, cap nut

Part number	Tubing	Outer/inner Ø	Thread
M-01H-4	Polyurethane/nylon	4/2.5 mm	R1/8
M-01H-6	Polyurethane/nylon	6/4 mm	R1/8



M – miniature fittings

Series M5

Straight connector, push-on

Part number	Tubing	Outer/inner Ø	Thread
M-5AN-4	Nylon	4/2.5 mm	M5
M-5AN-6	Nylon	6/4 mm	M5



Straight connector, push-on

Part number	Tubing	Outer/inner Ø	Thread
M-5AU-2	Polyurethane	2/1.2 mm	M5
M-5AU-3	Polyurethane	3.18/2 mm	M5
M-5AU-4	Polyurethane	4/2.5 mm	M5
M-5AU-6	Polyurethane	6/4 mm	M5



Elbow connector, push-on 360°

Part number	Tubing	Outer/inner Ø	Thread
M-5ALN-4	Nylon	4/2.5 mm	M5
M-5ALN-6	Nylon	6/4 mm	M5



Elbow connector, push-on 360°

Part number	Tubing	Outer/inner Ø	Thread
M-5ALUH-2	Polyurethane	2/1.2 mm	M5
M-5ALU-3	Polyurethane	3.18/2 mm	M5
M-5ALU-4	Polyurethane	4/2.5 mm	M5
M-5ALU-6	Polyurethane	6/4 mm	M5



Straight connector, cap nut

Part number	Tubing	Outer/inner Ø	Thread
M-5H-4	Polyurethane/nylon	4/2.5 mm	M5
M-5H-6	Polyurethane/nylon	6/4 mm	M5



Elbow connector 360°

Part number	Tubing	Outer/inner Ø	Thread
M-5HL-4	Polyurethane/nylon	4/2.5 mm	M5
M-5HL-6	Polyurethane/nylon	6/4 mm	M5



Union elbow

Part number	Thread
M-5L	M5



Union Tee

Part number	Thread
M-5T	M5



Universal elbow 360°

Part number	Thread
M-5UL	M5



Universal Tee 360°

Part number	Thread
M-5UT	M5



Nipple, long

Part number	Thread
M-5J	M5



Double nipple

Part number	Thread
M-5N	M5



Double nipple, rotatable

Part number	Thread
M-5UN	M5



Bulkhead union/reducer

Part number	Thread
M-5E	M5
M-5ER	Rc1/8 M5



Manifold

Part number	Thread
M-5M	M5



Bushing

Part number	Thread
M-5B	M5



Blanking plug

Part number	Thread
M-5P	M5



Gasket for M5

Part number
M-5G1



Thick gasket for M5

Part number
M-5GH



Pipe fittings

Medium	Air, water and oil
Materials	Nickel plated brass
Sizes	M5–G1"
Operating temperature	Up to 150 °C
Max. working pressure	6 MPa (60 bar)



Double nipple 101

Double nipple 101 – parallel

Part number	Thread	
	a	b
WNH-M5-M5	M5	M5
WNH-M5-F01	M5	G1/8
WNH-F01-F01	G1/8	G1/8
WNH-F01-F02	G1/8	G1/4
WNH-F01-F03	G1/8	G3/8
WNH-F02-F02	G1/4	G1/4
WNH-F02-F03	G1/4	G3/8
WNH-F02-F04	G1/4	G1/2
WNH-F03-F03	G3/8	G3/8
WNH-F03-F04	G3/8	G1/2
WNH-F04-F04	G1/2	G1/2



Double nipple 102

Double nipple 102 – conical

Part number	Thread	
	a	b
WNH-01-01	1/8	1/8
WNH-01-02	1/8	1/4
WNH-01-03	1/8	3/8
WNH-01-04	1/8	1/2
WNH-02-02	1/4	1/4
WNH-02-03	1/4	3/8
WNH-02-04	1/4	1/2
WNH-03-03	3/8	3/8
WNH-03-04	3/8	1/2
WNH-04-04	1/2	1/2
WNH-04-06	1/2	3/4
WNH-06-06	3/4	3/4
WNH-06-10	3/4	1
WNH-10-10	1	1



Socket 103

Socket 103 – parallel

Part number	Thread
WNH-M5V-M5V	M5
WNH-F01V-F01V	G1/8
WNH-F02V-F02V	G1/4
WNH-F03V-F03V	G3/8
WNH-F04V-F04V	G1/2
WNH-F06V-F06V	G3/4



Bushing 104



Bushing 104z

Bushing 104 – conical

Part number	Thread	
	a	b
WNH-02-F01V	1/4	G1/8
WNH-03-F01V	3/8	G1/8
WNH-03-F02V	3/8	G1/4
WNH-04-F01V	1/2	G1/8
WNH-04-F02V	1/2	G1/4
WNH-04-F03V	1/2	G3/8
WNH-06-F03V	3/4	G3/8
WNH-06-F04V	3/4	G1/2
WNH-10-F04V	1	G1/2
WNH-10-F06V	1	G3/4

Bushing 104z – parallel

Part number	Thread	
	a	b
WNH-F01-M5V	G1/8	M5
WNH-F02-F01V	G1/4	G1/8
WNH-F03-F01V	G3/8	G1/8
WNH-F03-F02V	G3/8	G1/4
WNH-F04-F01V	G1/2	G1/8
WNH-F04-F02V	G1/2	G1/4
WNH-F04-F03V	G1/2	G3/8
WNH-F06-F03V	G3/4	G3/8
WNH-F06-F04V	G3/4	G1/2

Pipe fittings



Reducer socket
105



Reducer socket
105z

Reducer socket 105 – conical

Part number	Thread	
	a	b
WNH-01-01V	1/8	1/8
WNH-01-02V	1/8	1/4
WNH-01-03V	1/8	3/8
WNH-02-02V	1/4	1/4
WNH-02-03V	1/4	3/8
WNH-02-04V	1/4	1/2
WNH-03-03V	3/8	3/8
WNH-03-04V	3/8	1/2
WNH-04-04V	1/2	1/2
WNH-04-06V	1/2	3/4

Reducer socket 105z – parallel

Part number	Thread	
	a	b
WNH-M5-F01V	M5	G1/8
WNH-F01-F01V	G1/8	G1/8
WNH-F01-F02V	G1/8	G1/4
WNH-F01-F03V	G1/8	G3/8
WNH-F02-F02V	G1/4	G1/4
WNH-F02-F03V	G1/4	G3/8
WNH-F02-F04V	G1/4	G1/2
WNH-F03-F03V	G3/8	G3/8
WNH-F03-F04V	G3/8	G1/2
WNH-F04-F04V	G1/2	G1/2
WNH-F04-F06V	G1/2	G3/4
WNH-F06-F10V	G3/4	G1



Plug 107



Plug 107-OR

Plug 107

Part number	Thread
WNH-M5	M5
WNH-F01	G1/8
WNH-F02	G1/4
WNH-F03	G3/8
WNH-F04	G1/2
WNH-F06	G3/4
WNH-F10	G1

Plug 107-OR – O-ring; for allen key

Part number	Thread
WNH-F01-R	G1/8
WNH-F02-R	G1/4
WNH-F03-R	G3/8
WNH-F04-R	G1/2



Reducer socket
106

Reducer socket 106 – parallel

Part number	Thread	
	a	b
WNH-M5V-F01V	M5	G1/8
WNH-F01V-F02V	G1/8	G1/4
WNH-F01V-F03V	G1/8	G3/8
WNH-F01V-F04V	G1/8	G1/2
WNH-F02V-F03V	G1/4	G3/8
WNH-F02V-F04V	G1/4	G1/2
WNH-F03V-F04V	G3/8	G1/2
WNH-F04V-F10V	G1/2	G1
WNH-F06V-F04V	G3/4	G1
WNH-F06V-F10V	G3/4	G1/2



Cap 108

Cap 108

Part number	Thread
WNH-F01V	G1/8
WNH-F02V	G1/4
WNH-F03V	G3/8
WNH-F04V	G1/2



Elbow 109



Elbow 110

Elbow 109 – female-female thread

Part number	Thread
WNL-F01V-F01V	G1/8
WNL-F02V-F02V	G1/4
WNL-F03V-F03V	G3/8
WNL-F04V-F04V	G1/2
WNL-F06V-F06V	G3/4
WNL-F10V-F10V	G1

Elbow 110 – female-male thread

Part number	Thread	
	a1	a2
WNL-M5-M5V	M5	M5
WNL-01-F01V	1/8	G1/8
WNL-01-F02V	1/4	G1/8
WNL-02-F02V	1/4	G1/4
WNL-01-F03V	3/8	G3/8
WNL-01-F04V	1/2	G1/2
WNL-01-F06V	3/4	G3/4
WNL-01-F10V	1	G1

Pipe fittings



Branch Tee 111



Branch Tee 112

Branch Tee 111 – female thread

Part number	Thread
WNT-F01V-F01V-F01V	G1/8
WNT-F02V-F02V-F02V	G1/4
WNT-F03V-F03V-F03V	G3/8
WNT-F04V-F04V-F04V	G1/2
WNT-F06V-F06V-F06V	G3/4
WNT-F10V-F10V-F10V	G1

Branch Tee 112 – female-male-female thread

Part number	Thread
WNT-F01V-01-F01V	1/8
WNT-F02V-02-F02V	1/4
WNT-F03V-03-F03V	3/8
WNT-F04V-04-F04V	1/2
WNT-F06V-06-F06V	3/4
WNT-F10V-10-F10V	1



Cross 114

Cross 114 – female thread

Part number	Thread
WNX-F01V-F01V-F01V	G1/8
WNX-F02V-F02V-F02V	G1/4
WNX-F03V-F03V-F03V	G3/8
WNX-F04V-F04V-F04V	G1/2



Elbow 115

Elbow 115 – male-male conical thread

Part number	Thread	
	a1	a2
WNL-01-01	1/8	1/8
WNL-02-01	1/4	1/8
WNL-02-02	1/4	1/4
WNL-03-03	3/8	3/8
WNL-04-04	1/2	1/2
WNL-06-06	3/4	3/4
WNL-10-10	1	1



Branch Tee 113

Branch Tee 113 – male-female-female thread

Part number	Thread
WNT-01-F01V-F01V	1/8
WNT-02-F02V-F02V	1/4
WNT-03-F03V-F03V	3/8
WNT-04-F04V-F04V	1/2
WNT-06-F06V-F06V	3/4
WNT-10-F10V-F10V	1



Branch Tee 116



Branch Tee 117



Branch Tee 118

Branch Tee 116 – male-male-male conical thread

Part number	Thread
WNT-01-01-01	1/8
WNT-02-02-02	1/4
WNT-03-03-03	3/8
WNT-04-04-04	1/2
WNT-06-06-06	3/4
WNT-10-10-10	1

Branch Tee 117 – male-female-male conical thread

Part number	Thread
WNT-01-F01V-01	1/8
WNT-02-F02V-02	1/4
WNT-03-F03V-03	3/8
WNT-04-F04V-04	1/2
WNT-06-F06V-06	3/4
WNT-10-F10V-10	1

Branch Tee 118 – male-male-female conical thread

Part number	Thread
WNT-01-01-F01V	1/8
WNT-02-02-F02V	1/4
WNT-03-03-F03V	3/8
WNT-04-04-F04V	1/2
WNT-06-06-F06V	3/4
WNT-10-10-F10V	1

Pipe fittings



Barb fitting 119

Barb fitting 119 – conical thread

Part number	Tube diameter	Thread
WNB-01-T06	6 mm	1/8
WNB-02-T06	6 mm	1/4
WNB-01-T07	7 mm	1/8
WNB-02-T07	7 mm	1/4
WNB-01-T08	8 mm	1/8
WNB-02-T08	8 mm	1/4
WNB-01-T09	9 mm	1/8
WNB-02-T09	9 mm	1/4
WNB-03-T09	9 mm	3/8
WNB-04-T09	9 mm	1/2
WNB-01-T10	10 mm	1/8
WNB-02-T10	10 mm	1/4
WNB-03-T10	10 mm	3/8
WNB-04-T10	10 mm	1/2
WNB-02-T12	12 mm	1/4
WNB-03-T12	12 mm	3/8
WNB-04-T12	12 mm	1/2
WNB-03-T14	14 mm	3/8
WNB-04-T14	14 mm	1/2
WNB-03-T16	16 mm	3/8
WNB-04-T16	16 mm	1/2
WNB-04-T17	17 mm	1/2
WNB-04-T18	18 mm	1/2



Barb fitting 119/z

Barb fitting 119/z – male parallel thread

Part number	Tube diameter	Thread
WNB-F01-T07	7 mm	G1/8
WNB-F02-T07	7 mm	G1/4
WNB-F01-T08	8 mm	G1/8
WNB-F01-T09	9 mm	G1/8
WNB-F02-T09	9 mm	G1/4
WNB-F03-T09	9 mm	G3/8
WNB-F02-T12	12 mm	G1/4
WNB-F03-T12	12 mm	G3/8
WNB-F04-T12	12 mm	G1/2



Cross 120

Cross 120 – female-female-female-male conical thread

Part number	Thread
WNB-01-F01-F01-F01	1/8
WNB-02-F02-F02-F02	1/4
WNB-03-F03-F03-F03	3/8
WNB-04-F04-F04-F04	1/2



Barb fitting 122



Spacing nipple 123

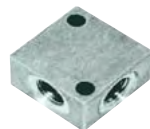
Barb fitting 122 – female thread

Part number	Tube diameter	Thread
WNB-F01V-T06	6	G1/8
WNB-F01V-T07	7	G1/8
WNB-F02V-T07	7	G1/4
WNB-F02V-T08	8	G1/4
WNB-F02V-T09	9	G1/4
WNB-F03V-T10	10	G3/8
WNB-F03V-T12	12	G3/8
WNB-F04V-T12	12	G1/2

Spacing nipple 123 – male parallel thread

Part number	Thread		Spacing
	a	a1	
WNB-F01-F01V-22	G1/8	G1/8	22 mm
WNB-F01-F01V-42	G1/8	G1/8	42 mm
WNB-F02-F02V-35	G1/4	G1/4	35 mm
WNB-F02-F02V-51	G1/4	G1/4	51 mm

Manifold 124



Manifold 124

Part number	Thread
WAT-F01V-F01V-F01V	G1/8
WAT-F02V-F02V-F02V	G1/4
WAT-F03V-F03V-F03V	G3/8
WAT-F04V-F04V-F04V	G1/2

Pipe fittings



Branch "Y"
125

Branch "Y" 125 – male-female-female conical thread

Part number	Thread
WNY-01-F01V-F01V	1/8
WNY-02-F02V-F02V	1/4
WNY-03-F03V-F03V	3/8
WNY-04-F04V-F04V	1/2



Branch "Y"
126

Branch "Y" 126 – female thread

Part number	Thread
WNY-F01V-F01V-F01V	G1/8
WNY-F02V-F02V-F02V	G1/4
WNY-F03V-F03V-F03V	G3/8
WNY-F04V-F04V-F04V	G1/2



Bulkhead union 127

Bulkhead union 127

Part number	Thread
WNE-F04V-M28	M5
WNE-M5V-M10	G1/8
WNE-F01V-M16	G1/4
WNE-F02V-M20	G3/8
WNE-F03V-M26	G1/2



Cross 128

Cross 128 – male conical thread

Part number	Thread
WNX-01-01-01-01	G1/8
WNX-02-02-02-02	G1/4
WNX-03-03-03-03	G3/8
WNX-04-04-04-04	G1/2

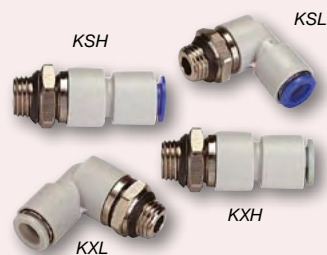
Gasket 411 – male parallel thread

Part number	Dimension
WNH-M5-SEAL	M5 PVC
WNH-F01-SEAL	G1/8 PVC
WNH-F02-SEAL	G1/4 PVC
WNH-F03-SEAL	G3/8 PVC
WNH-F04-SEAL	G1/2 PVC
WNH-F06-SEAL	G3/4 PVC

KS & KX – rotation fittings

Medium	Compressed air				
Working pressure	-100 kPa to 1 MPa (-1 bar to 10 bar)				
Test pressure	3 MPa (30 bar)				
Operating temperature	0 to 60 °C				
Tube diameter	Ø4	Ø6	Ø8	Ø10	Ø12
Required torque	0.006 Nm	0.012 Nm	0.014 Nm	0.020 Nm	0.022 Nm
Max. revolutions, KS	500 rpm	500 rpm	400 rpm	300 rpm	250 rpm
Max. revolutions, KX	1500 rpm	1200 rpm	1200 rpm	1000 rpm	1000 rpm

■ For rotating or moveable applications



Straight rotation fitting KSH

Part number	Tube outer diameter	Thread
KSH04-M5	4 mm	M5
KSH06-M5	6 mm	M5
KSH06-01S	6 mm	1/8
KSH08-01S	8 mm	1/8
KSH08-02S	8 mm	1/4
KSH10-03S	10 mm	3/8
KSH12-04S	12 mm	1/2

Straight rotation fitting KXH

Part number	Tube outer diameter	Thread
KXH04-M5	4 mm	M5
KXH06-M5	6 mm	M5
KXH06-01S	6 mm	1/8
KXH08-01S	8 mm	1/8
KXH08-02S	8 mm	1/4
KXH10-03S	10 mm	3/8
KXH12-04S	12 mm	1/2

Elbow rotation fitting KSL

Part number	Tube outer diameter	Thread
KSL04-M5	4 mm	M5
KSL06-M5	6 mm	M5
KSL06-01S	6 mm	1/8
KSL08-01S	8 mm	1/8
KSL08-02S	8 mm	1/4
KSL10-03S	10 mm	3/8
KSL12-04S	12 mm	1/2

Elbow rotation fitting KXL

Part number	Tube outer diameter	Thread
KXL04-M5	4 mm	M5
KXL06-M5	6 mm	M5
KXL06-01S	6 mm	1/8
KXL08-01S	8 mm	1/8
KXL08-02S	8 mm	1/4
KXL10-03S	10 mm	3/8
KXL12-04S	12 mm	1/2

MQR – rotation fitting

Medium	Air				
Max. working pressure	-100 KPa to 1.0 MPa (-1 to 10 bar)				
Operating temperature	-10 to 80 °C				
Number of air circuits	1	2	4	8	12
Torque	0.003 Nm	0.03 Nm	0.05 Nm	0.1 Nm	0.2 Nm
Max. revolutions	3000 rpm	2000 rpm	1500 rpm	900 rpm	600 rpm

- Version with metal seal, instead of rubber seal
- Long stop does not affect the torque (no rubber seal sticking)
- Supply pressure does not affect the torque
- Long life, up to one billion rotations



Rotation fitting – without bottom plate

Part number	Number of air circuits	Thread
MQR1-M5	1	M5
MQR2-M5	2	M5
MQR4-M5	4	M5
MQR8-M5	8	M5
MQR12-M5	12	M5

Rotation fitting – with bottom plate

Part number	Number of air circuits	Thread
MQRF2-M5	2	M5
MQRF4-M5	4	M5
MQRF8-M5	8	M5
MQRF12-M5	12	M5

KQB2 – brass fittings



Medium	Air and water
Materials	Nickel plated brass; release bush in stainless steel (SUS304) Seals: FKM
Working pressure	–100 kPa to 1.0 MPa (–1 to 10 bar)
Temperature	–5 to 150 °C
Lubrication	Grease-free design

- Grease-free design
- Lightweight and compact
- Quick assembly and disassembly
- Wide temperature range



Straight connector
KQB2H



Straight connector
KQB2S – hex socket



Straight connector
KQB2F

Straight connector KQB2H – for female thread

Part number	Tube outer diameter	Thread
KQB2H23-M5	3.2 mm	M5
KQB2H23-01S	3.2 mm	1/8
KQB2H23-02S	3.2 mm	1/4
KQB2H04-M5	4 mm	M5
KQB2H04-01S	4 mm	1/8
KQB2H04-02S	4 mm	1/4
KQB2H06-M5	6 mm	M5
KQB2H06-01S	6 mm	1/8
KQB2H06-02S	6 mm	1/4
KQB2H06-03S	6 mm	3/8
KQB2H08-01S	8 mm	1/8
KQB2H08-02S	8 mm	1/4
KQB2H08-03S	8 mm	3/8
KQB2H10-01S	10 mm	1/8
KQB2H10-02S	10 mm	1/4
KQB2H10-03S	10 mm	3/8
KQB2H10-04S	10 mm	1/2
KQB2H12-02S	12 mm	1/4
KQB2H12-03S	12 mm	3/8
KQB2H12-04S	12 mm	1/2
KQB2H16-03S	16 mm	3/8
KQB2H16-04S	16 mm	1/2

Straight connector KQB2S – with hex socket

Part number	Tube outer diameter	Thread
KQB2S23-M5	3.2 mm	M5
KQB2S04-M5	4 mm	M5
KQB2S04-01S	4 mm	1/8
KQB2S06-M5	6 mm	M5
KQB2S06-01S	6 mm	1/8
KQB2S06-02S	6 mm	1/4
KQB2S08-01S	8 mm	1/8
KQB2S08-02S	8 mm	1/4
KQB2S08-03S	8 mm	3/8
KQB2S10-01S	10 mm	1/8
KQB2S10-02S	10 mm	1/4
KQB2S10-03S	10 mm	3/8
KQB2S10-04S	10 mm	1/2
KQB2S12-02S	12 mm	1/4
KQB2S12-03S	12 mm	3/8
KQB2S12-04S	12 mm	1/2
KQB2S16-03S	16 mm	3/8
KQB2S16-04S	16 mm	1/2

Straight connector KQB2F – for male thread

Part number	Tube outer diameter	Thread
KQB2F23-01	3.2 mm	1/8
KQB2F04-01	4 mm	1/8
KQB2F04-02	4 mm	1/4
KQB2F06-01	6 mm	1/8
KQB2F06-02	6 mm	1/4
KQB2F06-03	6 mm	3/8
KQB2F08-01	8 mm	1/8
KQB2F08-02	8 mm	1/4
KQB2F08-03	8 mm	3/8
KQB2F10-02	10 mm	1/4
KQB2F10-03	10 mm	3/8
KQB2F12-02	12 mm	1/4
KQB2F12-03	12 mm	3/8
KQB2F12-04	12 mm	1/2
KQB2F16-03	16 mm	3/8
KQB2F16-04	16 mm	1/2



Straight union KQB2H
– same diameter



Straight union KQB2H
– different diameter

Straight union KQB2H

– uniting same diameter tubing

Part number	Tube outer diameter
KQB2H23-00	3.2 mm
KQB2H04-00	4 mm
KQB2H06-00	6 mm
KQB2H08-00	8 mm
KQB2H10-00	10 mm
KQB2H12-00	12 mm
KQB2H16-00	16 mm

Straight union KQB2H

– uniting different diameter tubing

Part number	Tube outer diameter a	Tube outer diameter b
KQB2H23-04	3.2 mm	4 mm
KQB2H04-06	4 mm	6 mm
KQB2H06-08	6 mm	8 mm
KQB2H08-10	8 mm	10 mm
KQB2H10-12	10 mm	12 mm
KQB2H12-16	12 mm	16 mm

KQB2 – brass fittings



Bulkhead connector KQB2E



Bulkhead union KQB2E



Elbow connector KQB2L

Bulkhead connector KQB2E

– for going through walls

Part number	Tube outer diameter	Thread
KQB2E23-02	3.2 mm	1/4
KQB2E04-01	4 mm	1/8
KQB2E04-02	4 mm	1/4
KQB2E06-01	6 mm	1/8
KQB2E06-02	6 mm	1/4
KQB2E06-03	6 mm	3/8
KQB2E08-01	8 mm	1/8
KQB2E08-02	8 mm	1/4
KQB2E08-03	8 mm	3/8
KQB2E10-02	10 mm	1/4
KQB2E10-03	10 mm	3/8
KQB2E12-03	12 mm	3/8
KQB2E12-04	12 mm	1/2
KQB2E16-03	16 mm	3/8
KQB2E16-04	16 mm	1/2

Bulkhead union KQB2E – for going through walls

Part number	Tube outer diameter
KQB2E23-00	3.2 mm
KQB2E04-00	4 mm
KQB2E06-00	6 mm
KQB2E08-00	8 mm
KQB2E10-00	10 mm
KQB2E12-00	12 mm
KQB2E16-00	16 mm

Union elbow KQB2L



Union elbow KQB2L

– uniting same diameter tubing

Part number	Tube outer diameter
KQB2L23-00	3.2 mm
KQB2L04-00	4 mm
KQB2L06-00	6 mm
KQB2L08-00	8 mm
KQB2L10-00	10 mm
KQB2L12-00	12 mm
KQB2L16-00	16 mm

Elbow connector KQB2L – for female thread

Part number	Tube outer diameter	Thread
KQB2L23-M5	3.2 mm	M5
KQB2L23-01S	3.2 mm	1/8
KQB2L23-02S	3.2 mm	1/4
KQB2L04-M5	4 mm	M5
KQB2L04-01S	4 mm	1/8
KQB2L04-02S	4 mm	1/4
KQB2L06-M5	6 mm	M5
KQB2L06-01S	6 mm	1/8
KQB2L06-02S	6 mm	1/4
KQB2L06-03S	6 mm	3/8
KQB2L08-01S	8 mm	1/8
KQB2L08-02S	8 mm	1/4
KQB2L08-03S	8 mm	3/8
KQB2L10-01S	10 mm	1/8
KQB2L10-02S	10 mm	1/4
KQB2L10-03S	10 mm	3/8
KQB2L10-04S	10 mm	1/2
KQB2L12-02S	12 mm	1/4
KQB2L12-03S	12 mm	3/8
KQB2L12-04S	12 mm	1/2
KQB2L16-03S	16 mm	3/8
KQB2L16-04S	16 mm	1/2



Extended elbow connector KQB2W

Extended elbow connector KQB2W

– for female thread; for connecting tubes on top of each other

Part number	Tube outer diameter	Thread
KQB2W23-M5	3.2 mm	M5
KQB2W23-01S	3.2 mm	1/8
KQB2W23-02S	3.2 mm	1/4
KQB2W04-M5	4 mm	M5
KQB2W04-01S	4 mm	1/8
KQB2W04-02S	4 mm	1/4
KQB2W06-M5	6 mm	M5
KQB2W06-01S	6 mm	1/8
KQB2W06-02S	6 mm	1/4
KQB2W06-03S	6 mm	3/8
KQB2W08-01S	8 mm	1/8
KQB2W08-02S	8 mm	1/4
KQB2W08-03S	8 mm	3/8
KQB2W10-02S	10 mm	1/4
KQB2W10-03S	10 mm	3/8
KQB2W10-04S	10 mm	1/2
KQB2W12-02S	12 mm	1/4
KQB2W12-03S	12 mm	3/8
KQB2W12-04S	12 mm	1/2
KQB2W16-03S	16 mm	3/8
KQB2W16-04S	16 mm	1/2

KQB2 – brass fittings



Branch Tee KQB2T


Union Tee KQB2T
– same diameter

Union Tee KQB2T
– different diameter

Branch Tee KQB2T – for female thread

Part number	Tube outer diameter	Thread
KQB2T23-M5	3.2 mm	M5
KQB2T23-01S	3.2 mm	1/8
KQB2T23-02S	3.2 mm	1/4
KQB2T04-M5	4 mm	M5
KQB2T04-01S	4 mm	1/8
KQB2T04-02S	4 mm	1/4
KQB2T06-M5	6 mm	M5
KQB2T06-01S	6 mm	1/8
KQB2T06-02S	6 mm	1/4
KQB2T06-03S	6 mm	3/8
KQB2T08-01S	8 mm	1/8
KQB2T08-02S	8 mm	1/4
KQB2T08-03S	8 mm	3/8
KQB2T10-01S	10 mm	1/8
KQB2T10-02S	10 mm	1/4
KQB2T10-03S	10 mm	3/8
KQB2T10-04S	10 mm	1/2
KQB2T12-02S	12 mm	1/4
KQB2T12-03S	12 mm	3/8
KQB2T12-04S	12 mm	1/2
KQB2T16-03S	16 mm	3/8
KQB2T16-04S	16 mm	1/2


Union "Y" KQB2U
– same diameter

Union "Y" KQB2U
– different diameter

Union "Y" KQB2U

– uniting same diameter tubing

Part number	Tube outer diameter
KQB2U23-00	3.2 mm
KQB2U04-00	4 mm
KQB2U06-00	6 mm
KQB2U08-00	8 mm
KQB2U10-00	10 mm
KQB2U12-00	12 mm
KQB2U16-00	16 mm

Union "Y" KQB2U

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQB2U23-04	3.2 mm	4 mm
KQB2U04-06	4 mm	6 mm
KQB2U06-08	6 mm	8 mm
KQB2U08-10	8 mm	10 mm
KQB2U10-12	10 mm	12 mm
KQB2U12-16	12 mm	16 mm

Union Tee KQB2T

– uniting same diameter tubing

Part number	Tube outer diameter
KQB2T23-00	3.2 mm
KQB2T04-00	4 mm
KQB2T06-00	6 mm
KQB2T08-00	8 mm
KQB2T10-00	10 mm
KQB2T12-00	12 mm
KQB2T16-00	16 mm

Union Tee KQB2T

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQB2T23-04	3.2 mm	4 mm
KQB2T04-06	4 mm	6 mm
KQB2T06-08	6 mm	8 mm
KQB2T08-10	8 mm	10 mm
KQB2T10-12	10 mm	12 mm
KQB2T12-16	12 mm	16 mm



Push-in reducer KQB2R



Blanking plug KQB2P

Push-in reducer KQB2R – reducing dimension

Part number	Tube outer diameter	Connection diameter
KQB2R23-04	3.2 mm	4 mm
KQB2R04-06	4 mm	6 mm
KQB2R06-08	6 mm	8 mm
KQB2R08-10	8 mm	10 mm
KQB2R10-12	10 mm	12 mm
KQB2R12-16	12 mm	16 mm

Blanking plug KQB2P – plugging connections

Part number	Tube outer diameter
KQB2P-23	3.2 mm
KQB2P-04	4 mm
KQB2P-06	6 mm
KQB2P-08	8 mm
KQB2P-10	10 mm
KQB2P-12	12 mm
KQB2P-16	16 mm



KQG2 – stainless fittings

Medium	Air, water and steam
Materials	Stainless steel (SUS316) Seals: FKM
Working pressure	~100 kPa to 1.0 MPa (~1 to 10 bar)
Temperature	–5 to 150 °C
Lubrication	Grease-free design

- Food grade ■ Lightweight and compact
- Quick assembly and disassembly
- Can be used with steam



Straight connector KQG2H – for female thread

Part number	Tube outer diameter	Thread
KQG2H23-M5	3.2 mm	M5
KQG2H23-01S	3.2 mm	1/8
KQG2H23-02S	3.2 mm	1/4
KQG2H04-M5	4 mm	M5
KQG2H04-01S	4 mm	1/8
KQG2H04-02S	4 mm	1/4
KQG2H06-M5	6 mm	M5
KQG2H06-01S	6 mm	1/8
KQG2H06-02S	6 mm	1/4
KQG2H06-03S	6 mm	3/8
KQG2H08-01S	8 mm	1/8
KQG2H08-02S	8 mm	1/4
KQG2H08-03S	8 mm	3/8
KQG2H10-01S	10 mm	1/8
KQG2H10-02S	10 mm	1/4
KQG2H10-03S	10 mm	3/8
KQG2H10-04S	10 mm	1/2
KQG2H12-02S	12 mm	1/4
KQG2H12-03S	12 mm	3/8
KQG2H12-04S	12 mm	1/2
KQG2H16-03S	16 mm	3/8
KQG2H16-04S	16 mm	1/2

Straight connector KQG2S – with hex socket

Part number	Tube outer diameter	Thread
KQG2S23-M5	3.2 mm	M5
KQG2S04-M5	4 mm	M5
KQG2S04-01S	4 mm	1/8
KQG2S06-M5	6 mm	M5
KQG2S06-01S	6 mm	1/8
KQG2S06-02S	6 mm	1/4
KQG2S08-01S	8 mm	1/8
KQG2S08-02S	8 mm	1/4
KQG2S08-03S	8 mm	3/8
KQG2S10-01S	10 mm	1/8
KQG2S10-02S	10 mm	1/4
KQG2S10-03S	10 mm	3/8
KQG2S10-04S	10 mm	1/2
KQG2S12-02S	12 mm	1/4
KQG2S12-03S	12 mm	3/8
KQG2S12-04S	12 mm	1/2
KQG2S16-03S	16 mm	3/8
KQG2S16-04S	16 mm	1/2

Straight connector KQG2F – for male thread

Part number	Tube outer diameter	Thread
KQG2F23-01	3.2 mm	1/8
KQG2F04-01	4 mm	1/8
KQG2F04-02	4 mm	1/4
KQG2F06-01	6 mm	1/8
KQG2F06-02	6 mm	1/4
KQG2F06-03	6 mm	3/8
KQG2F08-01	8 mm	1/8
KQG2F08-02	8 mm	1/4
KQG2F08-03	8 mm	3/8
KQG2F10-02	10 mm	1/4
KQG2F10-03	10 mm	3/8
KQG2F12-02	12 mm	1/4
KQG2F12-03	12 mm	3/8
KQG2F12-04	12 mm	1/2
KQG2F16-03	16 mm	3/8
KQG2F16-04	16 mm	1/2



Straight union KQG2H
– same diameter



Straight union KQG2H
– different diameter

Straight union KQG2H

– uniting same diameter tubing

Part number	Tube outer diameter
KQG2H23-00	3.2 mm
KQG2H04-00	4 mm
KQG2H06-00	6 mm
KQG2H08-00	8 mm
KQG2H10-00	10 mm
KQG2H12-00	12 mm
KQG2H16-00	16 mm

Straight union KQG2H

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQG2H23-04	3.2 mm	4 mm
KQG2H04-06	4 mm	6 mm
KQG2H06-08	6 mm	8 mm
KQG2H08-10	8 mm	10 mm
KQG2H10-12	10 mm	12 mm
KQG2H12-16	12 mm	16 mm

KQG2 – stainless fittings



Bulkhead union KQG2E



Bulkhead union KQG2E



Elbow connector KQG2L

Bulkhead connector KQG2E

– for going through walls

Part number	Tube outer diameter	Thread
KQG2E23-02	3.2 mm	1/4
KQG2E04-01	4 mm	1/8
KQG2E04-02	4 mm	1/4
KQG2E06-01	6 mm	1/8
KQG2E06-02	6 mm	1/4
KQG2E06-03	6 mm	3/8
KQG2E08-01	8 mm	1/8
KQG2E08-02	8 mm	1/4
KQG2E08-03	8 mm	3/8
KQG2E10-02	10 mm	1/4
KQG2E10-03	10 mm	3/8
KQG2E12-03	12 mm	3/8
KQG2E12-04	12 mm	1/2
KQG2E16-03	16 mm	3/8
KQG2E16-04	16 mm	1/2

Bulkhead union KQG2E – for going through walls

Part number	Tube outer diameter
KQG2E23-00	3.2 mm
KQG2E04-00	4 mm
KQG2E06-00	6 mm
KQG2E08-00	8 mm
KQG2E10-00	10 mm
KQG2E12-00	12 mm
KQG2E16-00	16 mm

Union elbow KQG2L



Union elbow KQG2L

– uniting same diameter tubing

Part number	Tube outer diameter
KQG2L23-00	3.2 mm
KQG2L04-00	4 mm
KQG2L06-00	6 mm
KQG2L08-00	8 mm
KQG2L10-00	10 mm
KQG2L12-00	12 mm
KQG2L16-00	16 mm

Elbow connector KQG2L – for female thread

Part number	Tube outer diameter	Thread
KQG2L23-M5	3.2 mm	M5
KQG2L23-01S	3.2 mm	1/8
KQG2L23-02S	3.2 mm	1/4
KQG2L04-M5	4 mm	M5
KQG2L04-01S	4 mm	1/8
KQG2L04-02S	4 mm	1/4
KQG2L06-M5	6 mm	M5
KQG2L06-01S	6 mm	1/8
KQG2L06-02S	6 mm	1/4
KQG2L06-03S	6 mm	3/8
KQG2L08-01S	8 mm	1/8
KQG2L08-02S	8 mm	1/4
KQG2L08-03S	8 mm	3/8
KQG2L10-01S	10 mm	1/8
KQG2L10-02S	10 mm	1/4
KQG2L10-03S	10 mm	3/8
KQG2L10-04S	10 mm	1/2
KQG2L12-02S	12 mm	1/4
KQG2L12-03S	12 mm	3/8
KQG2L12-04S	12 mm	1/2
KQG2L16-03S	16 mm	3/8
KQG2L16-04S	16 mm	1/2



Extended elbow connector KQG2W

Extended elbow connector KQG2W

– for female thread; for connecting tubes on top of each other

Part number	Tube outer diameter	Thread
KQG2W23-M5	3.2 mm	M5
KQG2W23-01S	3.2 mm	1/8
KQG2W23-02S	3.2 mm	1/4
KQG2W04-M5	4 mm	M5
KQG2W04-01S	4 mm	1/8
KQG2W04-02S	4 mm	1/4
KQG2W06-M5	6 mm	M5
KQG2W06-01S	6 mm	1/8
KQG2W06-02S	6 mm	1/4
KQG2W06-03S	6 mm	3/8
KQG2W08-01S	8 mm	1/8
KQG2W08-02S	8 mm	1/4
KQG2W08-03S	8 mm	3/8
KQG2W10-02S	10 mm	1/4
KQG2W10-03S	10 mm	3/8
KQG2W10-04S	10 mm	1/2
KQG2W12-02S	12 mm	1/4
KQG2W12-03S	12 mm	3/8
KQG2W12-04S	12 mm	1/2
KQG2W16-03S	16 mm	3/8
KQG2W16-04S	16 mm	1/2

KQG2 – stainless fittings



Branch Tee KQG2T

Union Tee KQG2T
– same diameterUnion Tee KQG2T
– different diameter

Branch Tee KQG2T – for female thread

Part number	Tube outer diameter	Thread
KQG2T23-M5	3.2 mm	M5
KQG2T23-01S	3.2 mm	1/8
KQG2T23-02S	3.2 mm	1/4
KQG2T04-M5	4 mm	M5
KQG2T04-01S	4 mm	1/8
KQG2T04-02S	4 mm	1/4
KQG2T06-M5	6 mm	M5
KQG2T06-01S	6 mm	1/8
KQG2T06-02S	6 mm	1/4
KQG2T06-03S	6 mm	3/8
KQG2T08-01S	8 mm	1/8
KQG2T08-02S	8 mm	1/4
KQG2T08-03S	8 mm	3/8
KQG2T10-01S	10 mm	1/8
KQG2T10-02S	10 mm	1/4
KQG2T10-03S	10 mm	3/8
KQG2T10-04S	10 mm	1/2
KQG2T12-02S	12 mm	1/4
KQG2T12-03S	12 mm	3/8
KQG2T12-04S	12 mm	1/2
KQG2T16-03S	16 mm	3/8
KQG2T16-04S	16 mm	1/2

Union "Y" KQG2U
– same diameterUnion "Y" KQG2U
– different diameter

Union "Y" KQG2U

– uniting same diameter tubing

Part number	Tube outer diameter
KQG2U23-00	3.2 mm
KQG2U04-00	4 mm
KQG2U06-00	6 mm
KQG2U08-00	8 mm
KQG2U10-00	10 mm
KQG2U12-00	12 mm
KQG2U16-00	16 mm

Union "Y" KQG2U

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQG2U23-04	3.2 mm	4 mm
KQG2U04-06	4 mm	6 mm
KQG2U06-08	6 mm	8 mm
KQG2U08-10	8 mm	10 mm
KQG2U10-12	10 mm	12 mm
KQG2U12-16	12 mm	16 mm

Union Tee KQG2T

– uniting same diameter tubing

Part number	Tube outer diameter
KQG2T23-00	3.2 mm
KQG2T04-00	4 mm
KQG2T06-00	6 mm
KQG2T08-00	8 mm
KQG2T10-00	10 mm
KQG2T12-00	12 mm
KQG2T16-00	16 mm

Union Tee KQG2T

– uniting different diameter tubing

Part number	Tube outer diameter	
	a	b
KQG2T23-04	3.2 mm	4 mm
KQG2T04-06	4 mm	6 mm
KQG2T06-08	6 mm	8 mm
KQG2T08-10	8 mm	10 mm
KQG2T10-12	10 mm	12 mm
KQG2T12-16	12 mm	16 mm



Push-in reducer KQG2R



Blanking plug KQG2P

Push-in reducer KQG2R – reducing dimension

Part number	Tube outer diameter	Connection diameter
KQG2R23-04	3.2 mm	4 mm
KQG2R04-06	4 mm	6 mm
KQG2R06-08	6 mm	8 mm
KQG2R08-10	8 mm	10 mm
KQG2R10-12	10 mm	12 mm
KQG2R12-16	12 mm	16 mm

Blanking plug KQG2P – plugging connections

Part number	Tube outer diameter
KQG2P-23	3.2 mm
KQG2P-04	4 mm
KQG2P-06	6 mm
KQG2P-08	8 mm
KQG2P-10	10 mm
KQG2P-12	12 mm
KQG2P-16	16 mm

KFG2 – stainless fittings



Medium	Air, water and steam
Materials	Stainless steel (SUS316L); KFG2V: sealing in FKM
Working pressure	–100 kPa to 1.0 MPa (–1 to 10 bar)
Temperature	–65 to 260 °C; KFG2V: –5 to 150 °C
Lubrication	Grease-free design

- Food grade ■ Lightweight and compact
- Can be used with steam ■ Very wide temperature range



Straight connector
KFG2H

Straight connector KFG2H – for female thread

Part number	Tube diameter		Thread
	Outer	Inner	
KFG2H0425-01	4 mm	2.5 mm	1/8
KFG2H0425-02	4 mm	2.5 mm	1/4
KFG2H0403-01	4 mm	3 mm	1/8
KFG2H0403-02	4 mm	3 mm	1/4
KFG2H0604-01	6 mm	4 mm	1/8
KFG2H0604-02	6 mm	4 mm	1/4
KFG2H0806-01	8 mm	6 mm	1/8
KFG2H0806-02	8 mm	6 mm	1/4
KFG2H0806-03	8 mm	6 mm	3/8
KFG2H1075-02	10 mm	7.5 mm	1/4
KFG2H1075-03	10 mm	7.5 mm	3/8
KFG2H1075-04	10 mm	7.5 mm	1/2
KFG2H1008-02	10 mm	8 mm	1/4
KFG2H1008-03	10 mm	8 mm	3/8
KFG2H1008-04	10 mm	8 mm	1/2
KFG2H1209-02	12 mm	9 mm	1/4
KFG2H1209-03	12 mm	9 mm	3/8
KFG2H1209-04	12 mm	9 mm	1/2
KFG2H1210-02	12 mm	10 mm	1/4
KFG2H1210-03	12 mm	10 mm	3/8
KFG2H1210-04	12 mm	10 mm	1/2
KFG2H1613-03	16 mm	13 mm	3/8
KFG2H1613-04	16 mm	13 mm	1/2



Bulkhead union KFG2E

Bulkhead union KFG2E – for going through walls

Part number	Tube diameter	
	Outer	Inner
KFG2E0425-00	4 mm	2.5 mm
KFG2E0403-00	4 mm	3 mm
KFG2E0604-00	6 mm	4 mm
KFG2E0806-00	8 mm	6 mm
KFG2E1075-00	10 mm	7.5 mm
KFG2E1008-00	10 mm	8 mm
KFG2E1209-00	12 mm	9 mm
KFG2E1210-00	12 mm	10 mm
KFG2E1613-00	16 mm	13 mm



Straight connector
KFG2F

Straight connector KFG2F – for male thread

Part number	Tube diameter		Thread
	Outer	Inner	
KFG2F0425-02	4 mm	2.5 mm	1/4
KFG2F0403-02	4 mm	3 mm	1/4
KFG2F0604-02	6 mm	4 mm	1/4
KFG2F0806-03	8 mm	6 mm	3/8
KFG2F1075-03	10 mm	7.5 mm	3/8
KFG2F1008-03	10 mm	8 mm	3/8
KFG2F1209-03	12 mm	9 mm	3/8
KFG2F1210-03	12 mm	10 mm	3/8
KFG2F1613-04	16 mm	13 mm	1/2



Straight union KFG2H

Straight union KFG2H

Part number	Tube diameter	
	Outer	Inner
KFG2H0425-00	4 mm	2.5 mm
KFG2H0403-00	4 mm	3 mm
KFG2H0604-00	6 mm	4 mm
KFG2H0806-00	8 mm	6 mm
KFG2H1075-00	10 mm	7.5 mm
KFG2H1008-00	10 mm	8 mm
KFG2H1209-00	12 mm	9 mm
KFG2H1210-00	12 mm	10 mm
KFG2H1613-00	16 mm	13 mm

KFG2 – stainless fittings



Elbow connector KFG2L



Swivel elbow connector KFG2V

Elbow connector KFG2L – for female thread

Part number	Tube diameter		
	Outer	Inner	Thread
KFG2L0425-01	4 mm	2.5 mm	1/8
KFG2L0425-02	4 mm	2.5 mm	1/4
KFG2L0403-01	4 mm	3 mm	1/8
KFG2L0403-02	4 mm	3 mm	1/4
KFG2L0604-01	6 mm	4 mm	1/8
KFG2L0604-02	6 mm	4 mm	1/4
KFG2L0806-01	8 mm	6 mm	1/8
KFG2L0806-02	8 mm	6 mm	1/4
KFG2L0806-03	8 mm	6 mm	3/8
KFG2L1075-02	10 mm	7.5 mm	1/4
KFG2L1075-03	10 mm	7.5 mm	3/8
KFG2L1075-04	10 mm	7.5 mm	1/2
KFG2L1008-02	10 mm	8 mm	1/4
KFG2L1008-03	10 mm	8 mm	3/8
KFG2L1008-04	10 mm	8 mm	1/2
KFG2L1209-02	12 mm	9 mm	1/4
KFG2L1209-03	12 mm	9 mm	3/8
KFG2L1209-04	12 mm	9 mm	1/2
KFG2L1210-02	12 mm	10 mm	1/4
KFG2L1210-03	12 mm	10 mm	3/8
KFG2L1210-04	12 mm	10 mm	1/2
KFG2L1613-03	16 mm	13 mm	3/8
KFG2L1613-04	16 mm	13 mm	1/2

Swivel elbow connector KFG2V

– for female thread

Part number	Tube diameter		
	Outer	Inner	Thread
KFG2V0425-01	4 mm	2.5 mm	1/8
KFG2V0425-02	4 mm	2.5 mm	1/4
KFG2V0403-01	4 mm	3 mm	1/8
KFG2V0403-02	4 mm	3 mm	1/4
KFG2V0604-01	6 mm	4 mm	1/8
KFG2V0604-02	6 mm	4 mm	1/4
KFG2V0806-01	8 mm	6 mm	1/8
KFG2V0806-02	8 mm	6 mm	1/4
KFG2V0806-03	8 mm	6 mm	3/8
KFG2V1075-02	10 mm	7.5 mm	1/4
KFG2V1075-03	10 mm	7.5 mm	3/8
KFG2V1075-04	10 mm	7.5 mm	1/2
KFG2V1008-02	10 mm	8 mm	1/4
KFG2V1008-03	10 mm	8 mm	3/8
KFG2V1008-04	10 mm	8 mm	1/2
KFG2V1209-02	12 mm	9 mm	1/4
KFG2V1209-03	12 mm	9 mm	3/8
KFG2V1209-04	12 mm	9 mm	1/2
KFG2V1210-02	12 mm	10 mm	1/4
KFG2V1210-03	12 mm	10 mm	3/8
KFG2V1210-04	12 mm	10 mm	1/2
KFG2V1613-03	16 mm	13 mm	3/8
KFG2V1613-04	16 mm	13 mm	1/2



Union elbow KFG2L

Union elbow KFG2L

Part number	Tube diameter	
	Outer	Inner
KFG2L0425-00	4 mm	2.5 mm
KFG2L0403-00	4 mm	3 mm
KFG2L0604-00	6 mm	4 mm
KFG2L0806-00	8 mm	6 mm
KFG2L1075-00	10 mm	7.5 mm
KFG2L1008-00	10 mm	8 mm
KFG2L1209-00	12 mm	9 mm
KFG2L1210-00	12 mm	10 mm
KFG2L1613-00	16 mm	13 mm

KFG2 – stainless fittings



Branch Tee KFG2T



Union Tee KFG2T

Branch Tee KFG2T – for female thread

Part number	Tube diameter		
	Outer	Inner	Thread
KFG2T0425-01	4 mm	2.5 mm	1/8
KFG2T0425-02	4 mm	2.5 mm	1/4
KFG2T0403-01	4 mm	3 mm	1/8
KFG2T0403-02	4 mm	3 mm	1/4
KFG2T0604-01	6 mm	4 mm	1/8
KFG2T0604-02	6 mm	4 mm	1/4
KFG2T0806-01	8 mm	6 mm	1/8
KFG2T0806-02	8 mm	6 mm	1/4
KFG2T0806-03	8 mm	6 mm	3/8
KFG2T1075-02	10 mm	7.5 mm	1/4
KFG2T1075-03	10 mm	7.5 mm	3/8
KFG2T1075-04	10 mm	7.5 mm	1/2
KFG2T1008-02	10 mm	8 mm	1/4
KFG2T1008-03	10 mm	8 mm	3/8
KFG2T1008-04	10 mm	8 mm	1/2
KFG2T1209-02	12 mm	9 mm	1/4
KFG2T1209-03	12 mm	9 mm	3/8
KFG2T1209-04	12 mm	9 mm	1/2
KFG2T1210-02	12 mm	10 mm	1/4
KFG2T1210-03	12 mm	10 mm	3/8
KFG2T1210-04	12 mm	10 mm	1/2
KFG2T1613-03	16 mm	13 mm	3/8
KFG2T1613-04	16 mm	13 mm	1/2

Union Tee KFG2T

Part number	Tube outer diameter
KQG2T23-00	3.2 mm
KQG2T04-00	4 mm
KQG2T06-00	6 mm
KQG2T08-00	8 mm
KQG2T10-00	10 mm
KQG2T12-00	12 mm
KQG2T16-00	16 mm



Cap nut KFG2N

Cap nut KFG2N

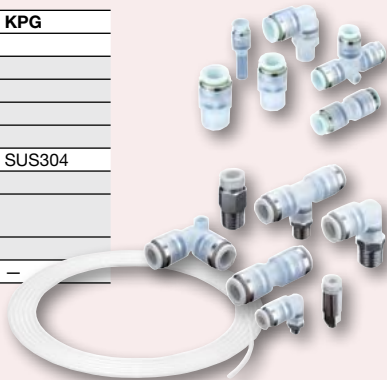
Part number	Tube outer diameter
KFG2N-04	4 mm
KFG2N-06	6 mm
KFG2N-08	8 mm
KFG2N-10	10 mm
KFG2N-12	12 mm
KFG2N-16	16 mm

KP – clean room fittings **TPH – tubing for clean rooms**

Type	TPH	KP	KPQ	KPG
Medium	Air, nitrogen, clean water		Air	
Working pressure	Max. 0.7 MPa (7 bar)	–0.1 to 1 MPa (–1 to 10 bar)		
Test pressure	4 MPa (40 bar)	3 MPa (30 bar)		
Operating temperature	–20 to 80 °C	–20 to 80 °C	–5 to 60 °C	
Materials	body	PP		
	stud	PP	Brass	SUS304
	chuck	SUS304		
	guide, release bush	PP		
	seals	EPDM	NBR	
	tubing	Polyolefin	–	–

The above figures are at 20 °C.

■ Components are cleaned, assembled and packaged in a cleanroom environment



Part number: push-in fittings for clean rooms

Stud material		Model		Applicable tube size		Port thread/tube connection	
KP	Plastic (PP)	H	Straight connector	04	4 mm	01	R 1/8 male thread
KPQ	Nickel plated brass	L	Elbow connector	06	6 mm	02	R 1/4 male thread
KPG	Stainless steel	T	Branch Tee	08	8 mm	03	R 3/8 male thread
		Y	Run Tee	10	10 mm	04	R 1/2 male thread
		U	Branch "Y"	12	12 mm	00	Same tube size (unions)
		R	Push-in reducer			04	4 mm (push-in reducer)
						06	6 mm (push-in reducer)
						08	8 mm (push-in reducer)
						10	10 mm (push-in reducer)
						12	12 mm (push-in reducer)

Blanking plug

Part number	Model
KPP-04	Blanking plug, tube connection 4 mm
KPP-06	Blanking plug, tube connection 6 mm
KPP-08	Blanking plug, tube connection 8 mm
KPP-10	Blanking plug, tube connection 10 mm
KPP-12	Blanking plug, tube connection 12 mm

LQ – high purity fluoropolymer fittings

Medium	Acid, alkalis, ultrapure water, etc.
Materials	Perfluoroalkoxy (PFA)
Max. operating temperature	200 °C
Colour	White transparent
Sealing	Patent pending fourfold design

Note! For these fittings use TL tubing.

- Patent pending seal design
- Excellent heat resistance
- Quick and easy to change the tube diameters

Contact SMC for more information.



LQ-G – tube fitting jig

- For installing TL tubing into LQ fittings

Contact SMC for more information.



TL – fluoropolymer tubing (for LQ fittings)

Materials	Super-PFA					
Max. operating temperature	260 °C (fixed use)					
Colour	White transparent; other colours on request					
Outer diameter	4 mm	6 mm	8 mm	10 mm	12 mm	19 mm
Inner diameter	3 mm	4 mm	6 mm	8 mm	10 mm	16 mm
Max. working pressure at 20 °C	1.0 MPa (10 bar)			0.9 MPa (9 bar)	0.7 MPa (7 bar)	0.6 MPa (6 bar)
Burst pressure at 20 °C	4.9 MPa (49 bar)	6.7 MPa (67 bar)	4.7 MPa (47 bar)	3.6 MPa (36 bar)	2.9 MPa (29 bar)	2.6 MPa (26 bar)

For use with LQ fittings and LV valves.

- Flexible
- Excellent heat resistance



Fluoropolymer tubing

Part number	Outer diameter	Inner diameter	Length
TL0403-20	4 mm	3 mm	20 m
TL0604-20	6 mm	4 mm	20 m
TL0806-20	8 mm	6 mm	20 m
TL1008-10	10 mm	8 mm	10 m
TL1210-10	12 mm	10 mm	10 m
TL1916-10	19 mm	16 mm	10 m

Other lengths on request.

TH – fluoropolymer tubing

Materials	FEP
Operating temperature	-20 to 200 °C
Colour	White transparent; other colours on request
Max. working pressure	See separate chart

- Excellent heat resistance

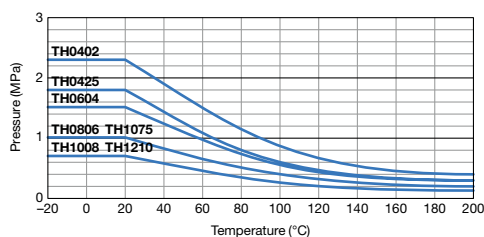


Fluoropolymer tubing

Part number	Outer diameter	Inner diameter	Length
TH0402N-20	4 mm	2 mm	20 m
TH0425N-20	4 mm	2.5 mm	20 m
TH0604N-20	6 mm	4 mm	20 m
TH0806N-20	8 mm	6 mm	20 m
TH1075N-20	10 mm	7.5 mm	20 m
TH1008N-20	10 mm	8 mm	20 m
TH1209N-20	12 mm	9 mm	20 m
TH1210N-20	12 mm	10 mm	20 m

Black, red and blue tubing on request.

Max. working pressure



TD – fluoropolymer tubing

Materials	PTFE
Operating temperature	0 to 260 °C
Colour	White transparent
Max. working pressure	See separate chart

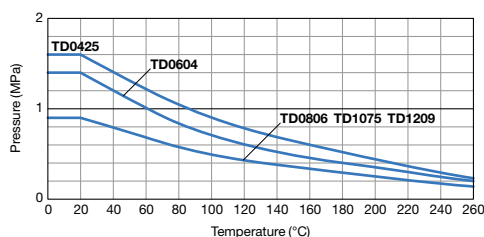
- Very flexible (20% better than series TL)
- Food grade



Fluoropolymer tubing

Part number	Outer diameter	Inner diameter	Length
TD0425-10	4 mm	2.5 mm	10 m
TD0604-10	6 mm	4 mm	10 m
TD0806-10	8 mm	6 mm	10 m
TD1075-10	10 mm	7.5 mm	10 m
TD1209-10	12 mm	9 mm	10 m
TD0425-20	4 mm	2.5 mm	20 m
TD0604-20	6 mm	4 mm	20 m
TD0806-20	8 mm	6 mm	20 m
TD1075-20	10 mm	7.5 mm	20 m
TD1209-20	12 mm	9 mm	20 m

Max. working pressure

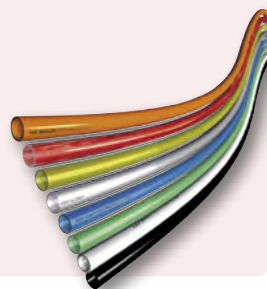


TU, TUH, T & TS – tubing

Materials	Polyurethane (T and TS: polyamide)						
Max. working pressure	TU: 0.8 MPa (8 bar); T: 1.5 MPa (15 bar); TS: 1 MPa (10 bar); TUH see below						
Operating temperature	Air -20 to 60 °C; Water 0 to 40 °C (not TUH)						
Tube outer diameter	3.2 mm	4 mm	6 mm	8 mm	10 mm	12 mm	16 mm
Minimum bending radius	TU	10 mm	10 mm	15 mm	20 mm	27 mm	35 mm
	TUH	—	10 mm	18 mm	24 mm	30 mm	36 mm
	T	—	13 mm	24 mm	48 mm	60 mm	75 mm
	TS	—	12 mm	15 mm	23 mm	27 mm	31 mm

The above figures are at 20 °C and single tubing.

■ Polyurethane tubing – very flexible



Polyurethane tubing TU – for compressed air and water
Single tubing, black; working pressure 0.8 MPa (8 bar)

Part number	Outer diameter	Inner diameter	Length
TIUB01B-20	3.18 mm	2 mm	20 m
TIUB01B-100-X3	3.18 mm	2 mm	100 m
TU0212B-20	2 mm	1.2 mm	20 m
TU0425B-20	4 mm	2.5 mm	20 m
TU0425B-100	4 mm	2.5 mm	100 m
TU0604B-20	6 mm	4 mm	20 m
TU0604B-100	6 mm	4 mm	100 m
TU0805B-20	8 mm	5 mm	20 m
TU0805B-100	8 mm	5 mm	100 m
TU1065B-20	10 mm	6.5 mm	20 m
TU1065B-100	10 mm	6.5 mm	100 m
TU1208B-20	12 mm	8 mm	20 m
TU1208B-100	12 mm	8 mm	100 m
TU1610B-20	16 mm	10 mm	20 m

Polyurethane tubing TU – for compressed air and water
Single tubing, blue; working pressure 0.8 MPa (8 bar)

Part number	Outer diameter	Inner diameter	Length
TIUB01BU-20	3.18 mm	2 mm	20 m
TIUB01BU-100-X3	3.18 mm	2 mm	100 m
TU0212BU-20	2 mm	1.2 mm	20 m
TU0425BU-20	4 mm	2.5 mm	20 m
TU0425BU-100	4 mm	2.5 mm	100 m
TU0604BU-20	6 mm	4 mm	20 m
TU0604BU-100	6 mm	4 mm	100 m
TU0805BU-20	8 mm	5 mm	20 m
TU0805BU-100	8 mm	5 mm	100 m
TU1065BU-20	10 mm	6.5 mm	20 m
TU1065BU-100	10 mm	6.5 mm	100 m
TU1208BU-20	12 mm	8 mm	20 m
TU1208BU-100	12 mm	8 mm	100 m
TU1610BU-20	16 mm	10 mm	20 m

Part number: tubing in other colours

TU0425 BU - 20

Colour	
B	Black
BU	Blue
G	Green
R	Red
W	White
Y	Yellow
C	Transparent
YR	Orange
S1	Silver

Length/roll	
20	20 meter
100	100 meter

For more colours, contact SMC.

TU, TUH, T & TS – tubing

Polyurethane tubing TUH – for air (not water)

Single tubing, black; working pressure 0.8 MPa (8 bar)

Part number	Outer diameter	Inner diameter	Length
TUH0428B-20	4 mm	2.8 mm	20 m
TUH0428B-100	4 mm	2.8 mm	100 m
TUH0644B-20	6 mm	4.4 mm	20 m
TUH0644B-100	6 mm	4.4 mm	100 m
TUH0858B-20	8 mm	5.8 mm	20 m
TUH0858B-100	8 mm	5.8 mm	100 m
TUH1073B-20	10 mm	7.3 mm	20 m
TUH1073B-100	10 mm	7.3 mm	100 m
TUH1288B-20	12 mm	8.8 mm	20 m
TUH1288B-100	12 mm	8.8 mm	100 m

Single tubing, black; working pressure 1 MPa (10 bar)

Part number	Outer diameter	Inner diameter	Length
TUH0425B-20	4 mm	2.5 mm	20 m
TUH0425B-100	4 mm	2.5 mm	100 m
TUH0604B-20	6 mm	4 mm	20 m
TUH0604B-100	6 mm	4 mm	100 m
TUH0805B-20	8 mm	5 mm	20 m
TUH0805B-100	8 mm	5 mm	100 m
TUH1065B-20	10 mm	6.5 mm	20 m
TUH1065B-100	10 mm	6.5 mm	100 m
TUH1208B-20	12 mm	8 mm	20 m
TUH1208B-100	12 mm	8 mm	100 m

Nylon tubing T – PA tubing

Single tubing, black

Part number	Outer diameter	Inner diameter	Length
T0425B-20	4 mm	2.5 mm	20 m
T0604B-20	6 mm	4 mm	20 m
T0806B-20	8 mm	6 mm	20 m
T1075B-20	10 mm	7.5 mm	20 m
T1209B-20	12 mm	9 mm	20 m
T1613B-20	16 mm	13 mm	20 m

Soft nylon tubing TS

Single tubing, black

Part number	Outer diameter	Inner diameter	Length
TS0425B-20	4 mm	2.5 mm	20 m
TS0604B-20	6 mm	4 mm	20 m
TS0806B-20	8 mm	6 mm	20 m
TS1075B-20	10 mm	7.5 mm	20 m
TS1209B-20	12 mm	9 mm	20 m
TS1612B-20	16 mm	12 mm	20 m

Polyurethane tubing TUH – for air (not water)

Single tubing, blue; working pressure 0.8 MPa (8 bar)

Part number	Outer diameter	Inner diameter	Length
TUH0428BU-20	4 mm	2.8 mm	20 m
TUH0428BU-100	4 mm	2.8 mm	100 m
TUH0644BU-20	6 mm	4.4 mm	20 m
TUH0644BU-100	6 mm	4.4 mm	100 m
TUH0858BU-20	8 mm	5.8 mm	20 m
TUH0858BU-100	8 mm	5.8 mm	100 m
TUH1073BU-20	10 mm	7.3 mm	20 m
TUH1073BU-100	10 mm	7.3 mm	100 m
TUH1288BU-20	12 mm	8.8 mm	20 m
TUH1288BU-100	12 mm	8.8 mm	100 m

Single tubing, blue; working pressure 1 MPa (10 bar)

Part number	Outer diameter	Inner diameter	Length
TUH0425BU-20	4 mm	2.5 mm	20 m
TUH0425BU-100	4 mm	2.5 mm	100 m
TUH0604BU-20	6 mm	4 mm	20 m
TUH0604BU-100	6 mm	4 mm	100 m
TUH0805BU-20	8 mm	5 mm	20 m
TUH0805BU-100	8 mm	5 mm	100 m
TUH1065BU-20	10 mm	6.5 mm	20 m
TUH1065BU-100	10 mm	6.5 mm	100 m
TUH1208BU-20	12 mm	8 mm	20 m
TUH1208BU-100	12 mm	8 mm	100 m

Nylon tubing T – PA tubing

Single tubing, blue

Part number	Outer diameter	Inner diameter	Length
T0425BU-20	4 mm	2.5 mm	20 m
T0604BU-20	6 mm	4 mm	20 m
T0806BU-20	8 mm	6 mm	20 m
T1075BU-20	10 mm	7.5 mm	20 m
T1209BU-20	12 mm	9 mm	20 m
T1613BU-20	16 mm	13 mm	20 m

Soft nylon tubing TS

Single tubing, blue

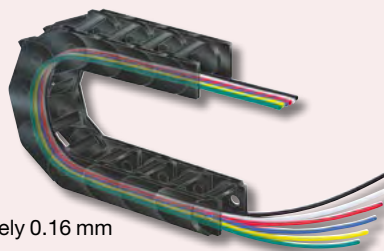
Part number	Outer diameter	Inner diameter	Length
TS0425BU-20	4 mm	2.5 mm	20 m
TS0604BU-20	6 mm	4 mm	20 m
TS0806BU-20	8 mm	6 mm	20 m
TS1075BU-20	10 mm	7.5 mm	20 m
TS1209BU-20	12 mm	9 mm	20 m
TS1612BU-20	16 mm	12 mm	20 m

TUZ – friction resistant polyurethane tubing



Medium	Air
Suitable fittings	KQ, KJ, KF, M, MS
Max. pressure	0.8 MPa (8 bar) at 20 °C
Operating temperature	-20 to 60 °C
Materials	Treated polyurethane

- Long life in cable trays or other applications where the tube walls are subjected to friction
- After 10 000 000 cycles wear in tube outer wall is approximately 0.16 mm



Friction resistant polyurethane tubing – single tubing, black

Part number	Outer diameter	Inner diameter	Length
TUZ0425B-20	4 mm	2.5 mm	20 m
TUZ0425B-100	4 mm	2.5 mm	100 m
TUZ0604B-20	6 mm	4 mm	20 m
TUZ0604B-100	6 mm	4 mm	100 m
TUZ0805B-20	8 mm	5 mm	20 m
TUZ0805B-100	8 mm	5 mm	100 m
TUZ1065B-20	10 mm	6.5 mm	20 m
TUZ1065B-100	10 mm	6.5 mm	100 m
TUZ1208B-20	12 mm	8 mm	20 m
TUZ1208B-100	12 mm	8 mm	100 m

Friction resistant polyurethane tubing – single tubing, blue

Part number	Outer diameter	Inner diameter	Length
TUZ0425BU-20	4 mm	2.5 mm	20 m
TUZ0425BU-100	4 mm	2.5 mm	100 m
TUZ0604BU-20	6 mm	4 mm	20 m
TUZ0604BU-100	6 mm	4 mm	100 m
TUZ0805BU-20	8 mm	5 mm	20 m
TUZ0805BU-100	8 mm	5 mm	100 m
TUZ1065BU-20	10 mm	6.5 mm	20 m
TUZ1065BU-100	10 mm	6.5 mm	100 m
TUZ1208BU-20	12 mm	8 mm	20 m
TUZ1208BU-100	12 mm	8 mm	100 m

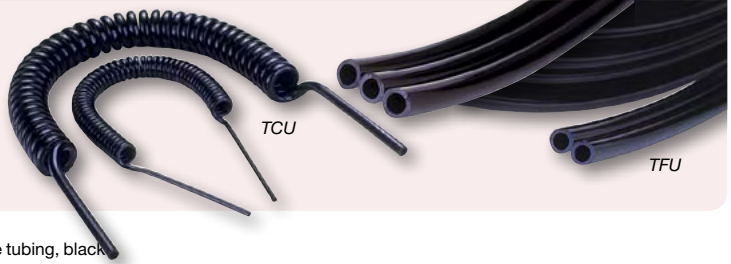
For other colours, contact SMC.

TCU – spiral tubing

TFU – double/triple tubing

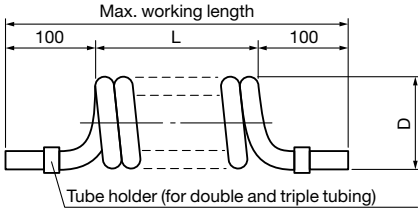
Materials	Polyurethane
Max. working pressure	0.8 MPa (8 bar)
Operating temperature	-20 to 60 °C

- Very flexible
- Flexibility allows compact installation



Spiral tubing TCU – polyurethane, single tubing, black

Part number	Tubes	Outer diameter	Inner diameter	L	D	Max. length
TCU0425B-1	1	4 mm	2.5 mm	210 mm	18 mm	1.5 m
TCU0425B-2	2	4 mm	2.5 mm	280 mm	28 mm	1.5 m
TCU0425B-3	3	4 mm	2.5 mm	265 mm	28 mm	1.0 m
TCU0604B-1	1	6 mm	4 mm	325 mm	24 mm	2.0 m
TCU0604B-2	2	6 mm	4 mm	325 mm	37 mm	1.5 m
TCU0604B-3	3	6 mm	4 mm	305 mm	37 mm	1.0 m
TCU0805B-1	1	8 mm	5 mm	330 mm	31 mm	2.0 m



Double/triple tubing TFU – polyurethane, black

Part number	Tubes	Outer diameter	Inner diameter	Length	Bending radius
TFU0425B-2	2	4 mm	2.5 mm	10 m	10 mm
TFU0425B-3	3	4 mm	2.5 mm	10 m	10 mm
TFU0604B-2	2	6 mm	4 mm	10 m	15 mm
TFU0604B-3	3	6 mm	4 mm	10 m	15 mm
TFU0805B-2	2	8 mm	5 mm	10 m	20 mm
TFU0805B-3	3	8 mm	5 mm	10 m	20 mm

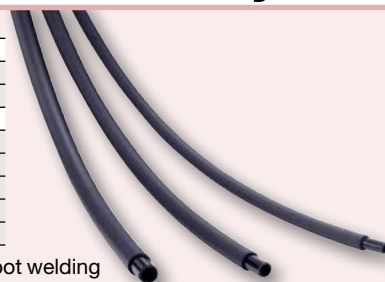
Double tubing TFU – polyurethane, black/blue

Part number	Outer diameter	Inner diameter	Length
TFU0425B-BU-2-100-BNL	4 mm	2.5 mm	50 m
TFU0604B-BU-2-100-BNL	6 mm	4 mm	50 m
TFU0805B-BU-2-100-BNL	8 mm	6 mm	50 m

TRBU – flame resistant polyurethane tubing with double layers

Type	TRBU0604	TRBU0805	TRBU1065	TRBU1208
Medium	Air, industrial water			
Max. working pressure	0.8 MPa (8 bar)			
Bending radius	15 mm	20 mm	27 mm	35 mm
Operating temperature	-20 to 60 °C (water: 0 to 40 °C)			
Burst pressure	See below			
Materials - Inner tube	Polyurethane			
Outer layer	Polyolefin			
Colour	Black, white, red			

- Flexible tubing for environments with sparks from, for example, spot welding
- Construction with double layers
- Flame resistant plastic in outer layer



Flame resistant polyurethane tubing – black

Part number	Outer diameter	Inner diameter	Length
TRBU0604B-20	6 mm	4 mm	20 m
TRBU0604B-100	6 mm	4 mm	100 m
TRBU0805B-20	8 mm	5 mm	20 m
TRBU0805B-100	8 mm	5 mm	100 m
TRBU1065B-20	10 mm	6.5 mm	20 m
TRBU1065B-100	10 mm	6.5 mm	100 m
TRBU1208B-20	12 mm	8 mm	20 m
TRBU1208B-100	12 mm	8 mm	100 m

Red and white available on request.

Stripping tool TKS – for TRBU-tubing

Part number	For outer diameter
TKS-06	6 mm
TKS-08	8 mm
TKS-10	10 mm
TKS-12	12 mm



- Easily strips TRBU's outer layer
- Simplifies installation
- Can be powered by a conventional drill

TRTU – flame resistant polyurethane tubing with triple layers

Type	TRTU0604	TRTU0805	TRTU1065	TRTU1208
Medium	Air, water			
Suitable fittings	KFG2, KQB2, KQG2, KR			
Max. working pressure	0.8 MPa (8 bar)			
Bending radius	50 mm	60 mm	70 mm	80 mm
Operating temperature	-20 to 60 °C			
Materials - Inner tube	Polyurethane			
Middle layer	Aluminium film			
Outer layer	Polyolefin			

- Flexible tubing for spark-rich environments
- Flame resistant outer layer
- Reinforced with protective middle layer
- Flame resistance corresponding to UL-94 standard V-0



Flame resistant polyurethane tubing – black

Part number	Outer diameter	Inner diameter	Length
TRTU0604B-20	6 mm	4 mm	20 m
TRTU0604B-100	6 mm	4 mm	100 m
TRTU0805B-20	8 mm	5 mm	20 m
TRTU0805B-100	8 mm	5 mm	100 m
TRTU1065B-20	10 mm	6.5 mm	20 m
TRTU1065B-100	10 mm	6.5 mm	100 m
TRTU1208B-20	12 mm	8 mm	20 m
TRTU1208B-100	12 mm	8 mm	100 m

Stripping tool YS – for TRTU tubing

Part number
YS-100



VMG – air gun

Medium	Air
Working pressure	0 to 1 MPa (0 to 10 bar)
Operating temperature	0 to 60 °C
Effective cross section area	30 mm ² (without nozzle)
Connection port	G1/4 or G3/8
Port nozzle	Rc1/4
Weight	180 g



- Large effective area – supply pressure (and air consumption) can be reduced without sacrificing power
- Environmentally friendly – all used parts can be separated and recycled
- Ergonomically designed
- Shock resistant plastic

Air gun

Part number	Design	Conn.
VMG11BU-F02	Connection below handle, blue	G1/4
VMG12BU-F02	Connection above handle, blue	G1/4
VMG11BU-F03	Connection below handle, blue	G3/8
VMG12BU-F03	Connection above handle, blue	G3/8
VMG11W-F02	Connection below handle, white	G1/4
VMG12W-F02	Connection above handle, white	G1/4
VMG11W-F03	Connection below handle, white	G3/8
VMG12W-F03	Connection above handle, white	G3/8

Nozzle ordered separately.



Nozzle KN



Ejector nozzle KNH



Silenced nozzle KNS



Pipe nozzle KNL

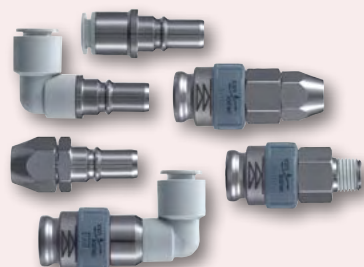
Accessories

Part number	Design	Diameter
KN-R02-100	Nozzle	1 mm
KN-R02-150	Nozzle	1.5 mm
KN-R02-200	Nozzle	2 mm
KN-R02-250	Nozzle	2.5 mm
KNH-R02-100	Ejector nozzle	1 mm
KNH-R02-150	Ejector nozzle	1.5 mm
KNH-R02-200	Ejector nozzle	2 mm
KNS-R02-075-4	Silenced nozzle	4 × 0.75 mm
KNS-R02-090-8	Silenced nozzle	8 × 0.9 mm
KNS-R02-100-4	Silenced nozzle	4 × 1 mm
KNS-R02-110-8	Silenced nozzle	8 × 1.1 mm
KNL3-06-150A02	Pipe nozzle with connection to air gun, 300 mm	1.5 mm
KNL3-06-200A02	Pipe nozzle with connection to air gun, 300 mm	2 mm
KNL6-06-150A02	Pipe nozzle with connection to air gun, 600 mm	1.5 mm
KNL6-06-200A02	Pipe nozzle with connection to air gun, 600 mm	2 mm

KK & KKH – quick fittings

Type	KK2	KK3/KKH3	KK4/KKH4	KK6
Medium	Air, water			
Working pressure	–100 kPa to 1 MPa	–90 kPa to 1 MPa	0 to 1 MPa	0 to 1 MPa
Test pressure	1.5 MPa			
Operating temperature	–5 to 60 °C (5 to 40 °C water)			
Effective cross section area	3.8 mm ²	20 mm ²	39 mm ²	82 mm ²

Through unique design with high flow capacity, supply pressure can be reduced, thus reducing air consumption
 KKH is shock protected by use of high impact PBT outer materials
 Sockets have built-in check valves



Plug – push-in fitting, elbow connector

Part number	Size	Tube outer diameter
KK2P-23L	M5	3.2 mm
KK2P-04L	M5	4 mm
KK2P-06L	M5	6 mm
KK3P-04L	1/8	4 mm
KK3P-06L	1/8	6 mm
KK3P-08L	1/8	8 mm
KK3P-10L	1/8	10 mm
KK4P-06L	1/4	6 mm
KK4P-08L	1/4	8 mm
KK4P-10L	1/4	10 mm
KK4P-12L	1/4	12 mm
KK6P-12L	1/2	12 mm
KK6P-16L	1/2	16 mm

Plug – male thread

Part number	Size	R thread
KK2P-M5M	M5	M5
KK2P-01MS	M5	1/8
KK3P-01MS	1/8	1/8
KK3P-02MS	1/8	1/4
KK4P-01MS	1/4	1/8
KK4P-02MS	1/4	1/4
KK4P-03MS	1/4	3/8
KK4P-04MS	1/4	1/2
KK6P-03MS	1/2	3/8
KK6P-04MS	1/2	1/2
KK6P-06MS	1/2	3/4

Plug – female thread

Part number	Size	Rc thread
KK2P-M5F	M5	M5
KK3P-01F	1/8	1/8
KK4P-02F	1/4	1/4
KK4P-03F	1/4	3/8
KK6P-03F	1/2	3/8
KK6P-04F	1/2	1/2



Plug – push-in, elbow



Plug – male thread



Plug – female thread



Plug – push-in, straight



Plug – push-in, bulkhead union



Plug – with lock nut

Plug – push-in fitting, straight connector

Part number	Size	Tube outer diameter
KK2P-23H	M5	3.2 mm
KK2P-04H	M5	4 mm
KK2P-06H	M5	6 mm
KK3P-04H	1/8	4 mm
KK3P-06H	1/8	6 mm
KK3P-08H	1/8	8 mm
KK3P-10H	1/8	10 mm
KK4P-06H	1/4	6 mm
KK4P-08H	1/4	8 mm
KK4P-10H	1/4	10 mm
KK4P-12H	1/4	12 mm
KK6P-12H	1/2	12 mm
KK6P-16H	1/2	16 mm

Plug – push-in fitting, bulkhead union

Part number	Size	Tube outer diameter
KK2P-23E	M5	3.2 mm
KK2P-04E	M5	4 mm
KK2P-06E	M5	6 mm
KK3P-04E	1/8	4 mm
KK3P-06E	1/8	6 mm
KK3P-08E	1/8	8 mm
KK3P-10E	1/8	10 mm
KK4P-06E	1/4	6 mm
KK4P-08E	1/4	8 mm
KK4P-10E	1/4	10 mm
KK4P-12E	1/4	12 mm
KK6P-12E	1/2	12 mm
KK6P-16E	1/2	16 mm

Plug – with lock nut for use with reinforced polyurethane tubing

Part number	Size	Tube diameter	
		Outer	Inner
KK3P-50N	1/8	8 mm	5 mm
KK3P-60N	1/8	9 mm	6 mm
KK3P-65N	1/8	10 mm	6.5 mm
KK4P-50N	1/4	8 mm	5 mm
KK4P-60N	1/4	9 mm	6 mm
KK4P-65N	1/4	10 mm	6.5 mm
KK4P-80N	1/4	12 mm	8 mm
KK4P-85N	1/4	12.5 mm	8.5 mm
KK6P-80N	1/2	12 mm	8 mm
KK6P-85N	1/2	12.5 mm	8.5 mm
KK6P-110N	1/2	16 mm	11 mm

KK & KKH – quick fittings

Socket – male thread

Part number	Size	R thread
KK2S-M5M	M5	M5
KK2S-01MS	M5	1/8
KK3S-01MS	1/8	1/8
KK3S-02MS	1/8	1/4
KKH3S-01MS	1/8	1/8
KKH3S-02MS	1/8	1/4
KK4S-01MS	1/4	1/8
KK4S-02MS	1/4	1/4
KK4S-03MS	1/4	3/8
KK4S-04MS	1/4	1/2
KKH4S-01MS	1/4	1/8
KKH4S-02MS	1/4	1/4
KKH4S-03MS	1/4	3/8
KKH4S-04MS	1/4	1/2
KK6S-03MS	1/2	3/8
KK6S-04MS	1/2	1/2
KK6S-06MS	1/2	3/4

Socket – female thread

Part number	Size	Rc thread
KK2S-M5F	M5	M5
KKH3S-01F	1/8	1/4
KK3S-01F	1/8	1/8
KK4S-02F	1/4	1/4
KK4S-03F	1/4	3/8
KKH4S-02F	1/4	1/8
KKH4S-03F	1/4	1/4
KK6S-03F	1/2	3/8
KK6S-04F	1/2	1/2



Socket KK
– male thread



Socket KK
– female thread



Socket KKH
– male thread



Socket KKH
– female thread

Socket – push-in fitting, straight connector

Part number	Size	Tube outer diameter
KK2S-23H	M5	3.2 mm
KK2S-04H	M5	4 mm
KK2S-06H	M5	6 mm
KK3S-04H	1/8	4 mm
KK3S-06H	1/8	6 mm
KK3S-08H	1/8	8 mm
KK3S-10H	1/8	10 mm
KK4S-06H	1/4	6 mm
KK4S-08H	1/4	8 mm
KK4S-10H	1/4	10 mm
KK4S-12H	1/4	12 mm
KK6S-12H	1/2	12 mm
KK6S-16H	1/2	16 mm

Socket – push-in fitting, bulkhead union

Part number	Size	Tube outer diameter
KK2S-23E	M5	3.2 mm
KK2S-04E	M5	4 mm
KK2S-06E	M5	6 mm
KK3S-04E	1/8	4 mm
KK3S-06E	1/8	6 mm
KK3S-08E	1/8	8 mm
KK3S-10E	1/8	10 mm
KK4S-06E	1/4	6 mm
KK4S-08E	1/4	8 mm
KK4S-10E	1/4	10 mm
KK4S-12E	1/4	12 mm
KK6S-12E	1/2	12 mm
KK6S-16E	1/2	16 mm

Socket – push-in fitting, elbow connector

Part number	Size	Tube outer diameter
KK2S-23L	M5	3.2 mm
KK2S-04L	M5	4 mm
KK2S-06L	M5	6 mm
KK3S-04L	1/8	4 mm
KK3S-06L	1/8	6 mm
KK3S-08L	1/8	8 mm
KK3S-10L	1/8	10 mm
KK4S-06L	1/4	6 mm
KK4S-08L	1/4	8 mm
KK4S-10L	1/4	10 mm
KK4S-12L	1/4	12 mm
KK6S-12L	1/2	12 mm
KK6S-16L	1/2	16 mm

Socket – with lock nut for use with reinforced polyurethane tubing

Part number	Size	Tube diameter	
		Outer	Inner
KK3S-50N	1/8	8 mm	5 mm
KK3S-60N	1/8	9 mm	6 mm
KK3S-65N	1/8	10 mm	6.5 mm
KKH3S-50N	1/8	8 mm	5 mm
KKH3S-60N	1/8	9 mm	6 mm
KKH3S-65N	1/8	10 mm	6.5 mm
KK4S-50N	1/4	8 mm	5 mm
KK4S-60N	1/4	9 mm	6 mm
KK4S-65N	1/4	10 mm	6.5 mm
KK4S-80N	1/4	12 mm	8 mm
KK4S-85N	1/4	12.5 mm	8.5 mm
KKH4S-50N	1/4	8 mm	5 mm
KKH4S-60N	1/4	9 mm	6 mm
KKH4S-65N	1/4	10 mm	6.5 mm
KKH4S-80N	1/4	12 mm	8 mm
KKH4S-85N	1/4	12.5 mm	8.5 mm
KK6S-80N	1/2	12 mm	8 mm
KK6S-85N	1/2	12.5 mm	8.5 mm
KK6S-110N	1/2	16 mm	11 mm



Socket – push-in,
straight

Socket – push-in,
elbow

Socket – push-in,
bulkhead union



Socket KK
– with lock nut



Socket KKH
– with lock nut

KK130 – quick fittings



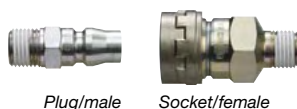
Medium	Air (not water)
Working pressure	0–1.5 MPa (0–15 bar); push-in fitting: 0–1 MPa (0–10 bar)
Operating temperature	–20 to 80 °C; push-in fitting: –5 to 60 °C
Surface treatment	Zinc chromated body with nickel plated sleeve

- High flow capacity and low pressure drop results in energy savings
- Connection of the plug and socket requires small force
- Available with push-in fittings and locking sockets
- Sockets have built-in check valves



Plug/male – male thread

Part number	Connection
KK130P-01MS	R1/8
KK130P-02MS	R1/4
KK130P-03MS	R3/8
KK130P-04MS	R1/2



Plug/male

Socket/female

Plug/male – female thread

Part number	Connection
KK130P-01F	Rc1/8
KK130P-02F	Rc1/4



Plug/male

Socket/female

Plug/male – barb fitting

Part number	Connection
KK130P-07B	6 mm (1/4")
KK130P-09B	8 mm (1/4")
KK130P-11B	9 mm (3/8")
KK130P-13B	12 mm (1/2")



Plug/male

Socket/female

Socket/female – male thread

Part number	Connection
KK130S-01MS	R1/8
KK130S-02MS	R1/4
KK130S-03MS	R3/8
KK130S-04MS	R1/2

Locking

Part number	Connection
KK130L-01MS	R1/8
KK130L-02MS	R1/4
KK130L-03MS	R3/8
KK130L-04MS	R1/2

Socket/female – female thread

Part number	Connection
KK130S-01F	Rc1/8
KK130S-02F	Rc1/4

Locking

Part number	Connection
KK130L-01F	Rc1/8
KK130L-02F	Rc1/4

Socket/female – barb fitting

Part number	Connection
KK130S-07B	6 mm (1/4")
KK130S-09B	8 mm (1/4")
KK130S-11B	9 mm (3/8")
KK130S-13B	12 mm (1/2")

Locking

Part number	Connection
KK130L-07B	6 mm (1/4")
KK130L-09B	8 mm (1/4")
KK130L-11B	9 mm (3/8")
KK130L-13B	12 mm (1/2")

KK130 – quick fittings

Plug/male – push-in fitting

Part number	Tube outer diameter
KK130P-06H	6 mm
KK130P-08H	8 mm
KK130P-10H	10 mm
KK130P-12H	12 mm



Plug/male

Socket/female

Socket/female – push-in fitting

Part number	Tube outer diameter
KK130S-06H	6 mm
KK130S-08H	8 mm
KK130S-10H	10 mm
KK130S-12H	12 mm

Locking

Part number	Tube outer diameter
KK130L-06H	6 mm
KK130L-08H	8 mm
KK130L-10H	10 mm
KK130L-12H	12 mm

Plug/male – cap nut

Part number	Tube inner diameter	Tube outer diameter
KK130P-50N	5 mm	8 mm
KK130P-60N	6 mm	9 mm
KK130P-65N	6.5 mm	10 mm
KK130P-80N	8 mm	12 mm
KK130P-85N	8.5 mm	12.5 mm
KK130P-110N	11 mm	16 mm



Plug/male

Socket/female

Socket/female – cap nut

Part number	Tube inner diameter	Tube outer diameter
KK130S-50N	5 mm	8 mm
KK130S-60N	6 mm	9 mm
KK130S-65N	6.5 mm	10 mm
KK130S-80N	8 mm	12 mm
KK130S-85N	8.5 mm	12.5 mm
KK130S-110N	11 mm	16 mm

Locking

Part number	Tube inner diameter	Tube outer diameter
KK130L-50N	5 mm	8 mm
KK130L-60N	6 mm	9 mm
KK130L-65N	6.5 mm	10 mm
KK130L-80N	8 mm	12 mm
KK130L-85N	8.5 mm	12.5 mm
KK130L-110N	11 mm	16 mm

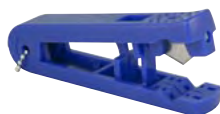
KKK – quick fittings

- Quick fittings in stainless SUS303 material for water and air
- Seals in FKM
- Plugs and sockets have built-in check valves

Contact SMC for more information.



Accessories



Tube cutter

Tube cutter should be used to ensure that the tubing gets a perpendicular cut, and to avoid shavings.

Part number

TK-3



Tube cutter

A rugged cutter for high demands and tough use.

Part number

TK-1



Tube removal tool

In tight applications, this tool can simplify release of tubing from push-in fittings. For tubing with outer diameter 4 or 6 mm.

Part number

TG-1



Multi-tube holder

Secure the tubing with these holders to obtain clean and tidy installations. Number of tubes can be adapted with a side cutter. Comes with screw holes.

Part number	Tube diameter	Number of tubes
TM-04	4 mm	12
TM-06	6 mm	12
TM-08	8 mm	8
TM-10	10 mm	8
TM-12	12 mm	8



Tube rack

Part number	Tube diameter
TB-2	4–12 mm

Tube reels (tubing ordered separately)

Part number	Tube diameter
TBR-1	4 or 6 mm
TBR-2	8 mm
TBR-3	10 mm
TBR-4	12 mm



Fitting cases – with fittings

For lists of included parts, contact SMC.



Fitting cabinets – on wheels, with 15 lockable drawers

Part number
MD17-L

Contact SMC for specific offer.

