Antistatic One-touch Fittings Series KA

One-touch fitting with antistatic prevention

One-touch IN/OUT

connection. Possible to use from vacuum (–100 kPa).

Can be used in copper-free application.

Flame resistance (Equivalent to UL-94 standard, material V-0)

Surface resistance 10⁴ to 10⁷ Ω

Conductive resin is used for body and seals in fittings and tubing.



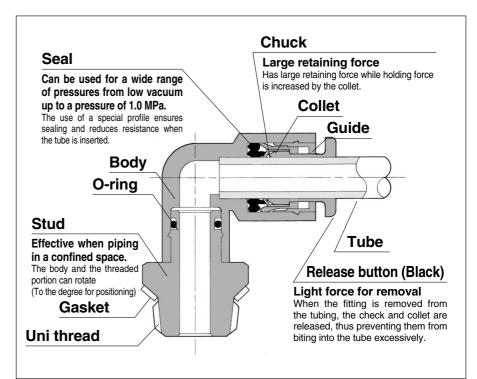
Principal Parts Material

Body	C3604BD, PBT
Stud	C3604BD
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604BD, PBT
Collet, Release button	PBT
Seal, O-ring	NBR

• C3604BD is all electroless nickel plated.

• PBT parts have conductive $(10^4 \text{ to } 10^7 \Omega)$ and flame resistant applications. (UL-standard, V-0)

• Conductive NBR (10^4 to $10^7\Omega$) is used for seals.



Applicable Tubing

Tubing material	Antistatic soft nylon, Polyurethane
Tubing O.D.	ø3.2, ø4, ø6, ø8, ø10, ø12

Specifications

SMC

Fluid	Air
Maximum operating pressure	1.0 MPa
Operating vacuum pressure	–100 kPa
Proof pressure	3.0 MPa
Ambient and fluid temperature	0 to 40°C
Thread	Uni thread JIS B 0209 Class 2 (Metric coarse thread)
Seal (Thread portion)	Gasket
Copper-free	Brass parts are all electroless nickel plated.
Surface resistance	10 ⁴ to 10 ⁷ Ω

Male	Connector:	KAH
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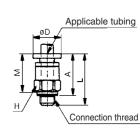
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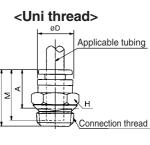
<Uni thread>

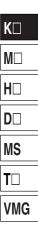
<M5. M6>

Applicable tubing O.D.		Model	H (width across	øD	L	A *	М	(m	/e area m²)	Weight (g)
(mm)	Uni thread		flats)					Soft nylon	Urethane	(9)
	M5 x 0.8	KAH23-M5	7		17	14				2.1
3.2	M6 x 1	KAH23-M6	8	8.5	17.5	17	13	3.4	2.9	2.1
	1⁄8	KAH23-U01	10		12.5	8.5				4
	M5 x 0.8	KAH04-M5		9.5	17	14	13	4	4	2
	M6 x 1	KAH04-M6	8	9.0	17.5	14	13	4	4	2
4	1⁄8	KAH04-U01	10	10	18.5	13.5	16	5.6	5.6	5
	1/4	KAH04-U02	14	10	16.5	10.5	10	0.0	5.0	10
	M5 x 0.8	KAH06-M5	10	44 5	18.5	15	14	4	4	_
	M6 x 1	KAH06-M6	10	11.5	19	15	14	4	4	3
6	1⁄8	KAH06-U01	12		10 5	14.5				5
	1/4	KAH06-U02	14	12	19.5	13	17	13.1	13.1	10
	3⁄8	KAH06-U03	17		17.5	11.5				16
	1⁄8	KAH08-U01	14		25	20.5				11
8	1/4	KAH08-U02	14	14	21.5	15.5	18.5	18.0	18.0	27
	3⁄8	KAH08-U03	17		19.5	13.5				33
	1⁄8	KAH10-U01			00	23				
10	1/4	KAH10-U02	17	47	28	22				17
10	3⁄8	KAH10-U03	1	17	24	18	21	29.5	29.5	14
	1/2	KAH10-U04	22		22	14				28
	1/4	KAH12-U02	10		30.5	24.5				22
12	3⁄8	KAH12-U03	19	19	25.5	19.5	22	46.1	46.1	16
	1/2	KAH12-U04	22		24.5	16.5			40.1	28
* Reference		ons after Uni t	hread	install						

<M5, M6>



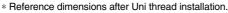




Reference dimensions after Uni thread installation.

Male Elbow: KAL

<m5, m6=""></m5,>	Applicable tubing O.D. (mm)	Connection thread M thread Uni thread	Model	H (width across flats)	øD1	øD2	L1	L2	A *	М	(m	ve area m²) Urethane	Weight (g)	<m5, m6=""></m5,>
		M5 x 0.8	KAL23-M5			_		15	16				6	Applicable tubing
	3.2	M6 x 1	KAL23-M6	8	9.6	8	17.5	15.5	16	15.5	3.4	2.9	7	
😵 👷 verstenstense 🖗		1⁄8	KAL23-U01	10		10		19.5	21				8	M
		M5 x 0.8	KAL04-M5	_		8		15.5	16		0.5	0 F	4	
		M6 x 1	KAL04-M6	8	10.4	8	18	16	16	16	3.5	3.5	5	
	4	1⁄8	KAL04-U01	10	10.4	10	18	20	20.5	10	4.2	4.2	8	
		1/4	KAL04-U02	14		10		22	21.5		4.2	4.2	14	N ØD2
		M5 x 0.8	KAL06-M5	- 8		8		16	18		3.5	3.5	6	
		M6 x 1	KAL06-M6] °		0		16.5	10		3.5	3.5	5	Connection thread
	6	1⁄8	KAL06-U01	10	12.8		20	21.5	23.5	17			9 15	Connection thread
		1⁄4	KAL06-U02	14		10		23	20.0		11.4	11.4	15	
<uni thread=""></uni>		3⁄8	KAL06-U03	17				24	24.5				23	<uni thread=""></uni>
		1⁄8	KAL08-U01	12				22.5	25.5				11	Applicable tubing
	8	1/4	KAL08-U02	14	15.2	12	23	24.5	26	18.5	14.9	14.9	16	
		3⁄8	KAL08-U03	17				25.5	27				24	
Contraction of the		1⁄8	KAL10-U01					25	29.5		14.9	14.9	24	
	10	1⁄4	KAL10-U02	17	18.5	17	26.5	26.5		21			21	
	10	3⁄8	KAL10-U03		10.0		20.0	27	30.5	21	25.0	25.0	25	
		1/2	KAL10-U04	22				30	31.5				45	
		1/4	KAL12-U02	17				27	31.5				23	
	12	³ ⁄8	KAL12-U03		20.9	17	28.5	28		22	39.7	39.7	27	Connection thread
		1/2	KAL12-U04	22				31	33.5				48	
	* Roforo	nco dimo	neione aftar l	Ini thr	aad in	etalla	tion							

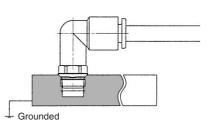


APrecautions

Be sure to read before handling. Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 15-1-11 for Precautions on every series.

🗥 Caution

1. Female thread portion connected with fitting must be grounded, otherwise static electricity will remain in the fittings and tubes.



Series KA

Male Branch Tee: KAT

Male Branch Tee:	NAI															
<m5, m6=""></m5,>	Applicable tubing O.D. (mm)	Connection thread M thread Uni thread	Model	H (width across flats)	øD1	øD2	L1	L2	A *	М		/e area m²) Urethane	(n)			
		M5 x 0.8	KAT23-M5	8		8		15	16					2-applicable tubing		
	3.2	M6 x 1	KAT23-M6	8	9.6	0	17.5	15.5	10	15.5	3.4	2.9	8	<u>L1 L1 /</u>		
		1⁄8	KAT23-U01	10		10		19.5	21				9			
		M5 x 0.8	KAT04-M5	8		8		15.5	17		4.3	4.3	6	┦╺ <u>┥</u> ┠╴┈╶╟┼┼╔╴┈╌┝┠┥╤┦		
	4	M6 x 1	KAT04-M6	0	10.4	0	18	16	17	16	4.3	4.5	0			
	4	1⁄8	KAT04-U01	10		10		20	21.5		6.0	6.0	9			
		1⁄4	KAT04-U02	14				22	21.0		0.0	0.0	15			
		M5 x 0.8	KAT06-M5	8		8		16	18		4.3	4.3	7	øD2		
		M6 x 1	KAT06-M6	_		8	20	16.5		23.5 17			-			
	6	1/8	KAT06-U01	10	12.8			21.5	23.5				10			
<uni thread=""></uni>		1/4	KAT06-U02	14		10		23			13.9	13.9	16	<uni thread=""></uni>		
		3/8	KAT06-U03	17			_	24	24.5				25			
	0	1/8	KAT08-U01	12 14	15.0			22.5	26	10 -	100		14	2-applicable tubing		
	8	1/4	KAT08-U02		15.2	12	23	24.5		18.5	18.2	18.2	19			
	-	3⁄8	KAT08-U03	17				25.5 25					27	M . L M		
		1/8 1/4	KAT10-U01 KAT10-U02	17					29.5 30				30 27			
	10	3/8	KAT10-002	17	18.5	17	26.5	26.5 27	30.5	21	29.0	29.0	31			
		9/8 1/2	KAT10-003	22				30	31.5				51			
		1/4	KAT12-U02					27	31.5				31			
	12	3/8	KAT12-002	17	20.9	17	28.5		32.5		152	152	34	Connection thread		
	12	1/2	KAT12-003	22	_0.0	.,	20.0	31	33.5	~~	45.2	-J.2	54	·		
	* Boforo		nsions after I		ni hec	etalla [.]	tion		00.0	I			<u> </u>			

* Reference dimensions after Uni thread installation.

Male Run Tee: KAY

<m5, m6=""></m5,>	tubing O.D.		Model	H (width across	øD1	øD2	L1	L2	A *	м	Effectiv (mr	,	Weight (g)	<m5, m6=""></m5,>
-	(mm) 3.2	Uni thread M5 x 0.8 M6 x 1	KAY23-M5 KAY23-M6	flats) 8	9.6	8	17.5	15 15.5	28.5	15.5	Soft nylon 3.4	Urethane 2.9	8	2-applicable tubing
	0.2	1/8	KAY23-U01	10	9.0	10	17.5	19.5		15.5	5.4	2.5	9	
		M5 x 0.8 M6 x 1	KAY04-M5 KAY04-M6	8		8	18 18.5	15.5 16	29.5		4.6	4.6	6	
	4	1⁄8	KAY04-U01	10	10.4	10	18	20	34	16 -	6.4	6.4	9	
		1⁄4 M5 x 0.8	KAY04-U02 KAY06-M5	14			20	22 16	34.5			4.0	15	
-		M6 x 1	KAY06-M6	8	10.0	8	20.5	16.5			4.6	4.6	7	Connection thread
	6	1/8 1/4	KAY06-U01 KAY06-U02	10 14	12.8	10	20	21.5 23	37.5 37	17	13.4	13.4	10 16	<uni thread=""></uni>
<uni thread=""></uni>		3⁄8 1⁄8	KAY06-U03 KAY08-U01	17 12				24	38				25 14	
<i></i>	8	1/4	KAY08-U02	14	15.2	12	12 23	22.5 24.5	41.5	5 18.5	17.7	17.7	18	2-applicable tubing
		3⁄8 1⁄8	KAY08-U03 KAY10-U01	17				25.5 25	42.5 46.5				27 30	m /
	10	1/4	KAY10-001	17	18.5	17	26.5	26.5		21	00.4	28.4	27	
	10	3/8 1/2	KAY10-U03 KAY10-U04	22	10.5	17	20.5	27 30	48 49	21	28.4	20.4	<u>31</u> 51	
		1⁄4	KAY12-U02	17				27	49.5				31	
	12	3/8 1/2	KAY12-U03 KAY12-U04	22	20.9	17	28.5	28 31	50.5 51.5	22	45.4	45.4	35 55	
	* Refere		nsions after U		ead in	stalla	tion.							Connection thread

Weight

(g)

9

11 4

10 11

16

12

13

17

25 26

24

27

38

36

51

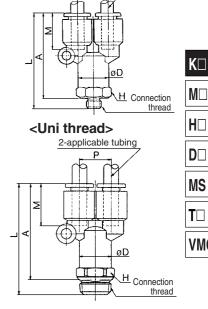
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52

52

<m5, m6=""></m5,>	Applicable tubing O.D.	Connection thread M thread	Model	H (width across	øD	L	Р	A *	м	(m	/e area m²)	W
	(mm)	Uni thread		flats)						Soft nylon	Urethane	
		M5 x 0.8	KAU23-M5	10		38				2.2	2.2	
	3.2	M6 x 1	KAU23-M6		9.6	38.5	9.6	34.5	15.5	2.2	2.2	
		1⁄8	KAU23-U01	11		50.5				3.4	2.9	
		M5 x 0.8	KAU04-M5			39.5				2.2	2.2	
	4	M6 x 1	KAU04-M6	11	10.4	40	10.4	36	16	2.2	2.2	
	4	1⁄8	KAU04-U01		10.4	40	10.4	00	10	4.2	4.2	
		1/4	KAU04-U02	14		42				7.2	7.2	
T		M5 x 0.8	KAU06-M5			42.5		39		2.2	2.2	
		M6 x 1	KAU06-M6	13		43		00		2.2	2.2	
	6	1⁄8	KAU06-U01		12.8	43.5	12.8	39.5	17			
<uni thread=""></uni>		1/4	KAU06-U02	14		45		39		13.4	13.4	L
		3⁄8	KAU06-U03	17		46		40				
		1⁄8	KAU08-U01			50.5		46.5				
	8	1/4	KAU08-U02	17	15.2	52	15.2	46	18.5	17.7	17.7	
		3⁄8	KAU08-U03			51.5		45.5				
		1/4	KAU10-U02	19		57.5		51.5				L
	10	3⁄8	KAU10-U03		18.5		18.5		21	28.4	28.4	L
		1/2	KAU10-U04	22		59		51				
		1⁄4	KAU12-U02			61		55				L
	12	3⁄8	KAU12-U03	22	20.9	-	20.9		22	45.4	45.4	L
		1/2	KAU12-U04			62.5		54.5				

Branch "Y": KAU



 $\mathsf{M}\square$

ΗD

D

MS

TΠ

VMG

<M5, M6>

2-applicable tubing

Ρ

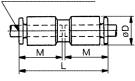
* Reference dimensions after Uni thread installation.

Straight Union: KAH



Applicable tubing O.D.	Model	øD	L	м	Effectiv (mi	/e area m²)	Weight (g)
(mm)					Soft nylon	Urethane	(9)
3.2	KAH23-00	9.6	31.5	15.5	3.4	2.9	3
4	KAH04-00	10.4	32.5	16	5.6	5.6	3
6	KAH06-00	12.8	34.5	17	13.1	13.1	4
8	KAH08-00	15.2	38.5	18.5	18.0	18.0	6
10	KAH10-00	18.5	42.5	21	29.5	29.5	11
12	KAH12-00	20.9	44.5	22	46.1	46.1	14

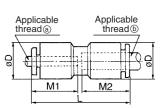
2-applicable tubing



Different Diameter Straight: KAH



Applicable tubing O.D. (mm)		Model	øD	øD L		M2	Effectiv (m	Weight	
a	b						Soft nylon	Urethane	(g)
3.2	4	KAH23-04	10.4	32.5	15.5	16	3.2	2.7	3
4	6	KAH04-06	12.8	34.5	16	17	4.2	4.2	4
6	8	KAH06-08	15.2	38.5	17	18.5	10.7	10.7	6
8	10	KAH08-10	18.5	42	18.5	21	16.7	16.7	11
10	12	KAH10-12	20.9	44.5	21	22	28.2	28.2	14

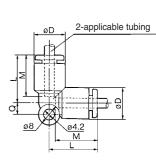


Series **KA**

Union Elbow: KAL

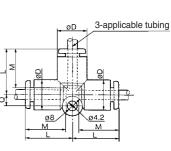


	Applicable tubing	Model	øD	L	Q	м	Effectiv (mi	Weight	
	O.D. (mm)						Soft nylon	Urethane	(g)
	3.2	KAL23-00	9.6	17.5	4.3	15.5	3.4	2.9	3
	4	KAL04-00	10.4	18	4.5	16	4.2	4.2	6
	6	KAL06-00	12.8	20	5.3	17	11.4	11.4	6
	8	KAL08-00	15.2	23	6	18.5	14.9	14.9	10
	10	KAL10-00	18.5	26.5	6.8	21	25.0	25.0	17
	12	KAL12-00	20.9	28.5	7.5	22	39.7	39.7	21



Union Tee: KAT

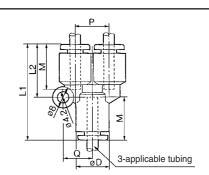
	Applicable tubing	Model	øD I	L	Q	м	Effective area (mm²)		Weight
	O.D. (mm)						Soft nylon	Urethane	(g)
	3.2	KAT23-00	9.6	17.5	4.3	15.5	3.4	2.9	5
	4	KAT04-00	10.4	18	4.5	16	6.4	6.9	7
No. of the second s	6	KAT06-00	12.8	20	5.3	17	13.4	13.4	10
 I 	8	KAT08-00	15.2	23	6	18.5	17.7	17.7	15
	10	KAT10-00	18.5	26.5	6.8	21	28.4	28.4	25
	12	KAT12-00	20.9	28.5	7.5	22	45.4	45.4	29



Union "Y": KAU



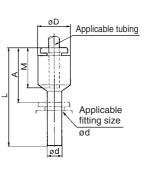
	olicable ubing	Model	øD	L1	L2	Р	Q	м		/e area m²)	Weight
0.0	D. (mm)								Soft nylon	Urethane	(g)
	3.2	KAU23-00	9.6	33	17.5	9.6	9	15.5	3.4	2.9	5
	4	KAU04-00	10.4	34	18	10.4	9.7	16	4.2	4.2	7
	6	KAU06-00	12.8	37	20	12.8	11.7	17	13.4	13.4	9
	8	KAU08-00	15.2	42.5	24.5	15.2	13.7	18.5	17.7	17.7	11
1	10	KAU10-00	18.5	48	27.5	18.5	16.1	21	28.4	28.4	16
1	12	KAU12-00	20.9	51	30	20.9	18.1	22	45.4	45.4	23



Plug-in Reducer: KAR

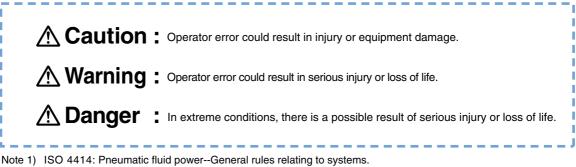
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Applicable tubing fitting size				øD L		м	Effective area (mm²)		Weight
O.D. (mm)	ød						Soft nylon	Urethane	(g)
3.2	4	KAR23-04	9.6	33.5	18.5	15.5	3.4	2.9	5
	6	KAR04-06	10.4 12.8	34.5	17.5	16	5.6	5.6	1.8
4	8	KAR04-08		36.5	18				2.0
	10	KAR04-10		39.5	18.5				3.3
	8	KAR06-08	12.8	37	18.5	17	13.1	13.1	2.5
6	10	KAR06-10		39.5	10.5				3.0
	12	KAR06-12		42	20				4.7
8	10	KAR08-10	15.2	41	20	18.5	18.0	18.0	4.0
	12	KAR08-12		42	20				4.6
10	12	KAR10-12	18.5	44.5	20	21	32.8	32.8	33



Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by labels of **"Caution", "Warning"** or **"Danger"**. To ensure safety, be sure to observe ISO 4414 ^{Note 1)}, JIS B 8370 ^{Note 2)} and other safety practices.



Note 2) JIS B 8370: General Rules for Pneumatic Equipment

Warning

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements. The expected performance and safety assurance will be the responsibility of the person who has determined the compatibility of the system. This person should continuously review the suitability of all items specified, referring to the latest catalog information with a view to giving due consideration to any possibility of equipment failure when configuring a system.

2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators.

- 3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.
 - 1. Inspection and maintenance of machinery/equipment should only be performed once measures to prevent falling or runaway of the driver objects have been confirmed.
 - 2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.
 - 3. Before machinery/equipment is restarted, take measures to prevent shooting-out of cylinder piston rod, etc.

4. Contact SMC if the product is to be used in any of the following conditions:

- 1. Conditions and environments beyond the given specifications, or if product is used outdoors.
- 2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, clutch and brake circuits in press applications, or safety equipment.
- 3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.

Common Precautions

Be sure to read before handling.

For detailed precautions on every series, refer to main text.

Selection

\land Warning

1. Confirm the specifications.

Products represented in this catalog are designed for use in compressed air appllications only (including vacuum), unless otherwise indicated.

Do not use the product outside their design parameters.

Please contact SMC when using the products in applications other than compressed air (including vacuum).

Mounting

A Warning

1. Instruction manual

Install the products and operate them only after reading the instruction manual carefully and understanding its contents. Also keep the manual where it can be referred to as necessary.

2. Securing the space for maintenance

When installing the products, please allow access for maintenance.

3. Tightening torque

When installing the products, please follow the listed torque specifications.

Piping

A Caution

1. Before piping

Make sure that all debris, cutting oil, dust, etc, are removed from the piping.

2. Wrapping of pipe tape

When screwing piping or fittings into ports, ensure that chips from the pipe threads or sealing material do not get inside the piping. Also, when the pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the threads.

Air Supply

A Warning

1. Operating fluid

Please consult with SMC when using the product in applications other than compressed air (including vacuum). Regarding products for general fluid, please ask SMC about applicable fluids.

2. Install an air dryer, aftercooler, etc.

Excessive condensate in a compressed air system may cause valves and other pneumatic equipment to malfunction. Installation of an air dryer, after cooler etc. is recommended.

3. Drain flushing

If condensate in the drain bowl is not emptied on a regular basis, the bowl will over flow and allow the condensate to enter the compressed air lines.

If the drain bowl is difficult to check and remove, it is recommended that a drain bowl with the auto-drain option be installed.

For compressed air quality, refer to "Air Preparation Equipment" catalog.

4. Use clean air

If the compressed air supply is contaminated with chemicals, cynthetic materials, corrosive gas, etc., it may lead to break down or malfunction.

Operating Environment

🗥 Warning

- 1. Do not use in environments where the product is directly exposed to corrosive gases, chemicals, salt water, water or steam.
- 2. Do not expose the product to direct sunlight for an extended period of time.
- 3. Do not use in a place subject to heavy vibrations and/or shocks.
- 4. Do not mount the product in locations where it is exposed to radiant heat.

Maintenance

🗥 Warning

1. Maintenance procedures are outlined in the operation manual.

Not following proper procedures could cause the product to malfunction and could lead to damage to the equipment or machine.

2. Maintenance work

If handled improperly, compressed air can be dangerous. Assembly, handling and repair of pneumatic systems should be performed by qualified personnel only.

3. Drain flushing

Remove drainage from air filters regularly. (Refer to the specifications.)

4. Shut-down before maintenance

Before attempting any kind of maintenance make sure the supply pressure is shut of and all residual air pressure is released from the system to be worked on.

5. Start-up after maintenance and inspection

Apply operating pressure and power to the equipment and check for proper operation and possible air leaks. If operation is abnormal, please verify product set-up parameters.

6. Do not make any modifications to be product. Do not take the product apart.



Quality Assurance Information (ISO 9001, ISO 14001)

Reliable quality of products in the global market

To enable our customers throughout the world to use our products with even greater confidence, SMC has obtained certification for international standards "ISO 9001" and "ISO 14001", and created a complete structure for quality assurance and environmental controls. SMC products to its pursue meet customers' expectations while also considering company's contribution in society.

Make customers our first priority, offering them reliable and triendly service. Create new products using the grouts using the first technology, and offer the first participation of all employees. Produce the highest quality with the participation of all employees. Create new products in a first technology, and offer the first participation of all employees. Market research Product planning After service. Sales coordination Quality system or quality system Training Training Training Production Research Design Design Design Development Production Process control Inspection, testing, etc. initial production control Process control

SMC's quality control system

Quality control activities

Quality management system ISO 9001

This is an international standard for quality control and quality assurance. SMC has obtained a large number of certifications in Japan and overseas, providing assurance to our customers throughout the world.



$\begin{array}{l} {\sf Environmental management system} \\ {\sf ISO \ 14001} \end{array}$

This is an international standard related to environmental management systems and environmental inspections. While promoting environmentally friendly automation technology, SMC is also making diligent efforts to preserve the environment.



SMC Product Conforming to Inter

SMC products complying with EN/ISO, CSA/UL standards are supporting



The CE mark indicates that machines and components meet essential requirements of all the EC Directives applied.

It has been obligatory to apply CE marks indicating conformity with EC Directives when machines and components are exported to the member Nations of the EU.

Once "A manufacturer himself" declares a product to be safe by means of CE marking (declaration of conformity by manufacturer), free distribution inside the member Nations of the EU is permissible.

CE Mark

SMC provides CE marking to products to which EMC and Low Voltage Directives have been applied, in accordance with CETOP (European hydraulics and pneumatics committee) guide lines.

■ As of February 1998, the following 18 countries will be obliged to conform to CE mark legislation

Iceland, Ireland, United Kingdom, Italy, Austria, Netherlands, Greece, Liechtenstein, Sweden, Spain, Denmark, Germany, Norway, Finland, France, Belgium, Portugal, Luxembourg

EC Directives and Pneumatic Components

• Machinery Directive

The Machinery Directive contains essential health and safety requirements for machinery, as applied to industrial machines e.g. machine tools, injection molding machines and automatic machines. Pneumatic equipment is not specified in Machinery Directive. However, the use of SMC products that are certified as conforming to EN Standards, allows customers to simplify preparation work of the Technical Construction File required for a Declaration of Conformity.

• Electromagnetic Compatibility (EMC) Directive

The EMC Directive specifies electromagnetic compatibility. Equipment which may generate electromagnetic interference or whose function may be compromised by electromagnetic interference is required to be immune to electromagnetic affects (EMS/immunity) without emitting excessive electromagnetic affects (EMI/emission).

Low Voltage Directive

This directive is applied to products, which operate above 50 VAC to 1000 VAC and 75 VDC to 1500 VDC operating voltage, and require electrical safety measures to be introduced.

• Simple Pressure Vessels Directive

This directive is applied to welded vessels whose maximum operating pressure (PS) and volume of vessel (V) exceed 50 bar/L. Such vessels require EC type examination and then CE marking.



national Standards

you to comply with EC directives and CSA/UL standards.



CSA Standards & UL Standards

UL and CSA standards have been applied in North America (U.S.A. and Canada) symbolizing safety of electric products, and are defined to mainly prevent danger from electric shock or fire, resulting from trouble with electric products. Both UL and CSA standards are acknowledged in North America as the first class certifying body. They have a long experience and ability for issuing product safety certificate. Products approved by CSA or UL standards are accepted in most states and governments beyond question.

Since CSA is a test certifying body as the National Recognized Testing Laboratory (NRTL) within the jurisdiction of Occupational Safety and Health Administration (OSHA), SMC was tested for compliance with CSA Standards and UL Standards at the same time and was approved for compliance with the two Standards. The above CSA NRTL/C logo is described on a product label in order to indicate that the product is approved by CSA and UL Standards.

TSSA (MCCR) Registration Products

TSSA is the regulation in Ontario State, Canada. The products that the operating pressure is more than 5 psi (0.03 MPa) and the piping size is bigger than 1 inch. fall into the scope of TSSA regulation.

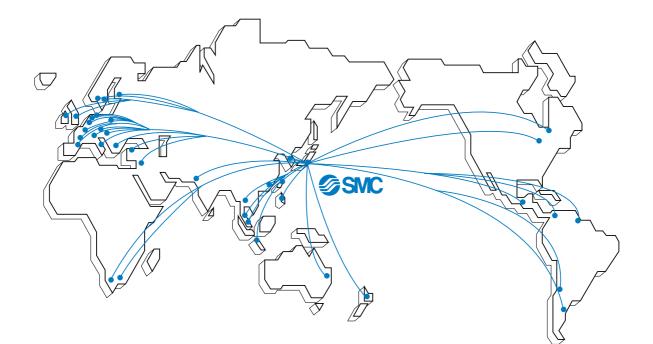
Products conforming to CE Standard

With CE symbol for simple visual recognition

In this catalog each accredited product series is indicated with a CE mark symbol. However, in some cases, every available models may not meet CE compliance. Please visit our web site for the latest selection of available models with CE mark.

http://www.smcworld.com

SMC's Global Service Network



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