

# CORE RANGE PRODUCT GUIDE

Air Preparation / Instrumentation  
Valves / Flow Controls / Cylinders  
Fittings / Blow Guns / Tubing

**MOTION**



# WHO WE ARE.

Motion delivers a world-class, customer-first approach to everything we do. This has firmly established our business as a leader in the market, providing excellence and expertise in industrial products, solutions, and services.

For more than 100 years, we have been a key part of the Asia Pacific industrial landscape, offering customers unmatched products and service through an integrated network of branches, workshops, and service centres.

We have an ongoing commitment to invest in our people, facilities, IT, and systems to ensure we continue to offer a broad range of premium engineering design, servicing, and turnkey projects to our customers across the Asia Pacific region.

We are committed and proud to keep our customers in motion, every day of the year.

“WE KEEP THE WORLD MOVING”



# CONTENTS

---

## AIR PREPARATION 3

---

Series AC - Filter Regulator Lubricators	3
Series AF - Modular Filters	3
Series AL - Modular Lubricators	4
Series AR - Modular Regulators	4
Series AW - Filter Regulators	4
Series ADH - Auto Drains	5
Series VBA - Booster Regulators	5
Series G - Gauges	5
Series AN - Silencers	5

---

## INSTRUMENTATION 7

---

Series IF3 - Paddle Style Flow Switch for Liquid Flow Confirmation	7
Series ISG - General Purpose Bellows Style Mechanical Pressure Switch	7
Series PF3 - Digital Flow Switch with Temperature Measurement for Water	7
Series ISE20 - High Precision Digital Pressure Switch	8
Series IP8000/8100 - Electro-Pneumatic Positioner	8

---

## VALVES 10

---

Series VT - 3 Port Solenoid Valves / Direct Operated Poppet Type	10
Series VF - 5 Port Solenoid Valves	10
Series VFA - 5 Port Air Operated Valves	10
Series SY - 5 Port Solenoid Valves	11
Series VM200 - 3 & 5 Port 1/4" Mechanical Valves	11
Series VM400 - 3 Port 1/8" Mechanical Valves	12
Series VH - 4 Port Hand Valves	12
Series VHK - 2 Port Finger Valves	13
Series VHS - 3 Port Valves for Residual Pressure Release	13

Series JSX - Direct Operated 2 Port Valves for Air & water	13
Series VX2 - Direct Operated 2 Port Valves	14
Series JBXD - Valves suitable for Steam up to 183°C	14
Series VXD - Pilot Operated 2 Port Process Valves	14
Series JSB - Angle Seat 2 Port Process Valves	14
Series VXZ - Zero Differential Pressure 2 Port Process Valves	15
Series VP7 - Single Connector ISO Size 1 & 2 Rubber Seal	15
Series EVS7 - Double Connectors ISO Size 1, 2 & 3	15
Series VP7/VS7 - Manifold ISO Size 1 & 2	16

---

## CYLINDERS 18

---

Series C85 - ø8 to ø25 ISO Standard Cylinders	18
Series CP96 - ø32 to ø125 ISO Profile Tube Cylinders	19
Series CS1 - ø125 to ø300 Tie-rod Cylinders	20

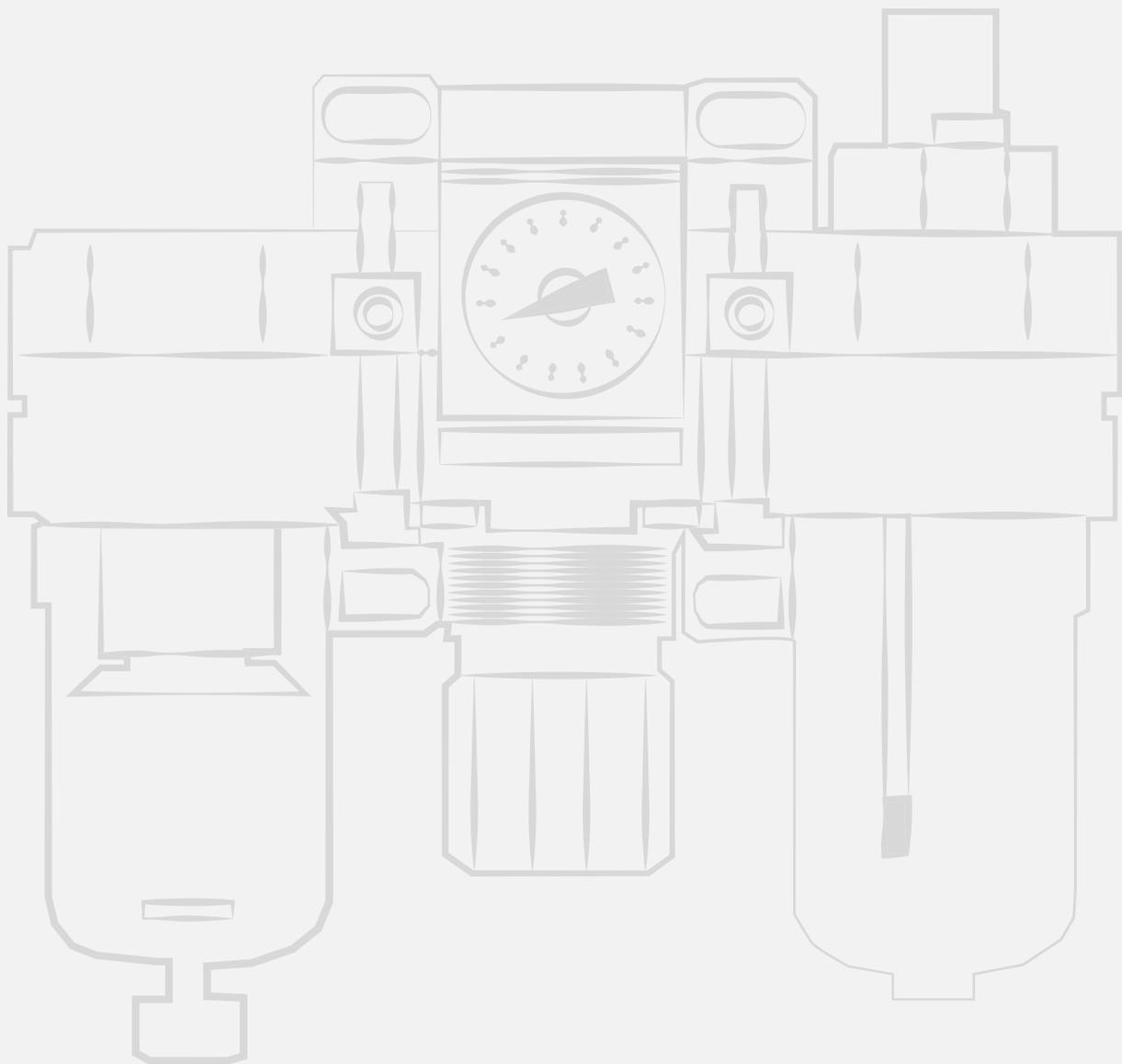
---

## FLOW CONTROLS, FITTINGS, BLOW GUNS AND TUBING 22

---

Series AS - AS Flow Controllers	22
Series ASG - ASG Stainless Steel Controllers	22
Series AQ - Quick Exhaust Valves	22
Series KQ2 - One-Touch Fittings	23
Series KQB2 - One-Touch Metal Fittings	28
Series KQG2 - One-Touch 316 Stainless Steel Fittings	30
Series VMG - Blow Guns	32
Series KN - Air Nozzles	32
Series TU - Polyurethane Tubing	33
Theoretical Output Table	34
Cylinder Selection Guide	36
Cylinder Crossover	37
Valve Selection Guide	38

# AIR PREPARATION





**FILTER+REGULATOR+LUBRICATOR SERIES AC**

- Standard sizes with port M5 to Rc1
- Filter with optional manual or automatic drain
- 3 Bowl materials for different types of use (polycarbonate, nylon and metal)
- Temperature range -5 to 60°C

Part Number 1), 2)	Port Size	Set Pressure Range MPa	Drain Type	Filtration	Circuit Symbol
AC20-01-C-D	Rc1/8	0.05 to 0.85	Manual discharge 1)	5 µm	
AC20-02-C-D	Rc1/4				
AC30-02-D	Rc1/4				
AC30-03-D	Rc3/8				
AC40-03-D	Rc3/8				
AC40-04-D	Rc1/2				
AC40-06-D	Rc3/4	0.05 to 0.85			
AC50-06-D	Rc3/4				
AC60-10-D	Rc1				

1) Add suffix D in part number for automation drain (normally open) only for size 30 or more eg. AC40-03D-D  
 2) Add suffix G or E in part number for gauge eg. AC40-03G-D



**FILTER REGULATOR+LUBRICATOR SERIES AC**

- Wide range of accessories for custom variants
- 3 bowl materials for different types of use (polycarbonate, nylon, metal)
- Temperature range -5 to 60° C
- Filter regulator with optional manual or automatic drain

Part Number 1), 2)	Port Size	Set Pressure Range MPa	Drain Type	Filtration	Circuit Symbol
AC20A-01-C-D	Rc1/8	0.05 to 0.85	Manual discharge 1)	5 µm	
AC20A-02-C-D	Rc1/4				
AC30A-02-D	Rc1/4				
AC30A-03-D	Rc3/8				
AC40A-03-D	Rc3/8				
AC40A-04-D	Rc1/2				
AC40A-06-D	Rc3/4	0.05 to 0.85			
AC60A-10-D	Rc1				

1) Add suffix D in part number for automation drain (normally open) only for size 30 or more eg. AC40A-03D-D  
 2) Add suffix G in part number for gauge eg. AC40A-03G-D



**FILTER SERIES AF**

- Modular or individual construction
- Filtration rating 5 µm
- Optional manual or automatic drain
- 3 bowl materials for different types of use (polycarbonate, nylon, metal)
- Filter cartridge element can be changed quickly
- Temperature range -5 to 60° C

Part Number 1)	Port Size	Bowl Capacity (cm³)	Drain Type	Filtration	Circuit Symbol
AF20-01-C-D	Rc1/8	8	Manual discharge 1)	5 µm	
AF20-02-C-D	Rc1/4	8			
AF30-02-D	Rc1/4	25			
AF30-03-D	Rc3/8	25			
AF40-03-D	Rc3/8	45			
AF40-04-D	Rc1/2	45			
AF40-06-D	Rc3/4	45			
AF50-06-D	Rc3/4	45			
AF60-10-D	Rc1	45			

1) Add suffix D in part number for automation drain (normally open) only for size 30 or more eg. AF40-03D-D

**Bracket Assembly**

Body Size 20	Body Size 30	Body Size 40	Body Size 40-06	Body Size 50-60-A
AF22P-050AS	AF32P-050AS	AF42P-050AS	AF42P-070AS	AF50P-050AS



**LUBRICATOR SERIES AL**

- Modular or individual construction.
- Lubricator adjustable with visual inspection.
- Refillable under pressure from body size 30.
- Temperature range -5 to 60° C.

Part Number 1)	Port Size	Bowl Capacity (cm <sup>3</sup> )	Recommended Lubricant	Circuit Symbol
AL20-02-C-D	Rc1/4	25		
AL30-02-D	Rc1/4	55		
AL30-03-D	Rc3/8	55		
AL40-03-D	Rc3/8	135		
AL40-04-D	Rc1/2	135		
AL40-06-D	Rc3/4	135		
AL50-06-D	Rc3/4	135		
AL60-10-D	Rc1	135		

**Bracket Assembly**

Body Size 20	Body Size 30	Body Size 40	Body Size 40-06	Body Size 50-60
AF22P-050AS	AF32P-050AS	AF42P-050AS	AF42P-070AS	AF50P-050AS



**REGULATOR SERIES AR**

- Modular or individual construction.
- Piston-type regulator (AR10) or diaphragm regulator (AR20-60), relieving type.
- Panel mounting possible.
- Temperature range -5 to 60° C.
- Back-flow function available (AR-K).

Part Number 1)	Port Size	Port Size Gauge	Set pressure range MPa	Circuit Symbol
AR20K-01H-D	Rc1/8	Rc1/8	0.05 to 0.85	
AR20K-02H-D	Rc1/4			
AR30K-03H-D	Rc3/8			
AR40K-04H-D	Rc1/2			
AR40K-06H-D	Rc3/4			
AR50K-06-D	Rc3/4	Rc1/4		
AR60K-10-D	Rc1			

- 1) Add suffix G and E Part Number for gauge eg. AR40K-03GH-D
- 2) Add suffix -1 for set pressure range A0.02-0.211

**Bracket Assembly**

Body Size 20	Body Size 30	Body Size 40	Body Size 50-60
AR23P-270AS	AR33P-270AS	AR43P-270AS	AR52P-270AS



**FILTER REGULATOR SERIES AW**

- Modular or individual construction.
- Piston-type or diaphragm regulator, relieving type.
- Panel mounting possible.
- Standard filtration rating 5 µm.
- Temperature range -5 to 60° C.
- Filter cartridge can be changed quickly.
- Back flow function available (AW-K).

Part Number 1)	Port Size	Port Size Gauge	Set pressure range MPa 2)	Drain Type	Filtration	Circuit Symbol
AW20K-01H-C-D	Rc1/8	Rc1/8	0.05 to 0.85	Manual discharge 1)	5 µm	
AW20K-02H-C-D	Rc1/4					
AW30K-02H-D	Rc1/4					
AW30K-03H-D	Rc3/8					
AW40K-02H-D	Rc1/4					
AW40K-03H-D	Rc3/8					
AW40K-04H-D	Rc1/2					
AW40K-06H-D	Rc3/4	Rc1/4				
AW60K-06-D	Rc3/4					
AW60K-10-D	Rc1					

- 1) Add suffix D in Part Number for automatic drain (normally open) only for size 30 or more eg. AW40-03D-D
- 2) Add suffix G and E in Part Number for gauge eg AW40-03G-D



**HEAVY DUTY AUTO DRAIN SERIES ADH**

Part Number	Port Size	Port Size Drain	Max. Drain Discharge	Bracket Set
ADH4000-04	Rc1/2	Rc1/2	400cc/min	BM58

- Suitable for dirty water drain.
- Easy maintenance.
- No need for electric power and no waste of air.
- Normally open drain.



**BOOSTER REGULATOR SERIES VBA**

- Increases the main circuit pressure to an adjustable value.
- Major energy savings.
- No cooling required.
- Silencer means less operating noise.
- No other energy source required.
- Operating temperature: 2-50° C.
- Input pressure: 0.1-1 MPa.
- Mounting position: horizontal.
- Air and handle operated types available.

Part Number	Output Range MPa	Flow (l/min)	Port Size	Pressure Ratio	Circuit Symbol
VBA10A-02-X3145	0.3 - 1.2	237	Rc1/4	Fixed 1.7 : 1	
VBA11A-02-X3239	0.8 - 2.0	90		max. 4 : 1	
VBA10A-02-X3239	0.4 - 1.4	250		Fixed 2 : 1	
VBA20A-03	0.2 - 1.0	1000	Rc3/8	max. 2 : 1	
VBA22A-03 (*)					
VBA40A-04	0.2 - 1.0	1900	Rc1/2		
VBA42A-04 (*)					
VBA43A-04	0.2 - 1.6	1600			

(\*) Air operated type

**Accessories**

Model	VBA10A-02 VBA11A-02	VBA20A-03	VBA22A-03	VBA40A-04 VBA42A-04	VBA43A-04
Pressure Gauge	G27-20-01	G36-K10-X7	KT-VBA22A-7	G36-K10-X7	G27-20-01
Silencer (High Noise Reduction)	AN20-02 (ANA1-02)	AN30-03 (ANA1-03)		AN40-04 (ANA1-04)	



**PRESSURE GAUGE SERIES G**

- Rear entry (Male thread).

Part Number	Pressure Range MPa	Connection Thread	Outside Diameter
G15-10-01	0 to 1.0	R1/8, M5 (Female thread)	ø15
G27-10-R1	0 to 1.0	R1/16	ø26
G36-K2-01-X7	0 to 0.2	R1/8	ø37.5
G36-4-01	0 to 0.4		
G36-7-01	0 to 0.7		
G36-K10-01-X7	0 to 1.0		
G40-K10-02	0 to 1.0	R1/4	ø40

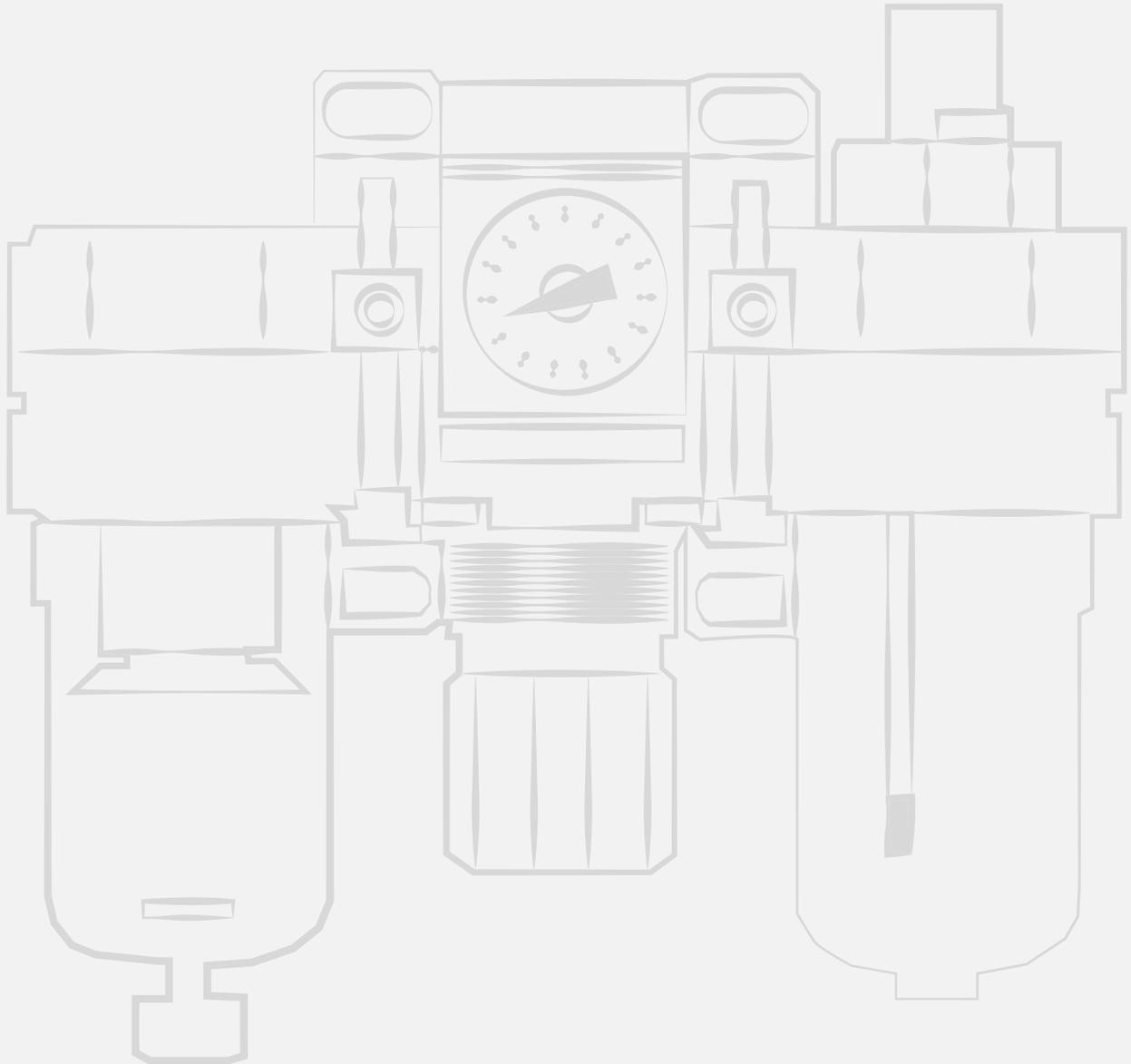


**STANDARD SILENCER SERIES AN**

- For threads M5 - 2".
- Noise reduction up to 30 dB.
- Compact design.

Part Number	Thread Connection	Effective area mm <sup>2</sup> (Cv)	Body Material	Weight (g)	Circuit Symbol
AN05-M5	M5	5 (0.3)	Resin	0.5	
AN10-01	R1/8	10 (0.6)		1	
AN20-02	R1/4	35 (1.9)		4	
AN30-03	R3/8	60 (3.3)		5.5	
AN40-04	R1/2	90 (5.0)		8.5	
AN500-06	R3/4	160 (8.8)		165	
AN600-10	R1	270 (15)	Metal	220	
AN700-12	R1 1/4	440 (24)		435	
AN800-14	R1 1/2	590 (33)		510	
AN900-20	R2	960 (53)		740	

# INSTRUMENTATION





**PADDLE STYLE FLOW SWITCH  
SERIES IF3**

- Can be installed in piping ranging from 3/4B to 6B.
- Wetted copper parts are copper alloy or stainless steel.
- Can be used outdoors.

Part Number*	Flow Range (l/min)	Port Size	Operating Pressure (MPa)	Wetted Parts
IF300-06-00	14 ~ 60	Rc3/4	1	Brass/ Phosphor bronze/NBR
IF301-10-00	20 ~ 1500	Rc1		
IF311-10-00	20 ~ 1500	Rc1		
IF320-06-00	14 ~ 60	Rc3/4		
IF321-10-00	20 ~ 1500	Rc1		



**MECHANICAL PRESSURE  
SWITCH SERIES ISG**

- For use in oil, water, and compressed air systems.
- Available in drip proof construction.

Part Number* (Non-waterproof)	Part Number* (Drip proof)	Pressure Range (MPa)	Hysteresis	Proof Pressure (MPa)	Repeatability (MPa)
ISG110-030	ISG210-030	0.02 ~ 0.3	0.01- 0.2	1	±0.006
ISG110-031	ISG210-031	0.02 ~ 0.3	0.01- 0.2	1	±0.006
ISG120-030	ISG220-030	0.05 ~ 0.7	0.02- 0.35	1.5	±0.014
ISG121-031	ISG221-031	0.05 ~ 0.7	0.02- 0.45	1.5	±0.014
ISG130-031	ISG230-031	0.1 ~ 1.0	0.03- 0.6	1.5	±0.02
ISG190-030	ISG290-030	-10 ~ -100 kPa	7- 53 kPa	0.5	±2 kPa

\* For detail on contact rating please refer to table 1: Contact Rating  
Note: Part number for drip proof construction type

**Table 1: Contact Rating**

Contact Load Current Rating				Contact Type	Contact Voltage
Resistive (NC/NO)	Incandescent (NC/NO)	Inductive (NC/NO)	Motor (NC/NO)		
5A/5A	3A/3A	4A/4A	3A/3A	SPDT	30VDC
5A/5A	1A/0.5A	4A/4A	1.5A/0.8A	SPDT	250VAC



**DIGITAL FLOW SWITCH  
SERIES PF3A FOR AIR AND  
PF3W FOR WATER**

- 3 colour 2 or 4 screen display.
- Separated display (remote sensor unit) type available
- Built-in temperature sensor for the water version
- IO-link available

Part Number	Flow Range (l/pm)	Port Size (Rc) inch	Maximum Operating Pressure (MPa)	Switch Output	Analogue (Flow)	Supply Voltage
PF3W740-06-F-MZ	5 ~ 40	3/4	1	PNP	4-20mA	24 VDC
PF3W711-10-F-MZ	10 ~ 100	1	1	PNP	4-20mA	
PF3A703H-10-FS	30 ~ 3000	1	1.5	PNP	4-20mA	
PF3A706H-14-FS	60 ~ 6000	1-1/2	1.5	PNP	4-20mA	
PF3A712H-20-FS	120 ~ 12000	2	1.5	PNP	4-20mA	
PF3A801H-L2	10 ~ 1000	MODULAR	1	PNP/ NPN	IO-Link	



**HIGH PRECISION DIGITAL PRESSURE SWITCH SERIES ISE20(A,B,C)**

- 3 screen colour display.
- Improved Operability: simple 3-step setting.
- Response time: 1.5ms or less

Part Number	Rated Pressure Range	Connection Threadsize	Repeatability	Hysteresis	Fluid	Output	IP rating	Power Supply
ISE20B-L-01-W	-0.1 ~ 1.0 MPa	R1/8	±0.2% of F.S. ± 1 digit	Configurable	Air/Non Corrosive/ Inert gas	IO Link	IP65	12-24VDC
ISE20A-Y-01-J						PNP	IP40	
ISE20A-S-01-J						NPN and 4-20 mA	IP40	
ISE20A-V-01-J						PNP and 4-20 mA		
ISE20B-V-01-W						PNP and 4-20 mA	IP65	

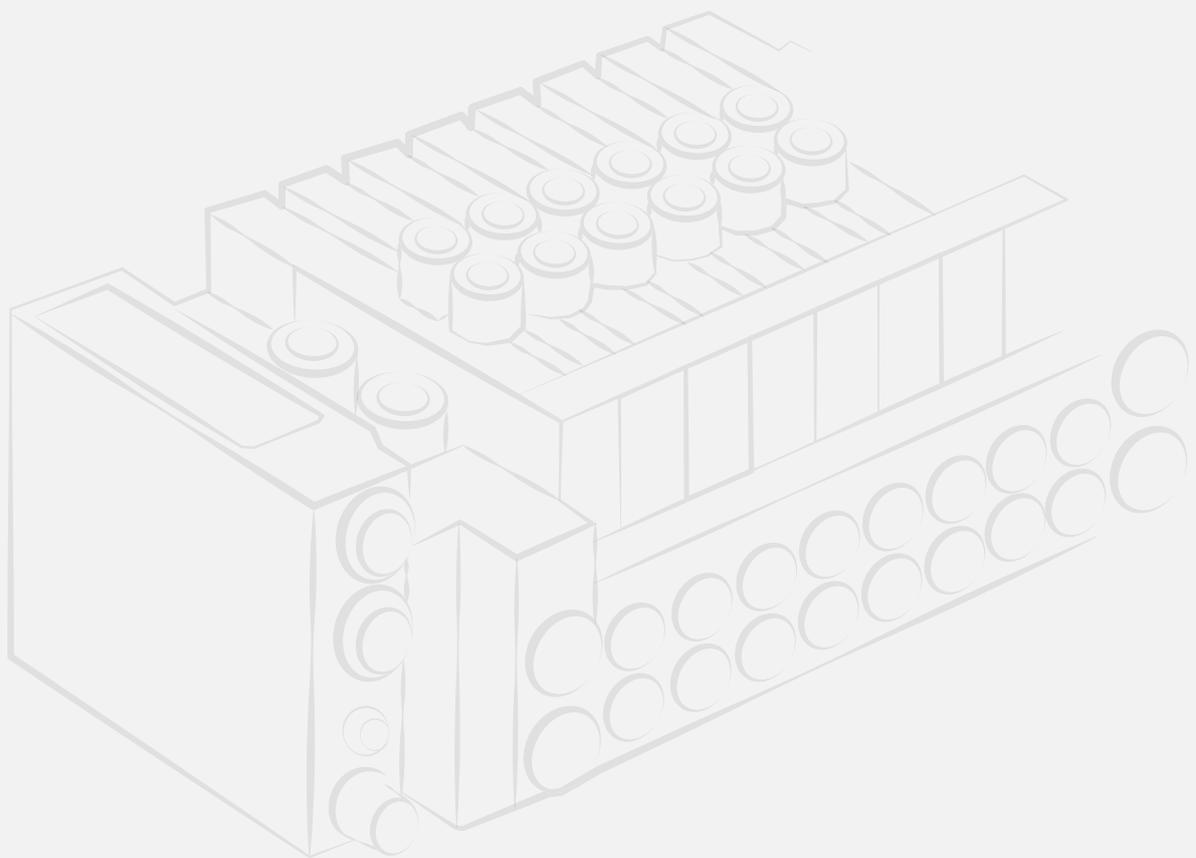


**ELECTRO-PNEUMATIC POSITIONER SERIES IP8000/ IP8100**

- With terminal box.
- Pressure gauge: 3MPa.

Part Number	Type	Supply Pressure	Air Connection	Electric Connection
IP8000-031	Linear	0.14 ~ 0.7 MPa	Rc1/4	G1/2
IP8100-031-X318	Rotary	0.14 ~ 0.7 MPa	Rc1/4	G1/2
IP8100-031-JR-X318	Rotary w/ feedback Reverse Acting	0.14 ~ 0.7 MPa	Rc1/4	G1/2
IP8100-031-J-X318	Rotary w/ feedback	0.14 ~ 0.7 MPa	Rc1/4	G1/2
IP8101-032-W	Rotary / Smart	0.14 ~ 0.7 MPa	Rc1/4	G1/2

# VALVES





**DIRECT OPERATED 3 PORT SOLENOID VALVES/ RUBBER SEAL SERIES VT**

- Compact with large flow capacities.
- Low power consumption.

Part Number	Port Size	Type	Voltage	Cv	Max Pressure
VT307K-5DZ1-01	Rc1/8	3/2 SOL	24 VDC	0.18	1.0 MPa
VT307K-7DZ1-01	Rc1/8	3/2 SOL	240 VAC	0.18	1.0 MPa
VT317-5DZ-02	Rc1/4	3/2 SOL	24 VDC	0.47	0.9 MPa
VT317-7DZ-02	Rc1/4	3/2 SOL	240 VAC	0.47	0.9 MPa
VT325-035DLS	Rc3/8	3/2 SOL	24 VDC	1.4	1.0 MPa
VT325-037DLS	Rc3/8	3/2 SOL	240 VAC	1.4	1.0 MPa



**5 PORT SOLENOID VALVES RUBBER SEAL SERIES VF**

- Robust, general purpose valve.
- Low power consumption.
- Reduced noise when switching.

Part Number	Port Size	Type	Voltage	Cv	Max Pressure
VF1120K-5DZ1-01	Rc1/8	5/2 SGL SOL	24 VDC	0.17	1.0 MPa
VF1120K-7DZ1-01	Rc1/8	5/2 SGL SOL	240 VAC	0.17	
VF1220K-5DZ1-01	Rc1/8	5/2 DBL SOL	24 VDC	0.17	
VF1220K-7DZ1-01	Rc1/8	5/2 DBL SOL	240 VAC	0.17	
VF3133K-5DZ1-02	Rc1/4	5/2 SGL SOL	24 VDC	1.0	
VF3133K-7DZ1-02	Rc1/4	5/2 SGL SOL	240 VAC	1.0	
VF3233K-5DZ1-02	Rc1/4	5/2 DBL SOL	24 VDC	1.0	
VF3233K-7DZ1-02	Rc1/4	5/2 DBL SOL	240 VAC	1.0	
VF5123K-5DZ1-03	Rc3/8	5/2 SGL SOL	24 VDC	2.4	
VF5123K-7DZ1-03	Rc3/8	5/2 SGL SOL	240 VAC	2.4	
VF5223K-5DZ1-03	Rc3/8	5/2 DBL SOL	24 VDC	2.4	
VF5223K-7DZ1-03	Rc3/8	5/2 DBL SOL	240 VAC	2.4	



**5 PORT AIR OPERATED VALVES RUBBER SEAL SERIES VFA**

- Easy to use.
- Robust, general purpose valve.

Part Number	Port Size	Type	Voltage	Cv	Max Pressure
VFA1120-01	Rc1/8	5/2 SGL PILOT	(0.4xP*+0.1) to 0.9	0.78	1.0 MPa
VFA1220-01	Rc1/8	5/2 DBL PILOT	0.15 to 0.9	0.78	
VFA3130-02	Rc1/4	5/2 SGL PILOT	(0.4xP*+0.1) to 0.9	1.0	
VFA3230-02	Rc1/4	5/2 DBL PILOT	0.15 to 0.9	1.0	
VFA5120-03	Rc3/8	5/2 SGL PILOT	(0.4xP*+0.1) to 0.9	2.4	
VFA5220-03	Rc3/8	5/2 DBL PILOT	0.15 to 0.9	2.4	

\*P = Supply Pressure



**5 PORT SOLENOID VALVES  
RUBBER SEAL SERIES SY**

- Suitable for use in machine and process control panels as well as most indoor applications.
- Extensive range that include base mount and manifold variants.
- Support for most industrial communication protocols are available.
- Available in a variety of voltages and electrical connections.

Part Number	Port Size	Type	Cv	Max Pressure	Voltage
SY5120-5DZ-01	Rc1/8	5/2 SGL SOL	0.49	0.7 MPa	24 VDC
SY5220-5DZ-01	Rc1/8	5/2 DBL SOL	0.49		
SY5320-5DZ-01	Rc1/8	5/3 CLOSED CENTRE	0.49		
SY5420-5DZ-01	Rc1/8	5/3 OPEN CENTRE	0.44		
SY5520-5DZ-01	Rc1/8	5/3 PRESSURE CENTRE	0.46		
SY7120-5DZ-02	Rc1/4	5/2 SGL SOL	0.93		
SY7220-5DZ-02	Rc1/4	5/2 DBL SOL	0.93		
SY7320-5DZ-02	Rc1/4	5/3 CLOSED CENTRE	0.70		
SY7420-5DZ-02	Rc1/4	5/3 OPEN CENTRE	0.65		
SY7520-5DZ-02	Rc1/4	5/3 PRESSURE CENTRE	0.97		
SY9120-5DZ-03	Rc3/8	5/2 SGL SOL	1.7		
SY9220-5DZ-03	Rc3/8	5/2 DBL SOL	1.7		
SY9320-5DZ-03	Rc3/8	5/3 CLOSED CENTRE	1.7		
SY9420-5DZ-03	Rc3/8	5/3 OPEN CENTRE	1.6		
SY9520-5DZ-03	Rc3/8	5/3 PRESSURE CENTRE	1.8		



**3 AND 5 PORT MECHANICAL  
VALVE SERIES VM200**

- 3 and 5 port switching valve, port size Rc1/4".
- Robust poppet valve design.
- Limit switch, manual switch and foot pedal type mounted with a basic valve using a modular stacking system.
- Superior flow capacity for a low height.
- Minimal force to operate.

Part Number	Circuit Symbols	Actuator	Operating Pressure Range	Flow (NI/min)
VM230-02-00A		Basic valve	0~1MPa	984
VM230-02-01A		Roller lever		
VM230-02-02A		One way roller lever		
VM230-02-08A		Toggle lever		
VM230-02-30BA		Black (mushroom) push button		
VM230-02-30RA		Red (mushroom) push button		
VM230-02-33A		Push button (Flash)		
VM230-02-34BA		Black twist selector		
VM230-02-36A		Twist selector with key		
VM230-02-35BA		Black twist selector (3 position)		
VM230-02-40A		Foot pedal (2 position)		
XT34-67		Foot pedal (5/2 position)*		

\*) Rc1/8"



**3 PORT MECHANICAL VALVE SERIES VM400**

- 3 port switching valve, port size Rc1/8".
- Robust poppet valve design.
- Limit switch and manual switch mounted with a basic valve using a modular stacking system.
- Superior flow capacity for a low height.
- N.C. and N.O. version available.

Part Number	Circuit Symbols	Actuator	Operating Pressure Range	Flow (NI/min)
VM430-01-00		Basic valve	0~1MPa	370
VM430-01-01		Roller lever		
VM430-01-02		One way roller lever		
VM430-01-08		Toggle lever		
VM430-01-30B		Black (mushroom) push button		
VM430-01-30R		Red (mushroom) push button		
VM430-01-33		Push button (Flash)		
VM430-01-34B		Black twist selector		
VM430-01-36		Twist selector with key		



**4 PORT HAND VALVES SERIES VH**

- Robust, 4 port manual lever valve, reliable round seal design.
- Variety of port sizes.
- Body for panel assembly or direct mounting.
- Stepless and crack adjustment of the flow from zero to the maximum via the lever's rotation angle.
- Pressure or exhaust centre for both cylinders.
- The cylinder may be positioned at the valve's center.

Part Number	Circuit Symbols	Type of Actuation	Operating Pressure Range	Port Size	Flow Cv
VH212-02		2 position	1MPa	Rc1/4	0.38
VH312-03				Rc3/8	1.5
VH412-04				Rc1/2	4.3
VH412-06				Rc3/4	4.5
VH210-02		3 position Closed centre	1MPa	Rc1/4	0.38
VH310-03				Rc3/8	1.5
VH410-04				Rc1/2	4.3
VH410-06			Rc3/4	4.5	
VH600-06			0.7 MPa	Rc3/4	10.2
VH600-10			Rc1	10.5	
VH211-02		3 position Exhaust centre	1MPa	Rc1/4	0.38
VH311-03				Rc3/8	1.5
VH411-04				Rc1/2	4.3
VH411-06				Rc3/4	4.5



**2 PORT MANUALLY OPERATED VALVES SERIES VHK**

- Switch valve, compact design with 2 or 3 port function.
- Sizes from Ø 4-12 mm with superior flow capacity.
- Being made of lightweight plastic and having integral hose connections, it can be mounted directly in the piping (push in).
- Body with mounting holes.

Part Number	Circuit Symbols	Operating pressure range	Standard Type	Port Size	Bracket
VHK3A-04F-04F	<p>Two position</p>	1MPa	<p>Push-in Port Size</p>	Ø 4	VHK-B1A
VHK3A-06F-06F				Ø 6	
VHK3A-08F-08F				Ø 8	
VHK3A-10F-10F				Ø 10	VHK-B2A
VHK3A-12F-12F				Ø 12	
VHK3A-M5-M5			<p>Thread Port Size</p>	M5 x 0,8	VHK-B1A
VHK3A-01S-01S				Rc1/8	
VHK3A-02S-02S				Rc1/4	
VHK3A-03S-03S				Rc3/8	
VHK3A-04S-04S				Rc1/2	

2 port function on request  
Other thread and push-in combinations on request



**3 PORT VALVES FOR RESIDUAL PRESSURE RELEASE SERIES VHS**

- With the use of a 3-port valve for residual pressure release, pressure left in the line can be easily exhausted.

Part Number	Symbol	Port Size	Port Size Exhaust Release Rc	Flow (Cv) P A (A R)	For modular Series
VHS20-01-S-M-D		Rc1/8	1/8	.65 (.69)	.65 (.69)
VHS20-02-S-M-D		Rc1/4	1/8	.88 (.84)	.88 (.84)
VHS30-03-S-M-D		Rc3/8	1/4	2.3 (1.9)	2.3 (1.9)
VHS40-04-S-M-D		Rc1/2	3/8	3.8 (3.6)	3.8 (3.6)
VHS50-06-S-M-D		Rc3/4	1/2	6.4 (5.9)	6.4 (5.9)
VHS50-10-S-M-D		Rc1	1/2	8.6 (6.4)	8.6 (6.4)



**DIRECT OPERATED VALVE FOR AIR AND WATER (NORMAL CLOSED) SERIES JSX**

- For air (inert gas) and water.
- Improved environmental resistance (IP67 enclosure NEMA4X)
- Energy saving.
- M12 connector available.
- Normally open versions are available upon request.

Part Number*	Port Size	Fluid	Body/Seal	Orifice	Voltage
JSX21-SN301R-5DZ	1/8	Air/Inert gas and water	Stainless Steel / NBR	3.2	24 VDC
JSX21-SN301R-7DZ	1/8				240 VAC
JSX21-SN303R-5DZ	3/8				24 VDC
JSX21-SN303R-7DZ	3/8				240 VAC
JSX31-SN402R-5DZ	1/4			4.0	24 VDC
JSX31-SN402R-7DZ	1/4				240 VAC
JSX31-SN403R-5DZ	3/8				24 VDC
JSX31-SN403R-7DZ	3/8				240 VAC

\* Brackets are not included. Please request for the bracket type when mounting threads are required.



**DIRECT OPERATED 2 PORT VALVE (NORMAL CLOSED) SERIES VX2**

- Suitable for air and water
- Available in stainless steel as well
- Low power white top coils built to last longer
- Normally opened versions are available upon request

Part Number	Port Size	Fluid	Body/Seal	Orifice	Voltage
VX212AZ2AXNB	Rc1/8	Air/ Water/ Vacuum	Brass/NBR	2	24 VDC
VX212AZ2HXNB	Rc1/8			2	240 VAC
VX222AZ2AXNB	Rc1/4			4	24 VDC
VX222AZ2HXNB	Rc1/4			4	240 VAC
VX232DZ2AXNB	Rc3/8			5	24 VDC
VX232DZ2HXNB	Rc3/8			5	240 VAC

\* Brackets are not included. Please request for the bracket type when mounting threads are required.



**VALVES SUITABLE FOR STEAM UP TO 183°C SERIES VX2**

- Coil insulation class H, allows use at ambient temperatures of up to 60C
- Available in stainless steel as well
- Low power white top coils built to last longer
- Normally opened versions are available upon request.

Part Number	Port Size	Fluid	Body/Seal	Orifice	Voltage
VX215AZ2AXNB	Rc1/8	Normally Closed	Brass/FKM	2	24VDC
VX215AZ2HXNB	Rc1/8			2	240 VAC
VX225AZ2AXNB	Rc1/4			4	24VDC
VX225AZ2HXNB	Rc1/4			4	240 VAC
VX235DZ2AXNB	Rc3/8			5	24VDC
VX235DZ2HXNB	Rc3/8			5	240 VAC
VX235GZ2AXNB	Rc1/2			10	24VDC
VX235GZ2HXNB	Rc1/2			10	240 VAC

\* Brackets are not included. Please request for the bracket type when mounting threads are required.



**PILOT OPERATED 2 PORT PROCESS VALVE (NORMAL CLOSED) SERIES JSXD**

- IP67 enclosure/NEMA4X
- Energy saving
- Easy Installation
- M12 Connector available
- Normally open and other voltage options available

Part Number	Port Size	Fluid	Body/Seal	Orifice	Voltage
JSXD31-CN02R-5DZ	1/4	Air Water Oil	Brass/NBR	10	24 VDC
JSXD31-CN02R-7DZ	1/4			10	240 VAC
JSXD41-CN04R-5DZ	1/2			15	24 VDC
JSXD41-CN04R-7DZ	1/2			15	240 VAC
JSXD61-CN10R-5DZ	1			25	24 VDC
JSXD61-CN10R-7DZ	1			25	240 VAC

\* Brackets are not included. Please request for the bracket type when mounting threads are required.



**ANGLE SEAT 2 PORT PROCESS VALVE SERIES JSB**

- Optimised valve body flow path profile - high flow rate, up to 87.5 (Cv factor)
- Reduce costs – Long service life up to 10 million cycles
- Save space – As small as 121.3 mm in height.
- Port sizes: 3/8" to 2"

Part Number	Port Size	Fluid	Body/Seal	Orifice
JSB21-ST15AR-2S	1/2"	Air Water Stream	Stainless steel / Fluororesin	N.C.
JSB31-ST20AR-3S	3/4"			
JSB41-ST25AR-4S	1"			
JSB51-ST32AR-5S	1 1/4"			
JSB61-ST40AR-6S	1 1/2"			
JSB71-ST50AR-7S	2"			



**ZERO DIFFERENTIAL PRES-SURE 2 PORT PROCESS VALVE (NORMAL CLOSED)  
SERIES VXZ**

- Suitable for general applications.
- Low power white top coils built to last longer.
- Normally opened versions are available upon request.

Part Number	Port Size	Fluid	Body/Seal	Orifice	Voltage
VXZ232AZ2A	Rc1/4	Air/Water	Brass/NBR	10	24 VDC
VXZ232AZ2H	Rc1/4			10	240 VAC
VXZ242FZ2A	Rc1/2			15	24 VDC
VXZ242FZ2H	Rc1/2			15	240 VAC
VXZ252HZ2A	Rc3/4			20	24 VDC
VXZ252HZ2H	Rc3/4			20	240 VAC
VXZ262KZ2A	Rc1			25	24 VDC
VXZ262KZ2H	Rc1			25	240 VAC

\* Brackets are not included. Please request for the bracket type when mounting threads are required.



**SINGLE CONNECTOR ISO SIZE 1 & 2 RUBBER SEAL  
SERIES VP7**

Part Number	Type	Voltage	Max Flow N(l/min)	Max Pressure
VP7-6-FG-S-3Z	5/2 SGL SOL	24 VDC	1639	0.15-0.9 MPa
VP7-6-FG-S-7N	5/2 SGL SOL	240 VAC	1639	
VP7-6-FG-D-3Z	5/2 DBL SOL	24 VDC	1639	
VP7-6-FG-D-7N	5/2 DBL SOL	240 VAC	1639	
VP7-8-FG-S-3Z	5/2 SGL SOL	24 VDC	3533	
VP7-8-FG-S-7Z	5/2 SGL SOL	240 VAC	3533	
VP7-8-FG-D-3Z	5/2 DBL SOL	24 VDC	3533	
VP7-8-FG-D-7Z	5/2 DBL SOL	240 VAC	3533	



**DOUBLE CONNECTORS ISO SIZE 1, 2 & 3 METAL SEAL  
SERIES EVS7**

- Hi flow.
- High performance.
- Low power consumption.

Part Number	Type	Voltage	Max Flow N(l/min)	Max Pressure
EVS7-6-FG-S-3CV	5/2 SGL SOL	24 VDC	1476	0.9 MPa
EVS7-6-FG-S-7CV	5/2 SGL SOL	240 VAC	1476	
EVS7-6-FG-D-3CV	5/2 DBL SOL	24 VDC	1476	
EVS7-6-FG-D-7CV	5/2 DBL SOL	240 VAC	1476	
EVS7-8-FG-S-3CV	5/2 SGL SOL	24 VDC	3148	
EVS7-8-FG-S-7CV	5/2 SGL SOL	240 VAC	3148	
EVS7-8-FG-D-3CV	5/2 DBL SOL	24 VDC	3148	
EVS7-8-FG-D-7CV	5/2 DBL SOL	240 VAC	3148	
EVS7-10-FG-S-3CV	5/2 SGL SOL	24 VDC	4900	
EVS7-10-FG-S-7CV	5/2 SGL SOL	240 VAC	4900	
EVS7-10-FG-D-3CV	5/2 DBL SOL	24 VDC	4900	
EVS7-10-FG-D-7CV	5/2 DBL SOL	240 VAC	4900	

Accessories: Sub-plate

	Rc1/4	Rc3/8	Rc1/2	Rc3/4	Rc1
ISO1	VS7-1-A02	VS7-1-A03	N/A	N/A	N/A
ISO2	N/A	VS7-2-A03	VS7-2-A04	VS7-2-A06	N/A
ISO3	N/A	N/A	N/A	EVS7-3-A06F	EVS7-3-A10F



Accessories: Interface Flow Controller Size 1 & 2

Part Number	Series
AXT503-23A	ISO Size 1
AXT510-32A	ISO Size 2

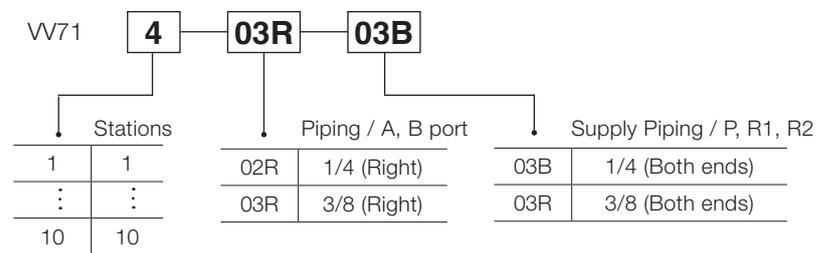


Displayed with Interface Flow Controller

**MANIFOLD ISO SIZE 1 AND 2**  
**SERIES VP7/VS7**



How to order Manifold for ISO Size 1



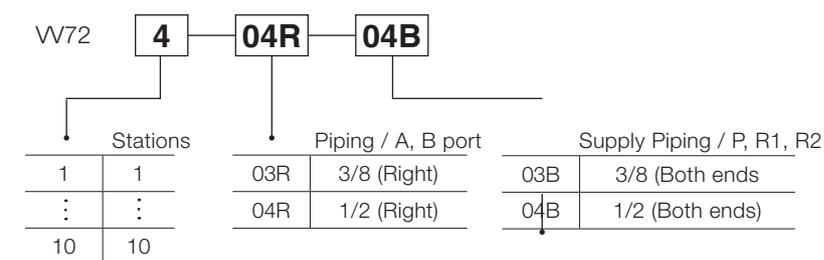
2, 4, 8, 10 station part numbers

Stations	Part number (Rc3/8)
2	VV712-03R-03B
4	VV714-03R-03B
8	VV718-03R-03B
10	VV7110-03R-03B

Manifold accessories for Size 1

Blanking plate	AXT502-9A
Interface regulator	ARB250-00-P
Interface flow controller	AXT503-23A

How to order Manifold for ISO Size 2



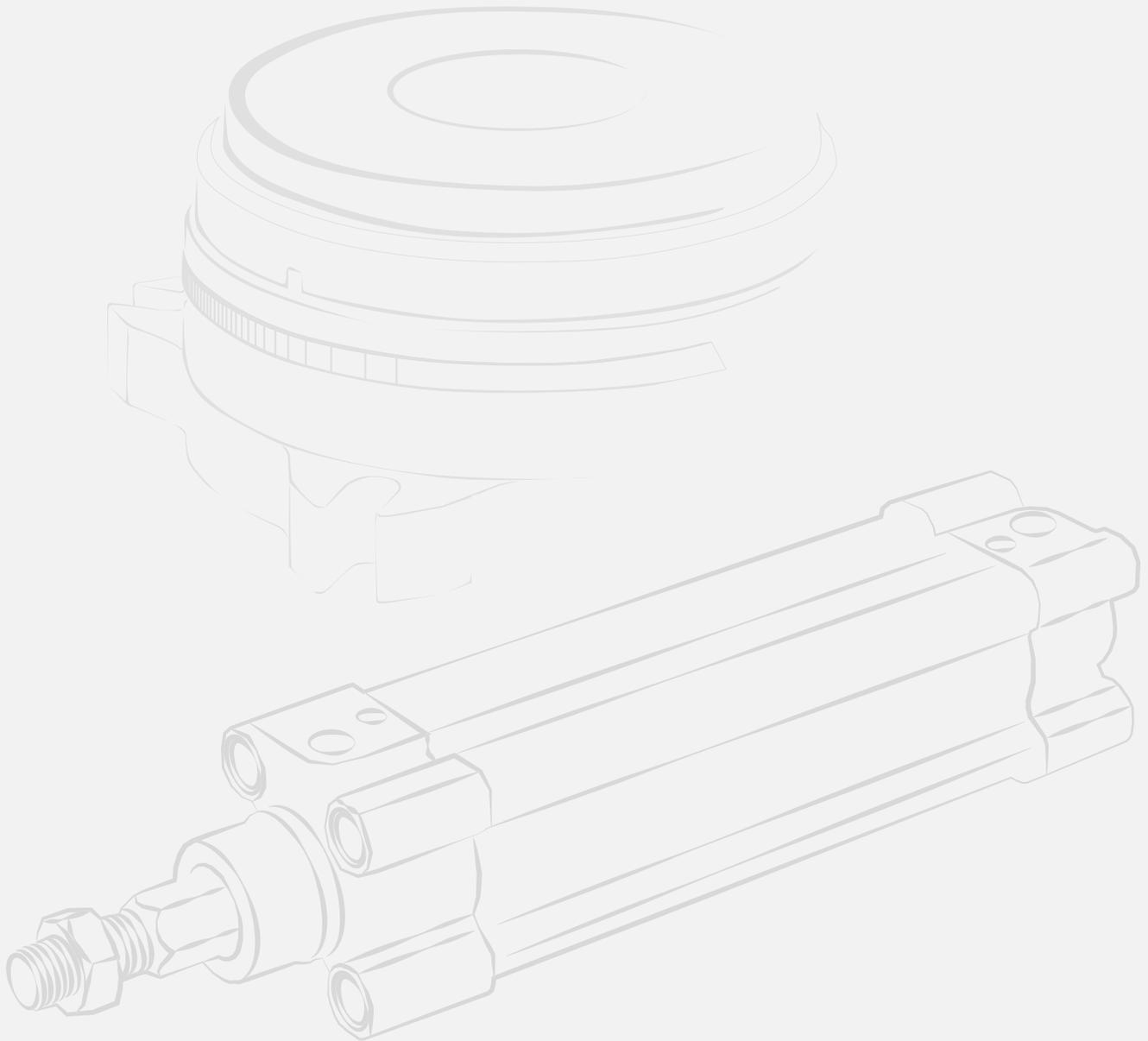
2, 4, 8, 10 station part numbers

Stations	Part number (Rc1/2)
2	VV722-04R-04B
4	VV724-04R-04B
8	VV728-04R-04B
10	VV7210-04R-04B

Manifold accessories for Size 2

Blanking plate	AXT512-9A
Interface regulator	ARB350-00-P
Interface flow controller	AXT510-32A

# CYLINDERS





**ISO STANDARD CYLINDERS  
SERIES C85**

- ISO 6432.
- Single or double acting.
- Cylinders with adjustable air cushion from Ø10-25mm
- Cylinder body made from corrosion resistant materials.
- Auto switch mounting possible using band.
- Special seals fitted as standard for oil-free operation.

A wide variety of different designs is available, such as double piston rods, alternative cylinder head cover designs, without magnet, single-acting, etc.

**Standard cylinder, double-acting built-in magnet, rubber bumper**

Cylinder Ø (mm)	Standard strokes (mm)	Part number with Auto switch mounting style Band mounting	Maximum Operating Pressure
8	10, 25, 40, 50, 80, 100 (Max.400)	CD85N8- * -B	1.0 MPa
10		CD85N10- * -B	
12	10, 25, 40, 50, 80, 100, 125, 160, 200, (max. 400)	CD85N12- * -B	
16		CD85N16- * -B	
20	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, (max. 1000)	CD85N20- * -B	
25		CD85N25- * -B	

\* Stroke length

**Double-acting, adjustable cushion, built-in magnet**

Cylinder Ø (mm)	Standard strokes (mm)	Part number with Auto switch mounting style Band mounting	Maximum Operating Pressure
10	10, 25, 40, 50, 80, 100 (Max.400)	CD85N10- * C-B	1.0 MPa
12	10, 25, 40, 50, 80, 100, 125, 160, 200 (max. 400)	CD85N12- * C-B	
16		CD85N16- * C-B	
20	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300 (max. 1000)	CD85N20- * C-B	
25		CD85N25- * C-B	

\* Stroke length

**Mounting band and switch holder for auto switch mounting**

Bore Size						
8	10	12	16	20	25	
BJ2-008	BJ2-010	BJ2-012	BJ2-016	BM2-020	BM2-025	Mounting band
BJ3-1						Switch holder

**Possible auto switches. Band mounting**

Reed 2-wire	D-A93Z (Bore size 16, 20, 25 only)
Solid state 2-wire	D-M9BZ
Solid state 3-wire NPN	D-M9NZ
Solid state 2-wire PNP	D-M9PZ

**Accessories C85**

	Foot (1 pc.)	Foot (2 pcs.) + 1 nut	Flange	Trunnion	Clevis	Single knuckle joint	Double knuckle joint	Floating joint
Ø (mm)								
8	C85L10A	C85L10B	C85F10	C85T10	C85C10	KJ4D	GKM4-8	JA10-4-070
10	C85L16A	C85L16B	C85F16	C85T16	C85C16	KJ6D	GKM6-12	JA15-6-100
12								
16	C85L25A	C85F25B	C85F25	C85T25	C85C25	KJ8D	GKM8-16	JA20-8-125
20								
25						KJ10D		



**STANDARD ISO PROFILE  
TUBE CYLINDERS SERIES CP96**

- ISO15552 standard cylinders in profile design with integrated tie-rods.
- Bore sizes ø32-125 mm.
- Easy adjustment of the cushion valve.
- End of stroke air cushion provides smooth operation.
- Minimum piston rod deflection.
- Improved mounting accuracy.
- Maximum flexibility for auto-switch mounting.

Other design variations, such as, dual stroke cylinders, heat resistant cylinders, etc. are available.

Bore size (mm)	Piston rod Ø (mm)	Rod end thread	Port sizes	Cushion stroke (mm)	Operating pressure range
32	12	M10x1.25	G1/8	19	0.05 - 1 MPa
40	16	M12x1.25	G1/4	19	
50	20	M16x1.5	G1/4	24	
63	20	M16x1.5	G3/8	24	
80	25	M20x1.5	G3/8	30	
100	25	M20x1.5	G1/2	30	
125	32	M27x2	G1/2	31	

**Standard**

Part no.	Bore size (mm)	m Standard Strokes
CP96SDB32-oC	32	25, 40, 50, 75, 80, 100, 125, 150, 160, 200, 250, 300, 320, 350, 400, 450, 500
CP96SDB40-oC	40	25, 40, 50, 75, 80, 100, 125, 150, 160, 200, 250, 300, 320, 350, 400, 450, 500
CP96SDB50-oC	50	25, 40, 50, 75, 80, 100, 125, 150, 160, 200, 250, 300, 320, 350, 400, 450, 500, 600
CP96SDB63-oC	63	25, 40, 50, 75, 80, 100, 125, 150, 160, 200, 250, 300, 320, 350, 400, 450, 500, 600
CP96SDB80-oC	80	25, 40, 50, 75, 80, 100, 125, 150, 160, 200, 250, 300, 320, 350, 400, 450, 500, 600, 700, 800
CP96SDB100-oC	100	25, 40, 50, 75, 80, 100, 125, 150, 160, 200, 250, 300, 320, 350, 400, 450, 500, 600, 700, 800
CP96SDB125-o	125	Made to order



Piston rod of CP96K, non-rotating

Possible auto switches

Reed 2-wire	D-A93Z
Solid State 2-wire	D-M9BZ
Solid state 3-wire NPN	D-M9NZ
Solid state 3-wire PNP	D-M9PZ

**Mounting Bracket for CP96**

Bore size (mm)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
	Foot	Female head end clevis (Corresponds to E accessory)	Male head end clevis	Female head end clevis (for ES accessory)	Male head end clevis with ball joint	Rod/Head end flange	Angled head end clevis	Angled head end clevis with ball joint	Piston rod ball joint (ISO 8139)	Rod clevis (ISO 8140)	Floating joint
32	L5032	D5032	C5032	DS5032	CS5032	F5032	E5032	ES5032	KJ10D	GKM10-20	JA30-10-125
40	L5040	D5040	C5040	DS5040	CS5040	F5040	E5040	ES5040	KJ12D	GKM12-24	JA40-12-125
50	L5050	D5050	C5050	DS5050	CS5050	F5050	E5050	ES5050	KJ16D	GKM16-32	JA50-16-150
63	L5063	D5063	C5063	DS5063	CS5063	F5063	E5063	ES5063	KJ16D	GKM16-32	JA50-16-150
80	L5080	D5080	C5080	DS5080	CS5080	F5080	E5080	ES5080	KJ20D	GKM20-40	JAH50-20-150
100	L5100	D5100	C5100	DS5100	CS5100	F5100	E5100	ES5100	KJ20D	GKM20-40	JAH50-20-150
125	L5125	D5125	C5125	DS5125	CS5125	F5125	E5125	ES5125	KJ27D	GKM30-54	JA125-27-200





**TIE-ROD AIR CYLINDERS  
SERIES CS1**

- Double acting, single rod/through type.
- 7 Mounting Options.
- Through rod type available.
- Air cushioning standard.
- Auto switch capable 125mm -200mm diameter.
- Air-hydro version (Series CS1mH).

Bore size (mm)	Piston rod ø (mm)	Rod end thread	Port Size
125	36	M30x1.5	Rc1/2
140	36	M30x1.5	Rc1/2
160	40	M36x1.5	Rc3/4
180	45	M40x1.5	Rc3/4
200	50	M45x1.5	Rc3/4
250	60	M56x2	Rc1
300	70	M64x2	Rc1

Circuit Symbol



Part Number C D S1 B 160 300

Built-in magnet		Mounting style	Bore size		Cylinder stroke
Nil	Non-magnetic				
D	Magnetic for autoswitches*	B	125	125mm	Note: A rod end nut is not included with this cylinder, order as a loose part if needed.
		L	140	140mm	
		F	160	160mm	
		G	180	180mm	
		C	200	200mm	
		D	250	250mm	
		T	300	300mm	

\* "D" option for bore sizes 125 - 200 only

Auto switch mounting bracket

Bore size						
125	140	160	180	200	250	300
BS5-125		BS5-160	BS5-180	BS5-200	N/A	N/A

Possible auto switches

Reed 2-wire	D-A93Z
Solid State 2-wire	D-M9BZ
Solid state 3-wire NPN	D-M9NZ
Solid state 3-wire PNP	D-M9PZ

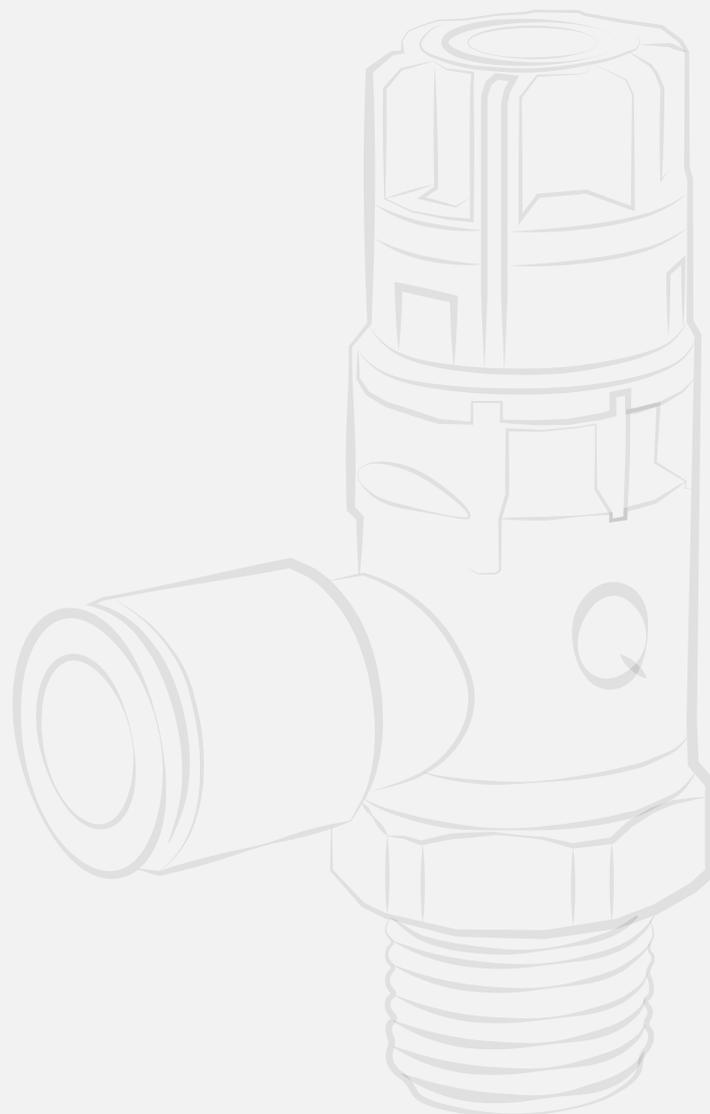
Rod Accessories

Bore size (mm)	Single Knuckle Joint	Double Knuckle Joint	Rod End Nut	Floating Joint
125	1-12	Y-12	NT-12	JA140-30-150
140	1-14	Y-14	NT-12	JA140-30-150
160	1-16	Y-16	NT-16	JA160-36-150
180	1-18	Y-18	NT-18	JA180-40-150-X530
200	1-20	Y-20	NT-20	JA200-45-150-X530
250	1-25	Y-25	NT-25	N/A
300	1-30	Y-30	NT-30	N/A






# **FLOW CONTROLS, FITTINGS, BLOW GUNS AND TUBING**





**FLOW CONTROLLERS  
SERIES AS**

- 4 sizes.
- Suitable for polyurethane and nylon tubes.
- 360° rotation.
- Precise adjustment using special throttle pin shape and fine thread.
- Easy to mount.
- Teflon-coated connection thread (gasket for M3, M5).

Meter-in control option also available  
\*At 0.5 MPa set pressure

Part number	Port Size	Tube ø (mm)	Flow* (l/min)	Circuit Symbol
AS1201F-M3-02	M3	2	72	
AS1201F-M5-02	M5	2	72	
AS1201F-M3-23	M3	3.2	72	
AS1201F-M3-04		4	72	
AS1201F-M5-23A	M5	3.2	108	
AS1201F-M5-04A		4	108	
AS1201F-M5-06A		6	108	
AS2201F-01-04SA	R1/8	4	252	
AS2201F-01-06SA		6	288	
AS2201F-01-08SA		8	288	
AS2201F-02-06SA	R1/4	6	468	
AS2201F-02-08SA		8	468	
AS3201F-03-08SA	R3/8	8	864	
AS3201F-03-10SA		10	1188	
AS4201F-04-10SA	R1/2	10	1584	
AS4201F-04-12SA		12	1724	



**STAINLESS STEEL FLOW  
CONTROLLERS SERIES ASG**

- SUS316 and special FKM construction to improve the resistance to corrosion.
- Elbow design to allow the rotation of the tubing connection ports and suit installation to air cylinders.
- Meter-in and meter-out type control.
- One-touch fittings and 5 body sizes.
- Applicable tubing: FEP, PFA, Nylon, Soft nylon, Polyurethane and Polyolefin.

Part number	Port Size	Tube ø (mm)	Flow* (l/min)	Circuit Symbol
ASG220F-M5-04	M5	4	100	
ASG220F-M5-06		6	100	
ASG320F-01-04S	R1/8	4	180	
ASG320F-01-06S		6	230	
ASG2201-01-08S		8	230	
ASG2201-02-06S	R1/4	6	390	
ASG2201-02-08S		8	460	
ASG2201-02-10S		10	460	
ASG520F-03-08S	R3/8	8	790	
ASG3201-03-10S		10	920	
ASG520F-03-12S		12	920	
ASG620F-04-12S	R1/2	12	1580	

Meter-in control option also available  
\* Measured at 0.5 MPa and 20°C.



**QUICK EXHAUST VALVES  
SERIES AQ**

- Large exhaust capacity.
- Port thread M5 to Rc3/4.
- Superior flow capacity.

Part number	Port Size	Effective Area (mm <sup>2</sup> )		Circuit Symbol
		IN → OUT	OUT → Exh.	
AQ1500-M5	M5	2	2,8	
AQ1510-01	R1/8	4	5,8	
AQ2000-01		25	25	
AQ2000-02	R1/4	35	40	
AQ3000-03	R3/8	60	70	
AQ5000-04	R1/2	105	115	
AQ5000-06	R3/4	135	180	

**ONE-TOUCH FITTINGS  
SERIES KQ2**

- Quick mounting/removal
- For compressed air, water and vacuum
- Suitable for polyurethane and nylon tubes

**MALE CONNECTOR  
KQ2H**



Part No.	R	ØD
KQ2H23-M3G1	*M3	3.2
KQ2H23-M5N1	*M5	3.2
KQ2H23-01NS1	R1/8	3.2
KQ2H23-02NS1	R1/4	3.2
KQ2H04-M5N1	*M5	4
KQ2H04-01NS1	R1/8	4
KQ2H04-02NS1	R1/4	4
KQ2H06-M5N1	*M5	6
KQ2H06-01NS1	R1/8	6
KQ2H06-02NS1	R1/4	6
KQ2H06-03NS1	R3/8	6
KQ2H08-01NS	R1/8	8
KQ2H08-02NS	R1/4	8
KQ2H08-03NS	R3/8	8
KQ2H10-01NS	R1/8	10
KQ2H10-02NS	R1/4	10
KQ2H10-03NS	R3/8	10
KQ2H10-04NS	R1/2	10
KQ2H12-02NS	R1/4	12
KQ2H12-03NS	R3/8	12
KQ2H12-04NS	R1/2	12
KQ2H16-03NS	R3/8	16
KQ2H16-04NS	R1/2	16

\* with gasket

**HEXAGON SOCKET  
HEAD MALE  
CONNECTOR KQ2S**



Part No.	R	ØD
KQ2S02-M3G	*M3	2
KQ2S23-M3G1	*M3	3.2
KQ2S23-M5N1	*M5	3.2
KQ2S04-M5N1	*M5	4
KQ2S04-01NS1	R1/8	4
KQ2S06-M5N1	*M5	6
KQ2S06-01NS1	R1/8	6
KQ2S06-02NS1	R1/4	6
KQ2S08-01NS	R1/8	8
KQ2S08-02NS	R1/4	8
KQ2S08-03NS	R3/8	8
KQ2S10-01NS	R1/8	10
KQ2S10-02NS	R1/4	10
KQ2S10-03NS	R3/8	10
KQ2S10-04NS	R1/2	10
KQ2S12-02NS	R1/4	12
KQ2S12-03NS	R3/8	12
KQ2S12-04NS	R1/2	12
KQ2S16-03NS	R3/8	16
KQ2S16-04NS	R1/2	16

\* with gasket

**45° MALE ELBOW  
KQ2K**



Part No.	R	ØD
KQ2K04-M5N1	*M5	4
KQ2K04-M6N1	*M6	4
KQ2K04-01NS1	R1/8	4
KQ2K04-02NS1	R1/4	4
KQ2K06-M5N1	*M5	6
KQ2K06-M6N1	*M6	6
KQ2K06-01NS1	R1/8	6
KQ2K06-02NS1	R1/4	6
KQ2K06-03NS1	R3/8	6
KQ2K08-01NS	R1/8	8
KQ2K08-02NS	R1/4	8
KQ2K08-03NS	R3/8	8
KQ2K10-01NS	R1/8	10
KQ2K10-02NS	R1/4	10
KQ2K10-03NS	R3/8	10
KQ2K10-04NS	R1/2	10
KQ2K12-02NS	R1/4	12
KQ2K12-03NS	R3/8	12
KQ2K12-04NS	R1/2	12
KQ2K16-03NS	R3/8	16
KQ2K16-04NS	R1/2	16

\* with gasket

**FEMALE  
CONNECTOR  
KQ2F**



Part No.	Rc	ØD
KQ2F23-M3N1	M3	3.2
KQ2F23-M5N1	M5	3.2
KQ2F04-01N1	Rc1/8	4
KQ2F04-02N1	Rc1/4	4
KQ2F06-01N1	Rc1/8	6
KQ2F06-02N1	Rc1/4	6
KQ2F06-03N1	Rc3/8	6
KQ2F08-01N	Rc1/8	8
KQ2F08-02N	Rc1/4	8
KQ2F08-03N	Rc3/8	8
KQ2F10-02N	Rc1/4	10
KQ2F10-03N	Rc3/8	10
KQ2F12-02N	Rc1/4	12
KQ2F12-03N	Rc3/8	12
KQ2F12-04N	Rc1/2	12
KQ2F16-03N	Rc3/8	16
KQ2F16-04N	Rc1/2	16

**EXTENDED MALE  
ELBOW KQ2W**



Part No.	R	ØD
KQ2W02-M3G	*M3	2
KQ2W02-M5N	*M5	2
KQ2W23-M3G1	*M3	3.2
KQ2W23-M5N1	*M5	3.2
KQ2W23-01NS1	R1/8	3.2
KQ2W23-02NS1	R1/4	3.2
KQ2W04-M3G1	*M3	4
KQ2W04-M5N1	*M5	4
KQ2W04-01NS1	R1/8	4
KQ2W04-02NS1	R1/4	4
KQ2W06-M5N1	*M5	6
KQ2W06-01NS1	R1/8	6
KQ2W06-02NS1	R1/4	6
KQ2W06-03NS1	R3/8	6
KQ2W08-01NS	R1/8	8
KQ2W08-02NS	R1/4	8
KQ2W08-03NS	R3/8	8
KQ2W10-02NS	R1/4	10
KQ2W10-03NS	R3/8	10
KQ2W10-04NS	R1/2	10
KQ2W12-02NS	R1/4	12
KQ2W12-03NS	R3/8	12
KQ2W12-04NS	R1/2	12
KQ2W16-03NS	R3/8	16
KQ2W16-04NS	R1/2	16

\* with gasket

**STRAIGHT UNION  
KQ2H**



Part No.	ØD	ØD
KQ2H02-00A	2	2
KQ2H23-00A1	3.2	3.2
KQ2H04-00A1	4	4
KQ2H06-00A1	6	6
KQ2H08-00A	8	8
KQ2H10-00A	10	10
KQ2H12-00A	12	12
KQ2H16-00A	16	16

**MALE ELBOW  
KQ2L**



Part No.	R	ØD
KQ2L02-M3G	*M3	2
KQ2L02-M5N	*M5	2
KQ2L23-M3G1	*M3	3.2
KQ2L23-M5N1	*M5	3.2
KQ2L23-01NS1	R1/8	3.2
KQ2L23-02NS1	R1/4	3.2
KQ2L04-M3G1	*M3	4
KQ2L04-M5N1	*M5	4
KQ2L04-M6N1	*M6	4
KQ2L04-01NS1	R1/8	4
KQ2L04-02NS1	R1/4	4
KQ2L06-M5N1	*M5	6
KQ2L06-M6N1	*M6	6
KQ2L06-01NS1	R1/8	6
KQ2L06-02NS1	R1/4	6
KQ2L06-03NS1	R3/8	6
KQ2L08-01NS	R1/8	8
KQ2L08-02NS	R1/4	8
KQ2L08-03NS	R3/8	8
KQ2L10-01NS	R1/8	10
KQ2L10-02NS	R1/4	10
KQ2L10-03NS	R3/8	10
KQ2L10-04NS	R1/2	10
KQ2L12-02NS	R1/4	12
KQ2L12-03NS	R3/8	12
KQ2L12-04NS	R1/2	12
KQ2L16-03NS	R3/8	16
KQ2L16-04NS	R1/2	16

\* with gasket

**DIFFERENT DIAMETER  
STRAIGHT KQ2H**



Part No.	ØD	ØD
KQ2H23-04A1	3.2	4
KQ2H04-06A1	4	6
KQ2H06-08A1	6	8
KQ2H08-10A	8	10
KQ2H10-12A	10	12
KQ2H12-16A	12	16

**ONE-TOUCH FITTINGS  
SERIES KQ2**

**FEMALE ELBOW  
KQ2LF**



Part No.	Rc	ØD
KQ2LF04-M5N1	M5	4
KQ2LF04-M6N1	M6	4
KQ2LF04-01N1	Rc1/8	4
KQ2LF04-02N1	Rc1/4	4
KQ2LF06-M5N1	M5	6
KQ2LF06-M6N1	M6	6
KQ2LF06-01N1	Rc1/8	6
KQ2LF06-02N1	Rc1/4	6
KQ2LF06-03N1	Rc3/8	6
KQ2LF08-01N	Rc1/8	8
KQ2LF08-02N	Rc1/4	8
KQ2LF08-03N	Rc3/8	8
KQ2LF10-02N	Rc1/4	10
KQ2LF10-03N	Rc3/8	10
KQ2LF10-04N	Rc1/2	10
KQ2LF12-02N	Rc1/4	12
KQ2LF12-03N	Rc3/8	12
KQ2LF12-04N	Rc1/2	12

**UNIVERSAL MALE  
ELBOW KQ2V**



Part No.	R	ØD
KQ2V04-M5N1	*M5	4
KQ2V04-01NS1	R1/8	4
KQ2V06-M5N1	*M5	6
KQ2V06-01NS1	R1/8	6
KQ2V06-02NS1	R1/4	6
KQ2V08-01NS	R1/8	8
KQ2V08-02NS	R1/4	8
KQ2V08-03NS	R3/8	8
KQ2V10-02NS	R1/4	10
KQ2V10-03NS	R3/8	10
KQ2V12-03NS	R3/8	12
KQ2V12-04NS	R1/2	12
KQ2V16-03NS	R3/8	16
KQ2V16-04NS	R1/2	16

\* with gasket

**HEXAGON SOCKET  
HEAD UNIVERSAL MALE  
ELBOW KQ2VS**



Part No.	R	ØD
KQ2VS04-M5N1	*M5	4
KQ2VS04-01NS1	R1/8	4
KQ2VS06-M5N1	*M5	6
KQ2VS06-01NS1	R1/8	6
KQ2VS06-02NS1	R1/4	6
KQ2VS08-01NS	R1/8	8
KQ2VS08-02NS	R1/4	8
KQ2VS08-03NS	R3/8	8
KQ2VS10-02NS	R1/4	10
KQ2VS10-03NS	R3/8	10
KQ2VS12-03NS	R3/8	12
KQ2VS12-04NS	R1/2	12

\* with gasket

**UNIVERSAL FEMALE  
ELBOW KQ2VF**



Part No.	R, Rc	ØD
KQ2VF04-M5N1	*M5	4
KQ2VF04-01NS1	1/8	4
KQ2VF06-M5N1	*M5	6
KQ2VF06-01NS1	1/8	6
KQ2VF06-02NS1	1/4	6
KQ2VF08-01NS	1/8	8
KQ2VF08-02NS	1/4	8
KQ2VF08-03NS	3/8	8
KQ2VF10-02NS	1/4	10
KQ2VF10-03NS	3/8	10
KQ2VF12-03NS	3/8	12
KQ2VF12-04NS	1/2	12

\* with gasket

**UNION TEE KQ2T**



Part No.	ØD	ØD
KQ2T02-00A	2	2
KQ2T23-00A1	3,2	3,2
KQ2T04-00A1	4	4
KQ2T06-00A1	6	6
KQ2T08-00A	8	8
KQ2T10-00A	10	10
KQ2T12-00A	12	12
KQ2T16-00A	16	16

**DIFFERENT DIAMETER  
TEE KQ2T**



Part No.	Ød	ØD
KQ2T23-04A1	3,2	4
KQ2T04-06A1	4	6
KQ2T06-08A1	6	8
KQ2T08-10A	8	10
KQ2T10-12A	10	12
KQ2T12-16A	12	16

**DELTA UNION  
KQ2D**



Part No.	ØD	ØD
KQ2D04-00A1	4	4
KQ2D06-00A1	6	6
KQ2D08-00A	8	8
KQ2D10-00A	10	10
KQ2D12-00A	12	12

**DIFFERENT DIAMETER  
TEE KQ2T**



Part No.	Ød	ØD
KQ2T06-04A1	6	4
KQ2T08-06A1	8	6
KQ2T10-08A	10	8
KQ2T12-10A	12	10

**MALE BRANCH TEE  
KQ2T**



Part No.	R	ØD
KQ2T02-M3G	*M3	2
KQ2T02-M5N	*M5	2
KQ2T23-M3G1	*M3	3,2
KQ2T23-M5N1	*M5	3,2
KQ2T23-01NS1	R1/8	3,2
KQ2T23-02NS1	R1/4	3,2
KQ2T04-M3G1	*M3	4
KQ2T04-M5N1	*M5	4
KQ2T04-M6N1	*M6	4
KQ2T04-01NS1	R1/8	4
KQ2T04-02NS1	R1/4	4
KQ2T06-M5N1	*M5	6
KQ2T06-M6N1	*M6	6
KQ2T06-01NS1	R1/8	6
KQ2T06-02NS1	R1/4	6
KQ2T06-03NS1	R3/8	6
KQ2T08-01NS	R1/8	8
KQ2T08-02NS	R1/4	8
KQ2T08-03NS	R3/8	8
KQ2T10-01NS	R1/8	10
KQ2T10-02NS	R1/4	10
KQ2T10-03NS	R3/8	10
KQ2T10-04NS	R1/2	10
KQ2T12-02NS	R1/4	12
KQ2T12-03NS	R3/8	12
KQ2T12-04NS	R1/2	12
KQ2T16-03NS	R3/8	16
KQ2T16-04NS	R1/2	16

\* with gasket

**MALE RUN TEE  
KQ2Y**



Part No.	R	ØD
KQ2Y02-M3G	*M3	2
KQ2Y02-M5N1	*M5	2
KQ2Y23-M3G1	*M3	3,2
KQ2Y23-M5N1	*M5	3,2
KQ2T23-01NS1	R1/8	3,2
KQ2Y23-02NS1	R1/4	3,2
KQ2Y04-M3G1	*M3	4
KQ2Y04-M5N1	*M5	4
KQ2Y04-M6N1	*M6	4
KQ2Y04-01NS1	R1/8	4
KQ2Y04-02NS1	R1/4	4
KQ2Y06-M5N1	*M5	6
KQ2Y06-M6N1	*M6	6
KQ2Y06-01NS1	R1/8	6
KQ2Y06-02NS1	R1/4	6
KQ2Y06-03NS1	R3/8	6
KQ2Y08-01NS	R1/8	8
KQ2Y08-02NS	R1/4	8
KQ2Y08-03NS	R3/8	8
KQ2Y10-01NS	R1/8	10
KQ2Y10-02NS	R1/4	10
KQ2Y10-03NS	R3/8	10
KQ2Y10-04NS	R1/2	10
KQ2Y12-02NS	R1/4	12
KQ2Y12-03NS	R3/8	12
KQ2Y12-04NS	R1/2	12
KQ2Y16-03NS	R3/8	16
KQ2Y16-04NS	R1/2	16

\* with gasket

**ONE-TOUCH FITTINGS**  
**SERIES KQ2**

**UNION ELBOW  
KQ2L**



Part No.	ØD	ØD
KQ2L23-00A1	3,2	3,2
KQ2L04-00A1	4	4
KQ2L06-00A1	6	6
KQ2L08-00A	8	8
KQ2L10-00A	10	10
KQ2L12-00A	12	12
KQ2L16-00A	16	16

**PUG-IN ELBOW  
KQ2L**



Part No.	ØD	ØD
KQ2L23-99A1	3,2	3,2
KQ2L04-99A1	4	4
KQ2L06-99A1	6	6
KQ2L08-99A	8	8
KQ2L10-99A	10	10
KQ2L12-99A	12	12
KQ2L16-99A	16	16

**EXTENDED PLUG-IN  
ELBOW KQ2W**



Part No.	ØD	ØD
KQ2W23-99A1	3,2	3,2
KQ2W04-99A1	4	4
KQ2W06-99A1	6	6
KQ2W08-99A	8	8
KQ2W10-99A	10	10
KQ2W12-99A	12	12

**REDUCER ELBOW  
KQ2L**



Part No.	ØD	ØD
KQ2L23-04A1	3,2	4
KQ2L04-06A1	4	6
KQ2L04-08A1	4	8
KQ2L06-08A1	6	8
KQ2L06-10A1	6	10
KQ2L08-10A	8	10
KQ2L08-12A	8	12
KQ2L10-12A	10	12
KQ2L12-16A	12	16

**UNION «Y»  
KQ2U**



Part No.	ØD	ØD
KQ2U02-00A	2	2
KQ2U23-00A	3,2	3,2
KQ2U04-00A	4	4
KQ2U06-00A	6	6
KQ2U08-00A	8	8
KQ2U10-00A	10	10
KQ2U12-00A	12	12
KQ2U16-00A	16	16

**DIFFERENT DIAMETER  
UNION KQ2U «Y»**



Part No.	Ød	ØD
KQ2U02-23A	2	3,2
KQ2U02-04A	2	4
KQ2U23-04A	3,2	4
KQ2U04-06A	4	6
KQ2U06-08A	6	8
KQ2U08-10A	8	10
KQ2U10-12A	10	12
KQ2U12-16A	12	16

**PLUG-IN «Y»  
KQ2U**



Part No.	ØD	ØD
KQ2U23-99A	3,2	3,2
KQ2U04-99A	4	4
KQ2U06-99A	6	6
KQ2U08-99A	8	8
KQ2U10-99A	10	10
KQ2U12-99A	12	12
KQ2U16-99A	16	16

**DIFFERENT DIAMETER  
PLUG-IN «Y» KQ2X**



Part No.	Ød	ØD
KQ2X23-04A	3,2	4
KQ2X04-06A	4	6
KQ2X06-08A	6	8
KQ2X08-10A	8	10
KQ2X10-12A	10	12

**BRANCH UNION  
ELBOW KQ2LU**



Part No.	ØD	ØD
KQ2LU04-00A	4	4
KQ2LU06-00A	6	6
KQ2LU08-00A	8	8
KQ2LU10-00A	10	10
KQ2LU12-00A	12	12

**CROSS  
KQ2TW**



Part No.	ØD
KQ2TW04-00A1	4
KQ2TW06-00A1	6
KQ2TW08-00A	8
KQ2TW10-00A	10
KQ2TW12-00A	12

**DIFFERENT DIAMETER  
CROSS KQ2TX**



Part No.	Ød	ØD
KQ2TX06-08A1	6	8
KQ2TX08-10A	8	10
KQ2TX10-12A	10	12

**DIFFERENT DIAMETER  
CROSS KQ2TY**



Part No.	Ød	ØD
KQ2TY06-08A1	6	8
KQ2TY08-10A	8	10
KQ2TY10-12A	10	12

**ONE-TOUCH FITTINGS**  
**SERIES KQ2**

**BRANCH «Y»  
KQ2U**



Part No.	R	ØD
KQ2U23-M5N	*M5	3,2
KQ2U23-01NS	R1/8	3,2
KQ2U23-02NS	R1/4	3,2
KQ2U04-M5N	*M5	4
KQ2U04-01NS	R1/8	4
KQ2U04-02NS	R1/4	4
KQ2U06-M5N	*M5	6
KQ2U06-01NS	R1/8	6
KQ2U06-02NS	R1/4	6
KQ2U06-03NS	R3/8	6
KQ2U08-01NS	R1/8	8
KQ2U08-02NS	R1/4	8
KQ2U08-03NS	R3/8	8
KQ2U10-02NS	R1/4	10
KQ2U10-03NS	R3/8	10
KQ2U10-04NS	R1/2	10
KQ2U12-02NS	R1/4	12
KQ2U12-03NS	R3/8	12
KQ2U12-04NS	R1/2	12
KQ2U16-03NS	R3/8	16
KQ2U16-04NS	R1/2	16

\* with gasket

**PLUG-IN REDUCER  
KQ2R**



Part No.	Ød	ØD
KQ2R23-04A1	3,2	4
KQ2R04-06A1	4	6
KQ2R04-08A1	4	8
KQ2R04-10A1	4	10
KQ2R06-04A1	6	4
KQ2R06-08A1	6	8
KQ2R06-10A1	6	10
KQ2R06-12A1	6	12
KQ2R08-10A	8	10
KQ2R08-12A	8	12
KQ2R10-12A	10	12
KQ2R10-16A	10	16
KQ2R12-16A	12	16

**TUBE CAP  
KQ2C**



Part No.	ØD
KQ2C04-00A1	4
KQ2C06-00A1	6
KQ2C08-00A	8
KQ2C10-00A	10
KQ2C12-00A	12
KQ2C16-00A	16

**BULKHEAD CONNECTOR  
KQ2E**



Part No.	Rc	ØD
KQ2E23-02N1	Rc1/4	3,2
KQ2E04-01N1	Rc1/8	4
KQ2E04-02N1	Rc1/4	4
KQ2E06-01N1	Rc1/8	6
KQ2E06-02N1	Rc1/4	6
KQ2E06-03N1	Rc3/8	6
KQ2E08-01N	Rc1/8	8
KQ2E08-02N	Rc1/4	8
KQ2E08-03N	Rc3/8	8
KQ2E10-02N	Rc1/4	10
KQ2E10-03N	Rc3/8	10
KQ2E12-03N	Rc3/8	12
KQ2E12-04N	Rc1/2	12
KQ2E16-03N	Rc3/8	16
KQ2E16-04N	Rc1/2	16

**PLUG  
KQ2P**



Part No.	ØD
KJP-02	2
KQ2P-23	3,2
KQ2P-04	4
KQ2P-06	6
KQ2P-08	8
KQ2P-10	10
KQ2P-12	12
KQ2P-16	16

**ADAPTOR  
KQ2N**



Part No.	R	ØD
KQ2N04-M5N	*M5	4
KQ2N04-01NS	R1/8	4
KQ2N06-M5N	*M5	6
KQ2N06-01NS	R1/8	6
KQ2N06-02NS	R1/4	6
KQ2N08-02NS	R1/4	8
KQ2N08-03NS	R3/8	8
KQ2N10-03NS	R3/8	10

\* with gasket

**NIPPLE  
KQ2N**



Part No.	ØD	ØD
KQ2N04-99	4	4
KQ2N06-99	6	6
KQ2N08-99	8	8
KQ2N10-99	10	10
KQ2N12-99	12	12
KQ2N16-99	16	16

**NIPPLE  
KQ2N**



Part No.	Ød	ØD
KQ2XD04-06A	4	6
KQ2XD06-08A	6	8

**DELTA BRANCH  
KQ2UD**



Part No.	R	ØD
KQ2UD04-01NS	R1/8	4
KQ2UD04-02NS	R1/4	4
KQ2UD06-01NS	R1/8	6
KQ2UD06-02NS	R1/4	6

**BULKHEAD UNION  
KQ2E**



Part No.	ØD	ØD
KQ2E23-00N1	3,2	3,2
KQ2E04-00N1	4	4
KQ2E06-00N1	6	6
KQ2E08-00N	8	8
KQ2E10-00N	10	10
KQ2E12-00N	12	12
KQ2E16-00N	16	16

**BULKHEAD UNION  
KQ2E**



Part No.	Ød	ØD
KQ2N04-06	4	6
KQ2N06-08	6	8
KQ2N08-10	8	10
KQ2N10-12	10	12
KQ2N12-16	12	16

**DIFFERENT DIAMETER  
DOUBLE UNION «Y» KQ2UD**



Part No.	Ød	ØD
KQ2UD04-06A	4	6
KQ2UD06-08A	6	8

**BULKHEAD MALE ELBOW  
KQ2LE**



Part No.	ØD	ØD
KQ2LE04-00N1	4	4
KQ2LE06-00N1	6	6
KQ2LE08-00N	8	8
KQ2LE10-00N	10	10
KQ2LE12-00N	12	12

**ONE-TOUCH FITTINGS  
SERIES KQ2**

**BRANCH UNIVERSAL  
MALE ELBOW KQ2Z**



Part No.	R	ØD
KQ2Z04-M5N	*M5	4
KQ2Z04-01NS	R1/8	4
KQ2Z06-01NS	R1/8	6
KQ2Z06-02NS	R1/4	6
KQ2Z06-03NS	R3/8	6
KQ2Z08-01NS	R1/8	8
KQ2Z08-02NS	R1/4	8
KQ2Z08-03NS	R3/8	8
KQ2Z10-02NS	R1/4	10
KQ2Z10-03NS	R3/8	10
KQ2Z12-03NS	R3/8	12
KQ2Z12-04NS	R1/2	12

\* with gasket

**BRANCH UNIVERSAL  
FEMALE ELBOW KQ2ZF**



Part No.	R, Rc	ØD
KQ2ZF04-M5N	*M5	4
KQ2ZF04-01NS	1/8	4
KQ2ZF06-01NS	1/8	6
KQ2ZF06-02NS	1/4	6
KQ2ZF08-01NS	1/8	8
KQ2ZF08-02NS	1/4	8
KQ2ZF10-02NS	1/4	10
KQ2ZF10-03NS	3/8	10
KQ2ZF12-03NS	3/8	12
KQ2ZF12-04NS	1/2	12

\* with gasket

**MALE BRANCH  
CONNECTOR KQ2LU**



Part No.	R	ØD
KQ2LU04-M5N	*M5	4
KQ2LU04-01NS	R1/8	4
KQ2LU04-02NS	R1/4	4
KQ2LU06-M5N	*M5	6
KQ2LU06-01NS	R1/8	6
KQ2LU06-02NS	R1/4	6
KQ2LU06-03NSR3/8	6	6
KQ2LU08-01NS	R1/8	8
KQ2LU08-02NS	R1/4	8
KQ2LU08-03NSR3/8	8	8
KQ2LU10-02NS	R1/4	10
KQ2LU10-03NS	R3/8	10
KQ2LU10-04NS	R1/2	10
KQ2LU12-02NS	R1/4	12
KQ2LU12-03NS	R3/8	12
KQ2LU12-04NS	R1/2	12

\* with gasket

**DOUBLE UNIVERSAL MALE  
ELBOW KQ2VD**



Part No.	R	ØD
KQ2VD04-01NS	R1/8	4
KQ2VD04-02NSR1/4	4	4
KQ2VD04-03NSR3/8	4	4
KQ2VD06-01NS	R1/8	6
KQ2VD06-02NSR1/4	6	6
KQ2VD06-03NSR3/8	6	6
KQ2VD08-01NS	R1/8	8
KQ2VD08-02NSR1/4	8	8
KQ2VD08-03NSR3/8	8	8
KQ2VD08-04NSR1/2	8	8
KQ2VD10-02NS	R1/4	10
KQ2VD10-03NS	R3/8	10
KQ2VD10-04NS	R1/2	10
KQ2VD12-02NS	R1/4	12
KQ2VD12-03NS	R3/8	12
KQ2VD12-04NS	R1/2	12

**MALE DELTA UNION  
KQ2D**



Part No.	R	ØD
KQ2D04-M5N1	*M5	4
KQ2D04-M6N1	*M6	4
KQ2D04-01NS1	R1/8	4
KQ2D04-02NS1	R1/4	4
KQ2D06-M5N1	*M5	6
KQ2D06-M6N1	*M6	6
KQ2D06-01NS1	R1/8	6
KQ2D06-02NS1	R1/4	6
KQ2D06-03NS1	R3/8	6
KQ2D08-01NS	R1/8	8
KQ2D08-02NS	R1/4	8
KQ2D08-03NS	R3/8	8
KQ2D10-02NS	R1/4	10
KQ2D10-03NS	R3/8	10
KQ2D10-04NS	R1/2	10
KQ2D12-02NS	R1/4	12
KQ2D12-03NS	R3/8	12
KQ2D12-04NS	R1/2	12

\* with gasket

**TRIPLE UNIVERSAL  
MALE ELBOW KQ2VT**



Part No.	R	ØD
KQ2VT04-01NS	R1/8	4
KQ2VT04-02NS	R1/4	4
KQ2VT04-03NSR3/8	4	4
KQ2VT06-01NS	R1/8	6
KQ2VT06-02NS	R1/4	6
KQ2VT06-03NSR3/8	6	6
KQ2VT08-01NS	R1/8	8
KQ2VT08-02NS	R1/4	8
KQ2VT08-03NSR3/8	8	8
KQ2VT08-04NS	R1/2	8
KQ2VT10-02NS	R1/4	10
KQ2VT10-03NS	R3/8	10
KQ2VT10-04NS	R1/2	10
KQ2VT12-02NS	R1/4	12
KQ2VT12-03NS	R3/8	12
KQ2VT12-04NS	R1/2	12

**DOUBLE BRANCH  
UNIVERSAL MALE ELBOW  
KQ2ZD**



Part No.	R	ØD
KQ2ZD04-01NS	R1/8	4
KQ2ZD04-02NSR1/4	4	4
KQ2ZD04-03NSR3/8	4	4
KQ2ZD06-01NS	R1/8	6
KQ2ZD06-02NSR1/4	6	6
KQ2ZD06-03NSR3/8	6	6
KQ2ZD08-01NS	R1/8	8
KQ2ZD08-02NSR1/4	8	8
KQ2ZD08-03NSR3/8	8	8
KQ2ZD08-04NSR1/2	8	8
KQ2ZD10-02NS	R1/4	10
KQ2ZD10-03NS	R3/8	10
KQ2ZD10-04NS	R1/2	10
KQ2ZD12-02NS	R1/4	12
KQ2ZD12-03NS	R3/8	12
KQ2ZD12-04NS	R1/2	12

**TRIPLE BRANCH  
UNIVERSAL MALE ELBOW  
KQ2ZT**



Part No.	R	ØD
KQ2ZT04-01NS	R1/8	4
KQ2ZT04-02NS	R1/4	4
KQ2ZT04-03NS	R3/8	4
KQ2ZT06-01NS	R1/8	6
KQ2ZT06-02NS	R1/4	6
KQ2ZT06-03NS	R3/8	6
KQ2ZT08-01NS	R1/8	8
KQ2ZT08-02NS	R1/4	8
KQ2ZT08-03NS	R3/8	8
KQ2ZT08-04NS	R1/2	8
KQ2ZT10-02NS	R1/4	10
KQ2ZT10-03NS	R3/8	10
KQ2ZT10-04NS	R1/2	10
KQ2ZT12-02NS	R1/4	12
KQ2ZT12-03NS	R3/8	12
KQ2ZT12-04NS	R1/2	12

**ONE-TOUCH FITTINGS**  
**SERIES KQB**

**MALE CONNECTOR**  
**KQB2H**



Part No.	R	ØD
KQB2H23-M5	M5x0.8	3.2
KQB2H23-01S	1/8	3.2
KQB2H23-02S	1/4	3.2
KQB2H04-M5	M5x0.8	4
KQB2H04-01S	1/8	4
KQB2H04-02S	1/4	4
KQB2H06-M5	M5x0.8	6
KQB2H06-01S	1/8	6
KQB2H06-02S	1/4	6
KQB2H06-03S	3/8	6
KQB2H08-01S	1/8	8
KQB2H08-02S	1/4	8
KQB2H08-03S	3/8	8
KQB2H10-01S	1/8	10
KQB2H10-02S	1/4	10
KQB2H10-03S	3/8	10
KQB2H10-04S	1/2	10
KQB2H12-02S	1/4	12
KQB2H12-03S	3/8	12
KQB2H12-04S	1/2	12
KQB2H16-03S	3/8	16
KQB2H16-04S	1/2	16

**FEMALE CONNECTOR**  
**KQB2F**



Part No.	Rc	ØD
KQB2F23-01	1/8	3.2
KQB2F04-01	1/8	4
KQB2F04-02	1/4	4
KQB2F06-01	1/8	6
KQB2F06-02	1/4	6
KQB2F06-03	3/8	6
KQB2F08-01	1/8	8
KQB2F08-02	1/4	8
KQB2F08-03	3/8	8
KQB2F10-02	1/4	10
KQB2F10-03	3/8	10
KQB2F12-02	1/4	12
KQB2F12-03	3/8	12
KQB2F12-04	1/2	12
KQB2F16-03	3/8	16
KQB2F16-04	1/2	16

**HEXAGON SOCKET HEAD**  
**MALE CONNECTOR KQB2S**



Part No.	R	ØD
KQB2S23-M5	M5x0.8	3.2
KQB2S04-M5	M5x0.8	4
KQB2S04-01S	1/8	4
KQB2S06-M5	M5x0.8	6
KQB2S06-01S	1/8	6
KQB2S06-02S	1/4	6
KQB2S08-01S	1/8	8
KQB2S08-02S	1/4	8
KQB2S08-03S	3/8	8
KQB2S10-01S	1/8	10
KQB2S10-02S	1/4	10
KQB2S10-03S	3/8	10
KQB2S10-04S	1/2	10
KQB2S12-02S	1/4	12
KQB2S12-03S	3/8	12
KQB2S12-04S	1/2	12
KQB2S16-03S	3/8	16
KQB2S16-04S	1/2	16

**MALE ELBOW**  
**KQB2L**



Part No.	R	ØD
KQB2L23-M5	M5x0.8	3.2
KQB2L23-01S	1/8	3.2
KQB2L23-02S	1/4	3.2
KQB2L04-M5	M5x0.8	4
KQB2L04-01S	1/8	4
KQB2L04-02S	1/4	4
KQB2L06-M5	M5x0.8	6
KQB2L06-01S	1/8	6
KQB2L06-02S	1/4	6
KQB2L06-03S	3/8	6
KQB2L08-01S	1/8	8
KQB2L08-02S	1/4	8
KQB2L08-03S	3/8	8
KQB2L10-01S	1/8	10
KQB2L10-02S	1/4	10
KQB2L10-03S	3/8	10
KQB2L10-04S	1/2	10
KQB2L12-02S	1/4	12
KQB2L12-03S	3/8	12
KQB2L12-04S	1/2	12
KQB2L16-03S	3/8	16
KQB2L16-04S	1/2	16

**STRAIGHT UNION**  
**KQB2H**



Part No.	ØD
KQB2H23-00	3.2
KQB2H04-00	4
KQB2H06-00	6
KQB2H08-00	8
KQB2H10-00	10
KQB2H12-00	12
KQB2H16-00	16

**EXTENDED MALE ELBOW**  
**KQB2W**



Part No.	R	ØD
KQB2W23-M5	M5x0.8	3.2
KQB2W23-01S	1/8	3.2
KQB2W23-02S	1/4	3.2
KQB2W04-M5	M5x0.8	4
KQB2W04-01S	1/8	4
KQB2W04-02S	1/4	4
KQB2W06-M5	M5x0.8	6
KQB2W06-01S	1/8	6
KQB2W06-02S	1/4	6
KQB2W06-03S	3/8	6
KQB2W08-01S	1/8	8
KQB2W08-02S	1/4	8
KQB2W08-03S	3/8	8
KQB2W10-02S	1/4	10
KQB2W10-03S	3/8	10
KQB2W10-04S	1/2	10
KQB2W12-02S	1/4	12
KQB2W12-03S	3/8	12
KQB2W12-04S	1/2	12
KQB2W16-03S	3/8	16
KQB2W16-04S	1/2	16

**DIFFERENT DIAMETER**  
**STRAIGHT KQB2H**



Part No.	R	ØD
KQB2H23-04	3.2	4
KQB2H04-06	4	6
KQB2H06-08	6	8
KQB2H08-10	8	10
KQB2H10-12	10	12
KQB2H12-16	12	16

**BULKHEAD CONNECTOR**  
**KQB2E**



Part No.	Rc	ØD
KQB2E04-01	1/8	4
KQB2E04-02	1/4	4
KQB2E06-01	1/8	6
KQB2E06-02	1/4	6
KQB2E06-03	3/8	6
KQB2E08-01	1/8	8
KQB2E08-02	1/4	8
KQB2E08-03	3/8	8
KQB2E10-02	1/4	10
KQB2E10-03	3/8	10
KQB2E12-03	3/8	12
KQB2E12-04	1/2	12
KQB2E16-03	3/8	16
KQB2E16-04	1/2	16

**BULKHEAD UNION**  
**KQB2E**



Part No.	ØD
KQB2E23-00	3.2
KQB2E04-00	4
KQB2E06-00	6
KQB2E08-00	8
KQB2E10-00	10
KQB2E12-00	12
KQB2E16-00	16

**ONE-TOUCH FITTINGS  
SERIES KQB**

**UNION "Y" KQB2U**



Part No.	ØD
KQB2U23-00	3.2
KQB2U04-00	4
KQB2U06-00	6
KQB2U08-00	8
KQB2U10-00	10
KQB2U12-00	12
KQB2U16-00	16

**DIFFERENT DIAMETER  
UNION "Y" KQB2U**



Part No.	ØD	ØD
KQB2U23-04	3.2	4
KQB2U04-06	4	6
KQB2U06-08	6	8
KQB2U08-10	8	10
KQB2U10-12	10	12
KQB2U12-16	12	16

**PLUG-IN REDUCER  
KQB2R**



Part No.	ØD	ØD
KQB2R23-04	3.2	4
KQB2R04-06	4	6
KQB2R06-08	6	8
KQB2R08-10	8	10
KQB2R10-12	10	12
KQB2R12-16	12	16

**UNION ELBOW KQB2L**



Part No.	ØD
KQB2L23-00	3.2
KQB2L04-00	4
KQB2L06-00	6
KQB2L08-00	8
KQB2L10-00	10
KQB2L12-00	12
KQB2L16-00	16

**MALE BRANCH TEE  
KQB2T**



Part No.	R	ØD
KQB2T23-M5	M5x0.8	3.2
KQB2T23-01S	1/8	3.2
KQB2T23-02S	1/4	3.2
KQB2T04-M5	M5x0.8	4
KQB2T04-01S	1/8	4
KQB2T04-02S	1/4	4
KQB2T06-M5	M5x0.8	6
KQB2T06-01S	1/8	6
KQB2T06-02S	1/4	6
KQB2T06-03S	3/8	6
KQB2T08-01S	1/8	8
KQB2T08-02S	1/4	8
KQB2T08-03S	3/8	8
KQB2T10-01S	1/8	10
KQB2T10-02S	1/4	10
KQB2T10-03S	3/8	10
KQB2T10-04S	1/2	10
KQB2T12-02S	1/4	12
KQB2T12-03S	3/8	12
KQB2T12-04S	1/2	12
KQB2T16-03S	3/8	16
KQB2T16-04S	1/2	16

**DIFFERENT DIAMETER TEE  
KQB2T**



Part No.	ØD	ØD
KQB2T23-04	3.2	4
KQB2T04-06	4	6
KQB2T06-08	6	8
KQB2T08-10	8	10
KQB2T10-12	10	12
KQB2T12-16	12	16

**UNION TEE  
KQB2T**



Part No.	ØD
KQB2T23-00	3.2
KQB2T04-00	4
KQB2T06-00	6
KQB2T08-00	8
KQB2T10-00	10
KQB2T12-00	12
KQB2T16-00	16

**ONE-TOUCH 316 STAINLESS STEEL FITTINGS  
SERIES KQG**

**MALE CONNECTOR  
KQG2H**



Part No.	R	ØD
KQG2H23-M5	M5x0.8	3.2
KQG2H23-01S	1/8	3.2
KQG2H23-02S	1/4	3.2
KQG2H04-M5	M5x0.8	4
KQG2H04-01S	1/8	4
KQG2H04-02S	1/4	4
KQG2H06-M5	M5x0.8	6
KQG2H06-01S	1/8	6
KQG2H06-02S	1/4	6
KQG2H06-03S	3/8	6
KQG2H08-01S	1/8	8
KQG2H08-02S	1/4	8
KQG2H08-03S	3/8	8
KQG2H10-01S	1/8	10
KQG2H10-02S	1/4	10
KQG2H10-03S	3/8	10
KQG2H10-04S	1/2	10
KQG2H12-02S	1/4	12
KQG2H12-03S	3/8	12
KQG2H12-04S	1/2	12
KQG2H16-03S	3/8	16
KQG2H16-04S	1/2	16

**HEXAGON SOCKET HEAD  
MALE CONNECTOR KQG2S**



Part No.	R	ØD
KQG2S23-M5	M5x0.8	3.2
KQG2S04-M5	M5x0.8	4
KQG2S04-01S	1/8	4
KQG2S06-M5	M5x0.8	6
KQG2S06-01S	1/8	6
KQG2S06-02S	1/4	6
KQG2S08-01S	1/8	8
KQG2S08-02S	1/4	8
KQG2S08-03S	3/8	8
KQG2S10-01S	1/8	10
KQG2S10-02S	1/4	10
KQG2S10-03S	3/8	10
KQG2S10-04S	1/2	10
KQG2S12-02S	1/4	12
KQG2S12-03S	3/8	12
KQG2S12-04S	1/2	12
KQG2S16-03S	3/8	16
KQG2S16-04S	1/2	16

**MALE ELBOW  
KQG2L**



Part No.	R	ØD
KQG2L23-M5	M5x0.8	3.2
KQG2L23-01S	1/8	3.2
KQG2L23-02S	1/4	3.2
KQG2L04-M5	M5x0.8	4
KQG2L04-01S	1/8	4
KQG2L04-02S	1/4	4
KQG2L06-M5	M5x0.8	6
KQG2L06-01S	1/8	6
KQG2L06-02S	1/4	6
KQG2L06-03S	3/8	6
KQG2L08-01S	1/8	8
KQG2L08-02S	1/4	8
KQG2L08-03S	3/8	8
KQG2L10-01S	1/8	10
KQG2L10-02S	1/4	10
KQG2L10-03S	3/8	10
KQG2L10-04S	1/2	10
KQG2L12-02S	1/4	12
KQG2L12-03S	3/8	12
KQG2L12-04S	1/2	12
KQG2L16-03S	3/8	16
KQG2L16-04S	1/2	16

**FEMALE CONNECTOR  
KQG2F**



Part No.	Rc	ØD
KQG2F23-01	1/8	3.2
KQG2F04-01	1/8	4
KQG2F04-02	1/4	4
KQG2F06-01	1/8	6
KQG2F06-02	1/4	6
KQG2F06-03	3/8	6
KQG2F08-01	1/8	8
KQG2F08-02	1/4	8
KQG2F08-03	3/8	8
KQG2F10-02	1/4	10
KQG2F10-03	3/8	10
KQG2F12-02	1/4	12
KQG2F12-03	3/8	12
KQG2F12-04	1/2	12
KQG2F16-03	3/8	16
KQG2F16-04	1/2	16

**STRAIGHT UNION  
KQG2H**



Part No.	ØD
KQG2H23-00	3.2
KQG2H04-00	4
KQG2H06-00	6
KQG2H08-00	8
KQG2H10-00	10
KQG2H12-00	12
KQG2H16-00	16

**EXTENDED MALE ELBOW  
KQG2W**



Part No.	R	ØD
KQG2W23-M5	M5x0.8	3.2
KQG2W23-01S	1/8	3.2
KQG2W23-02S	1/4	3.2
KQG2W04-M5	M5x0.8	4
KQG2W04-01S	1/8	4
KQG2W04-02S	1/4	4
KQG2W06-M5	M5x0.8	6
KQG2W06-01S	1/8	6
KQG2W06-02S	1/4	6
KQG2W06-03S	3/8	6
KQG2W08-01S	1/8	8
KQG2W08-02S	1/4	8
KQG2W08-03S	3/8	8
KQG2W10-02S	1/4	10
KQG2W10-03S	3/8	10
KQG2W10-04S	1/2	10
KQG2W12-02S	1/4	12
KQG2W12-03S	3/8	12
KQG2W12-04S	1/2	12
KQG2W16-03S	3/8	16
KQG2W16-04S	1/2	16

**DIFFERENT DIAMETER  
STRAIGHT KQG2H**



Part No.	R	ØD
KQG2H23-04	3.2	4
KQG2H04-06	4	6
KQG2H06-08	6	8
KQG2H08-10	8	10
KQG2H10-12	10	12
KQG2H12-16	12	16

**BULKHEAD CONNECTOR  
KQG2E**



Part No.	Rc	ØD
KQG2E04-01	1/8	4
KQG2E04-02	1/4	4
KQG2E06-01	1/8	6
KQG2E06-02	1/4	6
KQG2E06-03	3/8	6
KQG2E08-01	1/8	8
KQG2E08-02	1/4	8
KQG2E08-03	3/8	8
KQG2E10-02	1/4	10
KQG2E10-03	3/8	10
KQG2E12-03	3/8	12
KQG2E12-04	1/2	12
KQG2E16-03	3/8	16
KQG2E16-04	1/2	16

**BULKHEAD UNION  
KQG2E**



Part No.	ØD
KQG2E23-00	3.2
KQG2E04-00	4
KQG2E06-00	6
KQG2E08-00	8
KQG2E10-00	10
KQG2E12-00	12
KQG2E16-00	16

**ONE-TOUCH 316 STAINLESS STEEL FITTINGS  
SERIES KQG**

**DIFFERENT DIAMETER  
UNION "Y" KQG2U**



Part No.	ØD
KQG2U23-00	3.2
KQG2U04-00	4
KQG2U06-00	6
KQG2U08-00	8
KQG2U10-00	10
KQG2U12-00	12
KQG2U16-00	16

**UNION "Y"  
KQG2U**



Part No.	R	ØD
KQG2U23-04	3.2	4
KQG2U04-06	4	6
KQG2U06-08	6	8
KQG2U08-10	8	10
KQG2U10-12	10	12
KQG2U12-16	12	16

**PLUG-IN REDUCER  
KQG2R**



Part No.	ØD	ØD
KQG2R23-04	3.2	4
KQG2R04-06	4	6
KQG2R06-08	6	8
KQG2R08-10	8	10
KQG2R10-12	10	12
KQG2R12-16	12	16

**DIFFERENT DIAMETER  
UNION "Y" KQG2U**



Part No.	R	ØD
KQG2T23-M5	M5x0.8	3.2
KQG2T23-01S	1/8	3.2
KQG2T23-02S	1/4	3.2
KQG2T04-M5	M5x0.8	4
KQG2T04-01S	1/8	4
KQG2T04-02S	1/4	4
KQG2T06-M5	M5x0.8	6
KQG2T06-01S	1/8	6
KQG2T06-02S	1/4	6
KQG2T06-03S	3/8	6
KQG2T08-01S	1/8	8
KQG2T08-02S	1/4	8
KQG2T08-03S	3/8	8
KQG2T10-01S	1/8	10
KQG2T10-02S	1/4	10
KQG2T10-03S	3/8	10
KQG2T10-04S	1/2	10
KQG2T12-02S	1/4	12
KQG2T12-03S	3/8	12
KQG2T12-04S	1/2	12
KQG2T16-03S	3/8	16
KQG2T16-04S	1/2	16

**DIFFERENT DIAMETER  
TEE KQG2T**



Part No.	ØD	ØD
KQG2T23-04	3.2	4
KQG2T04-06	4	6
KQG2T06-08	6	8
KQG2T08-10	8	10
KQG2T10-12	10	12
KQG2T12-16	12	16

**UNION TEE  
KQG2T**



Part No.	ØD
KQG2T23-00	3.2
KQG2T04-00	4
KQG2T06-00	6
KQG2T08-00	8
KQG2T10-00	10
KQG2T12-00	12
KQG2T16-00	16



Part Number	Piping Direction	Port Thread	Colour	Operating pressure (MPa)
VMG11BU-02	Bottom	Rc1/4	Blue	0 - 1.0
VMG11W-02		Rc1/4	White	
VMG12BU-02	Top	Rc1/4	Blue	
VMG12W-02		Rc1/4	White	

**BLOW GUNS SERIES VMG**

- Ergonomically designed body with patented valve design and KN nozzles produces considerable reduction in pressure losses
- 20% reduction in power consumption with the SMC 'Blow gun' + 'S coupler' + 'Coil tube'
- 2 Connection options
- Minimum actuation force required
- White colour available on indent only. Blue available as standard

**Please Note:** A air nozzle must be purchased as they are supplied separately.

**AIR NOZZLES  
SERIES KN**

**Male Thread Nozzle**



Part Number	Nozzle-ø (mm)	Piping thread
KN-R02-100	1	R1/4
KN-R02-150	1.5	R1/4
KN-R02-200	2	R1/4
KN-R02-250	2.5	R1/4

**High Efficiency Nozzle**



Part Number	Nozzle-ø (mm)	Piping thread
KN-R02-100	1	R1/4
KN-R02-150	1.5	R1/4
KN-R02-200	2	R1/4

**Long Copper Pipe Nozzle**



- Wide range of various blow nozzles.
- Designed for use with compressed air and cutting oils.

Part Number	Nozzle-ø (mm)	O.D. (mm)	Length (mm)
VMG1-06-150-300	1.5	6	300
VMG1-06-200-300	2	6	300
VMG1-06-150-600	1.5	6	600
VMG1-06-200-600	2	6	600

**Multi-hole structure to reduce noise**



Part Number	Nozzle-ø (mm)	Piping thread
KNS-R02-075-4	Ø0.75 x 4	R1/4
KNS-R02-090-8	Ø0.9 x 8	R1/4
KNS-R02-100-4	Ø1 x 4	R1/4
KNS-R02-100-4	Ø1 x 4	R1/4

**Nozzle for one-touch fittings**



Part Number	Nozzle-ø (mm)	Piping thread
KN-Q06-100	Ø1	6
KN-Q06-150	Ø1.5	6
KN-Q06-200	Ø2	6

**OSHA Compliant Nozzle  
for one-touching fittings**



Model	KNA-Q10-180	KNAG-Q10-180
Material	PBT	Stainless steel 316
Fluid	Air	
Max. operating pressure	1 MPa	
Ambient and fluid temperatures	-5 to 60°C (No freezing)	-5 to 150°C (No freezing)
Nozzle diameter	Equivalent to Ø1.8	
Weight	3g	17g
Applicable one-touch fitting size	Ø10	



**POLYURETHANE TUBE  
SERIES TU**

**FEATURES:**

- Max. operating pressure: 0.8 MPa (at 20°C)
- Extremely flexible with excellent memory.
- Kink & abrasion resistant.
- Low gas permeability, extractables and compression set.
- Resistant to chemicals, water, fuel, oil and fungus.
- Transparent and opaque colors.

**COLOURS AVAILABLE:**

- White, Black, Blue, Red, Yellow, Green, Clear and 22 other colours
- available as special orders. Other size rolls available upon request
- FDA approved tube is available as special order

**SPECIFICATIONS:**

Product Code	Outside Diameter	Internal Diameter	Min Bend radius	Standard Coil
Metric	mm	mm	mm	mtr
TU0212	2	1,2	4	20
TU0425	4	2,5	10	20, 100, 200
TU0604	6	4	15	20, 100, 200
TU0805	8	5	20	20, 100
TU1065	10	6,5	27	20, 100
TU1208	12	8	35	20, 100
TU1610	16	10	45	20, 100

Inch	Inch	Inch	Inch	mtr
TIUB01	1/8	2	10	20, 100
TIUB05	3/16	3,18	15	20
TIUB07	1/4	4,23	23	20
TIUB11	3/8	6,35	27	20
TIUB13	1/2	8,46	35	20

**RECOMMENDED TEMPERATURE / PRESSURE RANGE**

Celsius	-20	0	10	20	30	40	50	60
Working psi	230	230	230	230	180	160	130	115
Working kPa	1600	1600	1600	1600	1300	1100	900	800

- Burst pressure 2750 kPa (400psi) at 20°C.
- Note: Prolonged exposure to temperatures over 40 C may have ageing effect on the tube in certain environments.

**ALSO AVAILABLE**



- Tube cutter: 12mm or less
- Part No. TK-3



- Tube cutter: 16mm or less
- Part No. TK-6



- Tube releasing tool: 4 & 6mm tube
- Part No. TG-1

# THEORETICAL OUTPUT TABLE

**Double Acting Cylinder** Even the theoretical output of non-applicable cylinders can be calculated using the bore and rod sizes in the table below.

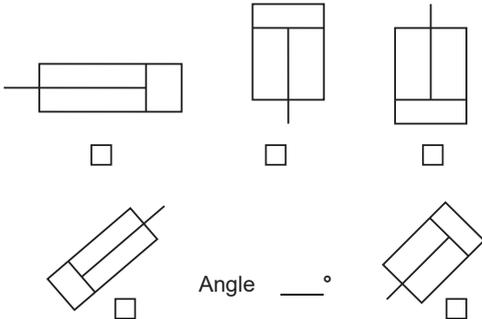
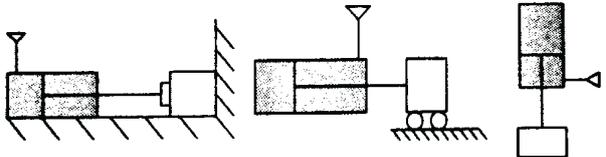
Bore size (mm)	Rod size (mm)	"Operating direction"	Piston area (mm <sup>2</sup> )	Operating pressure (MPa)								
				0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1
6	3	OUT	28,3	5,66	8,49	11,3	14,2	17	19,8	-	-	-
		IN	21,2	4,24	6,36	8,48	10,6	12,7	14,8	-	-	-
10	4	OUT	78,5	15,7	23,6	31,4	39,3	47,1	55	-	-	-
		IN	66	13,2	19,8	26,4	33	39,6	46,2	-	-	-
16	5	OUT	201	40,2	60,3	80,4	101	121	141	-	-	-
		IN	181	36,2	54,3	72,4	90,5	109	127	-	-	-
20	8	OUT	314	62,8	94,2	126	157	188	220	251	283	314
		IN	264	52,8	79,2	106	132	158	185	211	238	264
25	10	OUT	491	98,2	147	196	246	295	344	393	442	491
		IN	412	82,4	124	165	206	247	288	330	371	412
32	12	OUT	804	161	241	322	402	482	563	643	724	804
		IN	691	138	207	276	346	415	484	553	622	691
40	14	OUT	1260	252	378	504	630	756	882	1010	1130	1260
		IN	1100	220	330	440	550	660	770	880	990	1100
	16	OUT	1260	252	378	504	630	756	882	1010	1130	1260
		IN	1060	212	318	424	530	636	742	848	954	1060
50	20	OUT	1960	392	588	784	980	1180	1370	1570	1760	1960
		IN	1650	330	495	660	825	990	1160	1320	1490	1650
63	20	OUT	3120	624	936	1250	1560	1870	2180	2500	2810	3120
		IN	2800	560	840	1120	1400	1680	1960	2240	2520	2800
80	25	OUT	5030	1010	1510	2010	2520	3020	3520	4020	4530	5030
		IN	4540	908	1360	1820	2270	2720	3180	3630	4090	4540
100	30	OUT	7850	1570	2360	3140	3930	4710	5500	6280	7070	7850
		IN	7150	1430	2150	2860	3580	4290	5010	5720	6440	7150
125	32	OUT	12300	2460	3690	4920	6150	7380	8610	9840	11100	12300
		IN	11500	2300	3450	4600	5750	6900	8050	9200	10400	11500
	36	OUT	12300	2460	3690	4920	6150	7380	8610	9840	11100	12300
		IN	11300	2260	3390	4520	5650	6780	7910	9040	10200	11300
140	32	OUT	15400	3080	4620	6160	7700	9240	10800	12300	13900	15400
		IN	14600	2920	4380	5840	7300	8760	10200	11700	13100	14600
	36	OUT	15400	3080	4620	6160	7700	9240	10800	12300	13900	15400
		IN	14400	2880	4320	5760	7200	8640	10100	11500	13000	14400
160	38	OUT	20100	4020	6030	8040	10100	12100	14100	16100	18100	20100
		IN	19000	3800	5700	7600	9500	11400	13300	15200	17100	19000
	40	OUT	20100	4020	6030	8040	10100	12100	14100	16100	18100	20100
		IN	18800	3760	5640	7520	9400	11300	13200	15000	16900	18800
180	45	OUT	25400	5080	7620	10200	12700	15200	17800	20300	22900	25400
		IN	23900	4780	7170	9560	12000	14300	16700	19100	21500	23900
200	50	OUT	31400	6280	9420	12600	15700	18800	22000	25100	28300	31400
		IN	29500	5900	8850	11800	14800	17700	20700	23600	26600	29500
250	60	OUT	49100	9820	14700	19600	24600	29500	34400	39300	44200	49100
		IN	46300	9260	13900	18500	23200	27800	32400	37000	41700	46300
300	70	OUT	70700	14100	21200	28300	35400	42400	49500	56600	63600	70700
		IN	66800	13400	20000	26700	33400	40100	46800	53400	60100	66800

## Single Acting, Spring Return Cylinder

Bore size (mm)	Rod size (mm)	"Operating direction"	Piston area (mm <sup>2</sup> )	Operating pressure (MPa)								
				0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
2,5	1	OUT	4,9	-	0,34	0,83	1,32	1,81	2,3	-	-	-
		IN	-	-	-	-	-	0,64	-	-	-	-
4	2	OUT	12,6	-	0,74	2	3,26	4,52	5,78	-	-	-
		IN	-	-	-	-	-	1,47	-	-	-	-
6	3	OUT	28,3	1,94	4,77	7,6	10,4	13,3	16,1	-	-	-
		IN	-	-	-	-	-	1,77	-	-	-	-
10	4	OUT	78,5	8,84	16,7	24,5	32,4	40,2	48,1	-	-	-
		IN	-	-	-	-	-	3,53	-	-	-	-
16	5	OUT	201	26	46,1	66,2	86,3	106,4	126,5	-	-	-
		IN	-	-	-	-	-	6,86	-	-	-	-
20	8	OUT	314	23,8	55,2	87	118	149	181	212	244	275
		IN	-	-	-	-	-	7,8	-	-	-	-
25	10	OUT	491	51,2	100	149	199	248	297	346	395	444
		IN	-	-	-	-	-	14	-	-	-	-
32	12	OUT	804	94	174	255	335	415	496	576	657	737
		IN	-	-	-	-	-	15	-	-	-	-
40	14, 16	OUT	1260	176	302	428	554	680	806	934	1054	1184
		IN	-	-	-	-	-	24	-	-	-	-

# SMC CORPORATION CYLINDER SELECTION GUIDE

If you need to contact SMC regarding the selection of cylinders, you can email us after filling the relevant information in this form

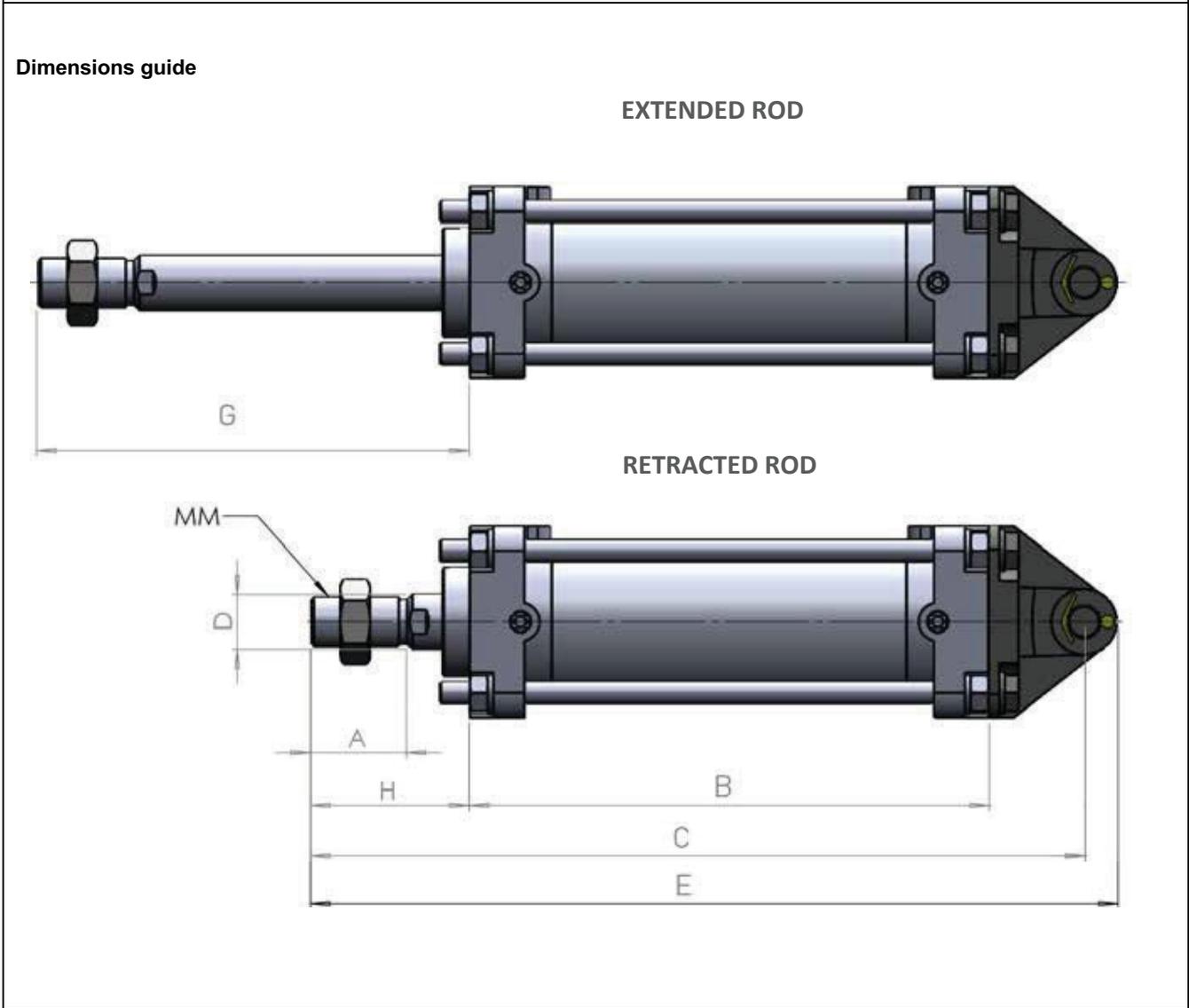
<b>Your/Company Name:</b>		<b>Email:</b>	
<b>Affecting Factors</b>		<b>Environment</b>	
Load Force/Mass _____ Kg		<input type="checkbox"/> Normal Factory	
<input type="checkbox"/> Single Acting <input type="checkbox"/> Double Acting		Temperature <input type="checkbox"/> 0 - 60° <input type="checkbox"/> 60 - 150°C	
Operating Pressure _____ MPa		Chemicals <input type="checkbox"/> <input type="checkbox"/> Other	
		Description _____	
<b>Cylinder Orientation</b>		<b>Notes</b> (i.e., Critical dimensions or conditions)	
			
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Angle ____° <input type="checkbox"/>		<b>Load Support / Guide</b>	
			
Bore _____ mm		<input type="checkbox"/> Sliding <input type="checkbox"/> Rolling <input type="checkbox"/> Guideless	
Stroke _____ mm		<b>Load Direction</b>	
Duty Cycle _____ cycles/(Min)(Sec)		<input type="checkbox"/> Push (Extending) <input type="checkbox"/> Pull (Retracting)	
Cylinder speed _____ mm/sec		<input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Angled	
Stroke Time _____ sec		<input type="checkbox"/> Side load _____ kg <input type="checkbox"/> Deflection _____ mm	
Auto Switch <input type="checkbox"/> Yes <input type="checkbox"/> No _____ Type		<b>Load Attachment</b> <input type="checkbox"/> Direct <input type="checkbox"/> Clevis/Joint	
<input type="checkbox"/> Reed		<b>Medium</b> <input type="checkbox"/> Air <input type="checkbox"/> Air-Hydro	
<input type="checkbox"/> Solid state: <input type="checkbox"/> PNP <input type="checkbox"/> NPN		<input type="checkbox"/> Lube <input type="checkbox"/> Non-Lube	
<input type="checkbox"/> Flying leads <input type="checkbox"/> Pre-wired		<input type="checkbox"/> Other (specify):	
		<b>Shock Absorber</b> <input type="checkbox"/> Yes <input type="checkbox"/> No _____ Type	
<b>Mounting</b>			
Rear Clevis	<input type="checkbox"/> Double	<input type="checkbox"/> Single	
Trunnion	<input type="checkbox"/> Centre	<input type="checkbox"/> Offset (Simple Special) <input type="checkbox"/> Adjustable (RFS)	
Foot	<input type="checkbox"/>		
Flange	<input type="checkbox"/> Front	<input type="checkbox"/> Rear	
Rod	<input type="checkbox"/> Single	<input type="checkbox"/> Double <input type="checkbox"/> Non-rotating	
Rod Clevis	<input type="checkbox"/> Double	<input type="checkbox"/> Single _____ Clevis P/N	
Floating Joint	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Piston Rod Ball Joint	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Comments</b>			
Closest SMC Cylinder P/N			
Opposition Cylinder P/N			
Picture of Existing Cylinder <input type="checkbox"/> Yes <input type="checkbox"/> No		Existing SMC Job Number	

SMC Corporation Australia and New Zealand – Cylinder Selection Guide ver1.3

<b>Your/Company Name:</b> _____	<b>Email:</b> _____
<b>Bore, D (∅)</b> _____ mm	<b>Load Force/Mass</b> _____ Kg
<b>Stroke, (G-H)</b> _____ mm	<b>Operating Pressure</b> _____ MPa
<b>Port Size</b> _____	<b>Auto Switch</b> <input type="checkbox"/> Yes <input type="checkbox"/> No _____ Type

**Dimensions**

G _____ mm	H _____ mm	STROKE (G – H)
D (∅) _____ mm	B _____ mm	_____ mm
A _____ mm	C _____ mm	
MM _____	E _____ mm	



<b>Closest SMC Cylinder P/N</b> _____	
<b>Opposition Cylinder P/N</b> _____	
<b>Picture of Existing Cylinder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Existing SMC Job Number</b> _____

SMC Corporation Australia and New Zealand – SelectionGuideForm\_rev1.2 MAY20



Anytime. Anywhere.  
**Always Here.™**



**iMOTION**

Delivering a world-class customer-first approach providing excellence and expertise in industrial products, solutions and services.

**iMOTION**  
FLUID POWER SOLUTIONS

Specialists in Fluid Power Solutions tailored to keep your equipment moving.

**iMOTION**  
ENGINEERING & SERVICES

Specialist design and engineering, manufacturing, repair and maintenance services.

**iMOTION**  
CONVEYANCE SOLUTIONS

Complete conveyance systems solutions for the design, installation and maintenance of conveyance infrastructure.

Find a location near you!



Australia  
[Motion.com.au](http://Motion.com.au)



New Zealand  
[Motion.co.nz](http://Motion.co.nz)



Indonesia  
[Motionindonesia.com](http://Motionindonesia.com)