ISO 1, 2, 3 and 4

ISO 5599-1

Advantages/Benefits

- **High flow**
- **G or N.P.T threads**
- **Full ISO range**
- **Multi-size products can be fitted to one manifold assembly**

Design and Function

The manifolds and sub-bases can accept all pneumatic control valves, particularly type 451, that conform to ISO 5599-1.
Both G and NPT threads are available. Sub-base are available with bottom or side entry connections.
The manifold allows different ISO sizes to be mounted, and this rationalizes control cabinet design.
Available with inlet plates, transfer plates (for different sizes) and intermediate pressure plates (for varying system pressure).

- Simple design for local assembly.
- Function changes and valve quantities modifications, are easily untertaken

Applications

Dairies

Breweries

Food packing M/C's

Machine tools

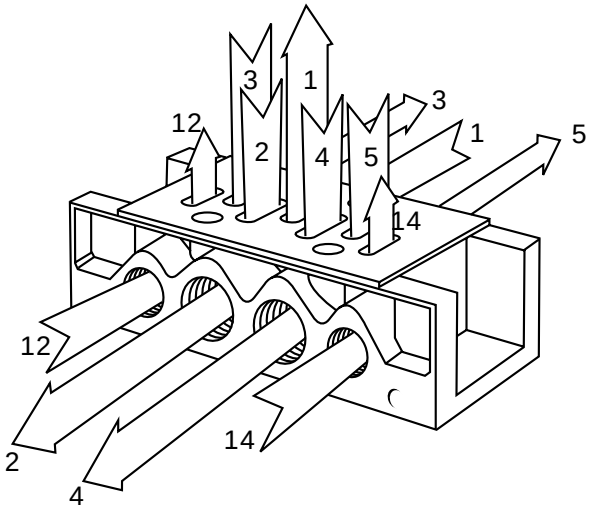
Petro-chemical
Pulp and paper industry
Safety interlock

Conveyor switching
Control cabinets
Cylinder control

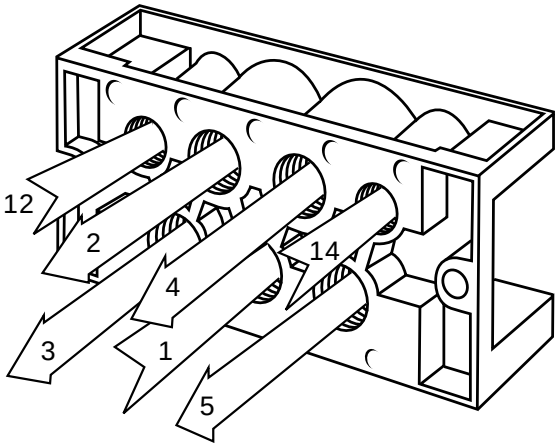
bürkert Easy Fluid Control Systems

Sub-Base and Manifold Connections

Side Entry Sub-Base



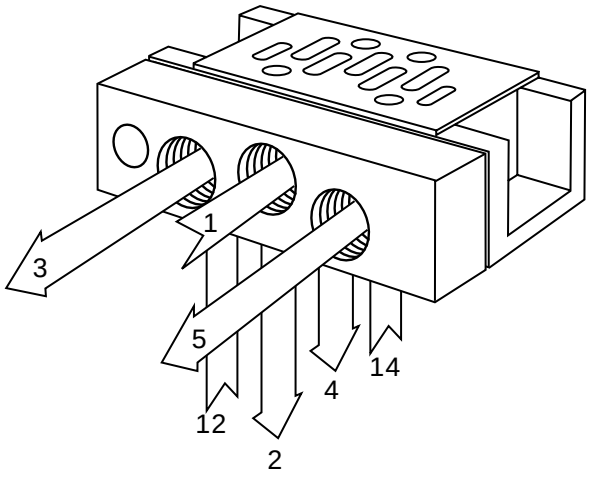
Bottom Entry Sub-Base



Connections

1	=	Main Pressure
2 + 4	=	User Ports
3 + 5	=	Exhaust Ports
12 + 14	=	External Pilot Pressure

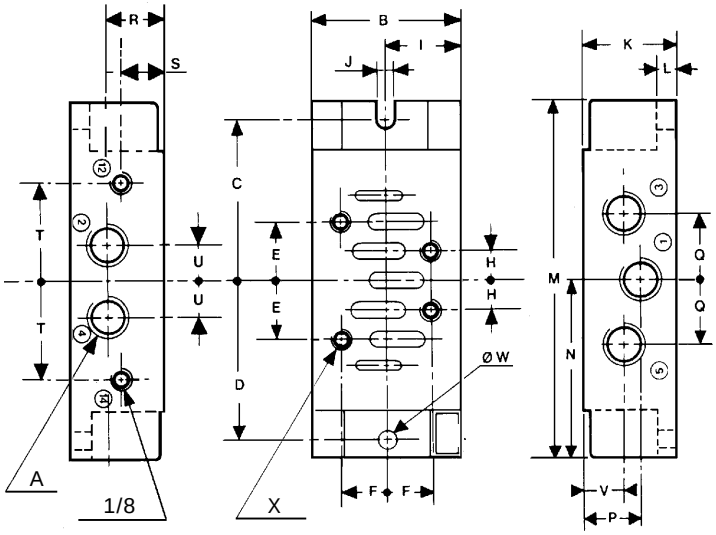
Manifold



Dimensions in mm

ISO 1, 2, 3 and 4
Sub-Base

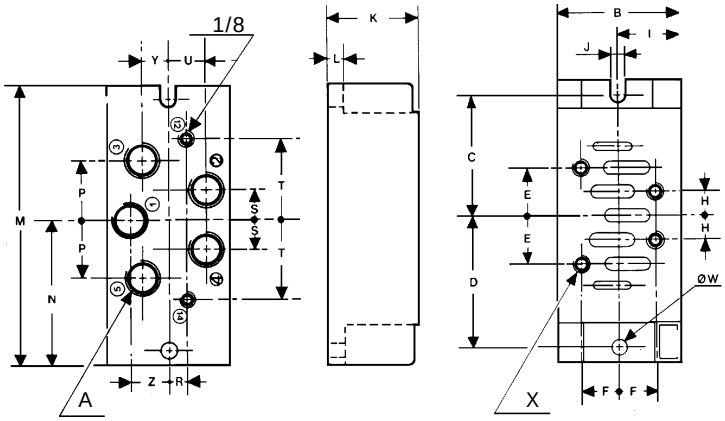
Side Entry



	A	B	C	D	E	F	H	I	J	K	L
1	1/4	46	49	49	18	14	9	23	5,5	29	6
1	3/8	56	55	55	24	19	12	28	5,5	37	6
3 *											
4	1/2	85	84	88	40	29	20	42,5	7	50	8
4	3/4	85	84	88	40	29	20	42,5	7	50	8

	M	N	P	Q	R	S	T	U	V	W	X
1	110	55	17,75	22	17,75	17,75	30	11	17,75	5,5	M5
2	124	62	22,5	28	22,5	14	37	14,5	14,5	5,5	M6
3 *											
4 (1/2)	186	95	28	43	28	28	55,5	20	28	7	M8
4 (3/4)	186	95	28	43	28	28	55,5	21,5	28	7	M8

Bottom Entry



	A	B	C	D	E	F	H	I	J	K	L
1	1/4	46	49	49	18	14	9	23	5,5	29	6
1	3/8	56	55	55	24	19	12	28	5,5	37	6
3 *											
4	1/2	85	84	88	40	29	20	42,5	7	50	8
4	3/4	85	84	88	40	29	20	42,5	7	50	8

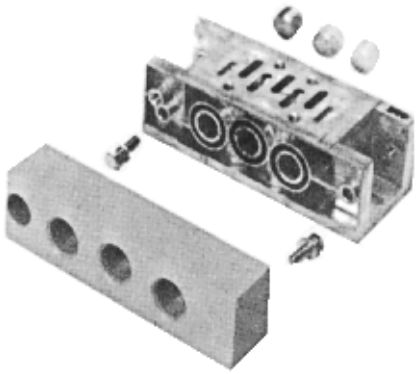
	M	N	P	R	S	T	U	W	X	Y	Z
1	110	55	22	10	11	30	10	5,5	M5	10	10
2	124	62	29	10	14,5	37	12,5	5,5	M6	12,5	12,5
3 *											
4 (1/2)	186	95	40	14,5	20	55,5	16,5	7	M8	16,5	16,5
4 (3/4)	186	95	42,5	14,5	21,5	55,5	23	7	M8	19	23

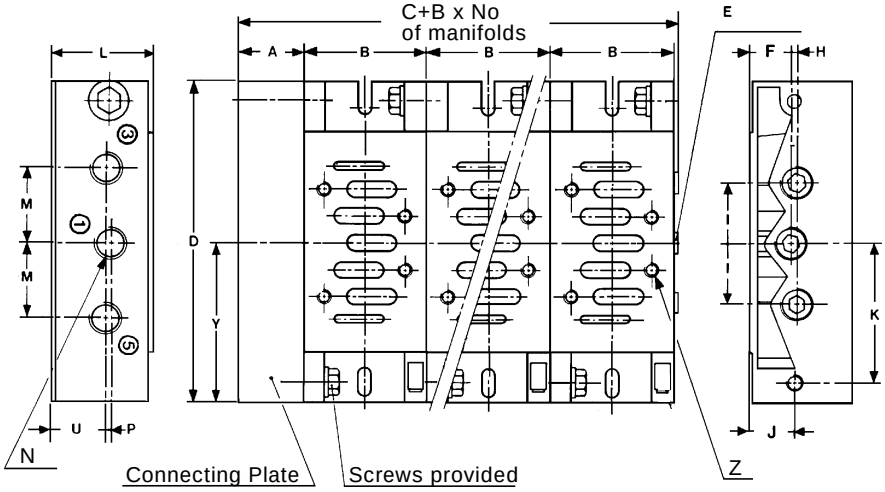
* Available end 1994

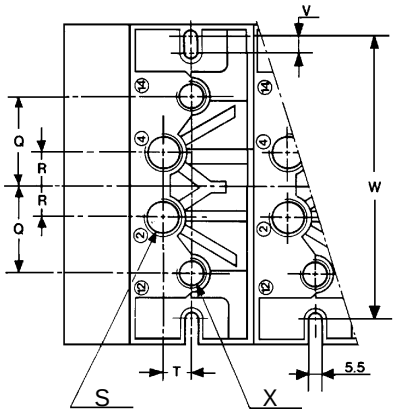
Sub-Bases and Manifolds

Dimensions in mm

ISO 1, 2 and 3 Manifolds







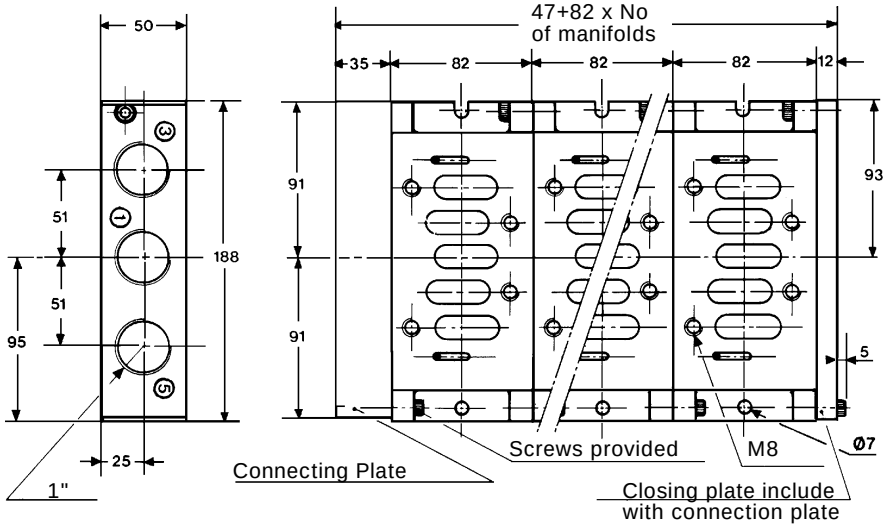
Size	A	B	C	D	E	F	H	I	J	K	L	M
1	24,5	46	26,5	120	G1/4	15,5	2	22,25	16,75	52,5	38	28
1	30	56	32	120	G3/8	21	25	28	23,75	52,5	45	33
3*												

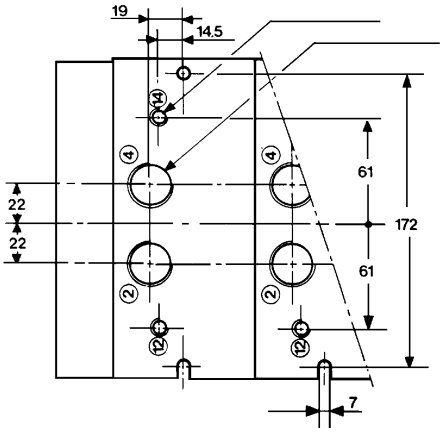
Size	N	P	Q	R	S	T	U	V	W	X	Y	Z
1	G3/8	2	32,5	11,25	G1/4	10	20,5	6	104	G1/8	60	M5
2	G1/2	2,5	35	14,5	G3/8	12	21,5	6	104	G1/8	60	M6
3 *												

* Available end 1994

Dimensions in mm

ISO 4 Manifolds

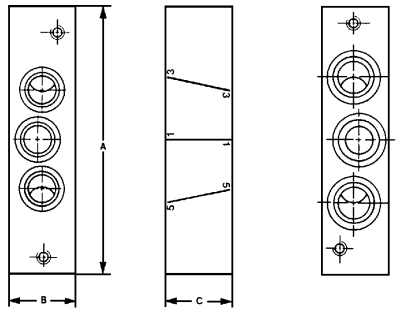


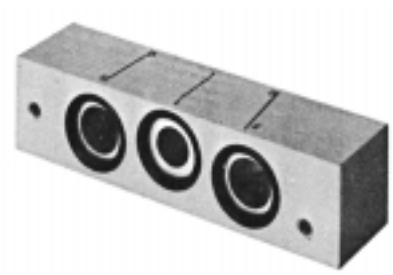


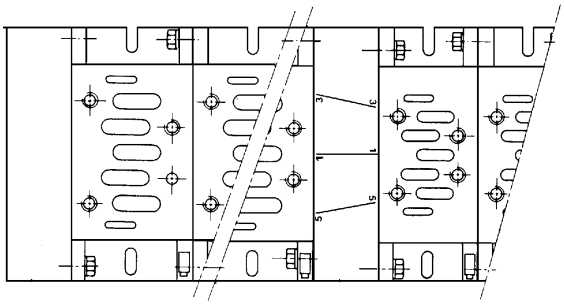
Sub-Bases and Manifolds

Dimensions in mm

Transfer Plate

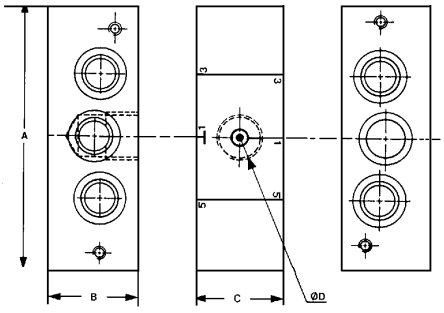


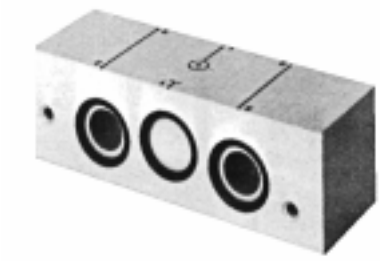


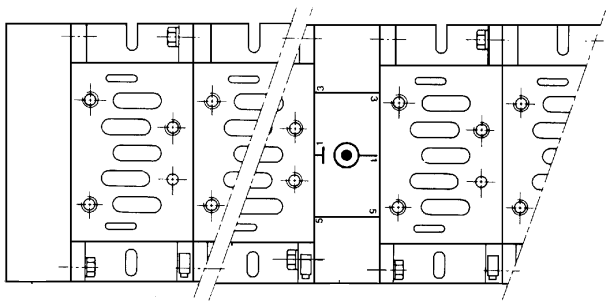


Size	A	B	C
1 - 2	120	30	30
2 - 3 *			
2 - 4	186	45	35

Intermediate Pressure Plate







Size	A	B	C	D
1	120	30	30	3/8
2	120	40	40	1/2
3 *				
4	183	50	58	1

* Available end 1994

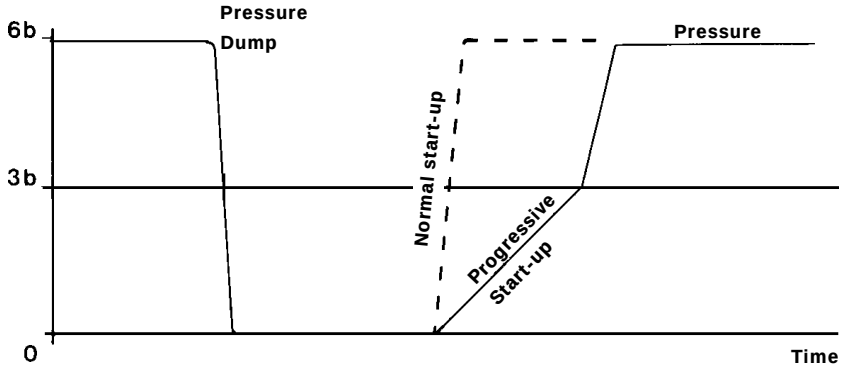
Options (Available on request)

Slow Start-up and Dump Valves

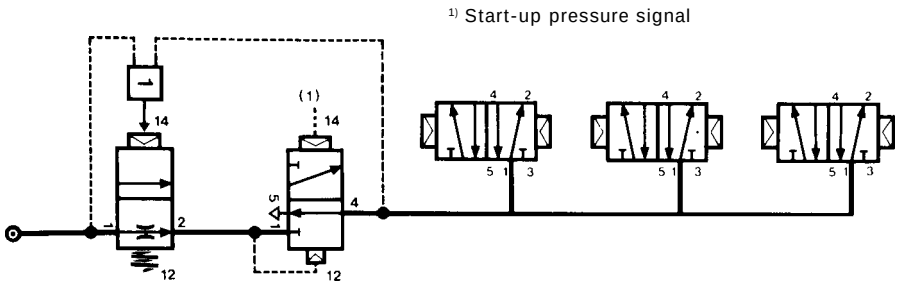
Typical Application

In certain applications, it is necessary to place a shut off valve at the pressure entry point, and a dump valve to empty the pressurised system in emergency situations.

When starting-up again cilynders are found in mid-position with unpressurised chambers, and a sudden pressuration could damage the system and process. It is necessary to have a slow start to avoid this.



Flow Diagram

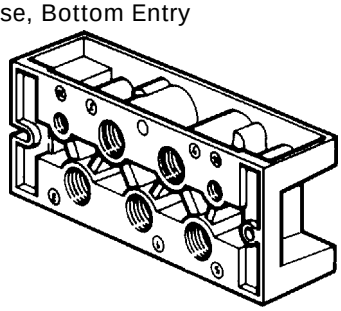


The slow start-up and dump valves are contained in the manifolds, conforming to ISO 5599/1. The actual pneumatic action being carried out by 5/2 spring return directional control valves.
At rest the slow start-up is in the restricted flow position. The dump valve is closed. The start-up pressure signal pilots the dump valve and thus pressure is established to 50% of the required pressure. When this is achieved a logic sensor or a timer device pilots the slow start-up valve and full pressure is restored.

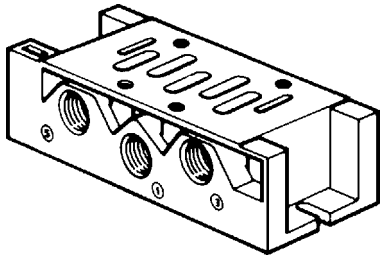
Ordering Chart

DESCRIPTION

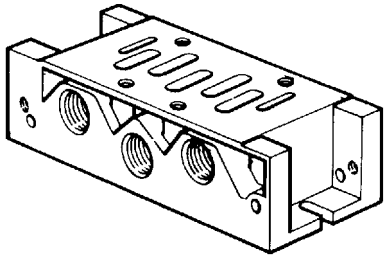
Sub-Base, Bottom Entry



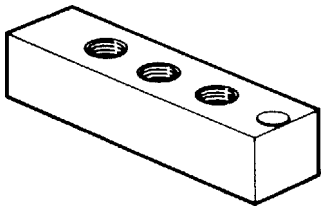
Sub-Base, Side Entry



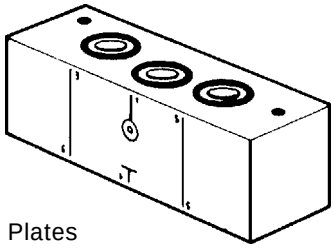
Manifold Block



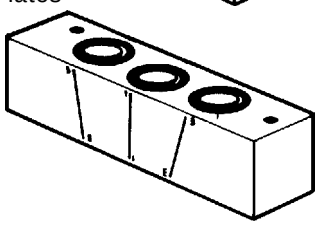
Manifold Inlet Plates



Intermediate Pressure Plate



Transfer Plates



	ORDER NUMBERS			
	ISO 1	**ISO 2**	**ISO 3**	**ISO 4**
G 1/4	415 476P			
G 3/8		415 479S		
G 1/2			*	415 483F
G 3/4			*	415 484G
NPT 1/4	415 510M			
NPT 3/8		415 513C		
NPT 1/2			*	415 517G
NPT 3/4			*	415 518R
G 1/4	415 475N			
G 3/8		415 478Z		
G 1/2			*	415 066P
G 3/4			*	415 482E
NPT 1/4	415 509Z			
NPT 3/8		415 512B		
NPT 1/2			*	415 515E
NPT 3/4			*	415 516F
G 1/4	415 477Q			
G 3/8		415 480Q		
G 1/2			*	415 485H
G 3/4			*	415 486A
NPT 1/4	415 511A			
NPT 3/8		415 514D		
NPT 1/2			*	415 519J
NPT 3/4			*	415 520P
G 3/8	415 487B			
G 1/2		415 488L		
G 3/4			*	
G 1				415 489M
NPT 3/8	415 992D			
NPT 1/2		415 993E		
NPT 3/4			*	
NPT 1				416 210Z
G 3/8	415 497D			
G 1/2		415 498N		
G 3/4			*	
G 1				415 499P
NPT 3/8	415 996H			
NPT 1/2		415 997A		
NPT 3/4			*	
NPT 1				416 211N
ISO 1 to ISO 2	415 495B			
ISO 2 to ISO 3		*		
ISO 2 to ISO 4		415 496C		
ISO 3 to ISO 4			*	

In case of special requirements, please consult for advice.