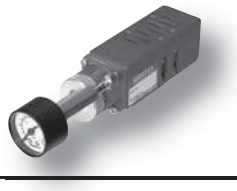


Sub-base Mounted Valves to ISO 5599/1

numatics

Sandwich Pressure Regulators ISO 1; ISO 2 and ISO 3 Series • Overview

How to Order: (example)

I23 RD 1 00 0 P 16N 00

Regulator Series		Port Size
I12	= ISO 1	1/4
I23	= ISO 2	3/8
I34	= ISO 3	1/2

Pressure Range	
1	= 0.7 to 9 bar
3	= 0.2 to 2 bar
4	= 0.35 to 4 bar
6	= 1.4 to 17 bar

Type	
0	= Regulator

Options**	
000	= Without options
12H	= Without gauge
16P*	= Jumper on regulator end 12, port “5“ regulation
16N*	= Jumper on regulator end 14, port “3“ regulation
27J*	= 12H and 16N
27K*	= 12H and 16P

* only with dual regulator
** **Other options:** on request

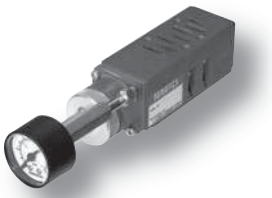
Regulator Type	
RS	= Single type for port “1“ regulation
RD*	= Dual type for “3“ and “5“ regulation
NS**	= Single type, piston design for “1“ port regulation
ND**	= Dual type, piston design for “1“ and “3 regulation

* Not available with sandwich speed controls
** only for Series ISO 3, with pressure range 1.4 to 17 bar

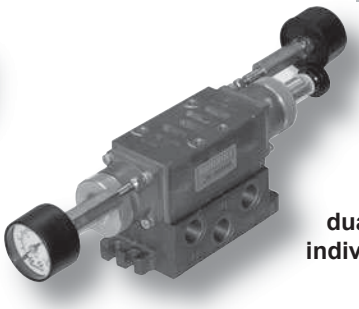
Bases*	
00	= Without base
1A	= Mounted on manifold block form C
11	= Mounted on connector plate form E, incl. mounting block "1A"
15	= Mounted on manifold block with side and bottom ports
25	= Mounted on sandwich speed control and manifold block "15"
41	= Mounted on individual base form A
56	= Mounted on individual base form B
58	= Mounted on sandwich speed control and individual base "56"

*** On request:** other bases

Base Ports	
0	= **Regulator unit only (Only Series ISO 3, Regulatortype NS and ND)**
P	= Regulator unit only or bases with NPTF- thread
Q	= Bases with G-thread



single regulator (RS.. NS..)



dual regulator with individual base form A (RD.. ND..)

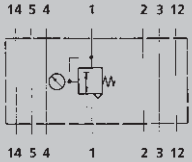
Order example: **I23RD1000P16N00**

This refers to a double sandwich pressure regulator of ISO 2 series. The pressure range is 0.7 to 9 bar.
The regulator is equipped with a jumper on regulator end 14, port “3“ regulation.
The regulator is supplied without base.

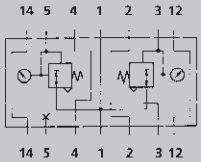
Regulator Symbols

Valve End

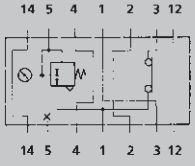
RS-Regulator



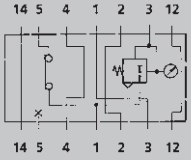
RD-Regulator



RD-Regulator
with jumper
on End 12 (16P)

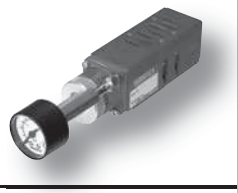


RD-Regulator
with jumper
on End 14 (16N)



Connector Plate End

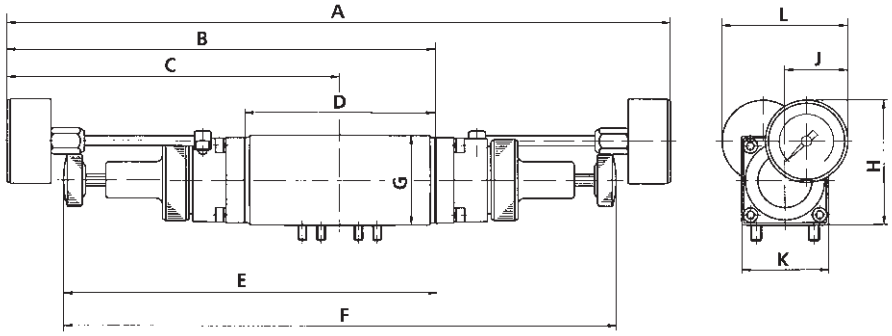
Valves



Sandwich Pressure Regulators ISO 1; ISO 2 and ISO 3 Series • Dimensions

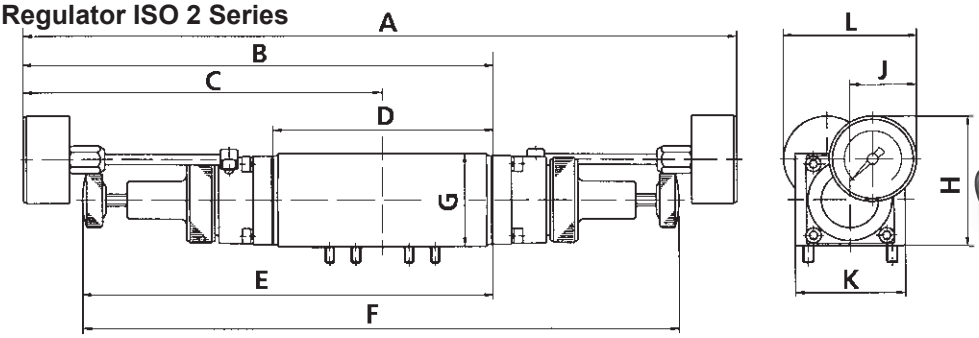
Sandwich Pressure Regulator, Single or Double Actuated

Regulator ISO 1 Series



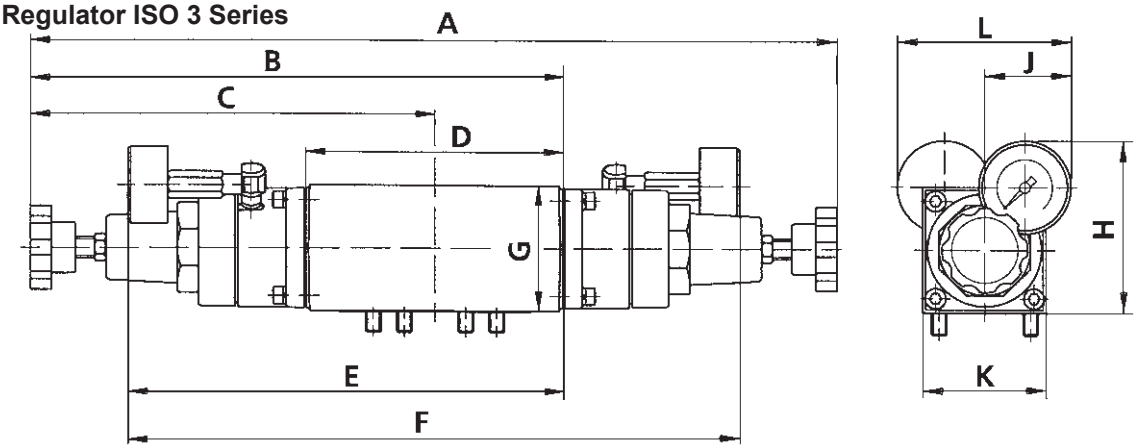
single regulator
(RS.. NS..)

Regulator ISO 2 Series



dual regulator
(RD.. ND..)

Regulator ISO 3 Series



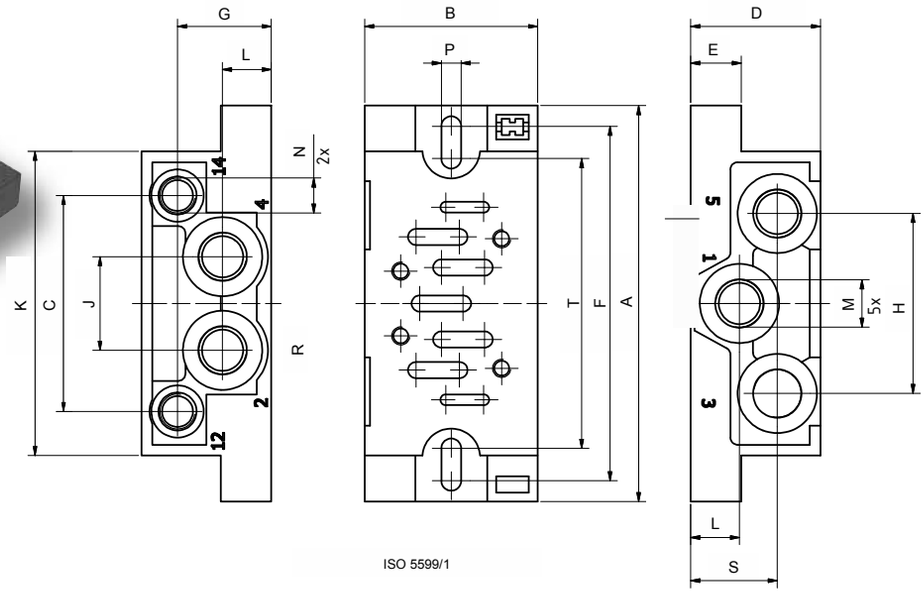
Dimensions [mm]

Series	Type	A	B	C	D	E	F	G	H	J	K	L	Weight approx. [kg]
ISO 1	I12RS...	—	204.7	158.8	92.0	180.0	—	43.2	60.0	37.5	42.0	—	0.600
ISO 1	I12RD...	317.6	—	158.8	92.0	—	268.0	43.2	60.0	37.5	42.0	75.0	0.800
ISO 2	I23RS...	—	212.7	162.8	100.0	188.0	—	43.2	60.0	37.5	50.0	—	0.700
ISO 2	I23RD...	325.6	—	162.8	100.0	—	276.0	43.2	60.0	37.5	50.0	75.0	0.900
ISO 3	I34RS/NS...	—	280.0	218.8	134.0	226.0	—	66.7	81.8	48.9	64.0	—	1.700
ISO 3	I34RD/ND...	423.6	—	218.8	134.0	—	318.0	66.7	81.8	48.9	64.0	97.8	2.320

incl. bolts, gaskets and gauge

Accessories

Individual Base Form A to VDMA 24345, with Side Ports



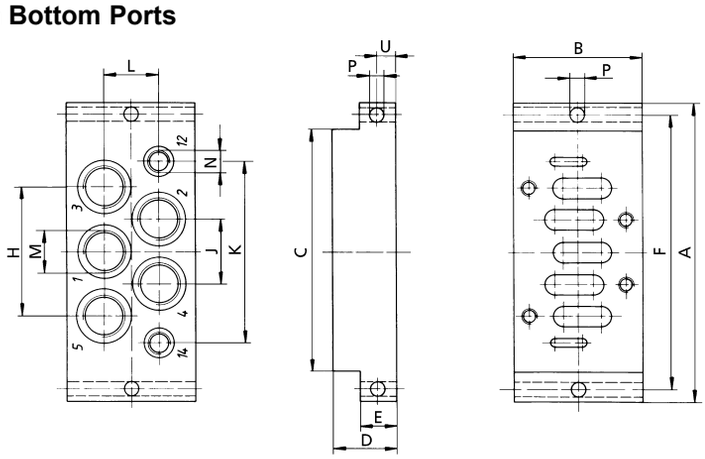
Dimensions [mm]

Series	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
ISO 1	110.0	48.0	84.5	36.0	14.0	89.0	26.0	50.0	26.0	60.0	13.5	G 1/4	G 1/8	5.5	15.0 / 0.3	**19.00 (5X)**
ISO 2	124.0	57.0	95.0	40.0	13.0	113.0	31.0	56.0	30.0	74.0	15.0	G 3/8	G 1/8	6.5	15.0 / 0.3	
ISO 3	149.0	71.0	119.0	32.0	18.0	136.0	22.0	68.0	32.0	90.0	17.0	G 1/2	G 1/8	6.5	15.0 / 0.3	

Series	S	T	Weight app. [kg]	Order Code
ISO 1	24.0	80.0	0.200	**103-544**
ISO 2	25.0	103.0	0.300	**103-549**
ISO 3	-	-	0.400	**103-545**

On request: individual bases with NPTF-thread

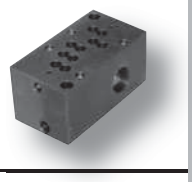
Individual Base Form B to VDMA 24345, with Bottom Ports



Dimensions [mm]

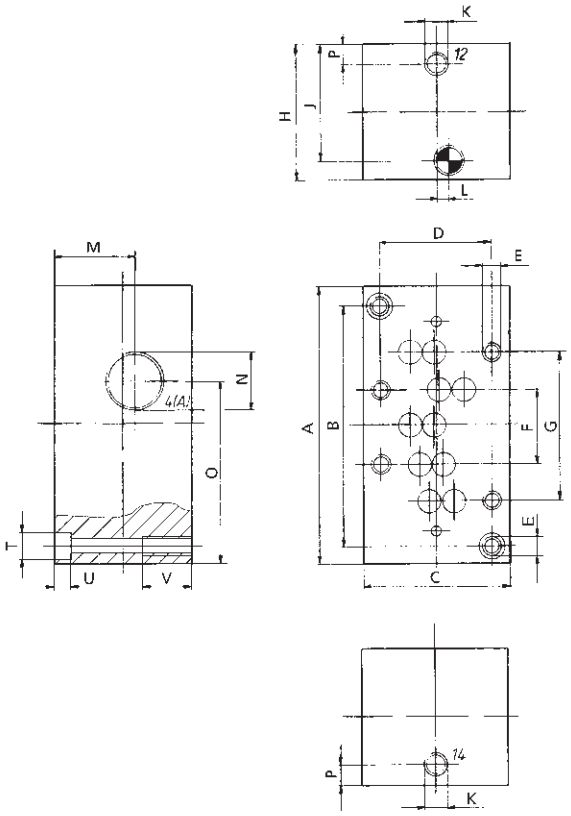
Series	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Weight approx. [kg]	Order Code
ISO 1	110.0	46.0	84.0	30.0	10.0	98.0	5.0	46.0	23.0	62.0	23.0	G 1/4	G 1/8	5.5	0.190	**103-542**
ISO 2	124.0	56.0	95.0	35.0	13.0	112.0	6.5	56.0	26.0	74.0	27.0	G 3/8	G 1/8	6.6	0.320	**103-557**
ISO 3	149.0	64.0	119.0	32.0	18.0	136.0	9.0	64.0	32.0	90.0	27.0	G 1/2	G 1/8	6.6	0.410	**103-543**

On request: individual bases with NPTF-thread

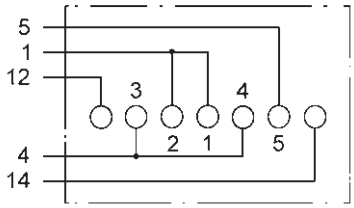


Accessories

Individual Base 3-ported, 2-pos. Function, with Increased Flow Capacity (NC)



Symbol



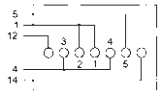
Dimensions [mm]

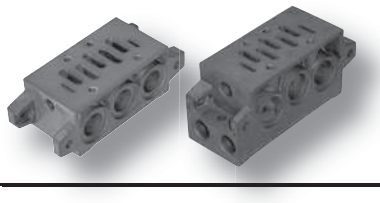
Series	A	B	C	D	E	F	G	H	J	K	L	M	N	O
ISO 3	120.0	100.0	64.0	48.0	M8	32.0	64.0	59.5	50.5	G 1/8	5.0	34.0	G 3/4	79.0

Series	P	Q	R	S	T Ø	U	V	Weight approx. [kg]	Order Code
ISO 3	9.0	52.0	92.0	G 1/2	11.0	8.0	20.0	1.065	**10.4935**
On request: individual bases with NPTF-thread									

Without picture: Individual bases

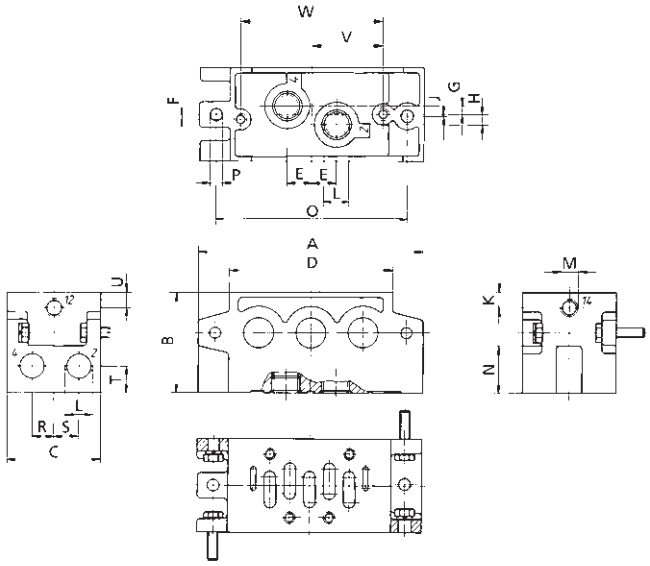
Dimensions [mm]

Symbol	Description	Ports	Length	Width	Height	Weight approx. [kg]	Order Code
	Individual base with increased ow capacity ISO 1 series	"1" + "4" = G 3/8 "5" = G 1/4	110.0	45.0	45.0	0.500	**239-357**
—	Individual base for poppet valves ISO 3 series	"1", "4" + "5" = G 1/2	120.5	70.0	69.5	1.400	**13.7964**



Accessories

Manifold Block with Side and Bottom Ports



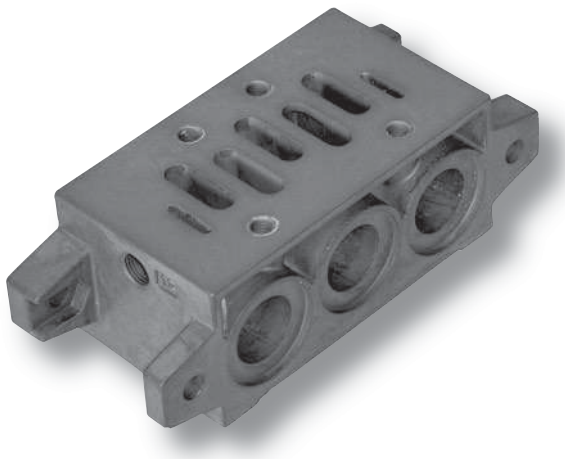
Dimensions [mm]

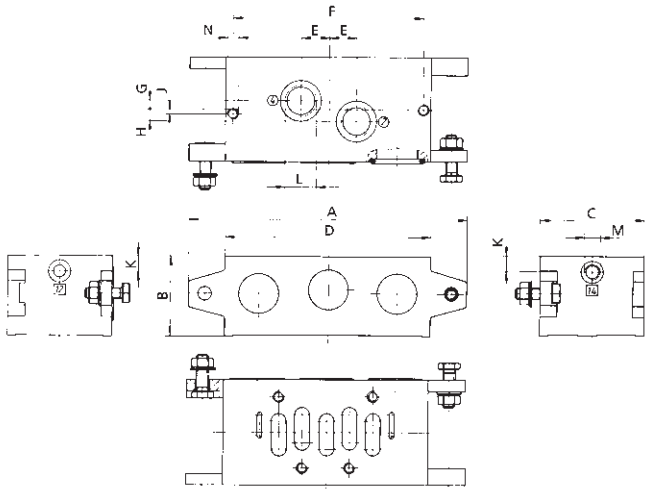
Series	A	B	C	D	E	F	G	H	J	K	L	M	N	O
ISO 1	110.0	50.0	43.0	84.0	13.0	3.0	1.5	7.5	1.2	10.0	G 1/4	G 1/8	23.0	95.0
ISO 2	135.0	60.0	56.0	98.5	15.0	3.0	5.0	6.0	1.0	9.0	G 3/8	G 1/8	28.0	115.0
ISO 3	190.0	66.0	71.0	140.0	19.0	3.0	6.0	8.0	1.3	9.5	G 1/2	G 1/8	32.0	168.0

Series	P	R	S	T	U	V	W	Weight approx. [kg]	Order Code
ISO 1	5.4	9.5	12.0	13.0	10.0	35.5	71.0	0.400	**239-241**
ISO 2	6.6	13.0	15.0	16.0	9.0	43.0	86.0	0.600	**239-245**
ISO 3	8.6	16.5	19.0	18.0	9.5	65.0	130.0	1.200	**239-249**
incl. bolts and gaskets									

On request: individual bases with NPTF-thread

Manifold Block Form C to VDMA 24345, with Bottom Ports





Dimensions [mm]

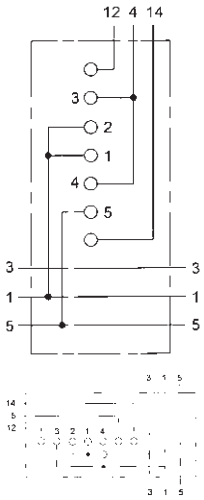
Series	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight approx. [kg]	Order Code
ISO 1	110.0	44.0	43.0	85.0	13.0	71.0	1.5	7.5	3.0	9.0	G 1/4	G 1/8	M5	0.300	**239-239**
ISO 2	135.0	45.0	56.0	98.5	15.0	86.0	5.0	6.0	3.0	9.0	G 3/8	G 1/8	M6	0.400	**239-243**
ISO 3	190.0	54.0	71.0	140.0	19.0	130.0	6.0	8.0	3.0	10.0	G 1/2	G 1/8	M8	0.800	**239-247**
incl. bolts and gaskets															

On request: individual bases with NPTF-thread

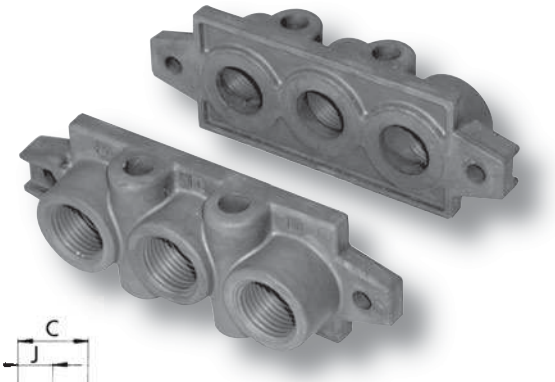
Accessories

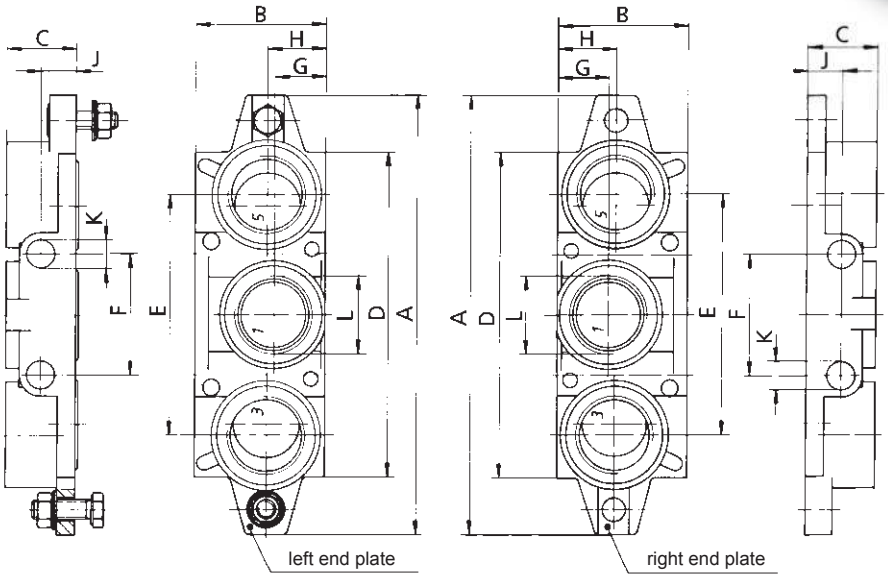
Without picture: Manifold blocks

Dimensions [mm]

Symbol	Description	Length	Width	Height	Weight approx. [kg]	Order code
	Manifold block with increased ow capacity ISO 1 series	110.0	43.0	50.0	0.550	**239-353**
	Manifold block with increased ow capacity (NC) ISO 2 series	135.0	56.0	59.0	1.010	**239-902**
	Manifold block with increased ow capacity (NC) ISO 3 series	190.0	71.0	74.0	1.700	**10.6062**
	Manifold block with increased ow capacity ISO 2 series	95.0	50.0	49.5	0.650	**10.5070**
	Manifold block with port "1" locked (NC) ISO 2 series	190.0	88.0	70.0	2.200	**10.6915**

End Plate Kits Form D to VDMA 24345





Dimensions [mm]

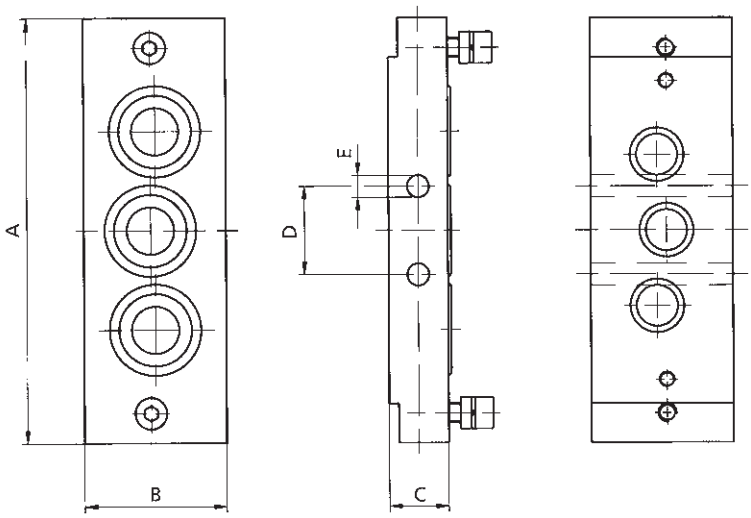
Series	A	B	C	D	E	F	G	H	J	K	L	Weight approx. [kg]	Order Code
ISO 1	110.0	46.0	22.0	85.0	56.0	28.0	22.0	25.0	11.0	7.0	G 3/8	0.300	**239-257**
ISO 2	135.0	47.0	26.0	98.5	70.0	35.0	23.0	25.0	13.0	9.0	G 1/2	0.400	**239-255**
ISO 3	190.0	56.0	30.0	140.0	104.0	52.0	22.0	25.0	15.0	12.0	G 1	0.700	**239-259**
incl. bolts and gaskets													

On request: end plate kits with NPTF-thread

numatics

Accessories

Adapter Plates for mounting different ISO Valves



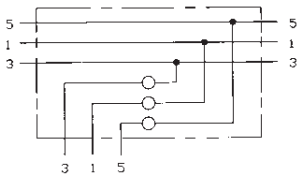
Dimensions [mm]

ISO-Series Lefthand Side	ISO-Series Righthand Side	A	B	C	D	E	Weight approx. [kg]	Order Code
ISO 1	ISO 2	135.0	45.0	19.0	28.0	7.0	0.900	**239-186**
ISO 1	ISO 3	190.0	55.0	32.0	28.0	7.0	1.100	**239-149**
ISO 2	ISO 1	135.0	45.0	19.0	28.0	7.0	0.900	**239-181**
ISO 2	ISO 3	190.0	55.0	32.0	35.0	9.0	1.100	**239-179**
ISO 3	ISO 1	190.0	55.0	32.0	28.0	7.0	1.100	**239-152**
ISO 3	ISO 2	190.0	60.0	40.0	—	—	1.100	**239-183**

incl. bolts and gaskets

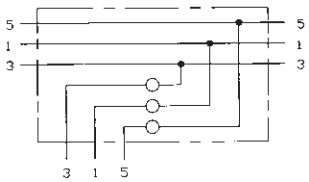
Adapter plates (without picture)

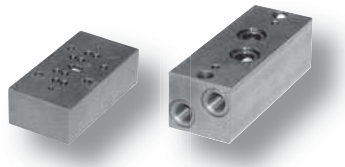
Dimensions [mm]

Symbol	Description	Length	Width	Height	Weight approx. [kg]	Order Code
	Adapter plate with side ports ISO 1 series on ISO 3 series	190.0	55.0	55.0	1.550	**239-177**
	Adapter plate with G 3/4 ports top and bottom ISO 3 series on ISO 1 series	190.0	55.0	55.0	1.550	**10.6394**

Intermediate plates (without picture)

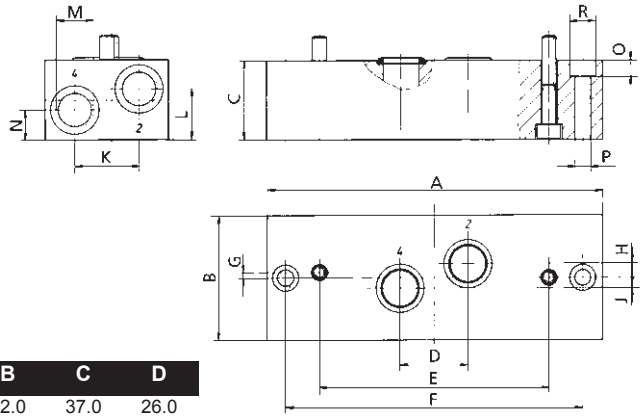
Dimensions [mm]

Symbol	Description	Ports "1" "3" "5"	Length	Width	Height	Weight approx. [kg]	Order Code
	Mid plate ISO 1 series	G 1/4	110.0	29.0	40.0	0.040	**10.5239**
	Mid plate ISO 2 series	G 3/8	135.0	30.0	50.0	0.500	**10.5688**
	Mid plate ISO 3 series	G 3/4	190.0	40.0	60.0	1.070	**239-182**



Accessories

Connector Plate Form E to VDMA 24345, with Side and Bottom Ports



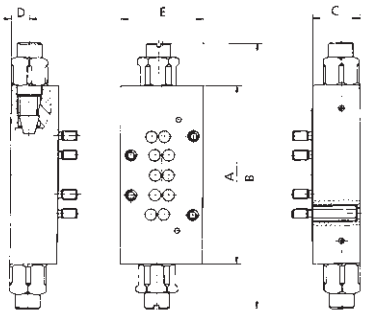
Dimensions [mm]

Series	A	B	C	D
ISO 1	110.0	42.0	37.0	26.0
ISO 2	135.0	55.0	40.0	30.0
ISO 3	190.0	70.0	45.0	38.0

Series	E	F	G	H	J	K	L	M	N	O	P	R	Weight approx. [kg]	Order Code
ISO 1	71.0	95.0	3.0	7.5	1.5	22.0	25.0	G 1/4	12.0	5.7	5.5	10.0	0.500	**239-143**
ISO 2	86.0	115.0	3.0	6.0	5.0	29.0	26.0	G 3/8	14.0	6.8	6.6	11.0	0.800	**239-180**
ISO 3	130.0	168.0	3.0	8.0	6.0	36.0	29.0	G 1/2	17.0	9.0	9.0	15.0	1.600	**239-144**
incl. bolts and gaskets														

On request: connector plates with NPTF-thread

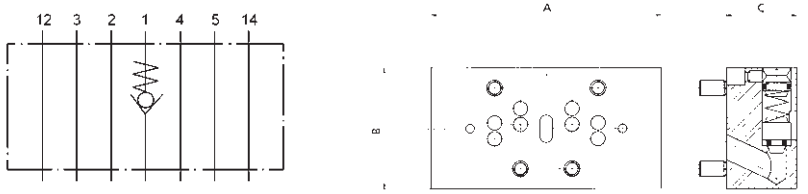
Sandwich Speed Control

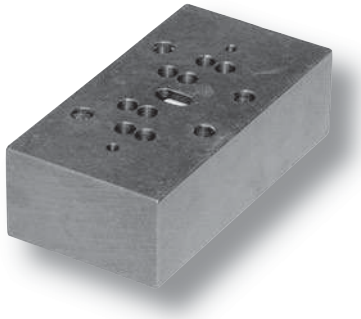


Dimensions [mm]

Series	A	B	C	D	E	Weight approx. [kg]	Order Code
ISO 1	89.0	126.5	24.5	12.5	42.0	0.600	**239-321**
ISO 2	110.0	169.0	29.5	11.0	50.0	0.700	**239-322**
ISO 3	128.0	188.0	34.5	14.0	64.0	0.900	**239-323**
incl. studs and gaskets							

Non-Return Plate for Port 1





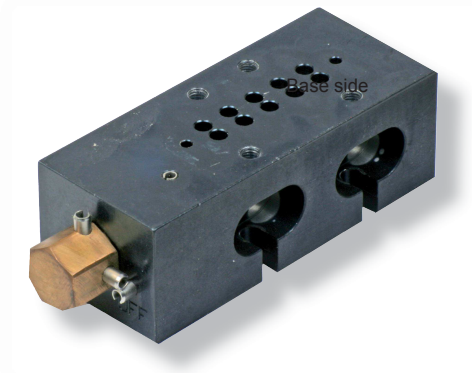
Dimensions [mm]

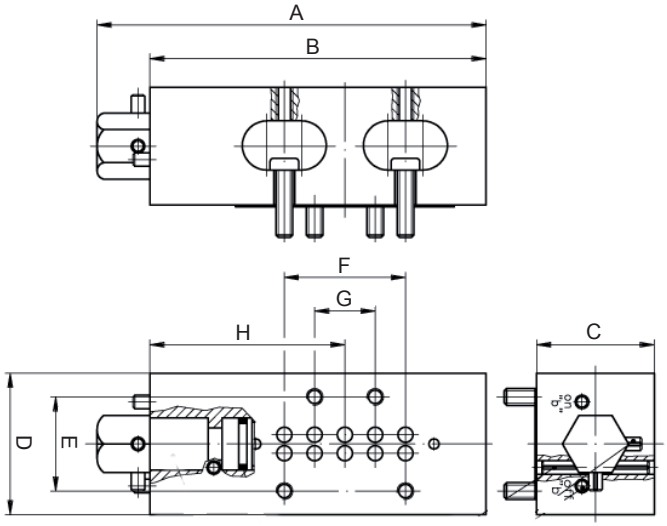
Series	A	B	C	Weight approx. [kg]	Order Code
ISO 1	80.0	42.0	24.5	0.500	**239-324**
ISO 2	96.0	50.0	29.5	0.600	**239-325**
ISO 3	120.0	69.0	38.5	0.700	**239-326**
incl. studs and gaskets					

Accessories

Valve Isolating Plate

Valve side

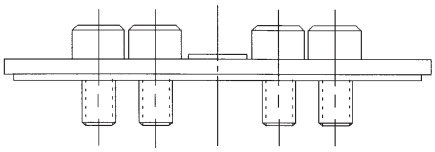


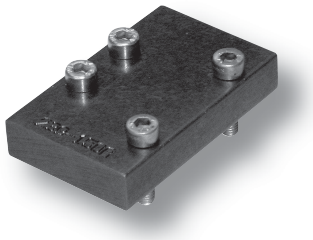


Dimensions [mm]

Series	Operating pressure	A	B	C	D	E	F	G	H	Weight approx. [kg]	Order Code
ISO 1	vacuum to 10 bar*	116	100	35	42	28	36	18	58	0.452	**10.6328**
ISO 2	vacuum to 10 bar*	122	106	40	50	25	55	25	58	on request	**10.8071**
ISO 3	vacuum to 10 bar*	159	143	40	64	40	64	32	78	on request	**10.7389**
*Higher pressures on request.											

Blank Station Plate

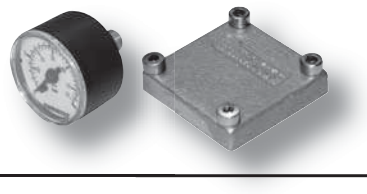




Series	Weight approx. [kg]	Order Code
ISO 1	0.100	**239-150**
ISO 2	0.200	**239-178**
ISO 3	0.300	**239-153**
incl. bolts and gaskets		

Blocking Disc

Series	Order Code
ISO 1	**239-1598***
ISO 2	**239-2263***
ISO 3	**239-253***
* incl. o-ring	



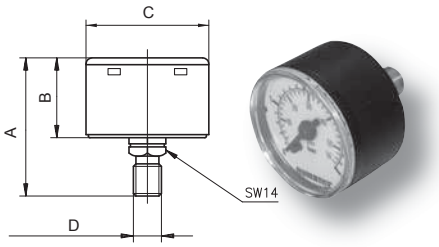
Accessories

Gauge for Sandwich Pressure Regulator

Dimensions [mm]

Pressure Range	A	B	C Ø	D	Weight approx. [kg]	Order Code
0 to 2.5 bar	42.0	26.0	40.0	R 1/8	0.040	**214-151**
0 to 4 bar	42.0	26.0	40.0	R 1/8	0.040	**214-152**
0 to 10 bar	42.0	26.0	40.0	R 1/8	0.040	**214-153**
0 to 16 bar	42.0	26.0	40.0	R 1/8	0.040	**214-154**

On request: other pressure ranges



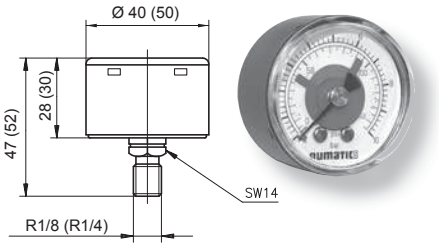
Pressure Range	A	B	C Ø	D NPTF	Weight approx. [kg]	Order Code
0 to 2.5 bar	42.0	26.0	40.0	1/8	0.040	214-138
0 to 4 bar	42.0	26.0	40.0	1/8	0.052	214-139
0 to 10 bar	42.0	26.0	40.0	1/8	0.040	214-140
0 to 16 bar	42.0	26.0	40.0	1/8	0.052	214-141

Gauge for Sandwich Pressure Regulator with adjustable Scale

Dimensions [mm]

Pressure Range	A	B	C Ø	D R	Weight approx. [kg]	Order Code
0 to 10 bar	47.0	28.0	40.0	1/8	0.040	**214-274**
0 to 10 bar	52.0	30.0	50.0	1/4	0.052	**214-275**
0 to 4 bar	52.0	30.0	50.0	1/4	0.052	**214-276**
0 to 16 bar	52.0	30.0	50.0	1/4	0.052	**214-277**
0 to 4 bar	47.0	28.0	40.0	1/8	0.040	**214-278**
0 to 16 bar	47.0	28.0	40.0	1/8	0.040	**214-279**

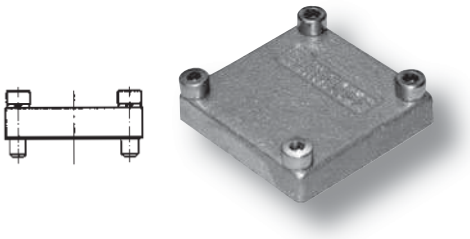
On request: Gauges with adjustable Scale and G-thread



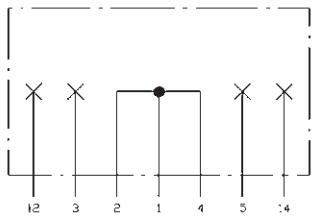
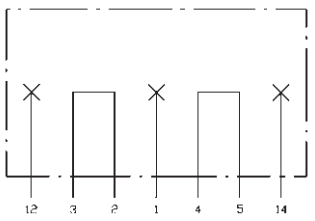
Jumper Plate for Sandwich Pressure Regulator "RD/ND"

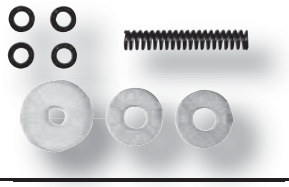
Description	Series	Weight approx. [kg]	Order Code
Jumper plate option "16P" or "16N"	ISO 1+ISO 2	0.035	**239-363**
Jumper plate option "16P" or "16N"	ISO 3	0.105	**239-364**

incl. bolts and gaskets



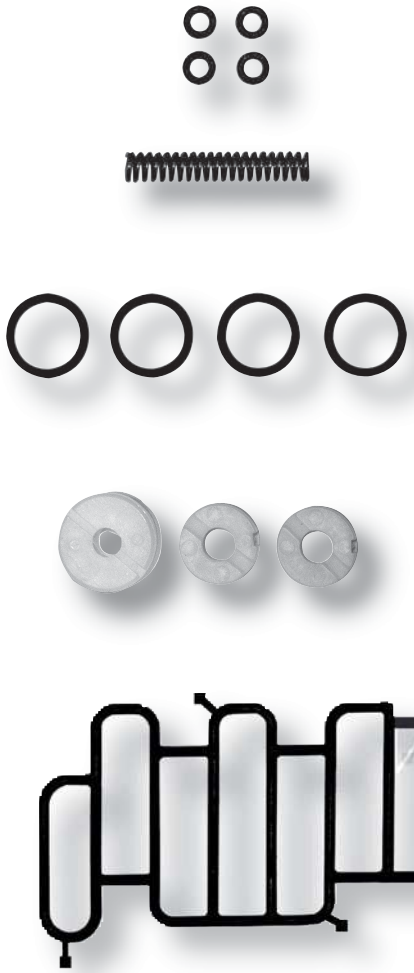
Without picture: Jumper Plate to Mount on Sandwich Pressure Regulator

Symbol	Description	Length	Width	Height	Weight approx. [kg]	Order Code
	Jumper plate, connecting "1" to "2" and "4" ISO 1 series	74.0	42.0	10.0	0.100	**10.5267**
	Jumper plate, connecting "1" to "2" and "4" ISO 2 series	90.0	50.0	10.0	0.130	**10.6118**
	Jumper plate, connecting "1" to "2" and "4" ISO 3 series	120.0	66.0	10.0	0.244	**10.5826**
	Jumper plate, connecting "2" to "3" and "4" to "5" ISO 1 series	65.0	40.0	12.0	0.100	**10.6847**
	Jumper plate, connecting "2" to "3" and "4" to "5" ISO 3 series	120.0	66.0	10.0	0.244	**10.6065**



Accessories

Spare Part Kits for Valves



ISO 1; ISO 2 and ISO 3 Series

Valve Type	Order Code		
	ISO 1	ISO 2	ISO 3
BA4.. / ZA4.. PA4.. / JA4..	**I1B-K1**	**I2B-K1**	**I3B-K1**
BB4.. / ZZ4.. PP4.. / JJ4..	**I1B-K2**	**I2B-K2**	**I3B-K2**
BB5 / 6 / 7.. / ZZ5 / 6 / 7.. PP5 / 6 / 7.. / JJ5 / 6 / 7..	**I1B-K3**	**I2B-K3**	**I3B-K3**
BW4.. / ZW4..	**I1B-K4**	**I2B-K4**	**I3B-K4**
SA4..	**I1S-K1**	**I2S-K1**	**I3S-K1**
SS4..	**I1S-K2**	**I2S-K2**	**I3S-K2**
SS5 / 6 / 7..	**I1S-K3**	**I2S-K3**	**I3S-K3**
incl. Gasket, O-Rings, Spring or Bumper			

ISO 1; ISO 2 and ISO 3 Compact Series

Valve Type	Order Code		
	ISO 1	ISO 2	ISO 3
BA4.. / ZA4.. PA4..	**C1B-K1**	**C2B-K1**	**C3B-K1**
BB4.. / ZZ4.. / PP4..	**C1B-K2**	**C2B-K2**	**C3B-K2**
BB5 / 6 / 7.. / ZZ5 / 6 / 7.. PP5 / 6 / 7..	**C1B-K3**	**C2B-K3**	**C3B-K3**
BW4.. / ZW4..	**C1B-K4**		

incl. Gasket, O-Rings, Spring or Bumper

Poppet Valves Series ISO 3

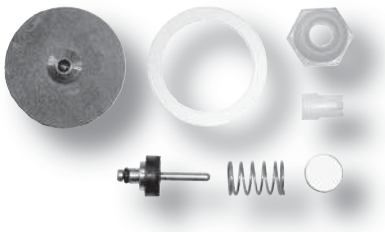
Valve Type	Order Code Series ISO 3
G34B....	**G3B-K1**
G34P....	**G3P-K1**

incl. O-Rings, gaskets, spring

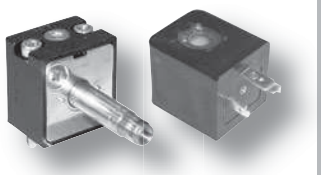
Slow-Start-Valve

Valve-Type	Order Code
P01794000....	**40.7069**

Spare Part Kits for Regulators



Series	Type		Order Code
ISO 1	I12RS... / I12RD...		**229-640**
ISO 2	I23RS... / I23RD...		**229-640**
ISO 3	I34RS... / I34RD...	**< Nov. 2004**	**229-907**
ISO 3	I34RS... / I34RD...	**> Nov. 2004**	**239-2277**
ISO 3	I34NS... / I34ND		**239-2259**



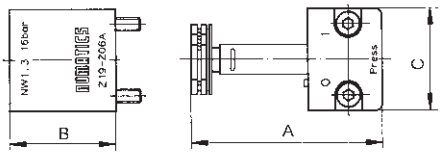
Accessories

Pilot Systems

Dimensions [mm]

Type	A	B	C	Weight approx. [kg]	Order Code
10 bar, without manual override	59.0	32.0	30.0	0.063	**219-216**
10 bar, non-locking manual override	59.0	32.0	30.0	0.063	**219-217**
10 bar, manual override push/locking	59.0	32.0	30.0	0.063	**219-218**
16 bar*, without manual override	59.0	32.0	30.0	0.063	**219-219**
16 bar*, non-locking manual override	59.0	32.0	30.0	0.063	**219-220**
16 bar*, manual override push/locking	59.0	32.0	30.0	0.063	**219-221**
16 bar*, non-locking manual override	59.0	32.0	30.0	0.063	**219-489**

* only available with 16 bar solenoid



Exhaust Protection Screw

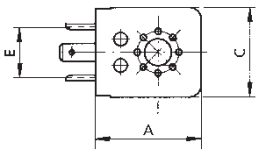
Description	Weight approx. [gr]	Order Code
Exhaust protection screw for valve system	1.850	**125-1027**

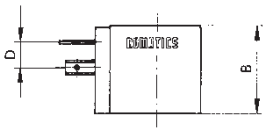
Plug-in Solenoids for Connector Sockets to DIN 43650, Form A, Type 30 mm

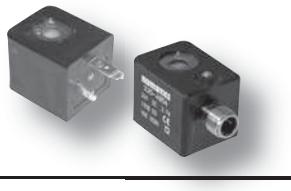
Dimensions [mm]

Voltage	A	B	C	D	E	Weight approx. [kg]	Order Code
10 bar, 2.7 W 24 VDC	35.5	30.0	30.0	9.0	18.8	0.10	**225-354**
10 bar, 5.2/3.9 VA 24 VAC, 50-60 Hz	35.5	30.0	30.0	9.0	18.8	0.10	**228-772**
10 bar, 4.8/3.6 VA 110 VAC, 50-60 Hz and 42/48/60 VDC, 2.5/3.4/5.3 W	35.5	30.0	30.0	9.0	18.8	0.10	**228-773**
10 bar, 4.9/3.7 VA 230 VAC, 50-60 Hz and 110 VDC, 3.9 W	35.5	30.0	30.0	9.0	18.8	0.10	**228-774**
16 bar*, 6.8 W 24 VDC and 48/42-V, 50-60 Hz, 9.9/7.1 VA	35.5	30.0	30.0	9.0	18.8	0.10	**225-355**
16 bar*, 10.8/7.6 VA 24 VAC, 50-60 Hz and 12 VDC, 7.8 W	35.5	30.0	30.0	9.0	18.8	0.10	**228-775**
16 bar*, 10.5/7.6 VA 110 VAC, 50-60 Hz and 48/60 VDC, 5.3/8.3 W	35.5	30.0	30.0	9.0	18.8	0.10	**228-776**
16 bar*, 10.5/7.6 VA 230 VAC, 50-60 Hz and 110 VDC, 6.3 W	35.5	30.0	30.0	9.0	18.8	0.10	**228-777**

* only available with 16 bar pilot system

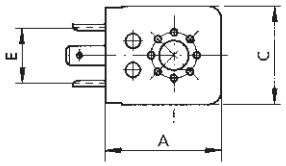


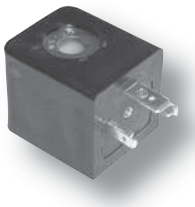


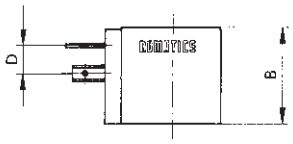


Accessories

Solenoids to DIN EN 175301-803 (before DIN 43650) Form A, with UL- and CSA-Approval, Type 30 mm



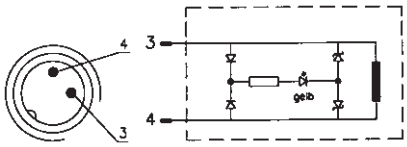




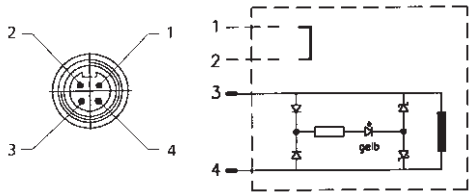
Dimensions [mm]

Voltage	A	B	C	D	E	Weight approx. [kg]	Order Code
10 bar, 2.7 W ; 24 VDC	35.5	30.0	30.0	9.0	18.8	0.10	**225-480**
10 bar, 4.9/3.6 VA; 110 VAC, 50-60 Hz	35.5	30.0	30.0	9.0	18.8	0.10	**228-792**

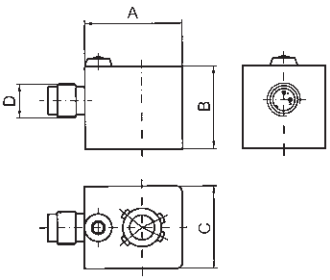
Solenoids to ISO 20401 with M12 Connector and LED or M12 DESINA Standard Connector and LED, Type 30 mm



2 Pin M12 Connector with LED



4 Pin M12 DESINA Standard connector with LED



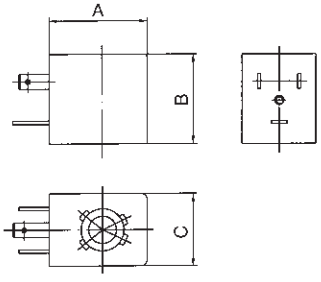
Drawing shows M12 connector with LED, 2 pins (same dimensions)

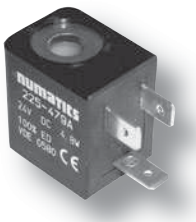
Dimensions [mm]

Description	Voltage	A	B	C	D	Weight approx. [kg]	Order Code
M12 connector with LED, 2 pins	10 bar, 24 VDC, 2.7 W	38.4	29.5	30.0	M12x1	0.110	**225-485**
M12 connector with LED, 2 pins	16 bar*, 24 VDC, 6.8W	38.4	29.5	30.0	M12x1	0.110	**225-486**
M12 connector DESINA standard, 4 pins	10 bar, 24 VDC, 2.7 W	38.4	29.5	30.0	M12x1	0.110	**225-483**
M12 connector DESINA standard, 4 pins	16 bar*, 24 VDC, 6.8 W	38.4	29.5	30.0	M12x1	0.110	**225-484**

* only available with 16 bar 3-port., 2-pos. function NO pilot system

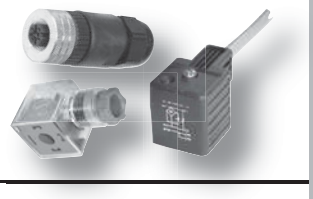
Solenoids to Industrial Standard, Type 22 mm





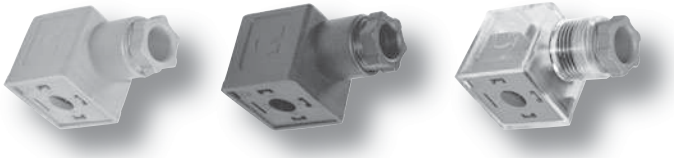
Dimensions [mm]

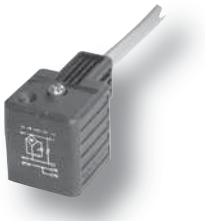
Voltage	A	B	C	Weight approx. [kg]	Order Code
10 bar, 24 VDC, 4.8 W	28.8	29,5	22.0	0.054	**225-479**
10 bar, 24 VAC, 50-60 Hz; 8.5/6.9 VA	28.8	29,5	22.0	0.054	**228-794**
10 bar, 110 VAC. 50-60 Hz; 8.5/6.9 VA	28.8	29,5	22.0	0.054	**228-791**
10 bar, 230 VAC, 50-60 Hz; 8.5/6.9 VA	28.8	29,5	22.0	0.054	**228-790**



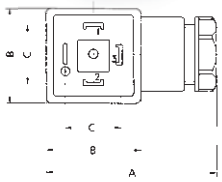
Accessories

Connector Sockets to DIN EN 175301-803 (before DIN 43650) Form A

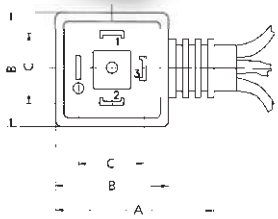




with PG 9 screw tting cable
for cable with
Ø 6 to 8 mm



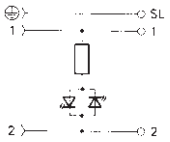
with 2-m-cable



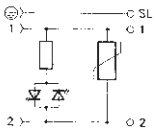
Technical Data and Dimensions [mm]

Nominal Voltage	Wiring Type	Colour Diagram		Peak Cut-off Voltage	A	B	C	Weight approx. [kg]	Order Code
With PG 9 screw fitting cable									
Up to 250 V	—	—	grey	unlimited	49.0	28.0	18.0	0.02	**230-592**
Up to 250 V	—	—	black	unlimited	49.0	28.0	18.0	0.02	**230-593**
10-50 V	LED red	a	transparent	unlimited	49.0	28.0	18.0	0.02	**230-582**
10-30 V	LED red + Varistor	b	transparent	65 V	49.0	28.0	18.0	0.02	**230-567**
70-250 V	LED red	a	transparent	unlimited	49.0	28.0	18.0	0.02	**230-584**
70-250 V	LED red + Varistor	b	transparent	440 V	49.0	28.0	18.0	0.02	**230-585**
10-30 V	LED green + Varistor	b	transparent	65 V	49.0	28.0	18.0	0.02	**230-587**
10-50 V	LED green	a	transparent	unlimited	49.0	28.0	18.0	0.02	**230-586**
70-250 V	LED green	a	transparent	unlimited	49.0	28.0	18.0	0.02	**230-588**
70-250 V	LED green + Varistor	b	transparent	440 V	49.0	28.0	18.0	0.02	**230-589**
With 2-m-cable									
Up to 250 V	—	—	black	unlimited	44.0	27.5	18.0	0.20	**230-412**
24 V	LED yellow + Varistor	b	black	65 V	44.0	27.5	18.0	0.20	**230-413**
110 V	LED yellow + Varistor	c	black	260 V	44.0	27.5	18.0	0.20	**230-414**
230 V	LED yellow + Varistor	c	black	470 V	44.0	27.5	18.0	0.20	**230-415**

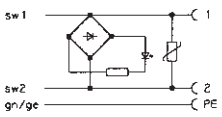
Circuit diagram „a“



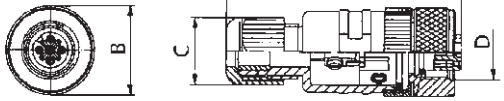
Circuit diagram „b“

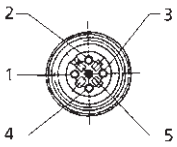


Circuit diagram „c“



M12 Straight Female Connector





view on mating side

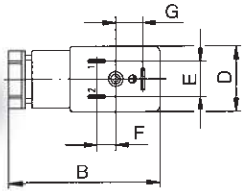
Dimensions [mm]

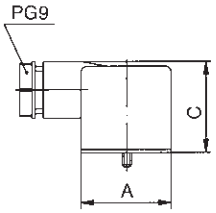
Description	A	B	C	D	Weight approx. [kg]	Order Code
M12 straight 5 pin female connector, without cable	52.5	20.0	SW19	M12x1	0.033	**230-957**

Accessories

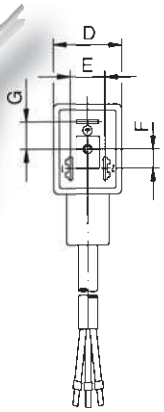
Connector Sockets, Type 22 mm, Industrial Standard

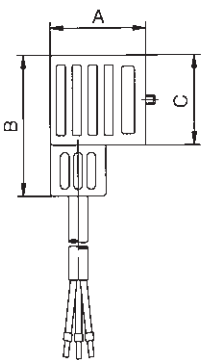
with PG 9 screw tting cable
for cable with
Ø 6 to 8 mm

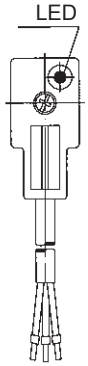




with 2-m-cable





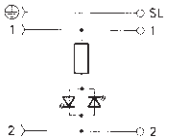


Technical Data and Dimensions [mm]

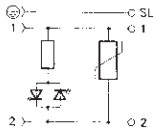
Nominal Voltage	Wiring Type	Colour Diagram	Peak cut-off Voltage	A	B	C	D	E	F	Weight approx. [kg]	Order Code
With PG 9 screw fitting cable											
Up to 250 V	—	—	grey	unlimited	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-363**
Up to 250 V	—	—	black	unlimited	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-364**
10-50 V	LED red	a	translucent	unlimited	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-391**
10-30 V	LED red + Varistor	b	translucent	65 V	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-392**
70-250 V	LED red	a	translucent	unlimited	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-393**
70-250 V	LED red + Varistor	b	translucent	440 V	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-394**
10-30 V	LED green + Varistor	b	translucent	65 V	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-400**
10-50 V	LED green	a	translucent	nicht begrenzt	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-401**
70-250 V	LED green	a	translucent	unlimited	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-402**
70-250 V	LED green + Varistor	b	translucent	440 V	28.3	49.0	28.7	20.8	12.0	7.0	9.4	0.020	**230-403**
with 2-m-Cable											
bis 250 V	—	—	black	unlimited	28.3	41.2	28.7	20.8	12.0	7.0	9.4	0.020	**230-408**
24 V	LED yellow + Varistor	b	black	65 V	28.3	41.2	28.7	20.8	12.0	7.0	9.4	0.020	**230-409-xxm**
110 V	LED yellow + Varistor	b	black	260 V	28.3	41.2	28.7	20.8	12.0	7.0	9.4	0.020	**230-410**
230 V	LED yellow + Varistor	b	black	470 V	28.3	41.2	28.7	20.8	12.0	7.0	9.4	0.020	**230-411**

xxm = add the required cable length in **m** (e. g. 230-409-**05m**), standard lengths: 2, 5 and 10 m

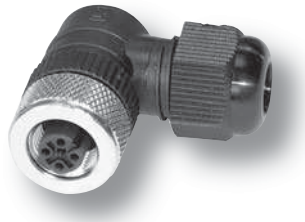
Circuit diagram „a“

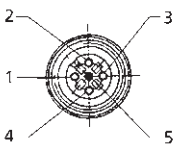


Circuit diagram „b“

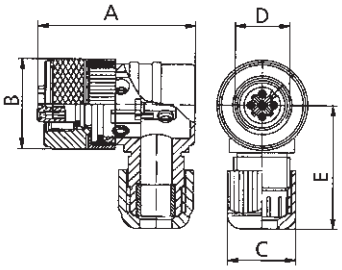


M12 Elbow Female Connector





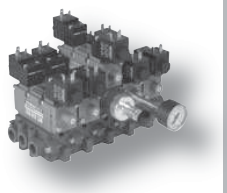
view on mating side



Dimensions [mm]

Description	A	B	C	D	E	Weight approx. [kg]	Order Code
M12 elbow 5 pin female connector, without cable	35.0	20.0	SW19	M12x1	27.5	0.025	**230-956**

Sub-base Mounted Valves to ISO 5599/1



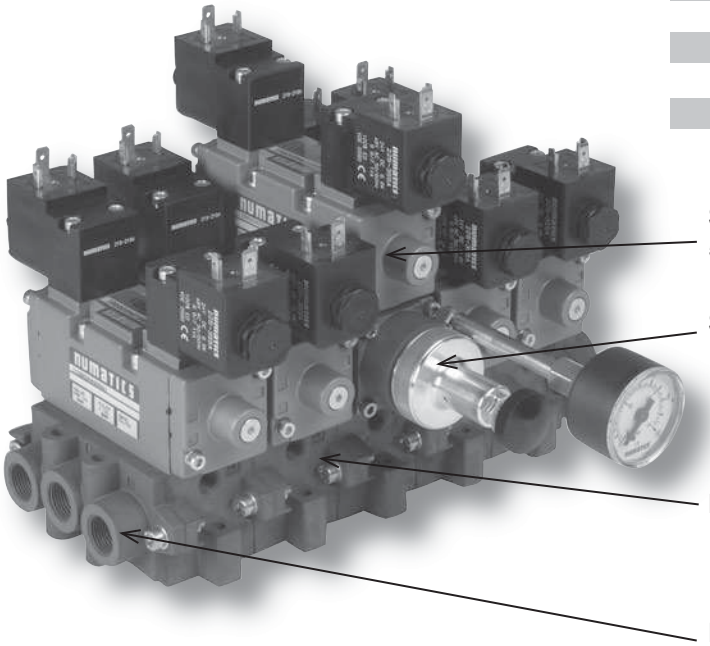
Technical Information

Completely Assembled Manifolds
All manifolds offer side and/or bottom cylinder ports.
These ports and the end plates are available with G-threads or NPTF-threads.
To order a completely assembled manifold, it is necessary to order the assembly kit and the valve or regulator required at each station. All kits are pre xed **AKI**, followed by the valve series, a dash and the number of stations.
Put in "N" for NPTF-thread.
Select assembly kits from the following chart. A maximum of 12 stations is recommended.

How to order: (example)

AKI **1C** — **05**

Version	Valve Series	Number of Stations	Port Type
AKI = Completely assembled manifolds	**1C** = ISO 1	**02** = 2 stations	= G-thread
	2D = ISO 2	**03** = 3 stations	**N** = NPTF-thread
	3E = ISO 3	**04** = 4 stations	
		05 = 5 stations	
		06 = 6 stations	
		07 = 7 stations	
		08 = 8 stations	
		09 = 9 stations	
		10 = 10 stations	
		11 = 11 stations	
		12 = 12 stations	



Solenoid Pilot Actuated 5-ported, 3-position Valve

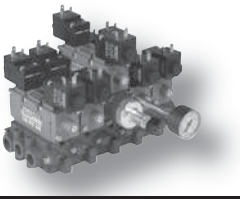
Sandwich Pressure Regulator with Gauge

Manifold Block with Bottom Ports (form C)

End Plates with Ports „1", „3" and „5"

Order example: AKI1C-05

Stations	Valve Position Code	Denomination
Station 1:	(1) I12BB51AG00061	1 BB-valve with manifold block form C
Station 2:	(1) I12BB51AG00061	1 BB-valve with manifold block form C
Station 3:	(1) I12BB500G00061	1 BB-valve without manifold block
	(1) I12RS11A0P00000	1 regulator with gauge and manifold block form C
Station 4:	(1) I12BB51AG00061	1 BB-valve with manifold block form C
Station 5:	(1) I12BB51AG00061	1 BB-valve with manifold block form C



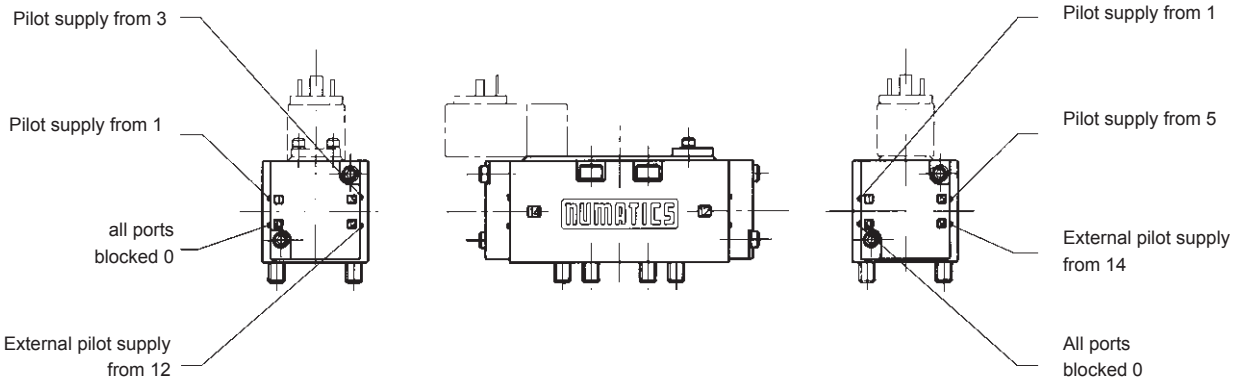
Sub-base Mounted Valves to ISO 5599/1

numatics

Technical Information

Conversion of Pilot Air Supply
Pilot Plugging Arrangements (only for type ISO1 / ISO2 / ISO3-valves)

Air pilot actuated valves are shipped with external pilot supply to ports 12 and 14.
All solenoid pilot actuated valves are shipped with internal pilot supply from port 1. If supply air is piped to ports 3 and 5, or if external pilot supply is required, the valve must be converted (for example, if an RD regulator is used).
Conversion is simple - remove the end caps and position the gasket so that the tab points toward the appropriate port number, install end caps. Please refer to the chart and drawing below.



Pilot Supply Options		Gasket Tap Location "14" End	Gasket Tap Location "12" End
1.	All air pilot actuated valves		
	External pilot to ports 12 and 14	0	0
2.	Single solenoid pilot actuated valves		
	a. Internal supply from port 1	1	0
	b. Internal supply from port 3	0	3
	c. Internal supply from port 5	5	0
	d. External pilot from port 14	14	0
	e. External pilot from port 12	0	12
3.	Double solenoid pilot actuated valves		
	a. Internal supply from port 1	1	1
	b. Internal supply from port 3	0	3
	c. Internal supply from port 5	5	0
	d. External pilot from port 14	14	0
	e. External pilot from port 12	0	12

For use of RD-regulators, the pilot plugging arrangement is as described under b. and c.

Interface to ISO 5599/1

Dimensions [mm]

Series	A	B	C	D	G [1]	L_1 min.	L_T min.	P
ISO 1	4.5	9.0	9.0	14.0	3.0	32.5	65.0	8.5
ISO 2	7.0	12.0	10.0	19.0	3.0	40.5	81.0	10.0
ISO 3	10.0	16.0	11.5	24.0	4.0	53.0	106.0	13.0

Series	R max.	T [2]	W	X	Y [3]	Cross-section Slots [mm²]
ISO 1	2.5	M5x0.8	38.0	16.5	43.0	70.0
ISO 2	3.0	M6x1.0	50.0	22.0	56.0	143.0
ISO 3	4.0	M8x1.25	64.0	29.0	71.0	269.0

1) G is the minimum width of the slots
2) The thread depth is at least twice the nominal threaded diameter
3) Dimension Y is the distance between the centrelines of adjacent blocks.