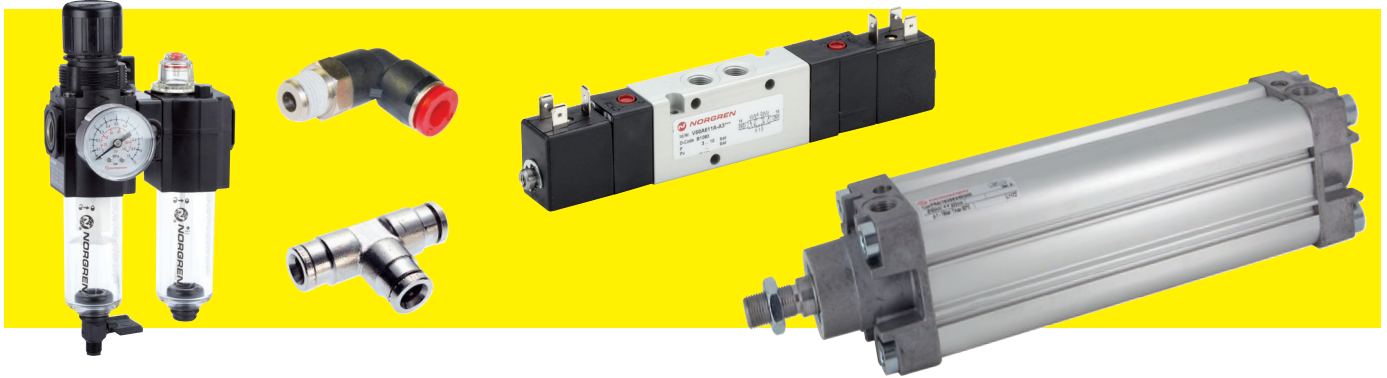


Pneumatic-Elements Overview



Contents



Standard Cylinder
Diameter 32 - 80 mm.....Page 614



Air Preparation Equipment
and Accessories.....Page 634



Compact Cylinder
Diameter 20 - 40 mm.....Page 616



Push-in and
Compression Fittings.....Page 638



Round-Line Cylinder
Diameter 10 - 25 mm.....Page 618



Ball Valves, Manually Operated.....Page 644



Mounting Elements for
Cylinders.....Page 620



Filters, Silencers, Flow Regulators,
Exhaust Valves, Non-Return and
Stop Valves, Tools.....Page 645



Magnetic Switches for
Cylinders.....Page 627



Tubing.....Page 648



Solenoid Valves for
Gases and Liquids.....Page 629

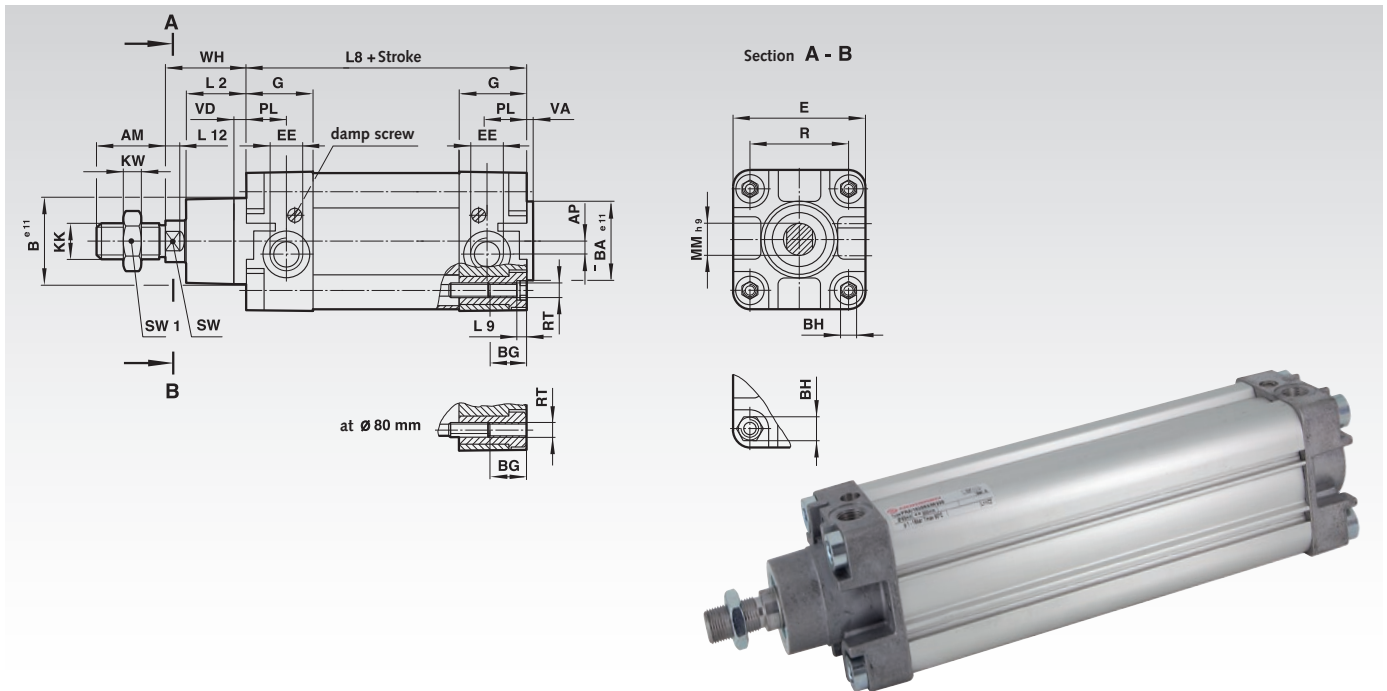


Blow Guns and Accessories.....Page 649



Solenoid Valves for Compressed Air
(Pneumatic Valves).....Page 631

Double-Acting Standard Cylinder According to ISO 6431 and VDMA 24562 with Magnetic Piston



Materials: Profile barrel: Anodised aluminium. End covers: Aluminium die-cast. Piston rod: Stainless steel (ferritic), Piston and piston rod seals: Polyurethane. O-ring seals: Nitrile rubber.

Medium: Compressed air, filtered, lubricated or non-lubricated.

Standard: ISO 6431, VDMA 24562, NFE 49-003-1.

Mode of operation: Double-acting with magnetic piston and adjustable end-of-stroke cushioning.

Operating pressure: 1 to 16 bar.

Operating temperature: -20°C to +80°C.

Below +2°C please consider the air quality.

Cylinder Ø mm	Theoretical Forces (N) at 6 bar		Cushion Length mm	Initial Cushion Volume cm³
	Thrust	Pull		
32	482	414	19	12,3
40	754	633	22	20,7
50	1178	990	24	36
63	1870	1680	24	64
80	3016	2722	27	116

Ordering details: e.g.: Product No. 801 320 25, Double-Acting Standard Cylinder
According to ISO 6431 with Magnetic Piston, Cylinder Ø 32 mm, Stroke 25 mm

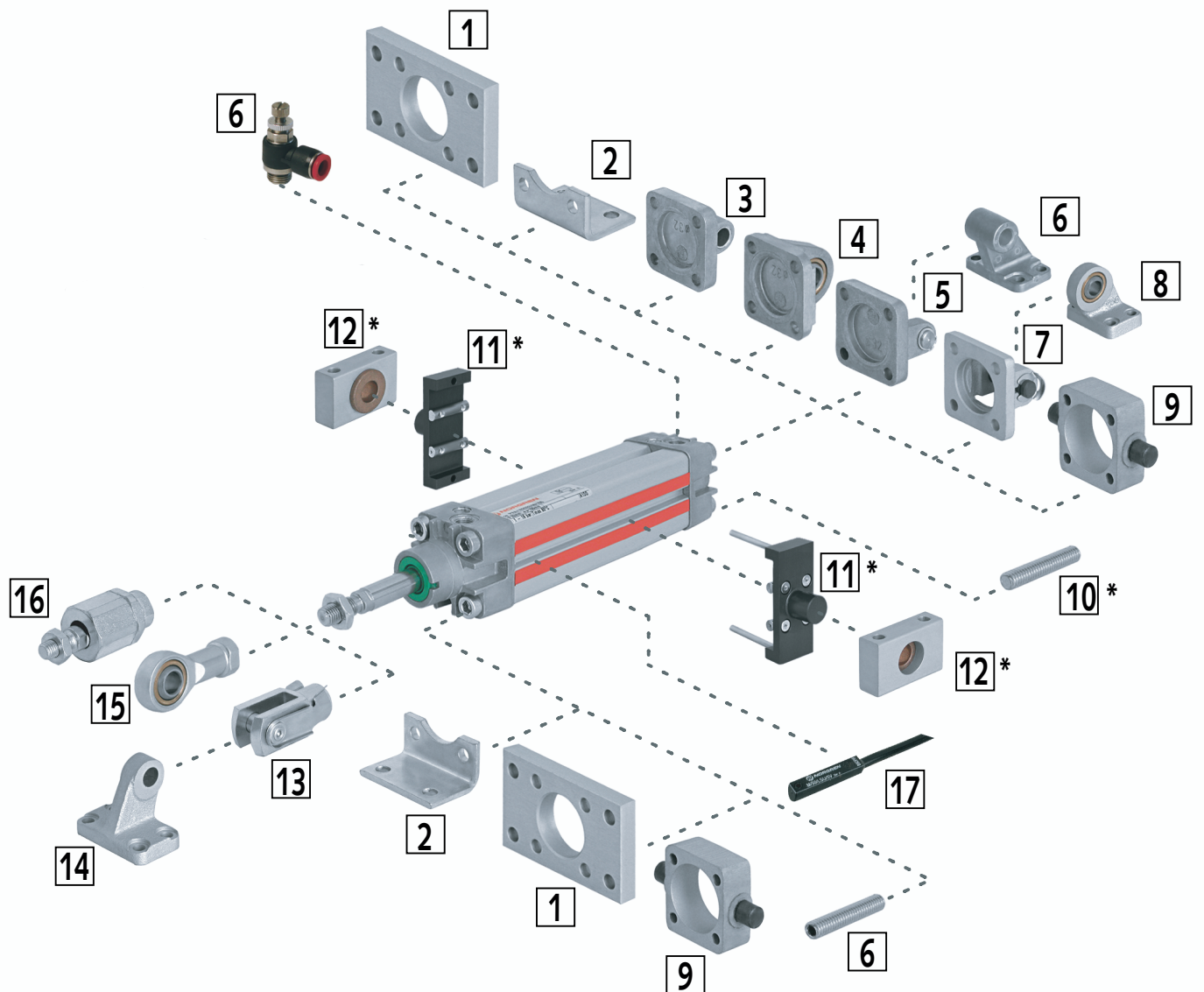
Symbol	Product No.			Standard Strokes						Cylinder- Ø mm	Connection
	25 mm	50 mm	80 mm	100 mm	125 mm	160 mm	200 mm	250 mm			
	801 320 25	801 320 50	801 320 80	801 321 00	801 321 25	801 321 60	801 322 00	801 322 50	32	G ¹ / ₈	
	801 400 25	801 400 50	801 400 80	801 401 00	801 401 25	801 401 60	801 402 00	801 402 50	40	G ¹ / ₄	
	801 500 25	801 500 50	801 500 80	801 501 00	801 501 25	801 501 60	801 502 00	801 502 50	50	G ¹ / ₄	
	801 630 25	801 630 50	801 630 80	801 631 00	801 631 25	801 631 60	801 632 00	801 632 50	63	G ³ / ₈	
	801 800 25	801 800 50	801 800 80	801 801 00	801 801 25	801 801 60	801 802 00	801 802 50	80	G ³ / ₈	

Note: Magnetic switches 810 000 01 to 810 000 07 (page 569 - 570) can be mounted straight on the keyways of the profile barrel, without further elements.

Cyl. Ø mm	AM mm	AP mm	ØB ^{e11} mm	ØBA ^{e11} mm	BG mm	BH mm	E mm	EE	G mm	KK mm	SW1 mm	KW mm	L2 mm
32	22	3,5	30	30	18	6	47	G ¹ / ₈	27,5	M10x1,25	17	5	20
40	24	4,5	35	35	18	6	53	G ¹ / ₄	32	M12x1,25	19	6	22
50	32	6	40	40	18	8	65	G ¹ / ₄	31	M16x1,5	24	8	27
63	32	10	45	45	17,5	8	75	G ³ / ₈	33	M16x1,5	24	8	29
80	40	8,5	45	45	21,5	19	95	G ³ / ₈	33	M20x1,5	30	10	33

Cyl. Ø mm	L8 mm	L9 mm	L12 mm	MM ^{h9} mm	PL mm	R mm	RT mm	SW mm	VA mm	VD mm	WH mm	Weight in kg at 0 mm per 25 mm	
32	94	4	6	12	13	32,5	M 6	10	3	6	26	0,51	0,06
40	105	4	6,5	16	15	38	M 6	13	3,5	6	30	0,80	0,08
50	106	5	8	20	18,5	46,5	M 8	17	3,5	6	37	1,33	0,12
63	121	5	8	20	19	56,5	M 8	17	4	6	37	1,80	0,13
80	128	-	10	25	19	72	M 10	22	4	6	46	3,25	0,20

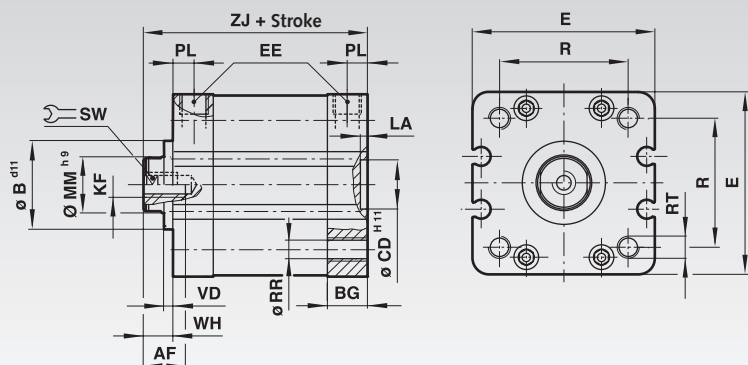
Mounting Elements for Standard Cylinders



No. Designation	Cylinder Ø 32mm Product No.	Cylinder Ø 40mm Product No.	Cylinder Ø 50mm Product No.	Cylinder Ø 63mm Product No.	Cylinder Ø 80mm Product No.	Dim. Page*
1 Rear Flange, Front Flange	810 001 32	810 001 40	810 001 50	810 001 63	810 001 80	620
2 Foot Plate Mounting	810 002 32	810 002 40	810 002 50	810 002 63	810 002 80	620
3 Rear Eye Mounting	810 004 32	810 004 40	810 004 50	810 004 63	810 004 80	620
4 Rear Eye Mounting with Spherical Bearing	810 012 32	810 012 40	810 012 50	810 012 63	810 012 80	621
5 Rear Clevis Mounting Slim	810 007 32	810 007 40	810 007 50	810 007 63	810 007 80	621
6 Bracket Hinge Mounting, Rigid, Wide for No. 5	810 010 32	810 010 40	810 010 50	810 010 63	810 010 80	621
7 Rear Clevis Mounting Slim	810 008 32	810 008 40	810 008 50	810 008 63	810 008 80	622
8 Bracket Hinge Mounting with Spherical Bearing No. 7	810 011 32	810 011 40	810 011 50	810 011 63	810 011 80	622
9 Trunnion Mounting	810 013 32	810 013 40	810 013 50	810 013 63	810 013 80	622
10 Front or Rear Stud Mounting *	810 006 32*	810 006 32*	810 006 50*	810 006 50*	810 006 80*	-
11 Adjustable Trunnion Mounting *	810 014 32*	810 014 40*	810 014 50*	810 014 63*	810 014 80*	-
12 Swivel Bearings for No.9 oder No.11	810 015 32	810 015 40	810 015 50	810 015 63	810 015 80	623
13 Clevis	810 003 25	810 003 40	810 003 50	810 003 63	810 003 80	623
14 Bracket Hinge Mounting, Rigid, Slim, for No.13	810 009 32	810 009 40	810 009 50	810 009 63	810 009 80	623
15 Rod End	810 005 25	810 005 40	810 005 50	810 005 63	810 005 80	623
16 Piston Rod Swivel Mounting	810 000 25	810 000 40	810 000 50	810 000 63	810 000 80	623

* Discontinued item.

Double-Acting Compact Cylinder with Magnetic Piston, According to ISO 21287



Materials:

Profile barrel: Anodised aluminium.
End covers: Aluminium die-cast.
Piston rod: Stainless steel (Ø 20 and 25 mm austenitic, Ø 32 and 40 mm ferritic).
Piston rod seal: Polyurethane.
Piston seal: Nitrile rubber.
O-ring seals: Nitrile rubber.

Medium: Compressed air, filtered, lubricated or non-lubricated
Standard: ISO 21287.

Mode of operation: double-acting, magnetic piston, piston rod with internal thread, buffer cushioning.

Operating pressure: 1 to 10 bar.

Operating temperature: -5°C* to +80°C.

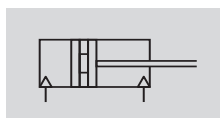
* With temperatures below +2°C please consider the air quality.

On request also available with external thread.

Ordering details: e.g.: Product No. 803 200 10, Double-Acting Compact Cylinders with Magnetic Piston, Cylinder Ø 20 mm, Stroke 10 mm

Cylinder Ø mm	Theoretical Forces at 6 bar (N)	
	Thrust	Pull
20	188	141
25	294	247
32	482	414
40	754	633

Symbol



Product No. Standard Strokes

10 mm

25 mm

50 mm

Cyl. Ø
mm

Connection

803 200 10

803 200 25

803 200 50

20

M5

803 250 10

803 250 25

803 250 50

25

M5

803 320 10

803 320 25

803 320 50

32

G1/8

803 400 10

803 400 25

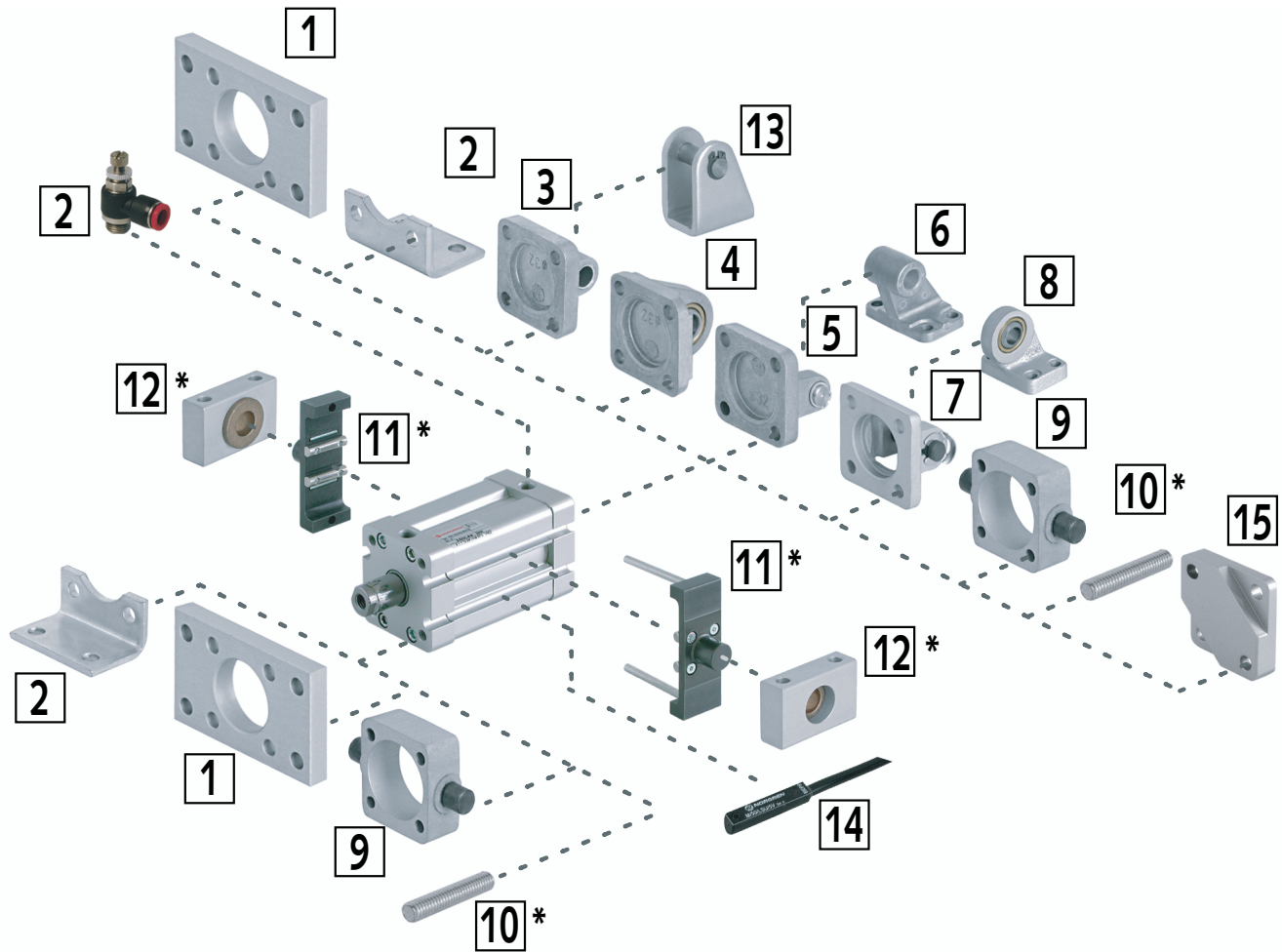
803 400 50

40

G1/8

Cyl. Ø mm	AF mm	BG mm	Ø CD ^{H11} mm	E mm	EE	KF	LA mm	Ø MM ^{h9} mm
20	10	12	10	37	M 5	M 6	2,5	10
25	10	13	10	41	M 5	M 6	2,5	10
32	12	14,5	14	48	G 1/8	M 8	2,5	12
40	12	14,5	14	54,4	G 1/8	M 8	2,5	16

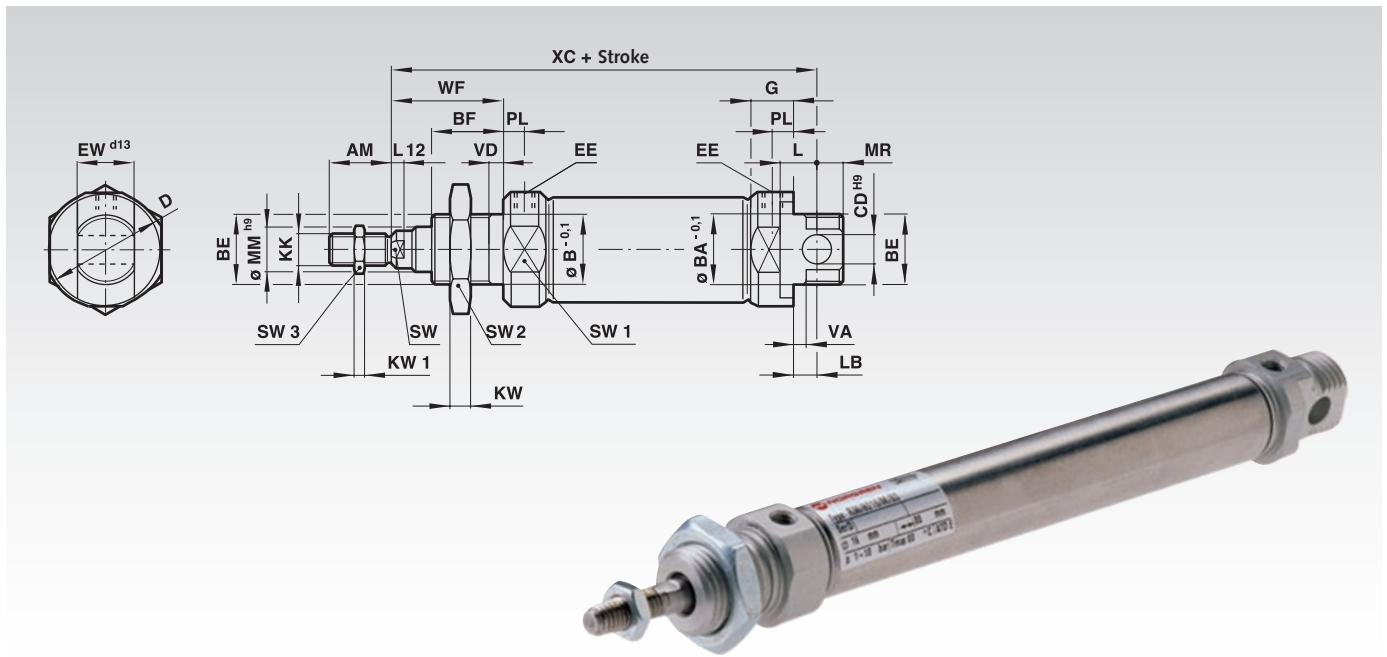
Cyl. Ø mm	PL mm	R mm	Ø RR mm	RT mm	SW mm	WH mm	ZJ mm	Weight in kg	
								at 0 mm	per 5 mm
20	7	22	4,3	M 5	8	6	43	0,12	0,01
25	7	26	4,3	M 5	8	6	45	0,15	0,01
32	7,5	32,5	5,3	M 6	10	7	51	0,23	0,02
40	7,5	38	5,3	M 6	13	7	52	0,30	0,02



No. Designation	Cylinder Ø 20mm Product No.	Cylinder Ø 25mm Product No.	Cylinder Ø 32mm Product No.	Cylinder Ø 40mm Product No.	Dim. Page
1 Rear Flange, Front Flange	810 001 20	810 001 25	810 001 32	810 001 40	620
2 Foot Plate Mounting	810 002 20	810 002 25	810 002 32	810 002 40	620
3 Rear Eye Mounting	810 004 20	810 004 25	810 004 32	810 004 40	620
4 Rear Eye Mounting with Spherical Bearing	—	—	810 012 32	810 012 40	621
5 Rear Clevis Mounting, Wide	—	—	810 007 32	810 007 40	621
6 Bracket Hinge Mounting, Rigid, Wide for No. 5	—	—	810 010 32	810 010 40	621
7 Rear Clevis Mounting Slim	—	—	810 008 32	810 008 40	621
8 Bracket Hinge Mounting with Spherical Bearing No. 7	—	—	810 011 32	810 011 40	622
9 Trunnion Mounting	—	—	810 013 32	810 013 40	622
10 Front or Rear Stud Mounting *	—	—	810 006 32*	810 006 32*	-
11 Adjustable Trunnion Mounting *	—	—	810 014 32*	810 014 40*	-
12 Swivel Bearings for No. 9 oder No. 11	—	—	810 015 32	810 015 40	623
13 Bracket Hinge Mounting	810 023 20	810 023 20	—	—	624

* Discontinued item.

Double-Acting Round-Line Cylinders According to ISO 6432 with Magnetic Piston (Buffer Cushioning)



Materials: Profile Barrel: Stainless Steel (austenitic).
 End Covers: Anodised Aluminium, Piston Rod: Stainless Steel (austenitic), Wiper: Polyurethane, Buffer cushioning: Polyurethane, Seals: Nitrile Rubber.

Medium: Compressed air, filtered, lubricated or non-lubricated.
 Standard: ISO 6432.

Mode of Operation: Double-acting with magnetic piston and buffer cushioning.

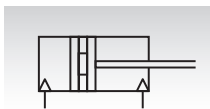
Operating pressure: 1 to 10 bar.

Operating temperature: max. +80 °C.

Ordering Details: e.g.: Product No. 805 100 10, Double-Acting Round-Line Cylinder according to ISO 6431 with Magnet Piston, Cylinder Ø 10 mm, Stroke 10 mm

Cylinder Ø mm	Theoretical Forces at 6 bar (N)	
	Thrust	Pull
10	47,1	39,6
12	67,8	51
16	120	104
20	188	158
25	294	247

Symbol

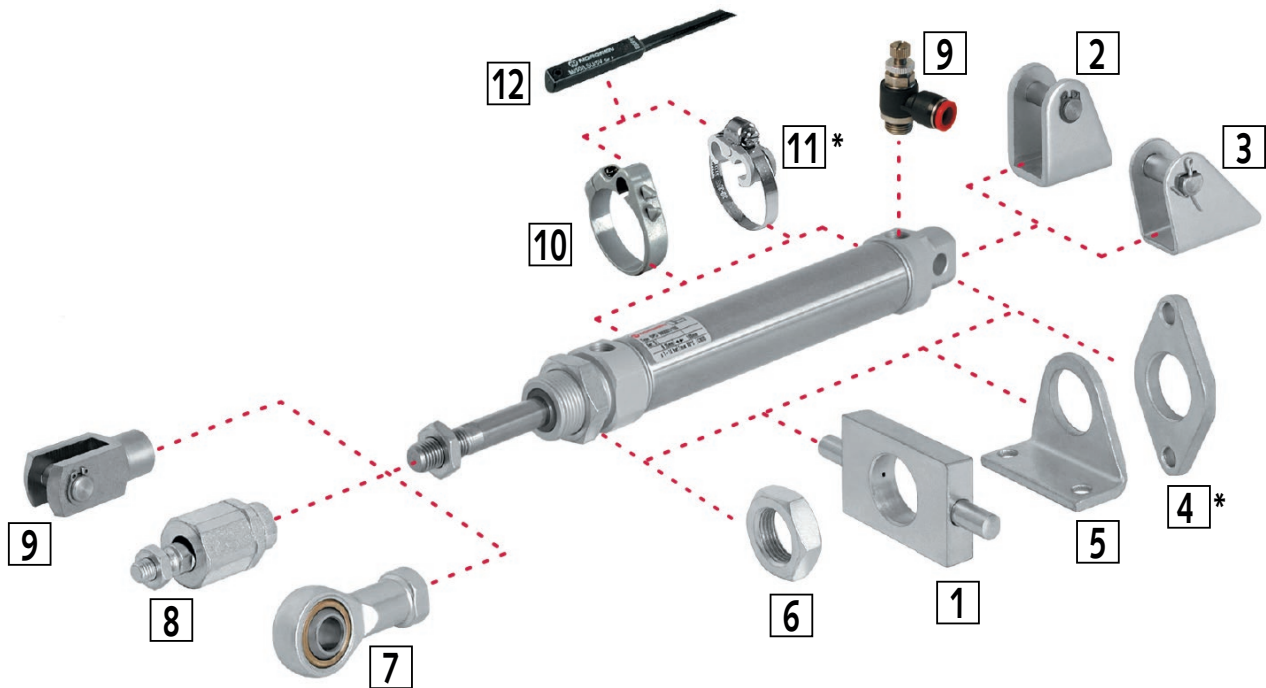


Product No. Standard Strokes								Cylinder Ø mm	Connection
10 mm	25 mm	50 mm	80 mm	100 mm	125 mm	160 mm	200 mm		
805 100 10	805 100 25	-	-	-	-	-	-	10	M5
805 120 10	805 120 25	-	-	-	-	-	-	12	M5
805 160 10	805 160 25	805 160 50	-	-	-	-	-	16	M5
805 200 10	805 200 25	805 200 50	805 200 80	805 201 00	805 201 25	805 201 60	805 202 00	20	G ¹ / ₈
805 250 10	805 250 25	805 250 50	805 250 80	805 251 00	805 251 25	805 251 60	805 252 00	25	G ¹ / ₈

Cyl. Ø mm	AM mm	Ø B/BA ^{-0,1} mm	BE mm	BF mm	Ø CD ^{H9} mm	Ø D mm	EE mm	EW ^{-0,1} mm	G mm	KK mm	SW2 mm	SW3 mm	KW mm	KW1 mm
10	12	12	M12x1,25	12	4	16,5	M5	7,9	9	M4	19	7	6	2
12	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	10	5	3
16	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	10	5	3
20	20	22	M22x1,5	20	8	30	G ¹ / ₈	15,9	15	M8	27	13	8	4
25	22	22	M22x1,5	22	8	30	G ¹ / ₈	15,9	15	M10x1,25	27	17	8	5

Cyl. Ø mm	L mm	L12 mm	LB mm	Ø MM ^{H9} mm	MR mm	PL mm	SW mm	SW1 mm	WF mm	VA/VD mm	XC mm	Weight in kg at 0 mm per 25 mm	
10	6	-	2	4	8	5,5	-	14	16	1,5	64	0,034	0,007
12	9	3	3	6	8	5,5	5	19	22	2	75	0,058	0,011
16	9	3	4	6	7	5,5	5	19	22	2	82	0,070	0,012
20	12	3	3	8	11	8	7	27	24	2	95	0,145	0,018
25	12	4	7	10	9	8	9	27	28	2	104	0,200	0,028

Mounting Elements for Round-Line Cylinders



No. Designation	Cylinder Ø 10mm Product No.	Cylinder Ø 12mm Product No.	Cylinder Ø 16mm Product No.	Cylinder Ø 20mm Product No.	Cylinder Ø 25mm Product No.	Dim. Page*
1 Trunnion Mounting	-	810 021 12	810 021 12	810 021 20	810 021 20	624
2 Bracket Hinge Mounting with Circlip	810 023 10	810 023 12	810 023 12	810 023 20	810 023 20	626
3 Bracket Hinge Mounting with Split Pin	810 022 10	810 022 12	810 022 12	810 022 20	810 022 20	626
4 Rear Flange, front Flange*	810 019 10*	810 019 12*	810 019 12*	810 019 20*	810 019 20*	-
5 Foot Plate Mounting	810 020 10	810 020 12	810 020 12	810 020 20	810 020 20	625
6 Piston Rod Lock Nut	810 024 10	810 024 12	810 024 12	810 024 20	810 024 20	625
7 Universal Piston Rod Mounting with Spherical Bearing	810 005 10	810 005 12	810 005 12	810 005 20	810 005 25	624
8 Piston Rod Swivel Mounting	810 000 10	810 000 12	810 000 12	810 000 20	810 000 25	624
9 Clevis	810 003 10	810 003 12	810 003 12	810 003 20	810 003 25	623
10 Mounting Bracket for Magnetic Switches ≥ 15mm Stroke	810 017 10	810 017 12	810 017 16	810 017 20	810 017 25	625
11 Mounting Bracket for Magnetic Switches < 15mm Stroke*	810 018 10*	810 018 12*	810 018 16*	810 018 20*	810 018 25*	-

* Discontinued item.

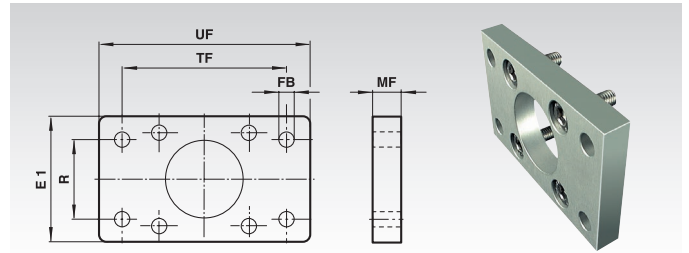
Rear Flanges, Front Flanges

Materials:

Flange: Anodised Aluminium.

Screws: Steel, zinc-plated.

Mounting element at the bearing or end cover.



Ordering Details: e.g.: Product-No. 810 001 20, Rear and Front Flange for Cylinder Ø 20 mm

Product No.	Cyl. Ø mm	E1 mm	Ø FB mm	MF mm	R mm	TF mm	UF mm	Weight g
810 001 20	20	36	6,6	8	0*	55	70	160
810 001 25	25	40	6,6	8	0*	60	76	200
810 001 32	32	50	7	10	32	64	80	250
810 001 40	40	55	9	10	36	72	90	350
810 001 50	50	65	9	12	45	90	110	700
810 001 63	63	75	9	12	50	100	125	800
810 001 80	80	100	12	16	63	126	154	1350

* 2 bores on the centre line at a distance TF.

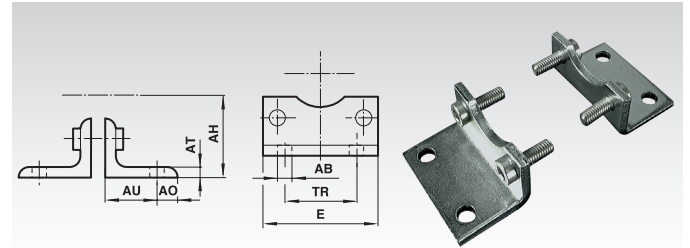
Foot Plate Mountings

Materials:

Mounting: Steel, zinc-plated.

Screws: Steel, zinc-plated.

Mounting element at the bearing and end cover.



Ordering Details: e.g.: Product-No. 810 002 20, Foot Plate Mounting for Cylinder Ø 20 mm

Product No.	Cyl. Ø mm	Ø AB mm	AH mm	AO mm	AT mm	AU mm	E mm	TR mm	Weight g
810 002 20	20	7	27	6	4	16	36	22	30
810 002 25	25	7	29	7	4	16	40	26	40
810 002 32	32	7	32	8	4	24	48	32	150
810 002 40	40	9	36	9	4	28	53	36	180
810 002 50	50	9	45	10	5	32	64	45	300
810 002 63	63	9	50	12	5	32	74	50	390
810 002 80	80	12	63	19	5	41	98	63	800

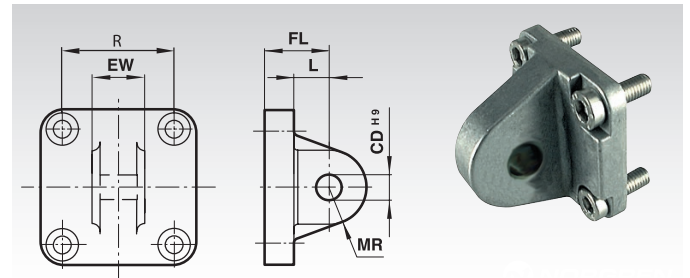
Rear Eye Mountings

Materials:

Mounting: Aluminium, die-cast.

Screws: Steel, zinc-plated.

Mounting element at the end cover.



Ordering Details: e.g.: Product-No. 810 004 20, Rear Eye Mounting for Cylinder Ø 20 mm

Product No.	Cyl. Ø mm	Ø CD ^{H9} mm	EW mm	FL mm	L mm	MR mm	R mm	Weight g
810 004 20	20	8	15,8	20	14	8	22	20
810 004 25	25	8	15,8	20	14	8	26	30
810 004 32	32	10	25,8	22	13	9	32,5	90
810 004 40	40	12	27,8	25	16	12	38	110
810 004 50	50	12	31,7	27	17	12	46,5	170
810 004 63	63	16	39,7	32	22	15	56,5	240
810 004 80	80	16	49,7	36	22	15	72	370

Rear Eye Mountings with Spherical Bearing

Materials:

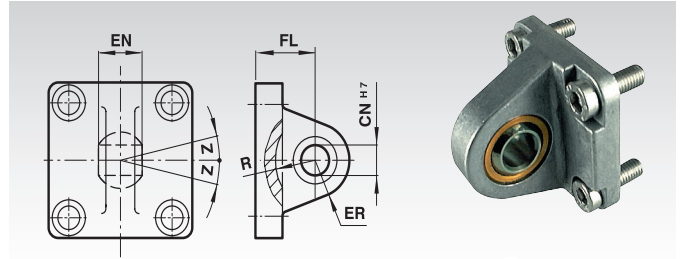
Mounting: Aluminium, die-cast.

Screws: Steel, zinc-plated

Inner ring: Roller bearing steel, hardened

Outer ring: Steel.

Mounting element at the end cover.



Ordering Details: e.g.: Product No. 810 012 32, Rear Eye Mounting with Spherical Bearing for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	CN ^{H7} mm	EN mm	ER mm	FL mm	R mm	Z Degrees	Weight g
810 012 32	32	10	14	16	22	14,5	13°	170
810 012 40	40	12	16	19	25	18	13°	250
810 012 50	50	16	21	21	27	19	13°	400
810 012 63	63	16	21	24	32	24	15°	550
810 012 80	80	20	25	28	36	24	15°	900

Rear Clevis Mountings, Wide Clevis

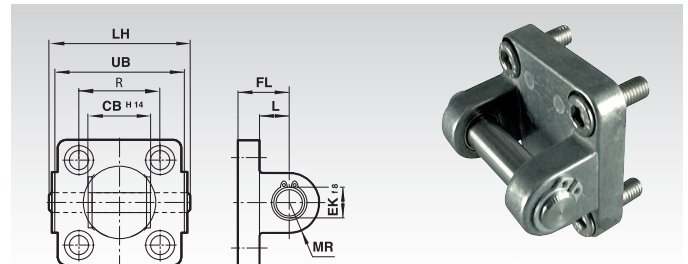
Materials:

Mounting: Aluminium, die-cast.

Screws: Steel, zinc-plated

Bolts: Stainless Steel.

Mounting element at the end cover.



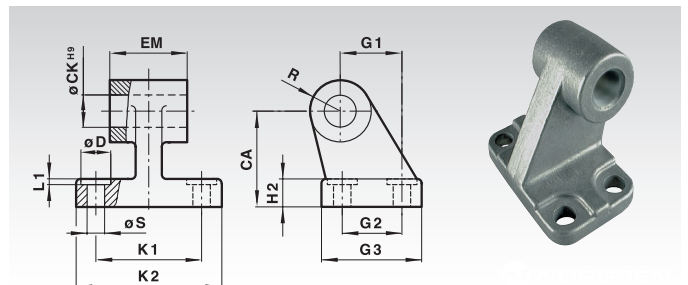
Ordering Details: e.g.: Product No. 810 007 32, Rear Clevis Mounting Made from Aluminium for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	CB ^{H14} mm	EK ^{H8} mm	FL mm	L mm	LH mm	MR mm	UB mm	R mm	Weight g
810 007 32	32	26	10	22	13	52	9	32,5	45	110
810 007 40	40	28	12	25	16	60	12	38	52	160
810 007 50	50	32	12	27	17	68	12	46,5	60	220
810 007 63	63	40	16	32	22	79	15	56,5	70	340
810 007 80	80	50	16	36	22	99	15	72	90	540

Bracket Hinge Mountings, Rigid, Wide Design (Aluminium), Mating Piece for Clevis Mounting

Material:

Aluminium, die-cast.



Ordering Details: e.g.: Product No. 810 010 32, Bracket Hinge Mounting, Rigid, Wide Design, for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	CA mm	CK ^{H7} mm	Ø D mm	EM mm	G1 mm	G2 mm	G3 mm	H2 mm	K1 mm	K2 mm	L1 mm	R mm	Ø S mm	Z Degrees	Weight g
810 010 32	32	32	10	11	26	21	18	31	8	38	51	1,6	10	6,6	13°	150
810 010 40	40	36	12	11	28	24	22	35	10	41	54	1,6	11	6,6	13°	200
810 010 50	50	45	12	15	32	33	30	45	12	50	65	1,6	13	9	13°	480
810 010 63	63	50	16	15	40	37	35	50	12	52	67	1,6	15	9	15°	500
810 010 80	80	63	16	18	50	47	40	60	14	66	86	2,5	15	11	15°	750

Rear Clevis Mountings, Slim Clevis

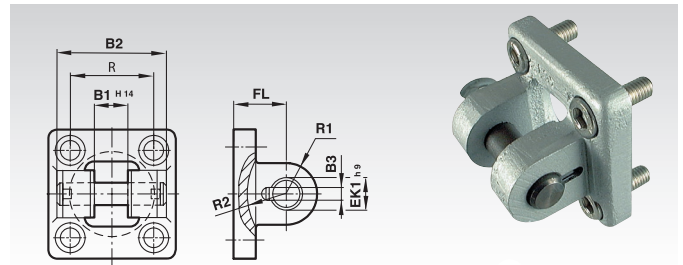
Materials:

Mounting: Aluminium.

Screws: Steel, zinc-plated.

Bolts: Stainless Steel.

Mounting element at the end cover.



Ordering Details: e.g.: Product No. 810 008 32, Rear Clevis Mounting for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	B1 ^{H14} mm	B2 mm	B3 mm	EK1 ^{h9} mm	FL mm	R mm	R1 mm	R2 mm	Weight g
810 008 32	32	14	34	3,3	10	22	32,5	11	17	200
810 008 40	40	16	40	4,3	12	25	38	12	20	230
810 008 50	50	21	45	4,3	16	27	46,5	14,5	22	360
810 008 63	63	21	51	4,3	16	32	56,5	18	25	550
810 008 80	80	25	65	4,3	20	36	72	22	30	900

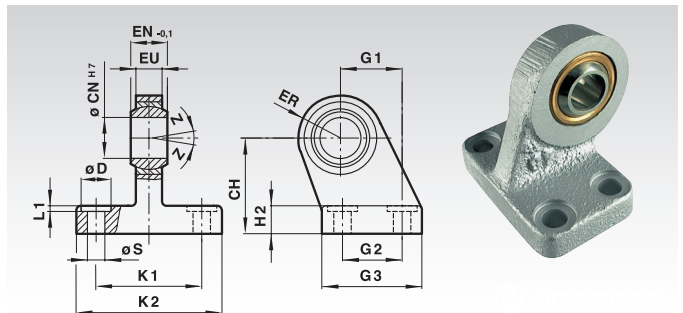
Bracket Hinge Mountings with Spherical Bearing (Steel) for Slim Clevis

Materials:

Bracket hinge: Grey cast iron, coated.

Inner ring: Roller bearing steel, hardened.

Outer ring: Steel.



Ordering Details: e.g.: Product No. 810 011 32, Bracket Hinge Mounting, with Spherical Bearing, for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	CH mm	CN ^{H7} mm	Ø D mm	EN ^{-0,1} mm	ER mm	EU mm	G1 mm	G2 mm	G3 mm	H2 mm	K1 mm	K2 mm	L1 mm	Ø S mm	Z Degrees	Weight g
810 011 32	32	32	10	11	14	16	10,5	21	18	31	8	38	51	1,6	6,6	13°	190
810 011 40	40	36	12	11	16	18	12	24	22	35	10	41	54	1,6	6,6	13°	240
810 011 50	50	45	16	15	21	21	15	33	30	45	12	50	65	1,6	9	13°	460
810 011 63	63	50	16	15	21	23	15	37	35	50	12	52	67	1,6	9	15°	590
810 011 80	80	63	20	18	25	28	18	47	40	60	14	66	86	2,5	11	15°	1030

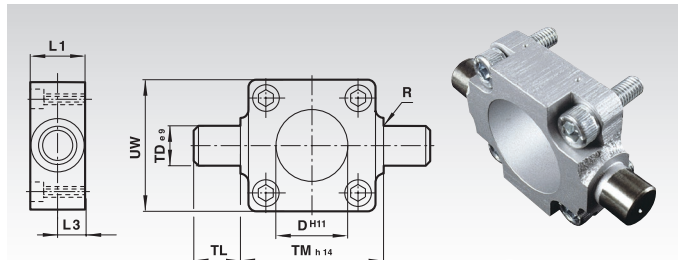
Trunnion Mountings (front or rear)

Materials:

Mounting: Grey cast iron.

Screws: Steel, zinc-plated.

Mounting element at the bearing or end cover.



Ordering Details: e.g.: Product No. 810 013 32, Trunnion Mounting for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	ØD ^{H11} mm	L1 mm	L3 mm	R mm	ØTD ^{ø9} mm	TL mm	TM ^{h14} mm	UW1 mm	Weight g
810 013 32	32	30	16	8	1,0	12	12	50	50	200
810 013 40	40	35	20	10	1,6	16	16	63	55	380
810 013 50	50	40	24	12	1,6	16	16	75	65	600
810 013 63	63	45	24	12	1,6	20	20	90	75	1100
810 013 80	80	45	28	14	1,6	20	20	110	100	1900

Swivel Bearings

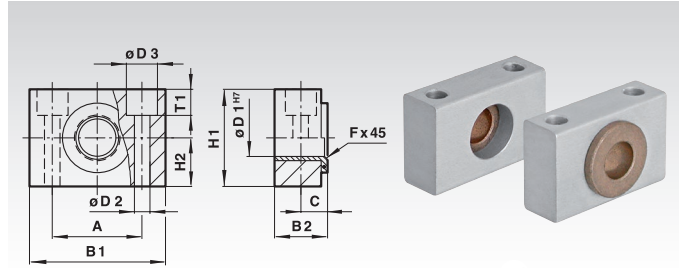
Materials:

Mounting: Steel.

Bearing: Sintered bronze.

Mounting Element for Trunnion Mounting.

2 bearings included in the delivery.



Ordering Details: e.g.: Product No. 810,015 32, Swivel Bearing for Trunnion Mounting for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	A mm	B1 mm	B2 mm	C mm	Ø D1 mm	Ø D2 mm	Ø D3 mm	fx45° mm	H1 mm	H2 mm	T1 mm	Weight g
810 015 32	32	32	46	18	10,5	12	6,6	11	1,0	30	15	6,8	110
810 015 40	40/50	36	55	21	12	16	9	15	1,6	36	18	9	160
810 015 63	63/80	42	65	23	13	20	11	18	1,6	40	20	11	230

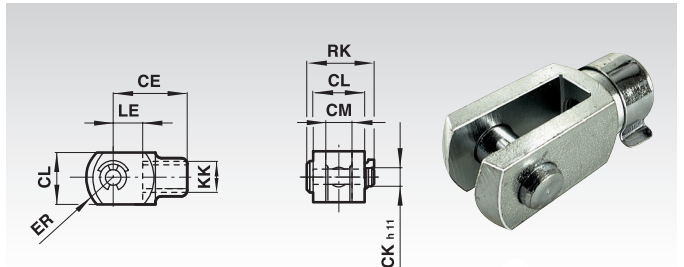
Clevises

Materials::

Mounting: Steel, zinc-plated.

Bolts: Steel, zinc-plated.

Mounting element at the piston rod.



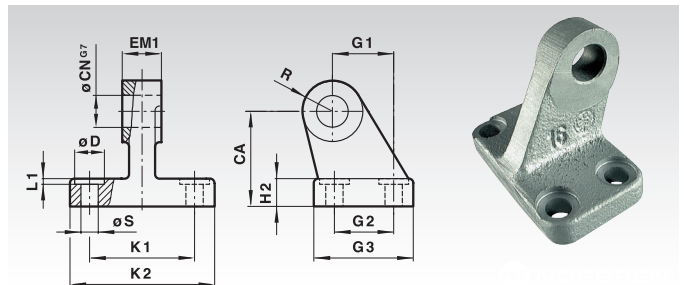
Ordering Details: e.g.: Product-No. 810 003 10, Clevis for Cylinder Ø 10 mm

Product No.	Cyl. Ø mm	Thread KK	CE mm	CK ^{h11} mm	CL mm	CM mm	ER mm	LE mm	RK mm	Weight g
810 003 10	10	M4	16	4	8	4	6,5	8	11,5	10
810 003 12	12/16	M6	24	6	12	6	9,5	12	17,5	20
810 003 20	20	M8	32	8	16	8	13	16	22	60
810 003 25	25/32	M10x1,25	40	10	20	10	16	20	28	100
810 003 40	40	M12x1,25	48	12	24	12	19	24	32	30
810 003 50	50/63	M16x1,5	64	16	32	16	25	32	41,5	330
810 003 80	80	M20x1,5	80	20	40	20	32	40	50	670

Bracket Hinge Mounting, Rigid, Slim (Cast), Mating Piece for Clevis Mounting

Material:

Grey cast iron, coated.



Ordering Details: e.g.: Product No. 810 009 32, Bracket Hinge Mounting, Rigid, Slim Design, for Cylinder Ø 32 mm

Product No.	Cyl. Ø mm	CA mm	CN ⁶⁷ mm	Ø D mm	EM1 mm	G1 mm	G2 mm	G3 mm	H2 mm	K1 mm	K2 mm	L1 mm	R mm	Ø S mm	Z Degrees	Weight g
810 009 32	32	32	10	11	10	21	18	31	8	38	51	1,6	10	6,6	13°	50
810 009 40	40	36	12	11	12	24	22	35	10	41	54	1,6	11	6,6	13°	70
810 009 50	50	45	16	15	16	33	30	45	12	50	65	1,6	13	9	13°	140
810 009 63	63	50	16	15	16	37	35	50	12	52	67	1,6	15	9	15°	180
810 009 80	80	63	20	18	20	47	40	60	14	66	86	2,5	15	11	15°	280

Universal Piston Rod Mountings with Spherical Bearing

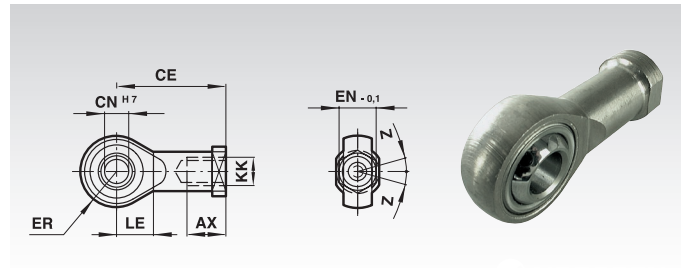
Materials:

Mounting: Steel, zinc-plated.

Inner ring: Roller bearing steel, hardened.

Outer ring: Brass.

Mounting element at the piston rod.



Ordering Details: e.g.: Product-No. 810 005 10, Universal Piston Rod Mounting for Cylinder Ø 10 mm

Product No.	Cyl. Ø mm	Thread KK	AX mm	CE mm	CN ^{H7} mm	EN ^{-0,1} mm	ER mm	LE mm	Z Degrees	Weight g
810 005 10	10	M4	14	27	5	8	6,5	10	5°	20
810 005 12	12/16	M6	14	30	6	9	9,5	11	5°	20
810 005 20	20	M8	16	36	8	12	11	13	5°	50
810 005 25	25/32	M10x1,25	20	43	10	14	14	15	13°	90
810 005 40	40	M12x1,25	22	50	12	16	16	17	13°	130
810 005 50	50/63	M16x1,5	28	64	16	21	21	22	15°	330
810 005 80	80	M20x1,5	33	77	20	25	25	26	15°	670

Piston Rod Swivel Mountings

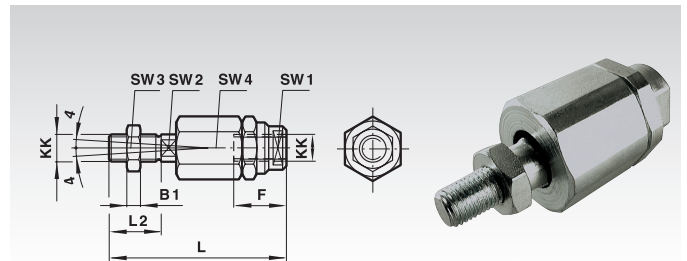
Materials:

Housing: Steel, zinc-plated.

Bolt: Steel, hardened.

Nut: Steel, zinc-plated.

Mounting element at the piston rod.



Ordering Details: e.g.: Product-No. 810 000 10, Piston Rod Swivel Mounting for Cylinder Ø 10 mm, Thread M4

Product No.	Cyl. Ø mm	Thread KK	B1 mm	F mm	L mm	L2 mm	SW1 mm	SW2 mm	SW3 mm	SW4 mm	Weight g
810 000 10	10	M4	2	12,5	33	8	11	3,2	7	11	15
810 000 12	12/16	M6	3	14	39	12	7	5	10	13	24
810 000 20	20	M8	4	18	55	16	10	7	13	17	54
810 000 25	25/32	M10x1,25	5	26	73	20	19	12	17	30	233
810 000 40	40	M12x1,25	6	26	77	24	19	12	19	30	200
810 000 50	50/63	M16x1,5	8	34	106	32	30	19	24	42	650
810 000 80	80	M20x1,5	10	42	122	40	30	19	30	42	720

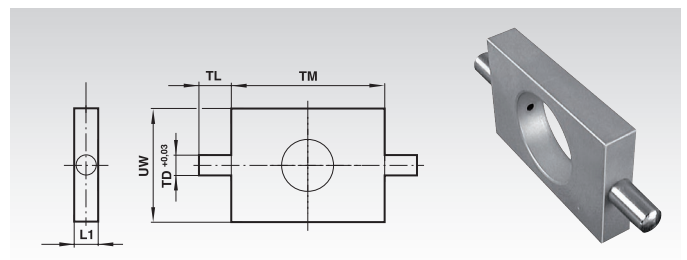
Trunnion Mountings

Materials:

Mounting: Steel, zinc-plated.

Bolts: Steel, zinc-plated.

Mounting element at the bearing or end cover.



Ordering Details: e.g.: Product-No. 810 021 12, Trunnion Mounting for Cylinder Ø 12/16 mm

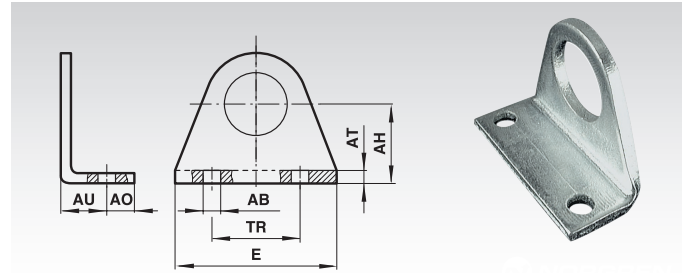
Product No.	Cyl. Ø mm	L1 mm	TD ^{+0,03} mm	TL mm	TM mm	UW mm	Weight g
810 021 12	12/16	8	6	10	38	25	51
810 021 20	20/25	8	6	10	46	30	67

Foot Plate Mountings

Material:

Steel, zinc-plated.

Mounting element at the bearing or end cover.



Ordering Details: e.g.: Product-No. 810 020 10, Foot Plate Mounting for Cylinder Ø 10 mm

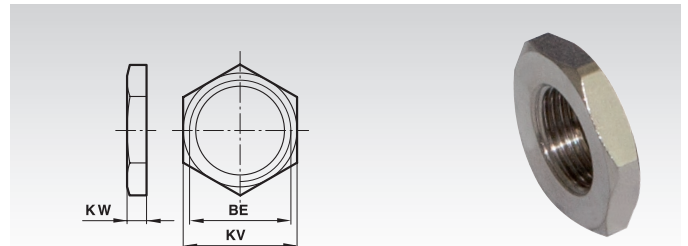
Product No.	Cyl. Ø mm	AB mm	AH mm	AO mm	AT mm	AU mm	E mm	TR mm	Weight g
810 020 10	10	4,5	16	6	2	10	35	25	20
810 020 12	12/16	5,5	20	6	3	13	43	32	30
810 020 20	20/25	6,6	25	7,5	4	16	53	40	50

Nuts for the Piston Rod Bearing

Material:

Steel, zinc-plated.

Mounting element at the bearing or end cover.



Ordering Details: e.g.: Product-No. 810 024 10, Nut on Piston Rod Bearing for Cylinder Ø 10 mm

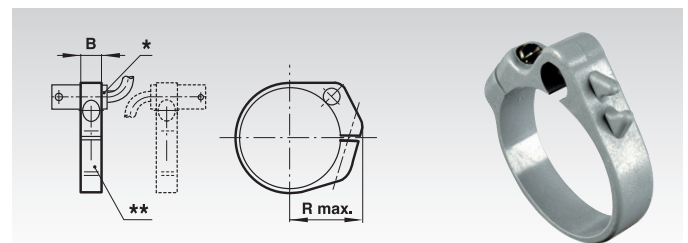
Product No.	Cyl. Ø mm	BE	KV mm	KW mm	Weight g
810 024 10	10	M12x1,25	19	6	10
810 024 12	12/16	M16x1,5	22	5	9
810 024 20	20/25	M22x1,5	27	8	17

Mounting Elements for Magnetic Switch at Profile Barrel for ≥ 15 mm Stroke

Materials:

Mounting: Plastic.

Screw: Steel, zinc-plated.



Ordering Details: e.g.: Product No. 810 017 10, Mounting Elements for Magnetic Switch ≥ 15 mm Stroke for Cylinder Ø 10 mm

* Magnetic Switch
** Mounting Element

Product No.	Cyl. Ø mm	B mm	R max. mm	Weight g
810 017 10	10	8	16	3
810 017 12	12	8	18	4
810 017 16	16	10	20	6
810 017 20	20	10	22	6
810 017 25	25	10	24	7

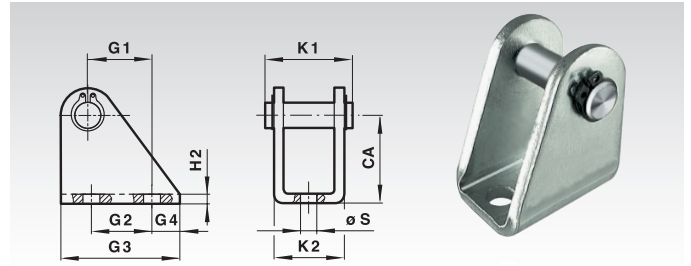
Bracket Hinge Mountings with Circlip

Materials:

Mounting: Steel, zinc-plated.

Bolts: Stainless Steel.

Mating bracket for rear end mounting.



Ordering Details: e.g.: Product No. 810,023 10, Bracket Hinge, Rear with Circlip for Cylinder Ø 10 mm

Product No.	Cyl. Ø mm	Bolt Ø mm	CA mm	G1 mm	G2 mm	G3 mm	G4 mm	H2 mm	K1 mm	K2 mm	Ø S mm	Weight g
810 023 10	10	4	24	11	12,5	20	4	2,5	17,5	13	4,5	18
810 023 12	12/16	6	27	13	15	25	5	3	23	18	5,5	35
810 023 20	20/25	8	30	16	20	32	6	4	29,5	24	6,6	77

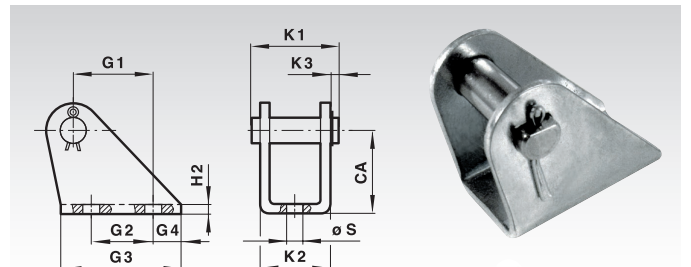
Bracket Hinge Mountings with Split Pin

Materials:

Mounting: Steel, zinc-plated.

Bolts: Stainless Steel.

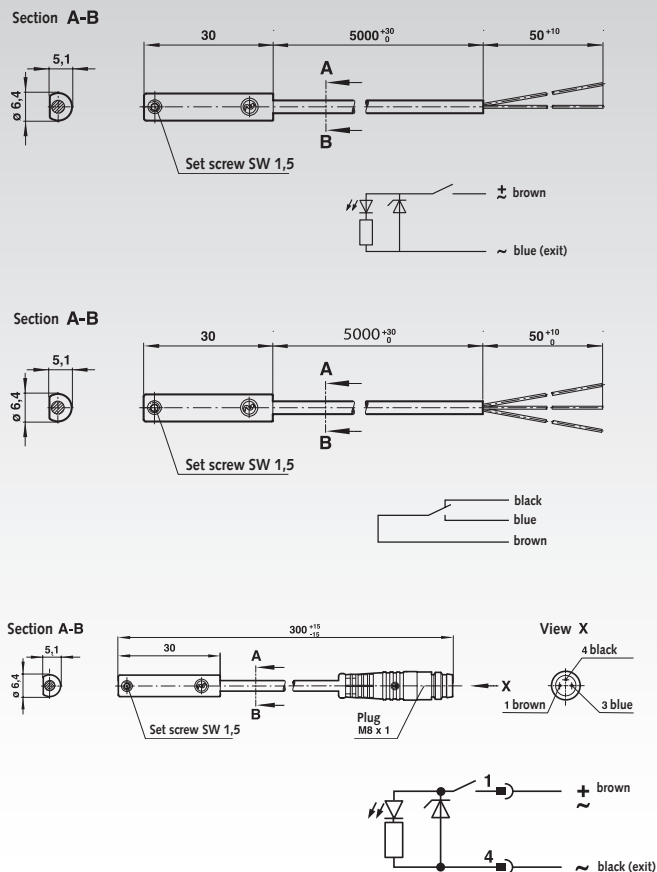
Mating bracket for rear end mounting.



Ordering Details: e.g.: Product No. 810 022 10, Bracket Hinge, Rear with Split Pin for Cylinder Ø 10 mm

product No.	Cyl. Ø mm	Bolt Ø mm	CA mm	G1 mm	G2 mm	G3 mm	G4 mm	H2 mm	K1 mm	K2 mm	K3 mm	Ø S mm	Weight g
810 022 10	10	4	12	6,5	-	15	6	1	13,5	10,5	2	4,8	5
810 022 12	12/16	6	20	18,5	15	30	8	1,5	20	15	3	5,5	20
810 022 20	20/25	8	25	20	15	35	10	2	25	20,5	3	6,6	40

Magnetic Switches with Reed Contact



Materials:

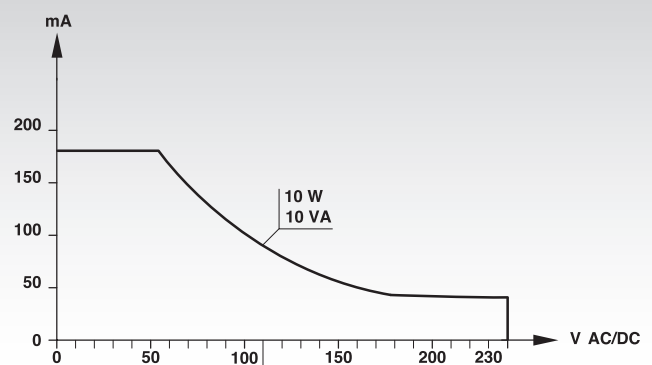
Housing: Plastic. Cable: PVC 2 x 0.25, PVC 3 x 0.25.
 Mode of operation: N/O with LED (yellow), change over contact without LED.
 Switching Voltage (U_b): 10 to 240 V AC/170 V DC.
 Switching Voltage output: $U_b - 2.7$ V.
 Switching current (see graph): 0.18 A max.
 Switching power: 10 W/10 VA max.

Note: Switch life may be greatly reduced if the maximum values for contact load, switching current and switching voltage are exceeded.

Contact resistance: 150 mW.
 Response time: 1.8 ms.
 Operating temperature: -20°C to $+80^{\circ}\text{C}$.
 Protection rating: IP 66 (DIN 40050).
 Shock resistance: 50 g (during 11 ms).
 Vibration resistance: 35 g (at 2000 Hz).

Ordering details: e.g.: Product No. 810 000 01, Magnetic Switch, N/O, 2 m cable

Product No.	Function	Cable Length m	Weight g
810 000 01	N/O, without Plug	5	92
810 000 02	Change-over, without Plug	5	92
810 000 03	N/O, with Plug	0,3	16



Plug-In Connector Cable for Prod.-No. 810 000 03

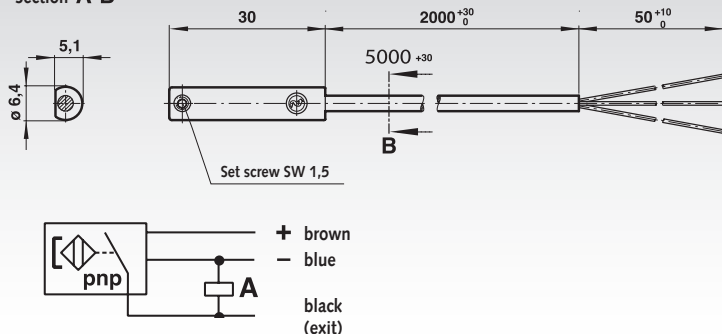
Material: PVC 3 x 0.25.

Product No.	Cable Length m	Weight g
810 000 00	5	150

Magnetic Switch, Solid State

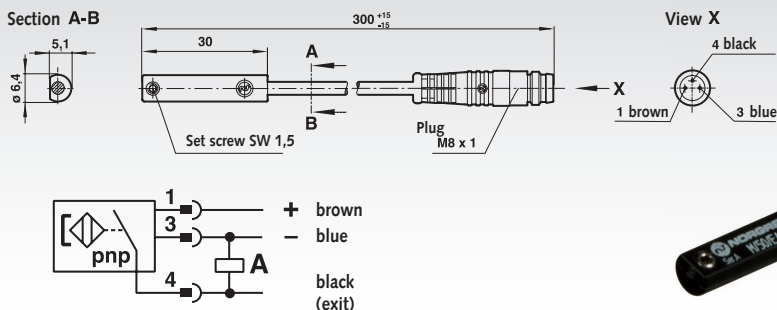
Product No. 810 000 04

Section A-B



Product No. 810 000 06

Section A-B

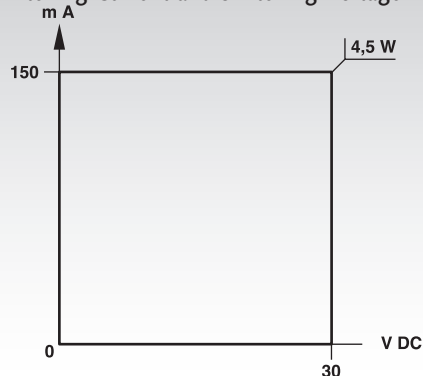


Materials:

Housing Plastic, EMC according to EN 60947-5-2.
Cable: PVC 3 x 0.25.

Mode of Operation: Output with LED (yellow).
Switching voltage (U_b): 10 to 30 V DC.
Switching voltage output: $U_b - 2$ V.
Induced voltage: 0.5 V.
Switching Current (see Graph): max. 150 mA.
Switching power: max. 4.5 W.
Response time: < 0.5 ms.
Operating frequency: 5 kHz.
Operating temperature: -20°C to +80°C.
Protection rating: IP 67 (DIN 40050).
Cable length: 2 m.

Switching Current and Switching Voltage



Ordering Details: e.g.: Product No. 810 000 04, Magnetic Switch without plug

Magnetic Switch

Product No.	Function	Cable length m	Weight g
810 000 04	pnp, without plug	5	92
810 000 06	pnp, with plug	0,3	16

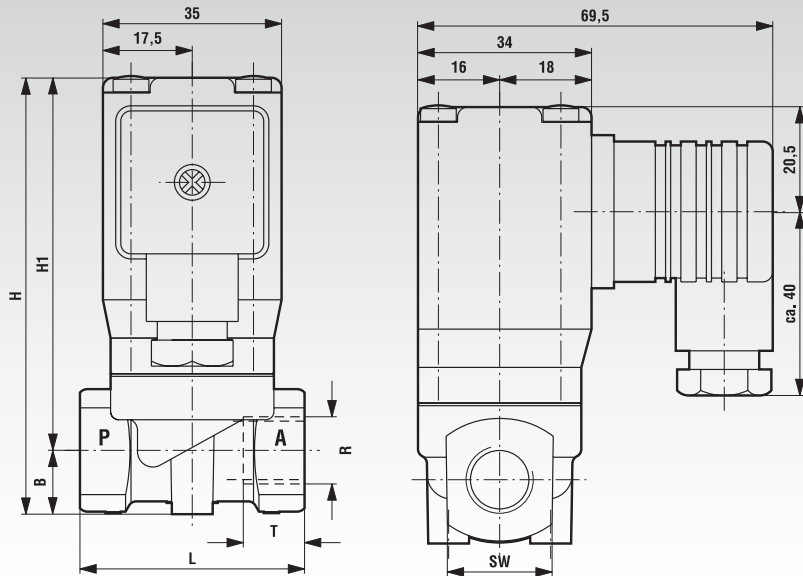


Plug-in connector cable for Prod.-No. 810 000 06 / 810 000 07

Material: PVC 3 x 0.25.

Product No.	Cable length m	Weight g
810 000 00	5	150

2/2 Solenoid Valves DN 10, Short Version, Nominal diameter 10 mm



Material:

Housing: Brass, PA66.

Seat seal: NBR (Perbunan).

Internal parts: 1.4104, 1.4303, PVDF.

- For neutral gaseous and liquid fluids.
- Electromagnetically actuated valve, with forced valve lifting.
- Diaphragm valves.
- Connection internal thread G1/4 to G1/2.
- Operating pressure 0 to 10 bar (up to 25 mm²/s cSt).

For contaminated fluids insertion of a strainer is recommended.

Description (standard unit):

Solenoid valve for, e.g., air, water, oil.

Switching function: Normally closed.

Flow direction: determined.

Fluid temperature: -10°C to +90°C.

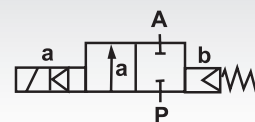
Ambient temperature: -10 °C to +50°C.

Mounting position: optional, preferably solenoid vertical on top.

Features

- Suitable for vacuum.
- Clear design.
- Compact solenoid with integrated core tube.
- Valve works without minimum pressure difference (Zero ΔP).
- Operating pressure 0 - 20 bar with alternating voltage and NBR seal.

Symbol



Ordering details: e.g.: Product No., Voltage, Connection

Product No.	Voltage	Connection (Thread)	B mm	H mm	H1 mm	L mm	SW mm	T mm	kv-Value* Base m ³ /h	Weight kg
851 114 11	24V DC	G1/4	14	87	73	44	21	12	1,5	0,5
851 114 12	230V 50/60Hz	G1/4	14	87	73	44	21	12	1,5	0,5
851 138 11	24V DC	G3/8	14	87	73	44	21	12	1,7	0,5
851 138 12	230V 50/60Hz	G3/8	14	87	73	44	21	12	1,7	0,5
851 112 11	24V DC	G1/2	14	90	74,5	60	27	15	1,7	0,6
851 112 12	230V 50/60Hz	G1/2	14	90	74,5	60	27	15	1,7	0,6

* Cv-Value (US) = kv-Value x 1.2.

Power consumption

According to DIN VDE 0580 at a coil temperature of +20°C. At operating state temperature of the solenoid (DC) the power consumption decreases, for physical reasons by up to approx. 30%.

DC	AC	
	Inrush	Holding
12 W	20 VA	16 VA

Magnet

Design according to VDE 0580.

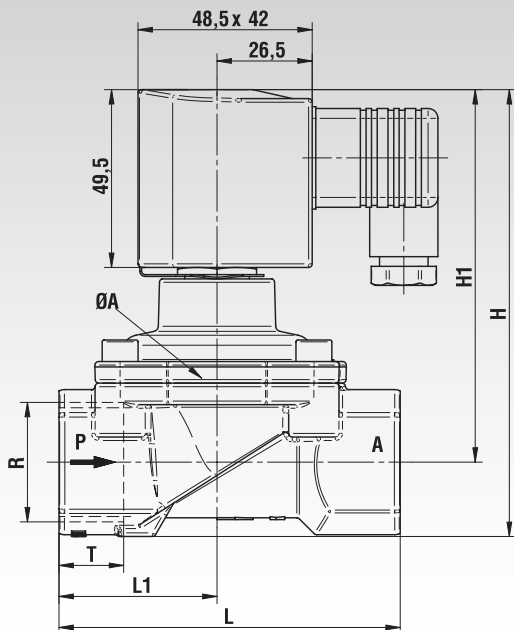
Voltage range ±10%.

100% duty cycle.

Protection class acc. to EN 60529 IP65.

Socket acc. to DIN EN 175301-803 (in accessory box).

2/2 Solenoid Valves, DN 20 and DN 25, Standard Version



Material:

Housing: Brass.

Seat seal: NBR (Perbunan).

Internal parts: Stainless steel, PVDF, Brass.

- For neutral gaseous and liquid fluids.
- Electromagnetically actuated valve, with forced valve lifting.
- Diaphragm valves.
- Connection internal thread G3/4 and G1.
- Operating pressure 0 to 10 bar (up to 25 mm²/s cSt).

For contaminated fluids insertion of a strainer is recommended.

Description (standard unit)

Solenoid valve for, e.g., air, water, oil.

Switching function: Normally closed.

Flow direction: determined.

Fluid temperature: -10°C to max. +90°C.

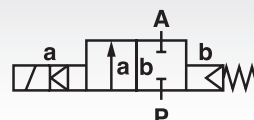
Ambient temperature: -10°C to max. +50°C.

Mounting position: optional, preferably solenoid vertical on top.

Features

- High flow rate.
- For rugged applications.
- Damped operation.
- Suitable for vacuum.
- For systems with low or changing pressure difference.
- Valve works without minimum pressure difference (Zero ΔP).
- Solenoid can be replaced without tools.

Symbol



Ordering details: e.g.: Product No., Voltage, Connection

Product No.	Voltage	Connection (Thread)	Nominal Ø mm	ØA mm	H mm	H ₁ mm	L mm	L ₁ mm	T mm	kv-Value* Base m ³ /h	Weight kg
851 234 11	24V DC	G3/4	20	50	115	99	80	36,5	16	5,8	1,00
851 234 12	230V 50/60Hz	G3/4	20	50	115	99	80	36,5	16	5,8	1,00
851 210 11	24V DC	G1	25	62	124	103,5	95	44	18	8,0	1,30
851 210 12	230V 50/60Hz	G1	25	62	124	103,5	95	44	18	8,0	1,30

* Cv-Value (US) = kv-Value x 1.2.

Power consumption

According to DIN VDE 0580 at a coil temperature of +20°C. At operating state temperature of the solenoid (DC) the power consumption decreases, for physical reasons by up to approx. 30%.

DC	AC	
	Inrush	Holding
18 W	20 VA	18 VA

Note: For explosion-proof solenoids (on request) the permissible temperature range decreases.

Magnet

Design according to VDE 0580.

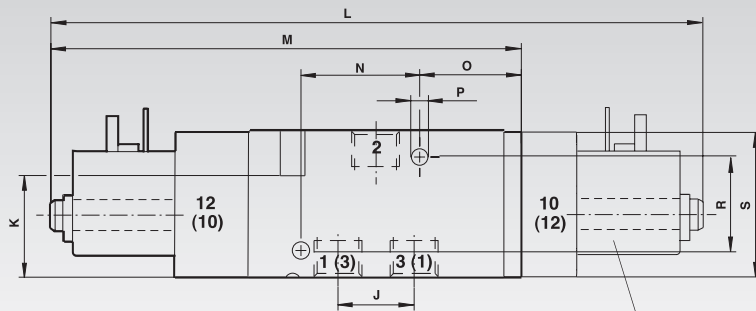
Voltage range ±10%.

100% duty cycle.

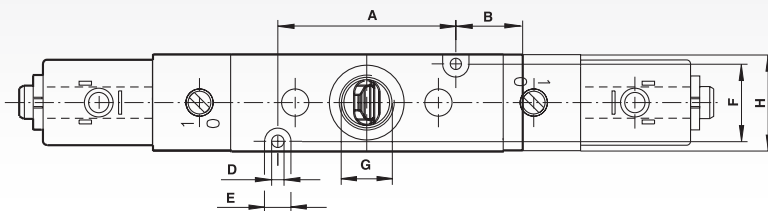
Protection class acc. to EN 60529 IP65.

Socket acc. to DIN EN 175301-803 A (in accessory box).

3/2 Solenoid Valves, Single Pilot, Normally closed



Version with twin pilot on request.



Materials:

Housing and base plates: Aluminium, Spindle: Stainless steel; Piston, spacers and cover: Plastic; Static and dynamic seals: NBR; Screws: zinc-plated; Springs: Stainless Steel.

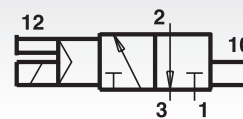
Standard pilot controls with replaceable solenoid system for all common voltages.

The valves are suitable for lubricated or non-lubricated standard compressed air.

At normal operating conditions the system has a lifespan of 50 million switching cycles.

The valve system (cartridge) is an optimised version of the million-times proven sealing system. Manual override with detent.

Symbol



Ordering Details: e.g.: Product No. 850 118 11, 3/2 Solenoid Valve, Connecting Thread G 1/8, Voltage 24 V

Product No.	Connection	Voltage	Flow (l/min)	Operating pressure (bar)	Weight g	Product No. Socket*	Product No. Spare Solenoid*
850 118 11	G 1/8	24V DC	750	2 - 8	220	858 000 01	858 000 06
850 118 12	G 1/8	230V 50/60Hz	750	2 - 8	220	858 000 01	858 000 07
850 128 11	G 1/4	24V DC	1300	2 - 8	290	858 000 01	858 000 06
850 128 12	G 1/4	230V 50/60Hz	1300	2 - 8	290	858 000 01	858 000 07

* See page 633.

Dim.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
G 1/8	35	16	-	3,2	6,5	17	G 1/8	22	16,2	28	-	114	25	25	4,5	26	35	-	-
G 1/4	46	18	-	3,2	6,5	20	G 1/4	25	21	28	-	130	32	29	4,5	26	40	-	-

Solenoid and Voltage Selection

22mm solenoid with plug interface according to DIN 43650 Form B.

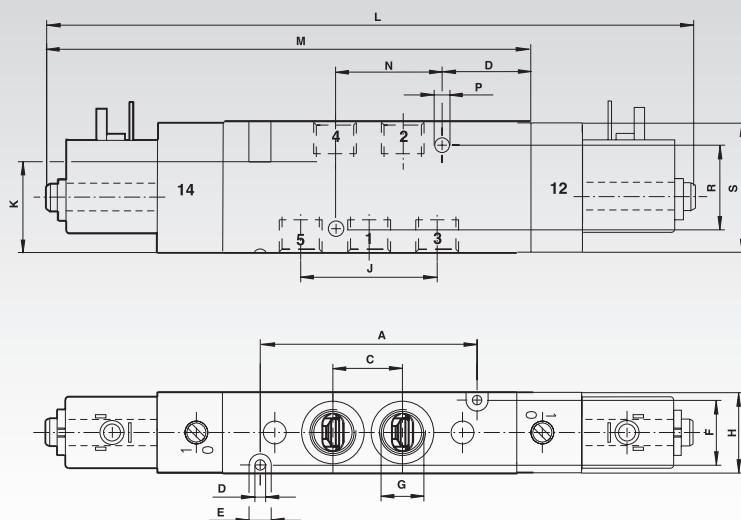
Voltage: 24V DC.

Solenoid power inrush/holding: 2W.

Voltage: 230V 50/60Hz.

Solenoid power inrush/holding: 6/5VA.

5/2 Solenoid Valves, Single and Twin Pilot



Single pilot



Double pilot



Materials:

Housing and base plates: Aluminium, Spindle: Stainless steel; Piston, spacers and cover: Plastic; Static and dynamic seals: NBR; Screws: zinc-plated; Springs: Stainless Steel.

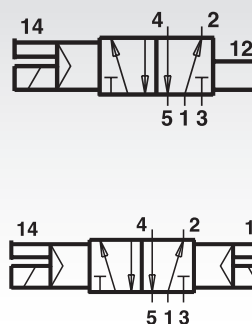
Standard pilot controls with replaceable solenoid system for all common voltages.

The valves are suitable for lubricated or non-lubricated standard compressed air.

At normal operating conditions the system has a lifespan of 50 million switching cycles.

The valve system (cartridge) is an optimised version of the million-times proven sealing system. Manual override with detent.

Symbol



Ordering Details: e.g.: Product No. 850 318 11, 5/2 Solenoid Valve, Connecting Thread G 1/8, Voltage 24 V, Single Pilot

Product No. single pilot	Product No. twin pilot	Connection	Voltage	Flow (l/min)	Operating pressure (bar)	Weight g	Product No. Socket*	Product No. Spare Solenoid*
850 318 11	850 418 11	G 1/8	24V DC	750	2 - 8	240	858 000 01	858 000 06
850 318 12	850 418 12	G 1/8	230V 50/60Hz	750	2 - 8	240	858 000 01	858 000 07
850 328 11	850 428 11	G 1/4	24V DC	1300	2 - 8	330	858 000 01	858 000 06
850 328 12	850 428 12	G 1/4	230V 50/60Hz	1300	2 - 8	330	858 000 01	858 000 07

* See page 633.

Dim.	Design	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
G 1/8	Rest Position	50	16	16,2	3,2	6,5	17	G ¹ /8	22	32,4	28	–	129	25	25	4,5	26	35	–	–
G 1/4	Rest Position	66	1821	3.2	6.5	20	G ¹ /4	25	42	28	–	150	32	29	4.5	26	40	–	–	

Solenoid and Voltage Selection

22 mm solenoid with plug interface according to DIN 43650 Form B.

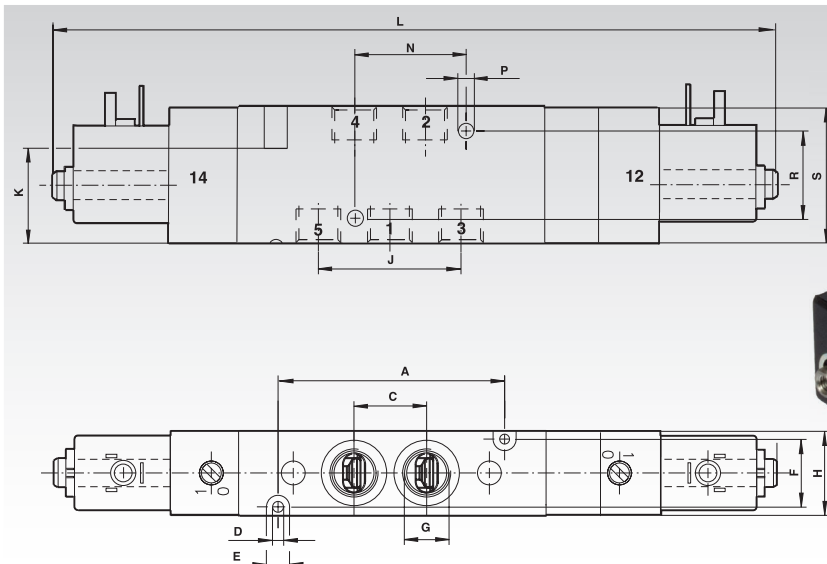
Voltage: 24V DC.

Solenoid power inrush/holding: 2W.

Voltage: 230V 50/60Hz.

Solenoid power inrush/holding: 6/5VA.

5/3 Solenoid Valves, with twin pilot



Materials:

Housing and base plates: Aluminium, Spindle: Stainless Steel;
Piston, spacers and cover: Plastic; Static and dynamic seals: NBR;
Screws: zinc-plated;
Springs: Stainless Steel.

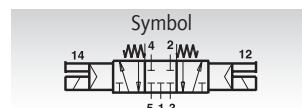
Standard pilot controls with replaceable solenoid system for all common voltages.

The valves are suitable for lubricated or non-lubricated standard compressed air.

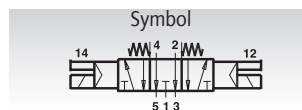
At normal operating conditions the system has a lifespan of 50 million switching cycles.

The valve system (cartridge) is an optimised version of the million-times proven sealing system. Manual override with detent.

Version A: Rest position: all connections locked



Version B: Rest position: Connection 2 and 4 relieved



Ordering Details: e.g.: Product No. 850 518 11, 5/3 Solenoid Valve, Connecting Thread G 1/8, Voltage 24 V

Product No. Version A	Product No. Version B	Connection	Voltage	Flow (l/min)	Operating pressure (bar)	Weight g	Product No. Socket*	Product No. Spare Solenoid*
850 518 11	850 618 11	G 1/8	24V DC	500	3 - 8	350	858 000 01	858 000 06
850 518 12	850 618 12	G 1/8	230V 50/60Hz	500	3 - 8	350	858 000 01	858 000 07
850 528 11	850 628 11	G 1/4	24V DC	950	3 - 8	470	858 000 01	858 000 06
850 528 12	850 628 12	G 1/4	230V 50/60Hz	950	3 - 8	470	858 000 01	858 000 07

* See below.

Dim.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
G 1/8	50	—	16,2	3,2	6,5	17	G 1/8	22	32,4	28	189	—	25	—	4,5	26	35	—	—
G 1/4	66	—	21	3,2	6,5	20	G 1/4	25	42	28	217	—	32	—	4,5	26	40	—	—

Solenoid and Voltage Selection

22 mm solenoid with plug interface according to DIN 43650 Form B.
Solenoid can be turned in steps of 90°.

Voltage: 24V DC $\pm 10\%$.

Solenoid power inrush/holding: 2W.

Voltage: 230V $\pm 10\%$, 50/60Hz.

Solenoid power inrush/holding: 6/5VA.

Duty cycle: 100% ED.

Protection rating: IP 65 with sealed connectors (ISO 6952).

Socket according to DIN 43650, without Cable

Material: Polyamide.

Weight: 20 g.

Product No.

858 000 01



Spare Solenoids according to DIN 43650

Weight: 63 g.

Product No. 24 V DC

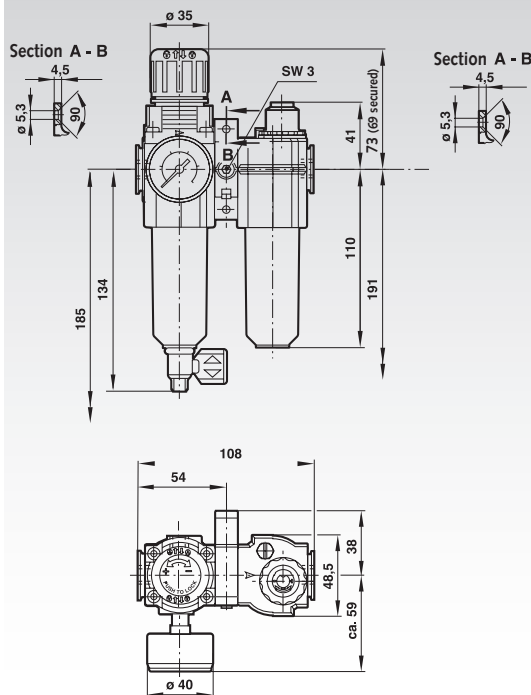
858 000 06

Product No. 230 V 50/60 Hz

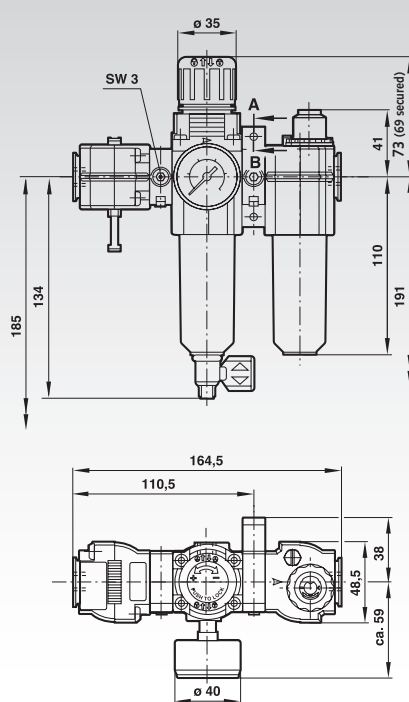
858 000 07



Product No. 830 001 00



Product No. 830 003 00



Materials:

Bowl: Polycarbonate.
Housing: Zinc die-cast.
O-ring seals: synthetic elastomers.
Filter element: Polypropylene.

Medium: Compressed Air.

Operating temperature: -20°C to +65°C.

For temperatures below +2°C please take the air properties into account.

Ordering Details: e.g.: Product No. 830 001 00, Air Preparation Unit without Shut-Off Valve

Operating pressure: max. 10 bar.

Pressure range: 0.3 to 10 bar.

Relief valve: Standard with relief valve.

Pressure Gauge: Standard.

Filter element: 40 µm standard.

Bowl size (oil): 0.04 litre.

Max. flow: 13 l/s (connection G1/4, inlet pressure 10 bar).

Set pressure: 6.3 bar, $\Delta p = 1$ bar).

Draining: Manual.

Oiler version: Micro-fog oiler.

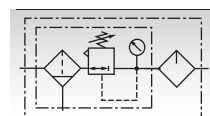
Symbol

Product No.

Connection

Shut-off valve

Weight



830 001 00

830 003 00

G 1/4

G 1/4

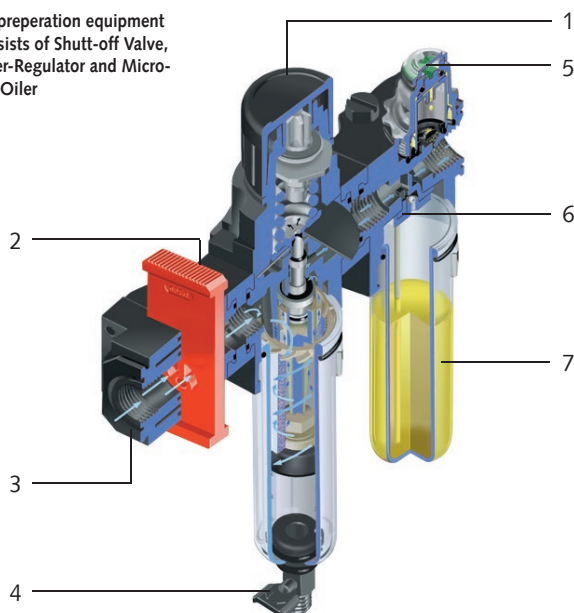
without

with

1122

1415

Air preparation equipment consists of Shut-off Valve, Filter-Regulator and Micro-fog Oiler



The patented Quikclamps® allows the equipment to be used in individual or modular installations. The Quikclamp®-Connection Set also allows the mounting and maintenance of individual units without removing the tubes. Equipment like pressure regulators can be easily mounted in four different operation levels.

- 1 Push-to-lock adjusting knob.
- 2 Easy mounting and maintenance due to Quikclamp®.
- 3 3/2-way shut-off valve – compact, lockable, with relief function.
- 4 Easy handling for manual draining of condensate.
- 5 Lubricator sight-feed dome simplifies adjustment and readability of the oil drip rate.
- 6 Micro-fog oiler produces a fine oil fog – ideal for long and complex pipeworks.
- 7 Quick release bayonet bowl.

Pressure Regulator (with Relief Function)

Materials:

Housing: Zinc die-cast.

End covers: Acetal.

Valve: Brass.

O-ring seals: Synthetic elastomers.

Medium: Compressed air.

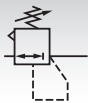
Operating pressure: Max. 20 bar.

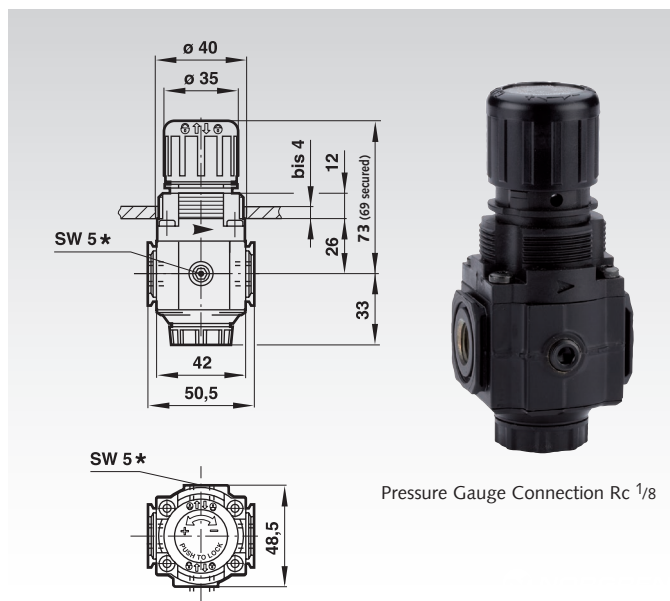
Pressure range: 0.3 to 10 bar as standard.

Relieving Operation: Relief function as standard.

Max. flow: 33 l/s (connection G¹/₄, inlet pressure 10 bar, set pressure: 6.3 bar, $\Delta p = 1$ bar).

Ordering details: e.g.: Product No. 830 005 00, Pressure Regulator with Relief Valve, Connection G¹/₄

Symbol	Product No.	Connection	Weight g
	830 005 00	G ¹ / ₄	360



Compressed-Air Filter

Materials:

Bowl: Polycarbonate.

Housing: Zinc die-cast.

O-ring seals: Synthetic elastomers.

Filter element: Polypropylene.

Medium: Compressed air.

Operating pressure: Max. 10 bar.

Max. flow: 28 l/s (Connection G¹/₄).

Operating pressure = 6.3 bar.

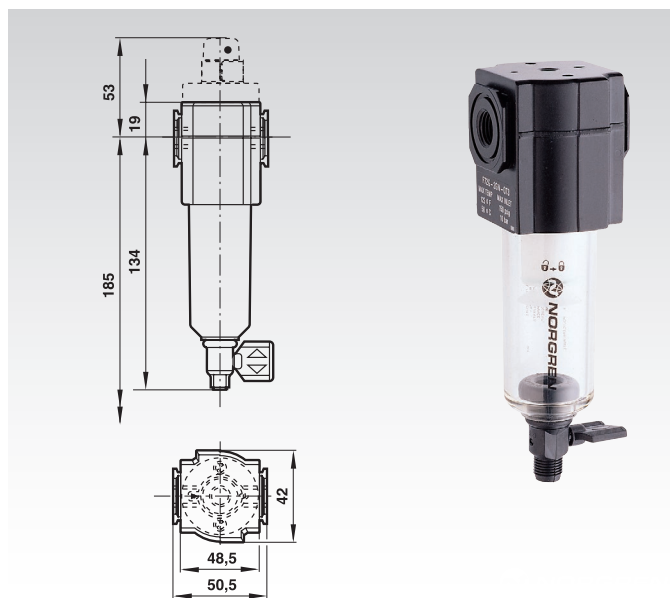
$\Delta p = 0.5$ bar.

Filter element 40 μ m.

Draining: Manual as standard.

Ordering details: e.g.: Product No. 830 007 00, Compressed-Air Filter with Manual Draining, Connection G¹/₄

Symbol	Product No.	Connection	Weight g
	830 007 00	G ¹ / ₄	490



Filter / Regulators

Materials:

Bowl: Polycarbonate.

Housing: Zinc die-cast.

O-ring seals: synthetic elastomers.

Filter element: Polypropylene.

Medium: Compressed Air.

Operating pressure: max. 10 bar.

Filter element: 40 µm standard.

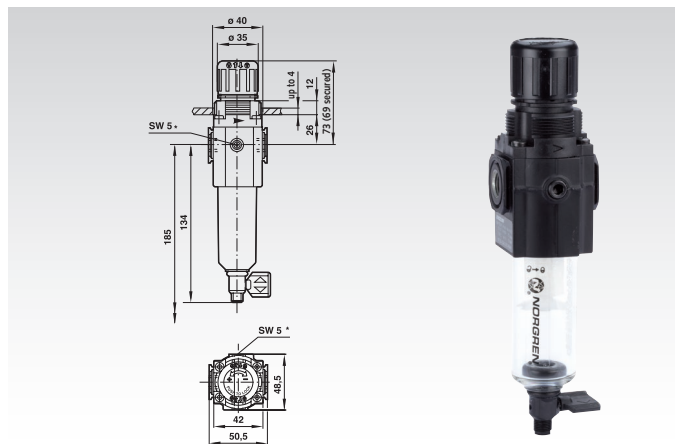
Draining: Manual.

Pressure range: 0.3 to 10 bar as standard.

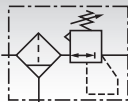
Relief valve: Standard with relief valve.

Max. flow: 38 l/s (connection G¹/₄, inlet pressure 10 bar,

Set pressure 6.3 bar, Δp = 1 bar, filter element 40 µm).



Ordering Details: e.g.: Article No. 830 011 00, Filter/ Regulator with Manual Draining

Symbol	Product No.	Connection	Weight g	Product No. Spare filter
	830 011 00	G ¹ / ₄	520	830 007 01

Micro-Fog or Standard Fog Oilers

Materials:

Bowl: Polycarbonate.

Housing: Zinc die-cast.

O-ring seals: synthetic elastomers.

Sight-feed dome: Polycarbonate.

Medium: Compressed Air.

Operating pressure: max. 10 bar.

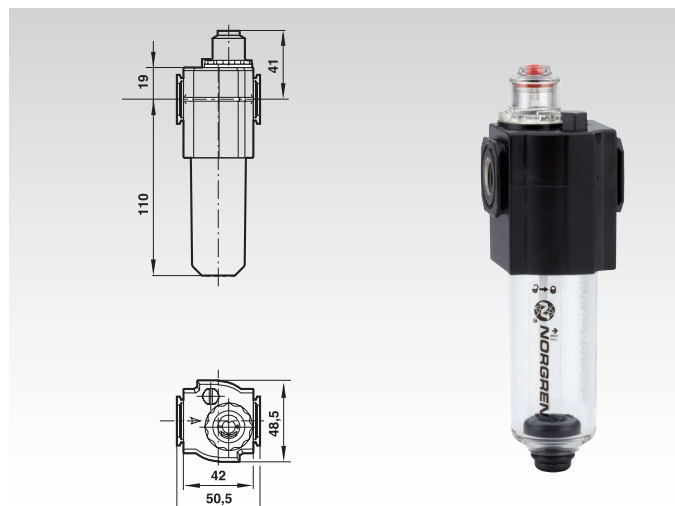
Bowl size: 0.04 litre.

Flow: 0.47 l/s to 24 l/s*.

*Max. value (connection G¹/₄, inlet pressure = 6.3 bar, Δp = 0.5 bar).

Ordering Details: e.g.: Product No. 830 013 00, Micro-Fog Oiler

Symbol	Product No.	Connection	Type	Weight g
	830 013 00	G ¹ / ₄	Micro-fog oiler	490
	830 015 00	G ¹ / ₄	Standard Fog Oiler	490



Pressure Relief Valve

Materials:

Housing: Zinc die-cast.

End cover: Acetal.

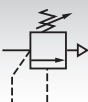
O-ring seals: synthetic elastomers.

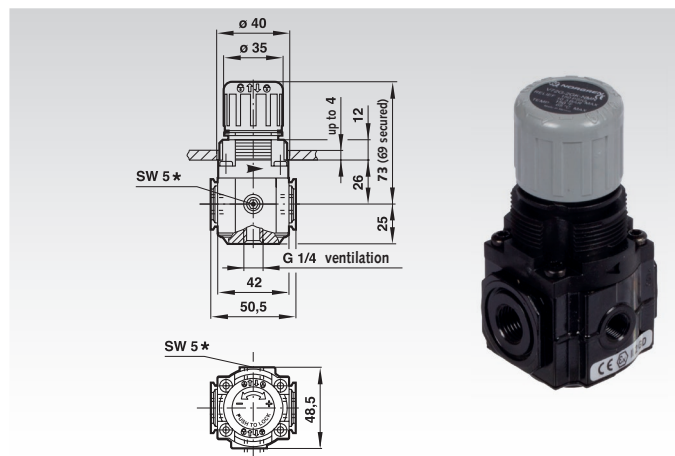
Medium: Compressed Air.

Operating pressure: max. 17 bar.

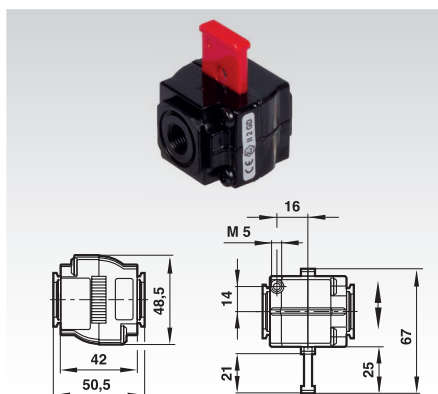
Pressure range: 0.3 to 10 bar as standard.

Ordering Details: e.g.: Product No. 830 017 00, Pressure Relief Valve

Symbol	Product No.	Connection	Weight g
	830 017 00	G ¹ / ₄	330



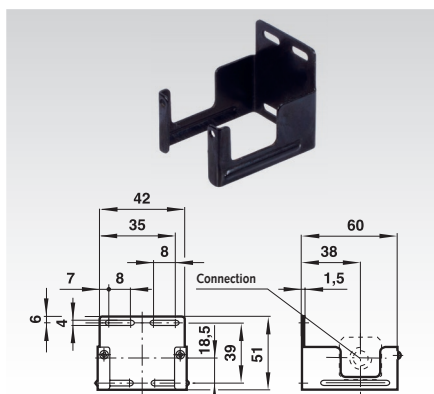
3/2 Way Shut-Off Valve (manual)



Materials:
Housing: Zinc die-cast.
Slider: Plastic:

Symbol	Product No.	Connection	Weight g
	830 022 00	G ¹ / ₄	293

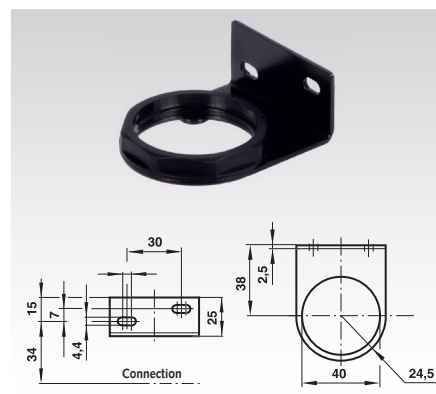
Universal Mounting Bracket



Material:
Steel.

Product No.	Weight g
830 031 00	49

Universal Mounting Bracket



Materials:
Nut: Plastic: Bracket: Steel.

Product No.	Weight g
830 033 00	72

Panel Mounting Nut



Material:
Plastic:

Product No.	Weight g
830 035 00	3

Pressure Gauge



Materials: Housing, viewing glass: Plastic.
Connecting thread: Brass.
Operating pressure: 0-10 bar. T = -20°C to 60°C

Product No.	Connection	Ø mm	Weight g
830 037 00	R ¹ / ₈	40	43

Quick connectors Pneufit C and Pneufit Push-In fittings

Secure hold and unproblematic multiple mounting, due to high-quality grab ring.

Mounting holes for wall mounting*.

O-Ring seals with parallel threads (G).

PTFE-free pre-applied thread sealant with taper threads (R).

Internal hexagons on all straight fittings offer easy mounting.

Colour codings for improved safety*.

Red release rings for quick identification of metric tube sizes*.

O-ring seals made from silicone-free Nitrile rubber.

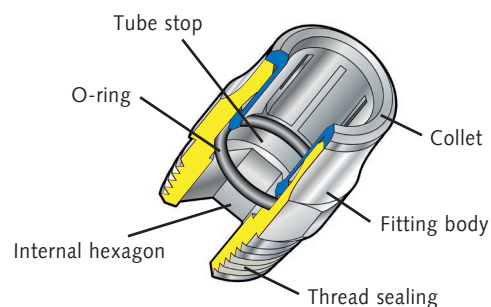
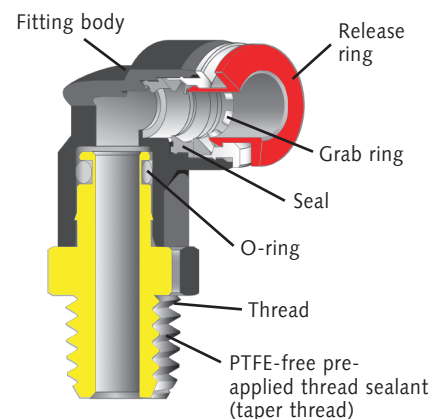
* Only for Pneufit C.

Pneufit C Fittings

- Housing made primarily from plastic.
- Low cost.
- Modern design.
- Increasing distribution.

Pneufit Push-In Fast Connectors

- Housing made primarily from nickel plated brass.
- Classical design.



Technical Data:

Medium: Compressed Air.

Operating pressure: 18 bar max.

(Regulating-out banjo bolts max. 10 bar).

Vacuum: 98% max. **

Operating temperature: -20°C* to 80°C

(High temperature models on request).

*For temperatures below +2°C please take the air properties into account.

** Only for Pneufit Push-In.

Tube sizes

4, 6, 8, 10, 12, 14 mm outside Ø.

Note: Push-on fittings must not be used in compressed-air break systems of commercial vehicles.

Tubes/hoses

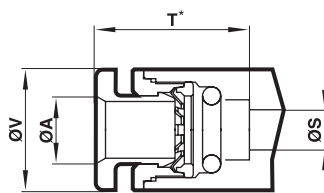
Polyamide tube 11 and 12, polyurethane and polyethylene hoses according to DIN 73378, DIN 74234, NFE 49-100 or BS 5409/1. For safety reasons we recommend our tubes and hoses.

Fastening torques

The following fastening torques apply for fittings with pre-applied thread sealant and taper threads:

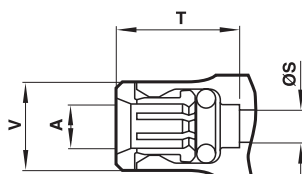
Thread	Fastening Torque (Nm)
R1/8	6,86 ... 8,82
R1/4	11,76 ... 13,72
R3/8	21,56 ... 25,32
R1/2	27,44 ... 29,40

Pneufit C dimensions



Ø A	Ø S*	Ø T**	V _{max}
4 mm	2,8	15,3	10,7
6 mm	4,4	17,1	12,9
8 mm	6,0	19,2	14,5

Pneufit Push-In dimensions

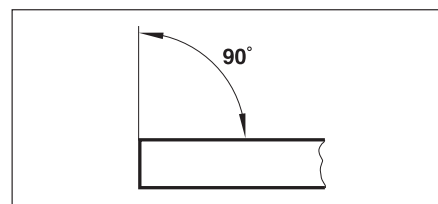


Ø A	Ø S*	Ø T**	V _{max}
4	2,8	14,0	7,5
6	4,4	15,5	11,0
8	6,0	16,5	13,0
10	7,6	21,0	14,5
12	9,6	24,5	18,0
14	11,5	24,5	20,0

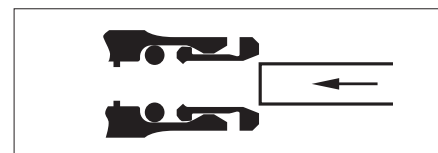
* Dimensions valid for all threaded connectors (exemptions possible).

** Dimensions with pushed out grab ring.

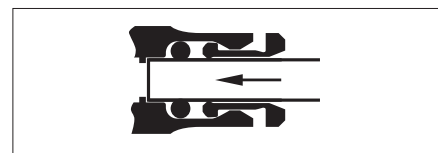
Mounting



Ensure that tube is cut off square and is free from burrs.

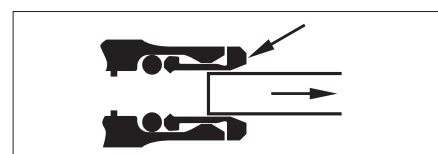


Push end of tube (outside surface must be free from damage) into the collet.



Push the tube firmly through the O-ring until it bottoms on the Stop.

disassembly



Push the collet against the fitting and withdraw the tube.

Pneufit C Fittings

Ø A = matching tube outer diameter. B = Thread (G for parallel, R for conical).

Drawings with complete dimensions can be found on the internet under www.maedler.de

Straight Unions

Product No.	Ø A mm
866 104 00	4
866 106 00	6
866 108 00	8



Swivel Elbow Adaptors with Taper Thread

Product No.	Ø A mm	B
866 404 18	4	R1/8
866 404 14	4	R1/4
866 406 18	6	R1/8
866 406 14	6	R1/4
866 408 18	8	R1/8
866 408 14	8	R1/4



Straight Adaptors with Taper Thread

Product No.	Ø A mm	B
866 204 18	4	R1/8
866 204 14	4	R1/4
866 206 18	6	R1/8
866 206 14	6	R1/4
866 208 18	8	R1/8
866 208 14	8	R1/4



Swivel Elbow Adaptors with Cylindrical Thread

Product No.	Ø A mm	B
866 504 18	4	G1/8
866 504 14	4	G1/4
866 506 18	6	G1/8
866 506 14	6	G1/4
866 508 18	8	G1/8
866 508 14	8	G1/4



Straight Adaptors with Cylindrical Thread

Product No.	Ø A mm	B
866 304 18	4	G1/8
866 304 14	4	G1/4
866 306 18	6	G1/8
866 306 14	6	G1/4
866 308 18	8	G1/8
866 308 14	8	G1/4



Swivel Tee-Adaptors with Cylindrical Thread

Product No.	Ø A mm	B
866 604 18	4	G1/8
866 604 14	4	G1/4
866 606 18	6	G1/8
866 606 14	6	G1/4
866 608 18	8	G1/8
866 608 14	8	G1/4



Union Elbows

Product No.	Ø A mm
866 124 00	4
866 126 00	6
866 128 00	8



Pneufit Push-In fittings

Ø A = matching tube outer diameter. B = Thread (G for parallel, R for conical).

Drawings with complete dimensions can be found on the internet under www.maedler.de

Straight Adaptors with Cylindrical Thread

Product No.	Ø A mm	B
860 104 03	4	M3
860 104 05	4	M5
860 104 18	4	G ¹ / ₈ A
860 104 28	4	G ¹ / ₄ A
860 106 05	6	M5
860 106 18	6	G ¹ / ₈ A
860 106 28	6	G ¹ / ₄ A
860 108 18	8	G ¹ / ₈ A
860 108 28	8	G ¹ / ₄ A
860 108 38	8	G ³ / ₈ A
860 108 48	8	G ¹ / ₂ A
860 110 18	10	G ¹ / ₈ A
860 110 28	10	G ¹ / ₄ A
860 110 38	10	G ³ / ₈ A
860 110 48	10	G ¹ / ₂ A
860 112 28	12	G ¹ / ₄ A
860 112 38	12	G ³ / ₈ A
860 112 48	12	G ¹ / ₂ A
860 114 38	14	G ³ / ₈ A
860 114 48	14	G ¹ / ₂ A



Straight Unions

Product No.	Ø A mm
860 604 00	4
860 606 00	6
860 608 00	8
860 610 00	10
860 612 00	12



Push-In Silencers

Product No.	Ø A mm
861 404 00	4
861 406 00	6
861 408 00	8



Plugs

Product No.	Ø A mm
861 104 00	4
861 106 00	6
861 108 00	8
861 110 00	10
861 112 00	12



Reducing / Enlarging Connectors

Product No.	Ø A1 mm	Ø A mm
Reducing		
860 906 04	6	4
860 908 04	8	4
860 908 06	8	6
860 910 06	10	6
860 910 08	10	8
Enlarging:		
860 904 06	4	6
860 906 08	6	8



Pneufit Push-In fittings

Ø A = matching tube outer diameter. B = Thread (G for parallel, R for conical).

Drawings with complete dimensions can be found on the internet under www.maedler.de

Swivel Elbow Adaptors with Cylindrical Thread

Product No.	Ø A mm	B
861 704 05	4	M5
861 704 18	4	G ¹ / ₈ A
861 704 28	4	G ¹ / ₄ A
861 706 05	6	M5
861 706 18	6	G ¹ / ₈ A
861 706 28	6	G ¹ / ₄ A
861 708 18	8	G ¹ / ₈ A
861 708 28	8	G ¹ / ₄ A
861 708 38	8	G ³ / ₈ A
861 710 28	10	G ¹ / ₄ A
861 710 38	10	G ³ / ₈ A
861 710 48	10	G ¹ / ₂ A
861 712 28	12	G ¹ / ₄ A
861 712 48	12	G ¹ / ₂ A



Tee Connectors

Product No.	Ø A mm
862 604 00	4
862 606 00	6
862 608 00	8
862 610 00	10
862 612 00	12



Swivel Elbow Adaptors 45° with O ring

Product No.	Ø A mm	B mm
862 006 18	6	G ¹ / ₈ A
862 006 28	6	G ¹ / ₄ A
862 008 18	8	G ¹ / ₈ A
862 008 28	8	G ¹ / ₄ A



4-Way Cross Connectors

Product No.	Ø A mm
862 906 00	6
862 908 00	8
862 910 00	10



Elbow Connectors

Product No.	Ø A mm
862 104 00	4
862 106 00	6
862 108 00	8
862 110 00	10
862 112 00	12



Swivel Elbow Bulkhead Connectors

Product No.	Ø A mm
862 206 00	6
862 208 00	8
862 210 00	10



Stem Elbow Connectors

Product No.	Ø A mm	Ø A1 mm
862 304 00	4	4
862 306 00	6	6
862 308 00	8	8



Parallel Y-Connectors

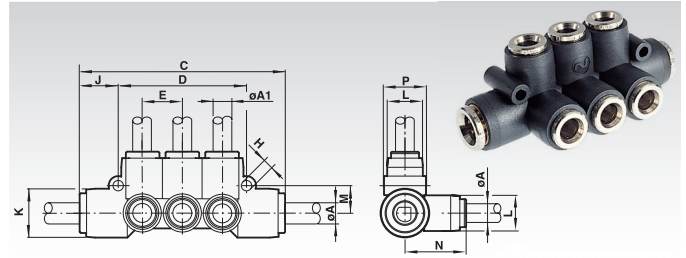
Product No.	Ø A mm	Ø A1 mm
863 004 00	1x4	2x4
863 006 00	1x6	2x6
863 008 00	1x8	2x8
863 010 00	1x10	2x10
863 006 04	1x6	2x4
863 008 06	1x8	2x6
863 010 08	1x10	2x8



Manifold

Material: Body made from plastic.

With Push-In connections.

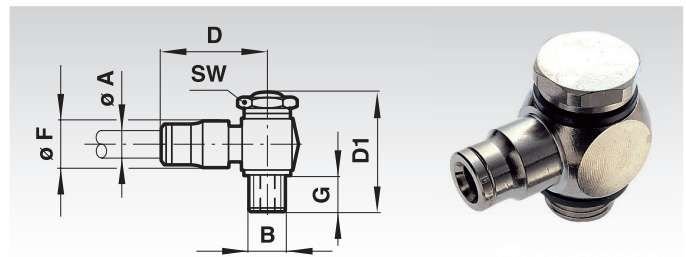


Ordering details: e.g.: Product No. 863 308 04, Manifold, Tube outer Ø Inlet 8 mm, Tube Outer-Ø Outlet 4 mm

Product No.	Ø A mm	Ø A1 mm	C mm	D mm	E mm	H mm	J mm	K mm	L mm	M mm	N mm	P mm	Weight g
863 308 04	8	4	68	42	13	3,4	12,7	16	14	9,0	20,0	16,4	38
863 308 06	8	6	68	42	13	3,4	12,7	16	14	9,0	20,2	16,4	42
863 310 08	10	8	83	48	15	3,4	17,2	20	16	10,5	22,7	20,4	67

Elbow Banjo Assembly with Sealing Ring

Material: Brass, nickel plated.



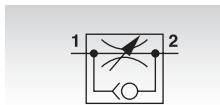
Ordering details: e.g.: Product No. 863 504 05, Elbow Banjo Assembly with Sealing Ring, Tube Outer-Ø 4 mm, Thread M5

Product No.	Ø A mm	B	D mm	D1 mm	SW mm	Ø F mm	G mm	Weight g
863 504 05	4	M5	18,7	22	8	9,5	4,0	13
863 504 18	4	G ¹ / ₈ A	20,6	30	14	11,0	6,0	34
863 506 05	6	M5	22,2	22	8	12,5	4,0	17
863 506 28	6	G ¹ / ₄ A	24,2	34	17	13,0	7,4	54
863 508 18	8	G ¹ / ₈ A	23,7	30	14	14,0	6,0	37
863 508 28	8	G ¹ / ₄ A	24,7	34	17	14,0	7,4	56
863 508 38	8	G ³ / ₈ A	26,7	41	22	16,5	9,0	112
863 510 28	10	G ¹ / ₄ A	30,2	34	17	16,0	7,4	59

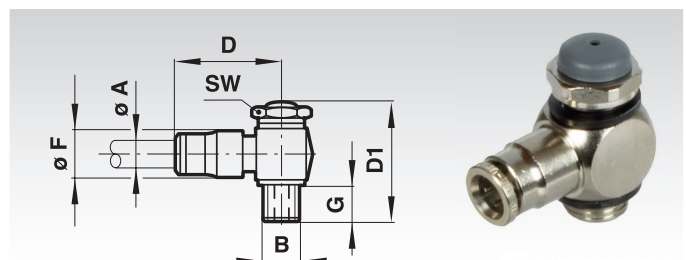
Elbow Banjo Assembly, Regulating Out, with Sealing Ring

Material: Brass, nickel plated.

Symbol



Ordering details: e.g.: Product No. 863 604 05, Elbow Banjo Assembly, Regulating Out, with Sealing Ring, Tube Outer-Ø 4 mm, Thread M5

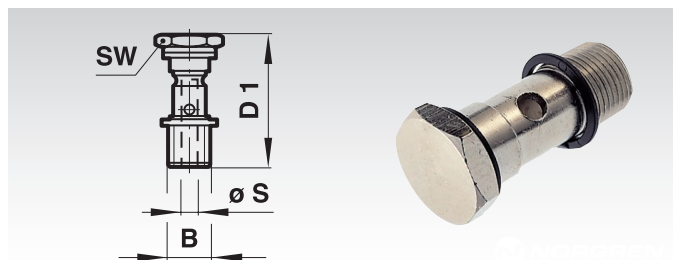


Product No.	Ø A mm	B	D mm	D1 mm	SW mm	Ø F mm	G mm	Weight g
863 604 05	4	M5	18,7	27,0	8	9,5	4,4	13
863 604 18	4	G ¹ / ₈ A	20,6	34,0	14	11,0	6,0	34
863 606 05	6	M5	22,2	27,0	8	12,5	4,4	17
863 606 18	6	G ¹ / ₈ A	23,7	34,0	14	12,5	6,0	37
863 606 28	6	G ¹ / ₄ A	24,2	36,5	17	13,0	6,0	58
863 608 28	8	G ¹ / ₄ A	24,7	36,5	17	14,0	6,0	59
863 608 38	8	G ³ / ₈ A	26,7	51,5	22	16,5	10,0	123
863 608 18	8	G ¹ / ₈ A	23,7	34,0	14	13,5	6,0	39
863 610 28	10	G ¹ / ₄ A	30,2	36,5	17	15,7	6,0	63

Banjo Bolts with Sealing Rings

Materials: Brass, nickel plated.

For combination with banjo bodies.



Ordering details: e.g.: Product No. 864 700 18, Banjo Bolt with Sealing Rings, G^{1/8}A

Product No.	B	D1 mm	SW mm	Ø S mm	Weight g
864 700 18	G ^{1/8} A	30	14	5,0	15
864 700 28	G ^{1/4} A	34	17	8,5	25
864 700 38	G ^{3/8} A	41	22	10,0	60

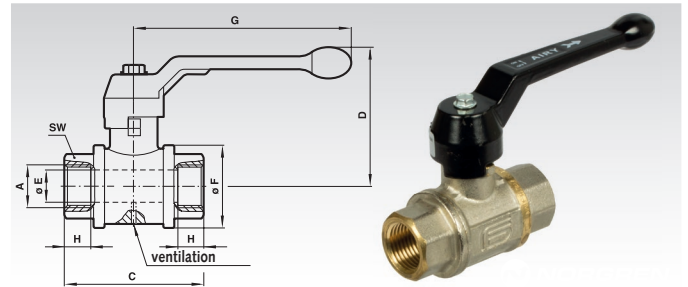
Ball Valves Made from Brass, Exhausting, Full Bore

Materials: Housing: Brass, nickel plated,

Ball seat: PTFE, O-ring seals: Viton.

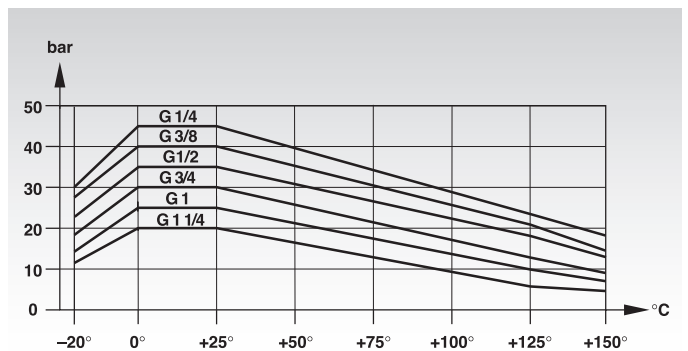
Operating pressure: 0 to 45 bar.

Operating temperature: -20°C to +150°C.



Ordering details e.g.: Product No. 865 131 28, Ball Valves Made from Brass, Exhausting, Full Bore, Internal Thread G¹/₄

Product No.	A	C mm	D mm	Ø E mm	Ø F mm	G mm	H mm	SW mm	Weight g
865 131 28	G ¹ / ₄	57	61	8	29	100	6,5	22	259
865 131 38	G ³ / ₈	54	61	10	29	100	8,5	22	245
865 131 48	G ¹ / ₂	69	64	15	35	100	9,5	27	365
865 131 68	G ³ / ₄	77	76	20	45	120	10,5	33	619
865 131 88	G1	89	80	25	54	120	11,5	40	883



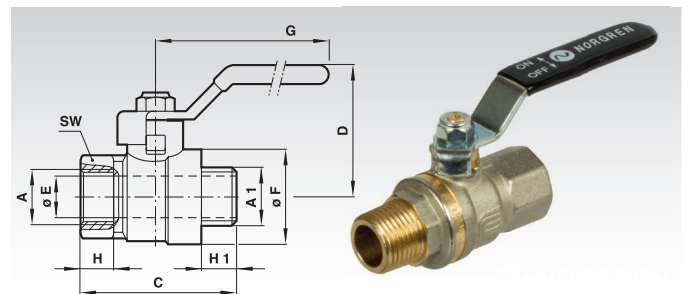
Ball Valves Made from Brass, Full Bore

Materials: Housing: Brass, nickel plated.

Seat: PTFE, O-ring seals: Viton.

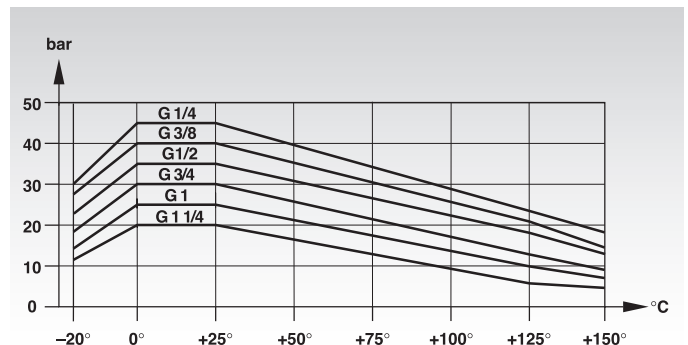
Operating pressure: 0 to 45 bar.

Operating temperature: -20°C to +150°C.



Ordering details e.g.: Product No. 865 022 28, Ball Valves made from Brass, Standard, Full Bore, External thread G¹/₄

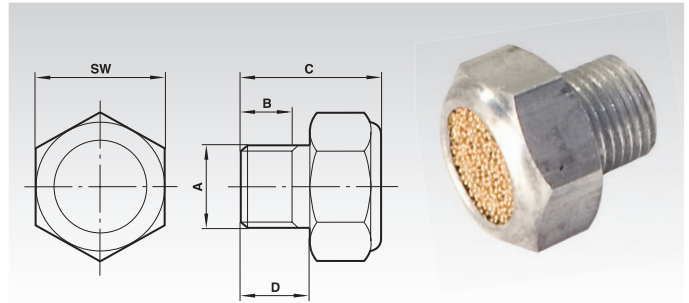
Product No.	A	A1	C mm	D mm	Ø E mm	Ø F mm	G mm	SW mm	H mm	H1 mm	Weight g
865 022 28	G ¹ / ₄	G ¹ / ₄ A	50	36	8	23	85	18	6,5	6,5	128
865 022 38	G ³ / ₈	G ³ / ₈ A	54	36	10	24	85	21	8,5	8,5	154
865 022 48	G ¹ / ₂	G ¹ / ₂ A	65	40	15	30	85	25	9,5	9,5	212
865 022 68	G ³ / ₄	G ³ / ₄ A	75	47	20	38	105	31	10,5	10,5	365
865 022 88	G1	G1A	86	51	25	46	105	38	11,5	11,5	545



Exhaust Filters

Material: Housing: Aluminium. Filter element: Sintered metal.

Operating pressure: max. 10 bar.



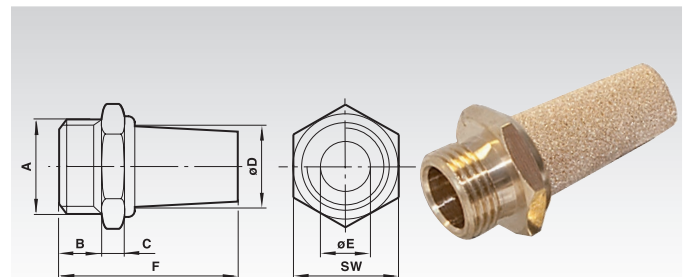
Ordering details e.g.: Product No. 865 315 11, Exhaust Filter, Thread Outer Ø G¹/₈A

Product No.	A	B mm	C mm	D mm	SW mm	Flow at	Weight
						6 bar Operating Pressure m ³ /h	g
865 315 11	G ¹ / ₈ A	6	16	8	15	11,3	6
865 315 12	G ¹ / ₄ A	8	22	10	23	27,7	18
865 315 14	G ¹ / ₂ A	10,5	25	13	30	37,8	30
865 315 16	G ³ / ₄ A	14	31	16	42	98,3	50
865 315 18	G 1 A	15	35	19	47	138,6	91

Silencers

Material: Filter element: Sintered metal. Housing: Brass.

Operating pressure: max. 10 bar.



Ordering details e.g.: Product No. 866 005 00, Silencer, Thread M5

Product No.	A	B mm	C mm	Ø D mm	Ø E mm	F mm	SW mm	Venting Noise dB(A), Measuring Distance 1m		Weight g
								at 0,7 bar	at 6 bar	
866 005 00	M5	5	5	5	2,5	2,0	7	56	70	4
866 018 00	G ¹ / ₈ A	6	5	9,5	6	24	13	66	75	10
866 028 00	G ¹ / ₄ A	8	5	12	8,5	33	17	68	78	20
866 038 00	G ³ / ₈ A	10	5	17	12	44	22	75	84	39
866 048 00	G ¹ / ₂ A	12	5,5	20	14,8	56	27	75	88	68
866 068 00	G ³ / ₄ A	14	6	26	19	80	32	87	96	130
866 088 00	G 1 A	16	6	31	25	82	41	93	100	200

Block Form Flow Regulators, Uni Directional

Materials:

M5: Housing plastic. Threaded insert: Brass,
Seals: Nitrile rubber. Valve needle: Brass, nickel plated.

G1/8, G1/4: Housing: Zinc alloy. Seals: Nitrile rubber,
Valve needle/inner part: Brass. Outer parts: Aluminium alloy.

G3/8, G1/2: Housing: Aluminium alloy. Seals: Nitrile rubber.

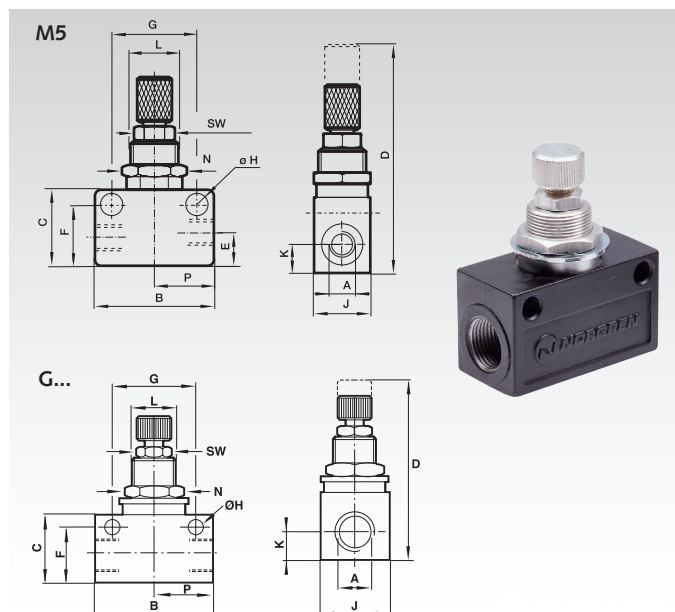
Valve needle/inner part: Brass. Outer parts: Aluminium alloy.

Medium: Compressed air, filtered, lubricated or non-lubricated.
Inert gases.

Operating pressure: 1 to 10 bar (2 to 10 bar for M5).

Operating temperature: max. +80°C (60°C max. for M5).

Mode of operation: Flow regulator.



Ordering details e.g.: Product No. 865 405 00, Block Form Flow Regulators,
Uni Directional, Thread M5

Symbol	Product No.	A	B	C	D	E	F	G	H	J	K	L	SW	N	P	Panel Bore	Max. Weight Panel Thickness
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	g
	865 405 00	M 5	25	15	45	6,5	12	18	4,5	12	5,5	M10x0,75	8	12	12,5	10,5	4 12
	865 418 00	G 1/8	34	20	51	-	16,5	24	4,5	16	8	M12x1	10	14	17	12,5	4 65
	865 428 00	G 1/4	45	25,5	61,5	-	21	32	4,5	19	9,5	M14x1	10	17	22,5	14,5	4 115
	865 438 00	G 3/8	58	32,5	78,5	-	27	43	6,5	28	13	M20x1	14	24	29	20,5	4 153
	865 448 00	G 1/2	65	36	82	-	30,5	50	6,5	30	15	M20x1	14	24	32,5	20,5	4 186

Flow dates

Max. Flow in regulating direction at 6 bar l/min	Max. Flow against regulating direction at 6 bar l/min	Kv-Value in regulating direction 1 to 2	Flow at 6 bar in regulating direction against regulating direction 1 to 2 m³/h	Kv-Value against regulating direction 2 to 1	Flow at 6 bar against regulating direction 2 to 1 m³/h
200	210	0,13	12,1	0,14	12,6
550	550	0,37	33	0,37	33
1800	2460	1,2	108,1	1,64	148
2770	3000	1,84	166,05	1,99	180

Quick Exhaust Valves

Materials: Housing and cover: Aluminium or zinc alloy.

Seals: Nitrile rubber.

Medium: Compressed air, filtered, lubricated or non-lubricated.

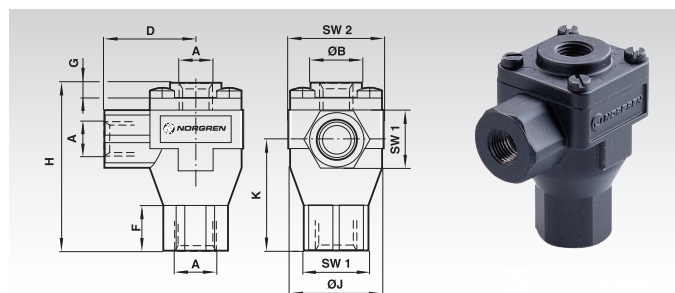
Mode of operation: Poppet valve.

Mounting: In-line.

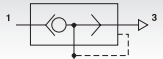
Operating pressure: 0.5 to 10 bar.

Operating temperature: max. +80°C.

- Enables air to be dumped quickly from air reservoirs and cylinders.
- Allows higher cylinder speeds to be achieved.



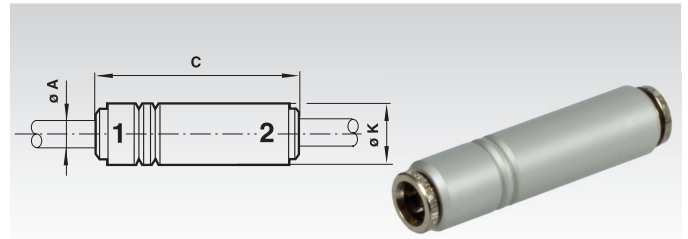
Ordering details e.g.: Product No. 865 518 00, Quick Exhaust Valves, Thread G1/8

Symbol	Product No.	A	Ø B mm	D mm	F mm	G mm	H mm	Ø J mm	K mm	SW 1 mm	SW 2 mm	Weight g
	865 518 00	G 1/8	19	28	15,3	3,5	53	29	35,5	19	30	150
	865 528 00	G 1/4	19	28	15,3	3,5	53	29	35,5	19	30	130
	865 538 00	G 3/8	30	40	15,5	4	73,5	46	48	30	46	210
	865 548 00	G 1/2	30	40	15,5	4	73,5	46	48	30	46	190
Product No.	Ports		Port Size	Kv-Value		Flow at 6 bar Operating pressure (m³/h)						
	Primary	Secondary		1 to 2	2 to 3	1 to 2	2 to 3					
865 518 00	G 1/8	G 1/8	G 1/8	1,06	1,23	95,80	110,9					
865 528 00	G 1/4	G 1/4	G 1/4	2,23	2,46	201,6	221,8					
865 538 00	G 3/8	G 3/8	G 3/8	4,47	5,02	403,2	453,6					
865 548 00	G 1/2	G 1/2	G 1/2	6.14	6.84	554.4	617.4					

Non-Return Valves

Material: Housing: Anodised aluminium.
Seals Nitrile rubber.

Medium: Compressed air, filtered, lubricated or non-lubricated.
Mode of operation: Poppet valve.
Operating pressure: -0.9 to 16 bar.
Operating temperature: 80°C.

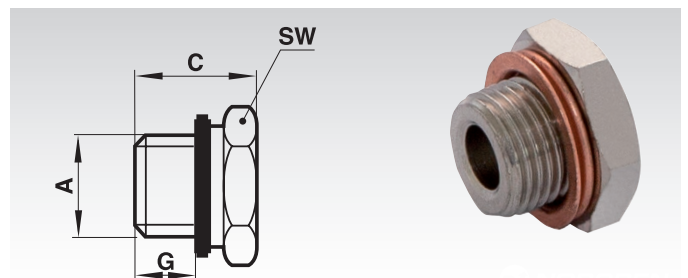


Ordering details e.g.: Product No. 865 800 04, Non-Return Valves, Tube Outer-Ø 4 mm

Symbol	Product No.	Ø A mm	C mm	Ø K mm	Flow Operating Pressure 6 bar	Weight g
	865 800 04	4	49	11	0,11 (159.6 l/min)	10
	865 800 06	6	56,5	13	0,44 (659,4 l/min)	16
	865 800 08	8	61	15	0,89 (1344 l/min)	22
	865 800 10	10	77,5	20	1,26 (1890 l/min)	48
	865 800 12	12	88,5	22	1,87 (2814 l/min)	64

Plug with Sealing Ring

Material: Brass, nickel plated.



Ordering details e.g.: Product No. 865 900 05, Plug with Sealing Ring, Thread M5

Product No.	A	C mm	G mm	SW mm	Weight g
865 900 05	M5	8	4,5	8	2
865 900 28	G1/4 A	13	9	17	13
865 900 38	G 3/8 A	13,5	9,5	19	20
865 900 48	G1/2 A	14,5	10	24	27
865 900 68	G3/4 A	16	11	30	49
865 900 88	G 1 A	17	12	40	190

Tube Cutter



Ordering details e.g.: Product No. 869 999 00, Tube Cutter

Product No.	Weight g
869 999 99	25

Disconnection Tool

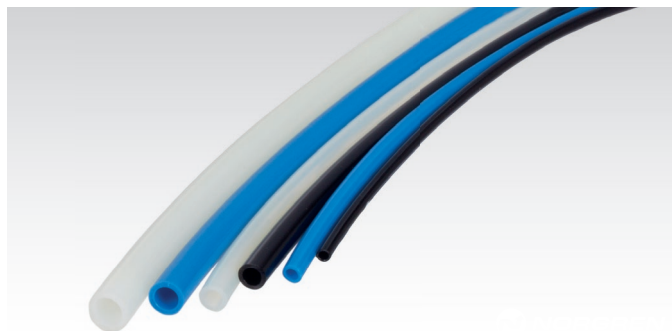


Ordering details e.g.: Product No. 869 999 90, Disconnection Tool

Product No.	Weight g
869 999 90	45

Polyamide Tubes PA

Dimensions and tolerances to DIN 73378.



Ordering details e.g.: Product No. 869 804 01 Polyamide Tube Outer Ø 4 mm, Inner-Ø 2.5 mm, Length (Max. Length 100 m)

Product No.	Product No.	Product No.	Ø Outer mm	Ø Inner mm	Weight per m g
Natural	Blue	Black			
869 804 01	869 804 02	869 804 03	4	2,5	10
869 806 01	869 806 02	869 806 03	6	4	20
869 808 01	869 808 02	869 808 03	8	6	30
869 810 01	869 810 02	869 810 03	10	7,5	50
869 812 01	869 812 02	869 812 03	12	9	70
869 814 01	869 814 02	869 814 03	14	11	90

Polyurethane Hoses PU

Dimensions and tolerances to DIN 73378.



Ordering details e.g.: Product No. 869 904 01, Polyurethane Hose, Outer Ø 4 mm, Inner Ø 2.5 mm, Length (Max. Length 100 m)

Product No.	Product No.	Product No.	Ø Outer mm	Ø Inner mm	Weight per m g
Natural	Blue	Black			
869 904 01	869 904 02	869 904 03	4	2,5	13
869 906 01	869 906 02	869 906 03	6	4	25
869 908 01	869 908 02	869 908 03	8	5,5	40
869 910 01	869 910 02	869 910 03	10	7	50
869 912 01	869 912 02	869 912 03	12	8	100

Note

Max. Operating Pressure

Tube Outer-Ø		4 mm	6 mm	8 mm	10 mm	12 mm	14 mm
Max. Pressure*	Polyamide Tube	28 bar	25 bar	19 bar	24 bar	18 bar	15 bar
at -40 °C to +20 °C	Polyurethane Hose	10 bar	9 bar	9 bar	9 bar	9 bar	-
Min. Bend Radius	Polyamide Tube	25 mm	30 mm	50 mm	60 mm	75 mm	80 mm
Min. Bend Radius	Polyurethane Hose	6 mm	9 mm	16 mm	17 mm	25 mm	-

* Permissible Operating Pressure = Max. Operating Pressure x Factor.

Conversion factor: Temp. / Operating Pressure

Operating Pressure	Factor
+ 30 °C	0.83
+ 40 °C	0.72
+ 50 °C	0.64
+ 60 °C	0.57
+ 70 °C	0.47

Maximum permanent operating temperature:
PA +80°C. PU +60°C.

Blow Guns

Blow Gun with Metal Nozzle

Material: Composite material. Port thread with brass insert,
Nozzle: Steel thread.

Applications:

- Blow off and remove chippings, swarf and dust.
- Cleaning of machines, work benches, work places, and areas which are difficult to reach.
- Drying of work pieces.
- Can be used with air and water.

Blow guns are made from a high-tech composite material and thus very rugged, scratch-resistant, insulating and slip proof. Perfect mounting safety due to brass insert (G1/4 inch internal thread). The blow guns feature good ergonomics. This ergonomic shape means no swarf or dust can gather on the gun.

Steel nozzle: Ø 3 x 6 mm.
Length of nozzle: 110 mm.
Flow at 6 bar: 23 N.m³/h.

Temperature: -15 to +70°C.
G 1/4 internal thread.
Max. operating pressure: 10 bar.



Product No.	A mm	Weight g
870 001 00	235	138

Hoses and tail pieces see next page.

Ordering details: e.g.: Prod.-No. 870 001 00, Blow Gun with Metal Nozzle

Blow Gun with Straight, Scratch-Resistant Nozzle

Material: Composite material. Port thread with brass insert.
Nozzle: Composite material to prevent surface from getting damaged.

Applications:

- Blow off and remove chippings, swarf and dust.
- Cleaning of machines, work benches, work places, and areas which are difficult to reach.
- Drying of work pieces.
- Can be used with air and water.

Blow guns are made from a high-tech composite material and thus very rugged, scratch-resistant, insulating and slip proof. Perfect mounting safety due to brass insert (G1/4 inch internal thread). The blow guns feature good ergonomics. This ergonomic shape means no swarf or dust can gather on the gun.

Nozzle : Ø 2 x 12 mm.
Length of nozzle: 59 mm.
Flow at 6 bar: 15 N.m³/h.

Temperature: -15 to +70°C.
G 1/4 internal thread.
Max. operating pressure: 10 bar.



Product No.	A mm	Weight g
870 002 00	187	119

Hoses and tail pieces see next page.

Ordering details: e.g.: Prod.-No. 870 002 00, Blow Gun with Straight, Scratch-Proof Nozzle

Blow Gun with Silent Nozzle

Material: Composite material. Port thread with brass insert.
Nozzle: Composite material to lower noise level.

Applications:

- Blow off and remove chippings, swarf and dust.
- Cleaning of machines, work benches, work places, and areas which are difficult to reach.
- Drying of work pieces.
- Can be used with air and water.

Blow guns are made from a high-tech composite material and thus very rugged, scratch-resistant, insulating and slip proof. Perfect mounting safety due to brass insert (G1/4 inch internal thread). The blow guns feature good ergonomics. This ergonomic shape means no swarf or dust can gather on the gun.

Nozzle to lower noise level.

Length of nozzle: 56 mm.
Complies with americ. OSHA standard.

Temperature: -15 to +70°C
G 1/4 internal thread.
Max. operating pressure: 10 bar.



Product No.	A mm	Weight g
870 003 00	185	119

Hoses and tail pieces see next page.

Ordering details: e.g.: Prod.-No. 870 003 00, Blow Gun with Silent Nozzle

Hose Coils with Swiveling Hose Tail

Material: Polyurethane, flexible and extremely rugged.

Fitting made from nickel-plated brass.

The hose retracts to its original shape: the coils will not loose their original shape even under most adverse operating conditions.

Data of fixed fitting on the supply side:

- PTFE pre-coated thread.
- PVC coating to protect hose.

Data of the swivel connection on the side of the compressed-air tool:

- Swivelling joint with ball bearing.
- Easy swivelling, even under pressure, no overstressing of hose coil.

Max. temperature: 70°C. Operating pressure at 20°C: Ø 5 x 8: 9 bar.
 Ø 6,5 x 10: 9 bar.
 Ø 8 x 12: 8 bar.

Pressure: 10 bar. Flexibility: bendable. Colour: blue.



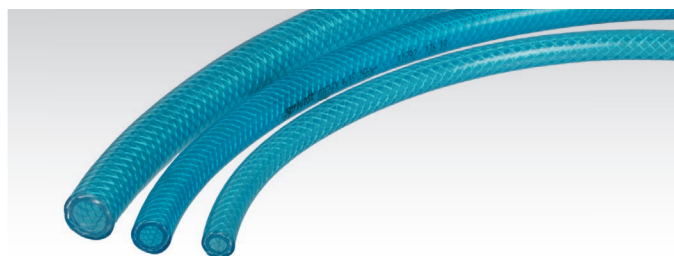
Ordering details: e.g.: Prod.-No. 870 105 02, Hose Coil 5x8 mm

Product No.	Ø I/O mm	Fixed Connection Inch	Swivel Connection Inch	Max. Length m	Min. Length m	Ø Coil mm	Weight g
870 105 02	5 x 8	G 1/4	G 1/4	2	0,18	42	189
870 105 04	5 x 8	G 1/4	G 1/4	4	0,4	42	290
870 106 04	6,5 x 10	G 1/4	G 1/4	4	0,4	52	413
870 106 06	6,5 x 10	G 1/4	G 1/4	6	0,63	52	577
870 106 08	6,5 x 10	G 1/4	G 1/4	8	0,8	52	711
870 106 10	6,5 x 10	G 1/4	G 1/4	10	0,95	52	877
870 108 08	8 x 12	G 3/8	G 3/8	8	0,72	65	947

Flexible Hoses

Material: PVC, transparent, blue, nylon reinforced.

Used for compressed air, oil and water.

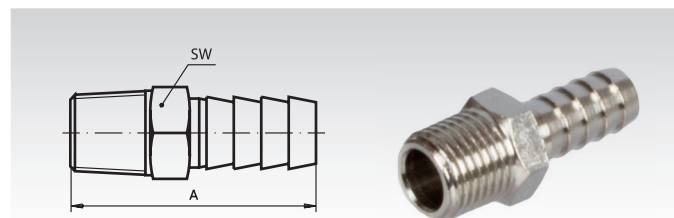


Ordering details: e.g.: Prod.-No. 870 206 12, 6x12 mm

Product No.	Diameter Inner/Outer mm	Operating Pressure at 20°C bar	Max. Pressure at 20°C bar	Max. Temperature °C	Weight g per Meter
870 206 12	6 x 12	15	50	60	97
870 208 14	8 x 14	15	50	60	124
870 209 15	9 x 15	15	50	60	125
870 210 16	10 x 16	15	50	60	147
870 213 20	13 x 20	15	50	60	214

Hose Tail Pieces with Taper External Thread

Material: Brass, nickel plated.



Ordering details: e.g.: Prod.-No. 870 306 14, 1/4", for Hose 6 mm

Product No.	Thread Inch	A mm	Hose-Ø mm	SW mm	Weight g
870 306 14	R 1/4"	36	6	14	15
870 309 14	R 1/4"	36	9	14	15
870 310 14	R 1/4"	36	10	14	19

Standard and Safety Quick-Release Couplings

Standard and safety quick-release couplings ISO 4414, DIN-Standard EN 983. Adaptor profile 7.2 German standard.

The safety locking system of the safety coupling stops the dangerous „whip effect“.

The novel locking system of the coupling offers optimum tightness at low coupling forces. Innovative, patented technology. Perfect performance and safety.



Standard Quick Coupling



Safety Quick Coupling: one pull and the compressed air is dumped. One push and the adaptor is safely disconnected



Standard and Safety Quick-Release Couplings with Internal Thread

Material: Composite material.

Air-flow-Ø: 7.2/7.4 mm.

Air flow: 1470 l/min ΔP: 0.6 bar.

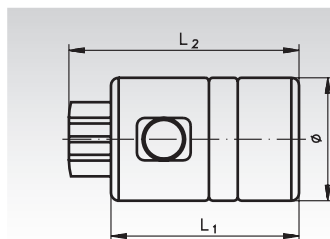
1920 l/min ΔP: 1 bar.

Adaptor profile: NW 7.2 and NW 7.4.

Operating pressure: 2 to 12 bar.

Max. operating pressure: 16 bar.

Temperature range: -15°C to +70°C.



Safety Quick Coupling



Standard Quick Coupling

Ordering details: e.g.: Prod.-No., Type, Size

Product No. Safety Quick Coupling	Product No. Standard Quick Coupling	Connection	L ₁ mm	Ø mm	L ₂ mm	Weight Safety Quick Coupling in g	Weight Standard Quick Coupling in g
870 401 14	870 411 14	G 1/4	49	32	60	73	72
870 401 38	870 411 38	G 3/8	49	32	60	70	65
870 401 12	870 411 12	G 1/2	49	32	70	88	87

Standard and Safety Quick-Release Couplings with Parallel External thread (with PTFE Coating)

Material: Composite material.

Air-flow-Ø: 7.2/7.4 mm.

Air flow: 1470 l/min ΔP: 0.6 bar.

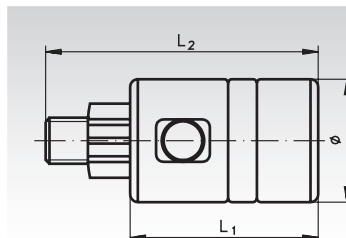
1920 l/min ΔP: 1 bar.

Adaptor profile: NW 7.2 and NW 7.4.

Operating pressure: 2 to 12 bar.

Max. operating pressure: 16 bar.

Temperature range: -15°C to +70°C.



Safety Quick Coupling



Standard Quick Coupling

Ordering details: e.g.: Prod.-No., Type, Size

Product No. Safety Quick Coupling	Product No. Standard Quick Coupling	Connection	L ₁ mm	Ø mm	L ₂ mm	Weight Safety Quick Coupling in g	Weight Standard Quick Coupling in g
870 403 14	870 413 14	G 1/4	49	32	71	89	87
870 403 38	870 413 38	G 3/8	49	32	72	87	86
870 403 12	870 413 12	G 1/2	49	32	75	114	114

Standard and Safety Quick-Release Couplings with Hose Connection

Material: Composite material.

Air-flow-Ø: 7.2/7.4 mm.

Air flow: 1470 l/min ΔP: 0.6 bar.

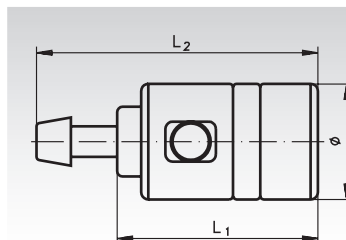
1920 l/min ΔP: 1 bar.

Adaptor profile: NW 7.2 and NW 7.4.

Operating pressure: 2 to 12 bar.

Max. operating pressure: 16 bar.

Temperature range: -15°C to +70°C.



Safety Quick Coupling



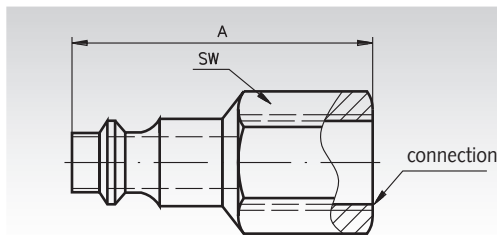
Standard Quick Coupling

Product No. Safety Quick Coupling	Product No. Standard Quick Coupling	Connection mm	L ₁ mm	Ø mm	L ₂ mm	Weight fv Quick Coupling in g	Weight Standard Quick Coupling in g
870 406 01	870 416 01	6 - 7	49	32	78	80	78
870 406 03	870 416 03	8	49	32	78	81	80
870 406 05	870 416 05	9	49	32	78	80	79
870 406 07	870 416 07	9 - 10	49	32	78	83	82
870 406 09	870 416 09	13	49	32	83	92	92

Adaptors for Standard and Safety Quick-Release Couplings

Adaptors with Internal Thread for Standard and Safety Quick-Release Couplings

Material: Carbonated steel, with corrosion- proof treatment.
Internal diameter: 7.2 mm/7.4 mm.
Operating pressure: 2 - 12 bar.
Max. operating pressure: 16 bar.
Precision: constant dimensions.
Hardness: wear resitant.

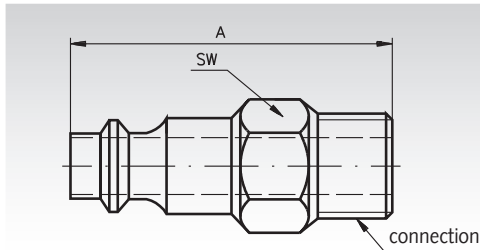


Ordering details: e.g.: Prod.-No., Type, Size

Product No.	Connection	A mm	SW mm	Weight g
870 330 14	G 1/4	40	20	21
870 330 38	G 3/8	42	21	39
870 330 12	G 1/2	46	25	56

Adaptors with External Thread for Standard and Safety Quick-Release Couplings

Material: Carbonated steel, with corrosion- proof treatment.
Internal diameter: 7.2 mm/7.4 mm.
Operating pressure: 2 - 12 bar.
Max. operating pressure: 16 bar.
Precision: constant dimensions.
Hardness: wear resitant.

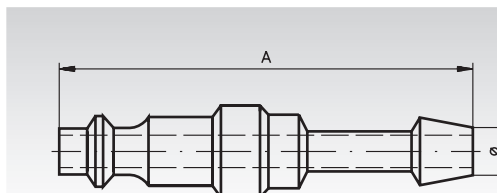


Ordering details: e.g.: Prod.-No., Type, Size

Product No.	Connection	A mm	SW mm	Weight g
870 332 14	G 1/4	35	15	19
870 332 38	G 3/8	41	17	31
870 332 12	G 1/2	49	22	62

Adaptors with Hose Connector for Standard and Safety Quick-Release Couplings

Material: Carbonated steel, with corrosion- proof treatment.
Internal diameter: 7.2 mm/7.4 mm.
Operating pressure: 2 - 12 bar.
Max. operating pressure: 16 bar.
Precision: constant dimensions.
Hardness: wear resitant.

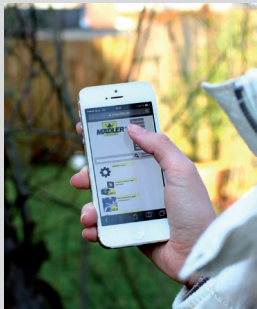


Ordering details: e.g.: Prod.-No., Type, Size

Product No.	Connection Ø mm	A mm	Weight g
870 346 00	6	45	14
870 348 00	8	46	17
870 349 00	9	54	25
870 350 00	10	46	19
870 353 00	13	52	26

www.maedler.de

...the entire MÄDLER® range with CAD files on the Internet



We present the entire **MÄDLER®** range with CAD files and **MÄDLER®** info, continuously updated, on the internet. Fast access to the data, fast ordering by internet. Orders by internet, phone, fax or e-mail: We guarantee delivery at short notice.



Dimensions and other information in this catalogue display the current state of technology. We reserve the right for changes.

This catalogue was created with due diligence, but errors might still occur. We refuse to accept any claims in this respect. We reserve the right to alter dimensions, and to change or remove single products and product groups without prior notice. Our general conditions of sales, delivery and payment can be found on the last page of this catalogue.

...we keep things moving