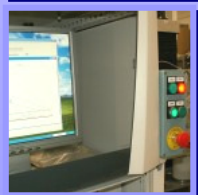


PROMATIK

AUTOMATYKA PRZEMYSŁOWA

BUDOWA MASZYN I URZĄDZEŃ



**LINE AUTOMATYCZNE
MASZYNY MONTAŻOWE
STANOWISKA KONTROLNE
LINE TRANSPORTOWE**

**AUTORYZOWANY DYSTRYBUTOR / SPRZEDAWCA
ELEMENTÓW AUTOMATYKI I PNEUMATYKI**



...I INNE...



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+48 505 184 037 , +48 505 184 036 www.promatik-kielce.com.pl info@promatik-kielce.com.pl



- 1) Integrated valve/cylinder unit for a gearshift control.
- 2) Modular cartridge valve integrated in a transmission interarder.
- 3) Retarder with proportional control unit.
- 4) Vehicle manifolds with DOT / SAE cartridges cut assembly time, weight and space.
- 5) Sealco valve has integrated push-in cartridges for quick assembly.
- 6) Special twin valve

Norgren in the truck industry

Norgren is a leading international supplier of on-board pneumatic and electronic solutions, with over thirty years' experience in the commercial vehicle industry.



Modular powertrain solutions

Norgren's expertise lies in adapting standard modular valves and proportional valves for use in special manifolds or housings.

These customised solutions are often integrated in the powertrain component.

- Proven technology
- Cost-effective customisation
- Meet space requirements
- Housing ensures protection of mechanical and electrical components
- Common pneumatic and electrical connections
- Ease and speed of assembly



Increased chassis throughput

Norgren provides a total fittings system solution for air brake and auxiliary air systems.



Norgren provides total fittings system solutions

Norgren expertise on-board coaches and buses:

- Ventilation flaps and air conditioning systems
- Pneumatic and electric door systems
- Anti jack-knifing control systems
- Kneeling systems
- High pressure valves for compressed natural gas



Norgren products are used in the cab for:

- Instrumentation
- Air seat
- Visual indicators
- Air horn



ON-BOARD SOLUTIONS

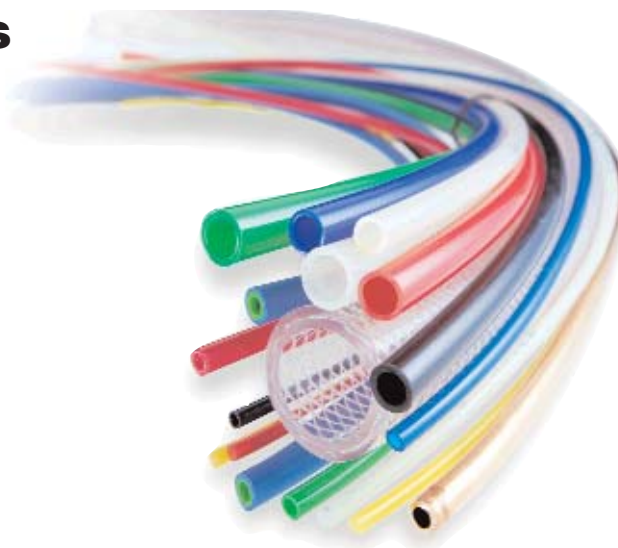
Please visit Norgren dedicated site at

www.norgren.com/commercial_veh

Tubing and hoses

Ø 4 to 28 mm O/D

Ø 1/8" to 1 1/8" O/D



Available in a variety of different types to suit a wide range of applications.

All tubing can be used with specific ranges of tube fittings shown in this catalogue.

Nylon and polyurethane tube available in a range of colours for ease of identification.

Technical data

Medium:

Compressed air. Consult our Technical Service for use with other fluids.

Operating pressure:

Refer to specific tubing type on the following pages.

Ambient temperature:

Refer to specific tubing type on the following pages.

Materials

Nylon tube: nylon (polyamide) type 12, fully plasticised and light stabilised. metric tube meets the requirements of DIN 73378 and BS 5409.

Polyurethane tube: is light stabilised and has a hardness of 92-98 shore A.

Nylon tube (food grade): nylon (polyamide) type 11 or 12 unplasticised.

Polyester reinforced PVC: high quality electrically non-conductive plasticised PVC hose, high tensile polyester fibre braiding, galvanised steel 'O' clips and brass tailpieces on assembled hoses.

Metal braided hoses: E90 nitrile rubber hose, galvanised steel braiding wire, brass ferrules, copper tailpieces.

Copper tube: phosphorous de-oxidised copper to BS6017 grade Cu-DHP.

Double wall brazed steel: copper coated steel strip with tinned external surface (Bundy).

Weldtube: polyurethane (95° shore A) inner tube, flame retardant PVC outer tube.

Tube sizes (metric)

O/D mm	4	5	6	8	10	12	14	16	22	28
Nylon	●	●	●	●	●	●	●	●	●	●
Polyurethane	●	●	●	●	●	●				
Polyester reinforced PVC	●	●	●	●	●	●	●	●	●	●
Metal braided	●	●	●	●	●	●				
Copper-half hard and annealed	●	●	●	●	●	●		●	●	●
Bundy			●	●	●	●				

Tube sizes (inch)

O/D inches	1/8	5/32	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1 1/8
Nylon	●		●	●	●	●	●	●			
Nylon (food grade)			●	●	●	●					
Polyester reinforced PVC			●	●	●	●	●	●	●		
Metal braided			●	●	●	●	●				
Copper-half hard and annealed	●	●	●	●	●	●	●	●	●	●	●
Copper heavy duty			●	●	●	●	●	●	●	●	
Bundy		●	●	●	●	●	●				

Maximum working pressures

O/D mm	4	5	6	8	8**	10	10**	12	12**	14	15**	16	22	28
Max. pressure (bar)*	Nylon	28	31	25	19	10	24	8	18	6	15	6	18	15
at -40°C to +20°C	Polyurethane	10	11	9	9	-	9	-	9	-	-	-	-	-
Min. bend radius mm	Nylon	25	25	30	50		60		75		80		95	125
	Polyurethane	7	9	16	17	-	25	-	-	-	-	-	-	-

Maximum continuous working temperature: nylon +80°C, polyurethane +60°C.

*Multiply by factors in table alongside for use at higher temperatures.

**Extraflexible tube

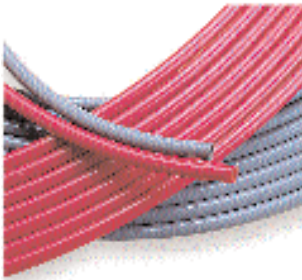
Pressure/temperature conversion factors

Working Temperature	Factor
+30°C	0,83
+40°C	0,72
+50°C	0,64
+60°C	0,57
+80°C	0,47

Tubing and hoses

Ø 4 to 28 mm O/D

Ø 1/8" to 1 1/8" O/D



Norgren nylon tubing to DIN 73378,
DIN 74324 and BS5409-1 : 1976 table 2

O/D-I/Dmm	Length (m)	4/2,5	6/4	8/6
Corporate Red	25	PA0804025	PA0806025	PA0808025
Corporate Grey	25	PA0604025	PA0606025	PA0608025



Nylon to DIN 73378, DIN 74324 and BS5409-1 : 1976 table 2

O/D I/D	Length (m)	4/2,5	5/3	6/4	8/6	10/7,5	12/9	14/11	16/12	22/17	28/22
Natural	15	PA0004015C	PA0005015C	PA0006015C	PA0008015C	PA0010015C	PA0012015C	PA0014015C	PA0016015C	PA0022015C	PA0028015C
Natural	25	PA0004025C	PA0005025C	PA0006025C	PA0008025C	PA0010025C	PA0012025C	PA0014025C	PA0016025C	PA0022025C	PA0028025C
Natural	100	PA0004100C	PA0005100C	PA0006100C	PA0008100C	PA0010100C	PA0012100C	PA0014100C	-	-	-
Black	15	PA0704015C	PA0705015C	PA0706015C	PA0708015C	PA0710015C	PA0712015C	-	-	-	-
Black	25	PA0704025C	PA0705025C	PA0706025C	PA0708025C	PA0710025C	PA0712025C	PA0714025C	-	-	-
Black	100	PA0704100C	PA0705100C	PA0706100C	PA0708100C	PA0710100C	PA0712100C	PA0714100C	-	-	-
Blue	15	PA0504015C	PA0505015C	PA0506015C	PA0508015C	PA0510015C	PA0512015C	-	-	-	-
Blue	25	PA0504025C	PA0505025C	PA0506025C	PA0508025C	PA0510025C	PA0512025C	PA0514025C	-	-	-
Blue	100	PA0504100C	PA0505100C	PA0506100C	PA0508100C	PA0510100C	PA0512100C	PA0514100C	-	-	-
Red	15	PA0104015C	PA0105015C	PA0106015C	PA0108015C	PA0110015C	PA0112015C	-	-	-	-
Red	25	PA0104025C	PA0105025C	PA0106025C	PA0108025C	PA0110025C	PA0112025C	PA0114025C	-	-	-
Red	100	PA0104100C	PA0105100C	PA0106100C	PA0108100C	PA0110100C	PA0112100C	PA0114100C	-	-	-
Yellow	15	PA0304015C	PA0305015C	PA0306015C	PA0308015C	PA0310015C	PA0312015C	PA0314015C	-	-	-
Yellow	25	PA0304025C	PA0305025C	PA0306025C	PA0308025C	PA0310025C	PA0312025C	PA0314025C	-	-	-
Yellow	100	PA0304100C	PA0305100C	PA0306100C	PA0308100C	PA0310100C	PA0312100C	PA0314100C	-	-	-
Green	15	PA0204025C	PA0205015C	PA0206015C	PA0208015C	PA0210015C	PA0212015C	PA0214025C	-	-	-
Green	100	PA0204100C	PA0205100C	PA0206100C	PA0208100C	PA0210100C	PA0212100C	PA0214100C	-	-	-

Extraflex nylon PS11

O/D I/D	Length (m)	8/6	10/8	12/10	15/12,5
Natural	25	PS0008025	PS0010025	PS0012025	PS0015025

Polyurethane

O/D I/D	Length (m)	4/2,5	5/3	6/4	8/5,5	10/7	12/8
Natural	25	PU0004025C	PU0005025C	PU0006025C	PU0008025C	PU0010025C	PU0012025C
Natural	100	PU0004100C	PU0005100C	PU0006100C	PU0008100D	PU0010100D	PU0012100D
Black	25	PU0704025C	PU0705025C	PU0706025C	PU0708025C	PU0710025C	PU0712025C
Black	100	PU0704100C	PU0705100C	PU0706100C	PU0708100D	PU0710100D	PU0712100D
Blue	25	PU0504025C	PU0505025C	PU0506025C	PU0508025C	PU0510025C	PU0512025C
Blue	100	PU0504100C	PU0505100C	PU0506100C	PU0508100D	PU0510100D	PU0512100D
Red	25	PU0104025C	PU0105025C	PU0106025C	PU0108025C	PU0110025C	PU0112025C
Red	100	PU0104100C	PU0105100C	PU0106100C	PU0108100D	PU0110100D	PU0112100D
Yellow	25	PU0304025C	PU0305025C	PU0306025C	PU0308025C	PU0310025C	PU0312025C
Yellow	100	PU0304100C	PU0305100C	PU0306100C	PU0308100D	PU0310100D	PU0312100D
Green	25	PU0204025C	Options	PU0206025C	PU0208025C	Options	Options
Green	100	PU0204100C	Options	PU0206100C	PU0208100D	PU0210100D	PU0212100D

Key: (D) = Drum (C) = coil

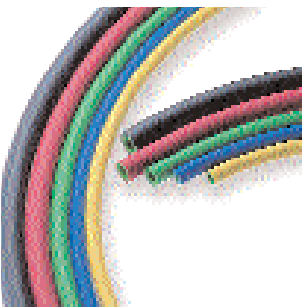


Weldtube

O/D	O/D	I/D	Max. recommended	Bend	Colour	
Outer tube (mm)	Inner tube (mm)	Inner tube (mm)	working pressure (bar)	radius (mm)		
8	6	4	10	40	Black	WT4706025
8	6	4	10	40	Red	WT4106025
8	6	4	10	40	Green	WT4206025
8	6	4	10	40	Blue	WT4506025
10	8	6	10	50	Black	WT4708025
10	8	6	10	50	Red	WT4108025
10	8	6	10	50	Green	WT4208025
10	8	6	10	50	Blue	WT4508025
12,5	10	7	10	65	Black	WT4710025
12,5	10	7	10	65	Red	WT4110025
12,5	10	7	10	65	Green	WT4210025
12,5	10	7	10	65	Blue	WT4510025
14,5	12	9	10	75	Black	WT4712025
14,5	12	9	10	75	Red	WT4112025
14,5	12	9	10	75	Green	WT4212025
14,5	12	9	10	75	Blue	WT4512025

The colours are for the outer PVC cover. tubing is supplied shrink-wrapped in 25 m coils. Other colours can be supplied for orders of sufficient quantity.

Tubing can also be supplied in longer lengths subject to economic order quantities. inch tube also available.



Inch range also available

Tubing and hoses

Ø 4 to 28 mm O/D BSPT male thread

Ø 1/8" to 1 1/8" O/D



PA Pneuflex spring coils

Weldtube

O/D Tube	Adaptor (thread)	Length of closed spiral (mm)	Working length (mm)	Operating pressure at +20°C (bar)	
6	R1/4	200	3000	31	PA330600328
6	R1/4	250	3750	31	PA330600428
6	R1/4	333	5000	31	PA330600528
6	R1/4	500	7500	31	PA330600828
6	R1/4	1000	15000	31	PA330601528
8	R1/4	200	3000	22	PA330800328
8	R1/4	250	3750	22	PA330800428
8	R1/4	333	5000	22	PA330800528
8	R1/4	500	7500	22	PA330800828
8	R1/4	1000	15000	22	PA330801528
10	R1/4	210	3000	17	PA331000328
10	R1/4	262	3750	17	PA331000428
10	R1/4	350	5000	17	PA331000528
10	R1/4	525	7500	17	PA331000828
10	R1/4	1000	15000	17	PA331001528
12	R3/8	200	3000	12	PA331200338
12	R3/8	250	3750	12	PA331200438
12	R3/8	333	5000	12	PA331200538
12	R3/8	500	7500	12	PA331200838
12	R3/8	1000	15000	12	PA331201538
*15	G1/2A	166	3000	17	PA331500348
*15	G1/2A	207	3750	17	PA331500448
*15	G1/2A	277	5000	17	PA331500548
*15	G1/2A	415	7500	17	PA331500848

Mounting method: swivel fittings with male threads at both ends.

Coils are coloured yellow. Other colours can be supplied to order.

*All adaptors thread are BSPT except 1/2 BSPP male thread.



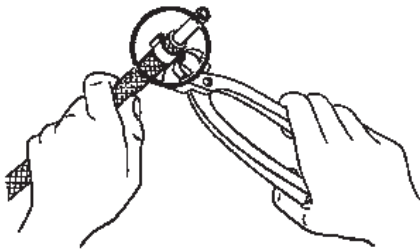
PU Pneuflex spring coils

O/D Tube	Adaptor (thread)	Length of closed spiral (mm)	Working length (mm)	Operating pressure at +20°C (bar)	
6 x 4	R1/8	165	2000	10	PU310600218
6 x 4	R1/8	350	4000	10	PU310600418
6 x 4	R1/8	545	6000	10	PU310600618
6 x 4	R1/8	720	8000	10	PU310600818
8 x 5	R1/4	180	2000	10	PU310800228
8 x 5	R1/4	400	4000	10	PU310800428
8 x 5	R1/4	630	6000	10	PU310800628
8 x 5	R1/4	800	8000	10	PU310800828
10 x 6,5	R1/4	185	2000	9	PU311000228
10 x 6,5	R1/4	400	4000	9	PU311000428
10 x 6,5	R1/4	635	6000	9	PU311000628
10 x 6,5	R1/4	800	8000	9	PU311000828
12 x 8	R3/8	180	2000	9	PU311200238
12 x 8	R3/8	390	4000	9	PU311200438
12 x 8	R3/8	590	6000	9	PU311200638
12 x 8	R3/8	780	8000	9	PU311200838

Tubing and hoses

Ø 4 to 28 mm O/D

Ø 1/8" to 1 1/8" O/D



A special pair of pincers, product number 39001400, is available for crimping 'O' clips to hose.

Instructions

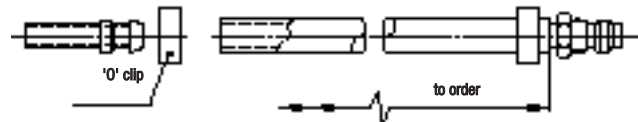
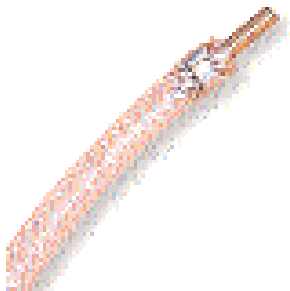
1. Cut off the desired length of hose
2. Insert reusable tailpieces
3. Slip on the clips
4. Clamp tightly with pincers

30m terylene braided hose coils, 'O' clips and pincers

O/D mm	8	10	12	13,5	16	18,5	27	33
Bore	3	5	6,3	8	10	12,5	20	25
Pressure (bar)*	10	10	10	10	10	9	7	6
Product number 30 m hose	PV 2008030	PV 2010030	PV 2012030	PV 2014030	PV 2016030	PV 2019030	PV 2027030	PV 2033030
'O' clips for above O/D hoses	48 0168 02	48 0168 03	48 0168 04	48 0168 05	48 0168 06	48 0168 07	48 0168 11	48 0168 15
Special pincers for 'O' clips	39 0014 00							

*Maximum working pressure at +20°C.

For temperatures above +20°C, consult our Technical Service.



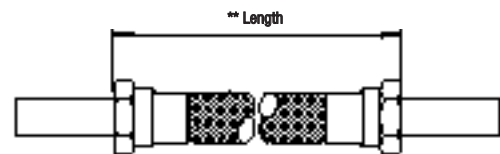
State length of hose required when ordering. Maximum length 30 m.

Terylene braided PVC hose assemblies

O/D mm	4	5	6	8	10	12	16	22	28
Pressure bar*	10	10	10	10	10	10	9	7	6
Min bend radius mm	28	28	31,5	31,5	48,5	48,5	50,5	70	225
To order 30 m max.	42 0200 00 000	42 0210 00 000	42 0220 00 000	42 0230 00 000	42 0240 00 000	42 0250 00 000	42 0260 00 000	42 0270 00 000	42 0280 00 000

Operating temperature: -20°C to +70°C. *Maximum working pressure at +20°C.

For use at temperatures above +20°C, consult our Technical Service.



**State length of hose required if ordering non-standard lengths.



Metal braided rubber hose

O/D mm	4	5	6	8	10	12
Pressure (bar)*	69	69	69	69	69	47
Length						
To order. 155 mm min.	42 0020 00 000	42 0030 00 000	42 0040 00 000	42 0050 00 000	42 0060 00 000	42 0070 00 000
250 mm	42 0020 00 000	42 0030 00 250	42 0040 00 250	42 0050 00 250	42 0060 00 250	42 0070 00 250
300 mm	42 0020 00 000	42 0030 00 300	42 0040 00 300	42 0050 00 300	42 0060 00 300	42 0070 00 300
350 mm	42 0020 00 000	42 0030 00 350	42 0040 00 350	42 0050 00 350	42 0060 00 350	42 0070 00 350
400 mm	42 0020 00 000	42 0030 00 400	42 0040 00 400	42 0050 00 400	42 0060 00 400	42 0070 00 400
500 mm	42 0020 00 000	42 0030 00 500	42 0040 00 500	42 0050 00 500	42 0060 00 500	42 0070 00 500
600 mm	42 0020 00 000	42 0030 00 600	42 0040 00 600	42 0050 00 600	42 0060 00 600	42 0070 00 600
750 mm	42 0020 00 000	42 0030 00 750	42 0040 00 750	42 0050 00 750	42 0060 00 750	42 0070 00 750
1000 mm	42 0020 00 000	42 0030 01 000	42 0040 01 000	42 0050 01 000	42 0060 01 000	42 0070 01 000

*Maximum working pressure at -20°C to +100°C for fluids other than compressed air. Maximum with compressed air is 10 bar.

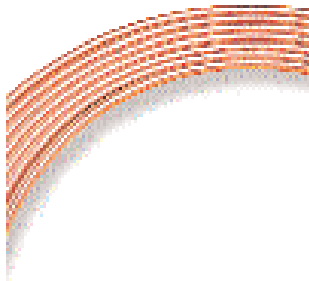
Installation notes-

1. Flexible hose is weakened when installed in a twisted position.
2. Ample bend radius should be allowed to avoid collapsing the hose.
3. When hose is installed in a flexing application remember that metal end fittings are not part of the flexible portion.
4. Use elbows or adaptors to eliminate excess hose bends.

Tubing and hoses

Ø 4 to 28 mm O/D

Ø 1/8" to 1 1/8" O/D



Copper tubing to BS 2871 : Part 2 with dimensions generally to table 4

O/D-I/D mm	Type	4/2,8	5/3,4	6/4,4	8/6,4	10/8,4	12/9,6	16/13,6	22/19,0	28/25,0
Pressure (bar)*		128	138	112	81	64	81	59	53	41
Length										
10 m coil	Annealed	CS6004010	CS 6005010	CS 6006010	CS6008010	CS 6010010				
3 m straight	Annealed						CS 6012003	CS 6016003	CS 6022003	CS 6028003

O/D-I/D mm	Type	4/2,8	5/3,4	6/4,0	8/6,0	10/7,6	12/9,6	16/13,6	22/19,0	28/25,0
Pressure (bar)*		193	208	218	157	150	122	89	81	62
Length										
3 m straight	Half hard	CS 7004003	CS 7005003	CS 7006003	CS 7008003	CS 7010003	CS 7012003	CS 7016003	CS 7022003	CS 7028003

*Recommended safe working pressure at -200°C to +50°C. For higher temperatures, multiply by factor in table below.

Working Temperature	Factor	Half Hard Copper
+50°C to +100°C	0,97	0,95
+100°C to +150°C	0,82	0,88
+150°C to +175°C	0,63	0,54
+175°C to +200°C	0,43	0,29

Bundy tube - double wall brazed steel tube 3 m straight (10 ft)

O/D mm	6	8	10	12
Pressure (bar)* at +20°C	300	250	195	160
Length				
3 m straight	BU 6306003	BU 6308003	BU 6210003	BU 6212003

*Maximum working pressure for straight length, non-pulsating pressures, when used with compression tube fittings shown in this catalogue.



Tubing and hoses

Ø 4 to 28 mm O/D

Ø 1/8" to 1 1/8" O/D



Nylon tubing

Colour	O/D Length	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Natural	50'	PA0051050C	PA0053050C	PA0054050C	PA0055050C	PA0056050C	PA0057050C	PA0058050	PA0059050
	250'	PA0051250	PA0053250	PA0054250	PA0055250	PA0056250	PA0057250	-	-
	500'	-	-	-	-	PA0056500	PA0057500	-	-
	2000'	-	PA0053B00D	PA0054B00D	-	-	-	-	-
Blue	50'	PA0551050C	PA0553050C	PA0554050C	PA0555050C	PA0556050C	PA0557050C	-	-
Red	50'	-	PA0153050C	PA0154050C	PA0155050C	PA0156050C	PA0157050C	-	-
Black	50'	PA0751050C	PA0753050C	PA0754050C	PA0755050C	PA0756050C	PA0757050C	-	-
Green	50'	PA0251050C	PA0253050C	PA0254050C	PA0255050C	PA0256050C	PA0257050C	-	-
Yellow	50'	PA0351050C	PA0353050C	PA0354050C	PA0355050C	PA0356050C	PA0357050C	-	-
Brown	50'	-	PA0453050C	PA0454050C	PA0455050C	PA0456050C	PA0457050C	-	-

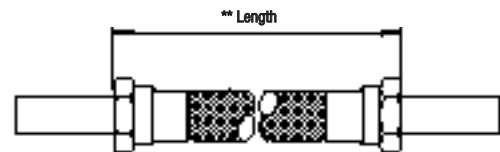
Maximum working pressures

O/D	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Max. pressure (bar)* at -40°C to +20°C	28,0	21,8	20,0	19,3	18,2	14,5	13,2	10,8
Min. bend radius	0,75"	1,50"	1,75"	2,00"	2,50"	3,00"	4,00"	6,00"

*Multiply by factor in table alongside for use at higher temperatures. Maximum continuous working temperature 80°C.

Pressure/temperature conversion factors

Working Temperature	Factor
+30°C	0,83
+40°C	0,72
+50°C	0,64
+60°C	0,57
+80°C	0,47



**State length of hose required if ordering non-standard lengths.

Metal braided rubber hose - inch



O/D mm	3/16"	1/4"	5/16"	3/8"	1/2"
Pressure (bar)*	69	69	69	69	47
Length					
To order 6 min.	41 0633 00 000	41 0634 00 000	41 0635 00 000	41 0636 00 000	41 0638 00 000
10	41 0633 00 100	41 0634 00 100	41 0635 00 100	41 0636 00 100	41 0638 00 100
12	41 0633 00 120	41 0634 00 120	41 0635 00 120	41 0636 00 120	41 0638 00 120
14	41 0633 00 140	41 0634 00 140	41 0635 00 140	41 0636 00 140	41 0638 00 140
16	41 0633 00 160	41 0634 00 160	41 0635 00 160	41 0636 00 160	41 0638 00 160
18	41 0633 00 180	41 0634 00 180	41 0635 00 180	41 0636 00 180	41 0638 00 180
20	41 0633 00 200	41 0634 00 200	41 0635 00 200	41 0636 00 200	41 0638 00 200
24	41 0633 00 240	41 0634 00 240	41 0635 00 240	41 0636 00 240	41 0638 00 240
30	41 0633 00 300	41 0634 00 300	41 0635 00 300	41 0636 00 300	41 0638 00 300
36	41 0633 00 360	41 0634 00 360	41 0635 00 360	41 0636 00 360	41 0638 00 360

*State length of hose required if ordering non-standard lengths. Minimum length 6".

When installing a flexible hose the following simple rules should be noted.

1. Flexible hose is weakened when installed in a twisted position.

2. Ample bend radius should be allowed to avoid collapsing the hose.

3. When hose is installed in a flexing application remember that metal end fittings are not part of the flexible portion.

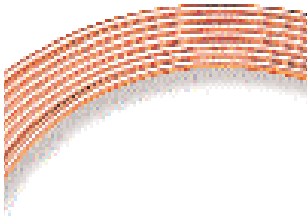
4. Use elbows or adaptors to eliminate excess hose bends.

Fittings

Tubing and hoses

Ø 4 to 28 mm O/D

Ø 1/8" to 1 1/8" O/D



Copper tubing to BS 2871 Standard duty: annealed

O/D-I/D mm	1/8	5/32	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1 1/8	
Pressure (bar)*	0,069	0,100	0,131	0,178	0,240	0,303	0,404	0,529	0,622	0,747	0,99	
Length	Type	205	156	126	120	94	77	60	68	57	44	
33 ft. coil	Annealed	CS6051033	CS 6052033	CS 6053033	CS 6054033	CS 6055033	CS 6056033					
10 ft. straight	Annealed							CS 6057010	CS 6058010	CS 6059010	CS 6060010	CS 6062010

O/D-I/D mm	1/8	5/32	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1 1/8	
Pressure (bar)*	0,069	0,100	0,131	0,178	0,240	0,303	0,404	0,529	0,622	0,747	0,997	
Length	Type	313	238	192	184	143	117	117	92	103	87	67
10 ft. straight	Half hard	CS7051010	CS 7052010	CS7053010	CS7054010	CS7055010	CS7056010	CS7057010	CS7058010	CS7059010	CS7060010	CS7062010

O/D-I/D mm	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	
Pressure (bar)*	0,115	0,154	0,216	0,279	0,372	0,497	0,590	0,747	
Length	Type	126	120	94	77	60	68	111	
10 ft. straight	Heavy duty	CH6053010	CH 6054010	CH6055010	CH 6056010	CH 6057010	CH 6058010	CH 6059010	CH 6060010

*Recommended safe working pressure at -200°C to +50°C. For higher temperatures, multiply by factor in table below.

Working Temperature	Factor	Half Hard Copper
+50°C to +100°C	0,97	0,95
+100°C to +150°C	0,82	0,88
+150°C to +175°C	0,63	0,54
+175°C to +200°C	0,43	0,29



Bundy tube - double wall brazed steel tube 3 m straight (10 ft)

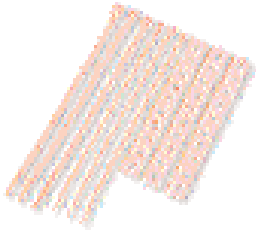
O/D mm	5/32	3/16	1/4	3/8	1/2
Pressure (bar)* at +20°C	380	340	300	195	160
Length					
10 ft. straight	BU6352010	BU 6353010	BU 6354010	BU 6356010	BU 6357010

*Maximum working pressure for straight length, non-pulsating pressures, when used with compression tube fittings shown in this catalogue.

Tubing accessories

For nylon, polyurethane, copper and steel tube

Nylon tube ties



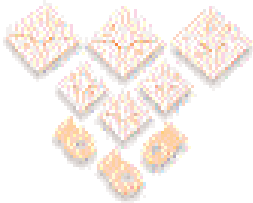
Type	Maximum bundle Ø mm	
Releasable	50	34 0380 11
	81	34 0380 12
Lockable	35	34 0380 01
	50	34 0380 02
	75	34 0380 03



Tubing channels

O/D Tube	No. of channels
10	100HA0500
10	100HA0600
10	100HA0800
6	100H61200

Nylon tube ties



Type	
Mounting cradle	34 0380 21
Confined space	34 0380 22
For releasable ties	34 0380 23
For lockable ties	34 0380 24
Cable tie mounting plate for up to 3 bundles	34 0380 25

Tubing ties

Operating temperature:
-50°C to +85°C

Minimum tensile strength:
13,61 kg - locking type
27,21 kg - releasable type



Tubing clips - single sided

mm & inch O/D tubes Type	No. of tubes	4	5 & 3/16	6 & 1/4	8 & 5/16	10 & 3/8	12 & 1/2	16 & 5/8	3/4	22	28
Single sided	1	34 0218 02	34 0218 03	34 0218 04	34 0218 05	34 0218 06	34 0218 07	34 0215 08	34 0215 09	36 0001 10	34 0215 11
	2	34 0219 02	34 0219 03	34 0219 04	34 0219 05	34 0219 06					
	3	34 0220 02	34 0220 03	34 0220 04	34 0220 05	34 0220 06					
Double sided	2							34 0216 08	34 0216 09		34 0216 11

Self-tapping screw, 48003424, is available for clips on tubes up to and including 12 mm O/D. For larger sizes use a 6 mm bolt.

Tube cutter



Type	
Cutter	M/3314
Replacement blade	39 0120 10*
Replacement blade	39 0120 61**

*Pack of 10

** 1-off

For use on nylon and polyurethane tubing 4 to 16 mm and 1/8" to 1/2" O/D tube.



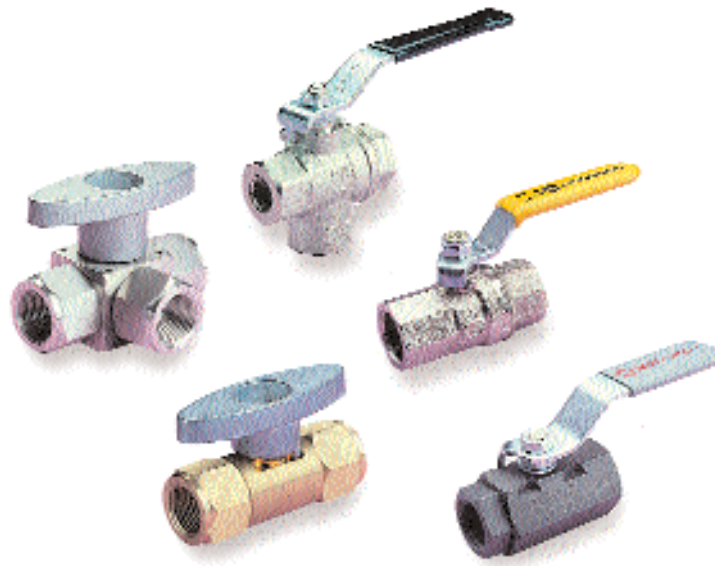
Weldtube stripper

Type	
Stripper	39004100
Spare blades (pack of 2)	39004160

Ball valves

60, 61, 62 and NVC Series Brass

1/8" to 4" BSP



Precision engineered shut-off valves.

Minimum resistance to fluid flow.

Positive quick open/shut action.

Flow in either direction (except exhaust type).

Technical data

Medium:

Compressed air, inert gases, water, oils and many hydrocarbon derivatives depending upon valve seat material

Operating pressure:

Refer to tables

Ambient temperature:

Refer to tables opposite

Materials

60 Series:

Nickel plated brass to UNI-5705-65, chromium plated brass, zinc plated steel, PTFE seats and nitrile or Viton rubber seals

61 Series:

Stainless steel body, stem, ball nut and handle PTFE seats

62 Series:

Steel body, carbon steel stem, carbon steel ball PTFE seats, Viton seals, zinc plated nuts and handle

NVC***2H:

Brass bodies, PTFE seats and seal zinc die cast heads

NVC***2F:

Carbon steel body, phosphate finish, zinc die cast handle, PTFE seats and seal

NVC***2B:

Stainless steel (316) body, zinc die cast handle, PTFE seats and seal

Alternative models

Different handle variations

Alternative seat and seal material

Distribution manifolds

Consult our Technical Service for details

Port sizes

G1/8, G1/4, G3/8, G1/2, G3/4, G1, G1¼, G1½, G2, G2½, G3, G4

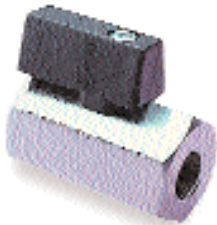
Rc1/4, Rc3/8, Rc1/2, Rc3/4, Rc1, Rc1¼

60 Series ball valves

Brass

1/8" to 4" BSP

Mini Reduced bore



Female	Maximum pressure (bar)	
G1/8	10	601112118
G1/4	10	601112128
G3/8	10	601112138
G1/2	10	601112148

PTFE seats, nitrile seals
Operating temperature: -10°C to +90°C

Exhausting Full bore



Female	Maximum pressure (bar)	
G1/4	64	602113128EX
G3/8	64	602113138EX
G1/2	50	602113148EX
G3/4	50	602113168EX
G1	50	602113188EX
G1 1/4	40	6021131A8EX

PTFE seats and seals
Operating temperature: -20°C to +100°C

*For 'Tee' handled version change 4th digit to 2 ie. 602213128EX for a 1/4" full bore tee handled ball valve.

Female/ Male	Maximum pressure (bar)	
G1/8	10	601112218
G1/4	10	601112228
G3/8	10	601112238
G1/2	10	601112248

PTFE seats, nitrile seals
Operating temperature: -10°C to +90°C

Three way Full bore



Female	Maximum pressure (bar)	
G1/4	25	602114428
G3/8	25	602114438
G1/2	25	602114448
G3/4	16	602114468

PTFE seats, Viton seals
Operating temperature: -15°C to +150°C

*Test specification differs from standard. Please consult our Technical Service for further details

Standard Full bore



Female	Maximum pressure (bar)	
G1/4	45	602112128
G3/8	40	602112138
G1/2	35	602112148
G3/4	30	602112168
G1	25	602112188
G1 1/4	20	6021121A8
G1 1/2	20	6021121B8
G2	16	6021121C8
G3	10	6021121E8

PTFE seats, Viton seals
Operating temperature: -20°C to +150°C

*For 'Tee' handled version change 4th digit to 2 ie. 602212128 for a 1/4" full bore tee handled ball valve. Only up to 1" available with tee handle.

Lockable exhausting Full bore



Female	Maximum pressure (bar)	
1/4	13,6 bar	601812128
3/8	13,6 bar	601812138
1/2	13,6 bar	601812148
3/4	13,6 bar	601812168
1	13,6 bar	601812188

*Test specification differs from standard. Please consult our Technical Service for further details.

Note: lever lockable only in closed position. Standard handle accepts Ø 7 mm shackle.

Female/ Male	Maximum pressure (bar)	
G1/4	45	602112228
G3/8	40	602112238
G1/2	35	602112248
G3/4	30	602112268
G1	25	602112288
G1 1/4	20	6021122A8

PTFE seats, Viton seals
Operating temperature: -20°C to +150°C

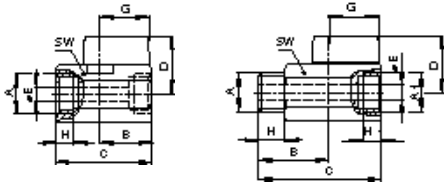
Fittings

60 Series ball valves

Brass

1/8" to 4" BSP

Mini
Reduced bore

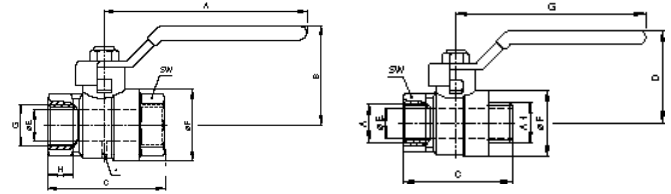


Female/female

Female/female	A	B	C	D	ØE	G	H	SW
601112118	G1/8	20	37	22	5,5	19	9	19
601112128	G1/4	20	37	22	5,5	19	9	19
601112138	G3/8	21	41	24	8,0	19	9	21
601112148	G1/2	25	48	30	10,0	22		25

Male/female	A	B	C	D	E	G	H	H1	SW
601112218	G1/8	20	37	22	5,5	19	9	9	19
601112228	G1/4	20	37	22	5,5	19	9	9	19
601112238	G3/8	21	41	24	8,0	19	9	9	21
601112248	G1/2	25	48	30	10,0	22	11	11	25

Standard
Full bore

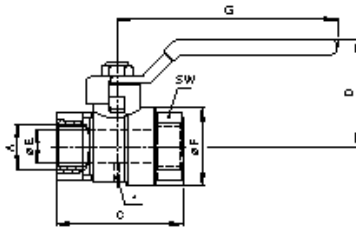


Female

Female	A	C	D	ØE	ØF	G	H	SW
602112128	G1/4	48	36	8	23	85	12	18
602112138	G3/8	49	36	10	24	85	12	21
602112148	G1/2	60	40	15	30	85	15	25
602112168	G3/4	69	47	20	38	105	16,3	31
602112188	G1	83	51	25	46	105	19,1	38
6021121A8	G1¼	96	63	32	58	130	21,4	47
6021121B8	G1½	106	69	40	70	130	22	54
6021121C8	G2	129	83	50	86	165	25,7	66
6021121D8	G2½	159	99	65	111	248	30,2	85
6021121E8	G3	182	110	80	135	248	33,3	100
6021121F8	G4	219	129	100	167	248	39,3	125

Female/male	A	C	D	ØE	ØF	G	SW
602112228	G1/4	50	36	8	23	85	18
602112238	G3/8	54	36	10	24	85	21
602112248	G1/2	65	40	15	30	85	25
602112268	G3/4	75	47	20	38	105	31
602112288	G1	86	51	25	46	105	38
6021122A8	G1¼	99	63	32	58	130	47

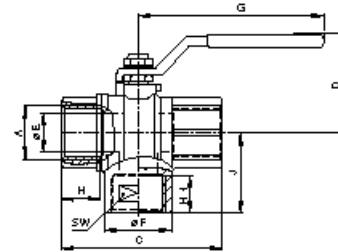
Exhausting
Full bore



*Exhaust

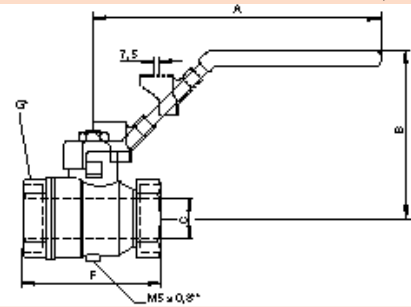
	A	C	D	ØE	ØF	G	SW
602113128EX	G1/4	52	61	8	29	100	22
602113138EX	G3/8	54	61	10	29	100	22
602113148EX	G1/2	69	64	15	36	100	27
602113168EX	G3/4	77	76	20	45	120	33
602113188EX	G1	89	80	25	54	120	40
6021131A8EX	G1¼	103	98	32	65	150	50

Three way
Full bore



	A	C	D	ØE	ØF	G	H	H1	J	SW
602114428	G1/4	52	42	10	22	98	11,5	11,5	26,0	22
602114438	G3/8	52	42	10	22	98	12,5	11,5	26,0	22
602114448	G1/2	64	45	15	27	98	16,5	15	33,5	27
602114468	G3/4	74	57	20	32	118	17,5	16	39,5	32
6021144A8	G1¼	100	66	32	50	118			54,5	50

Lockable exhausting
Full bore



*G (across flats)

** exhaust port

	A	B	C	F	G (a/f)	
1/4	601812128	93	45	8	44	20
3/8	601812138	93	45	9	44	20
1/2	601812148	93	50	14	58	24
3/4	601812168	114	57	19	64	30
1	601812188	114	61	24	81	40

61 Series ball valves

Stainless steel

1/4" ... 1" BSPP

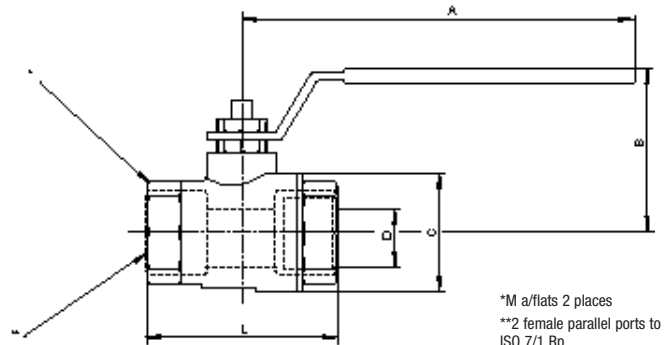
Stainless steel ball valves



Female BSPP	Maximum pressure (bar)	
1/4	100	615112128
3/8	100	615112138
1/2	100	615112148
3/4	64	615112168
1	64	615112188

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

*To order 'Tee' handled version change 4th character to 2



*M a/flats 2 places
**2 female parallel ports to ISO 7/1 Rp

	A	B	C	D (t.bore)	L	M (a/f)
1/4	100	45	29	8	50	21
3/8	100	45	29	10	50	21
1/2	110	53,5	34	15	60	26
3/4	140	64	42,5	20	70	32
1	140	68	50,5	25	85	40

62 Series ball valves

Carbon steel

1/4" ... 1" BSPP

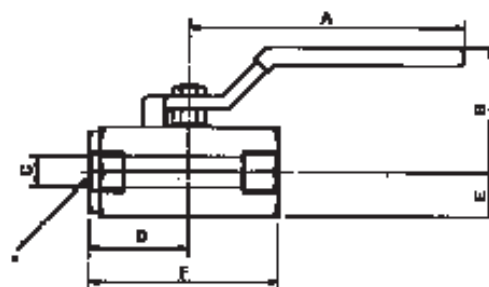
Lever handle - 625112*



Female BSPP	Maximum pressure (bar)	
1/4	140	625112128
3/8	140	625112138
1/2	140	625112148
3/4	140	625112168
1	140	625112188

Operating temperature: -30°C to +220°C

*To order 'Tee' handled version change 4th character to 2

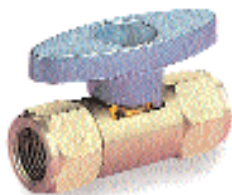


*2 female parallel ports to ISO228/1

	A	B	C (t.bore)	D	L	M (a/f)
1/4	96	41	10	25	13	50
3/8	96	41	10	25	13	50
1/2	96	43	13	32	16	63
3/4	129	52	17	37	20	75
1	129	58	22	44	25	88

Traditional 3-piece ball valves

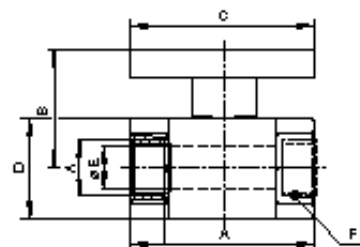
1/4" to 1" BSP



Standard

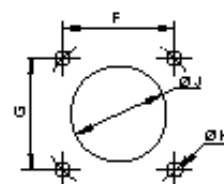
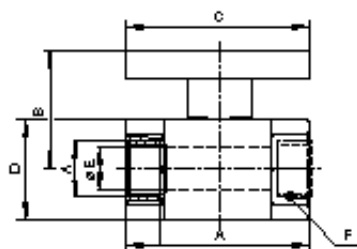
	Brass	Model Carbon Steel	Stainless Steel
1/4	NVC4PC2H	NVC4PC2F	NVC4PC2B
3/8	NVC6PC2H	NVC6PC2F	NVC6PC2B
1/2	NVC8PC2H	NVC8PC2F	NVC8PC2B
3/4	NVC12PC2H	NVC12PC2F	NVC12PC2B
1	NVC16PC2H	NVC16PC2F	—
	Max. pressure 27 bar Max. temp. +230°C	Max. pressure 64 bar Max. temp. +230°C	Max. pressure 64 bar Max. temp. +230°C

	A	B	C	D	E Through bore
1/4	61	39	75	25	10
3/8	74	39	75	25	10
1/2	78	39	75	28	10
3/4	85	42	75	32	13
1	109	48	100	41	19



Panel mounting

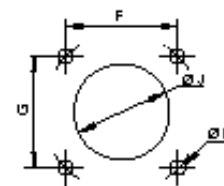
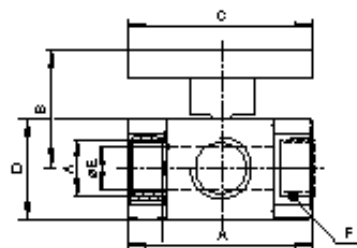
	Brass	Model Carbon Steel	Stainless Steel
1/4	NVC4PC2H/P	NVC4PC2F/P	NVC4PC2B/P
3/8	NVC6PC2H/P	NVC6PC2F/P	NVC6PC2B/P
1/2	NVC8PC2H/P	NVC8PC2F/P	NVC8PC2B/P
	Max. pressure 27 bar Max. temp. +230°C	Max. pressure 64 bar Max. temp. +230°C	Max. pressure 64 bar Max. temp. +230°C



3 way panel mounted diverter

	Brass	Model Carbon Steel	Stainless Steel
1/4	NVC4PC2H/PL	NVC4PC2F/PL	NVC4PC2B/PL
3/8	NVC6PC2H/PL	NVC6PC2F/PL	NVC6PC2B/PL
1/2	NVC8PC2H/PL	NVC8PC2F/PL	NVC8PC2B/PL
	Max. pressure 27 bar Max. temp. +230°C	Max. pressure 64 bar Max. temp. +230°C	Max. pressure 64 bar Max. temp. +230°C

	A	B	C	D	E Through bore	F	G	H	J
1/4	61	48	75	25	10	27	24	5	27
3/8	74	48	75	25	10	27	24	5	27
1/2	78	48	75	28	10	27	24	5	27





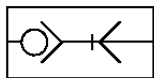
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Single shut off quick release couplings

232 Series



Small diameter coupling
 Single handed operation
 Good flow rates, low pressure drop

Technical data

Operating pressure:

0 to 35 bar

Ambient temperature:

-20°C to +100°C

Air flow:

(6 bar inlet pressure)

$C_v = 0,253$

Compatibility

Rectus 20, Legris 20, Festo 20,
 Bosch size 1, Walther 06-003

Materials

Coupler back, body & sleeve:

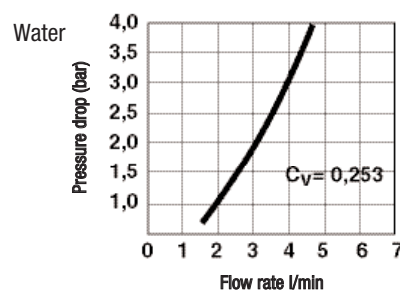
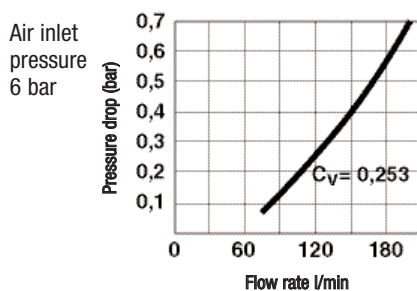
nickel plated brass

Valve: brass

Spring & balls: stainless steel

Seals: Buna N

Plug: nickel plated brass



Socket - male thread

BSPP	
1/8	232210018
M5	2322A005



Plug - male thread

BSPP	
1/8	232110018
M5	2321A0005



Socket - female thread

BSPP	
1/8	232220018
M5	2322D0005



Plug - female thread

BSPP	
1/8	232120018
M5	2321D0005



Socket - hose barb

ID Hose	
3	232230300
4	232230400

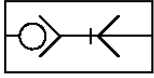


Plug - hose barb

ID Hose	
3	232130300
4	232130400

Single shut off quick release couplings

233 Series



Wide range of connections
Compact robust construction
High flow, low pressure drop

Technical data

Operating pressure:
0 to 35 bar

Ambient temperature:
-20°C to +100°C

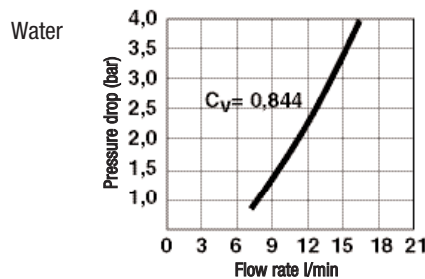
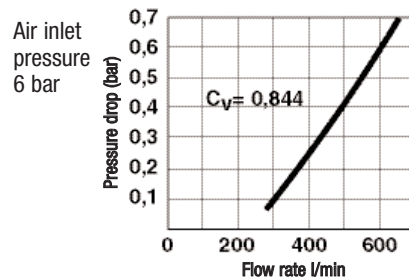
Air flow:
(6 bar inlet pressure) $C_v=0,844$

Compatibility

Rectus 21, Rectus 90,
Legris 21, Camozzi,
Schrader mini
Bosch size 2

Materials

Coupler back, body & sleeve:
nickel plated brass
Valve: brass
Spring & balls: stainless steel
Seals: Buna N
Plug: nickel plated brass



Socket - spring guard

O/D I/D tube	
6/4	233290400
8/6	233290600

Socket - push on panel mounted

O/D I/D tube	
6/4	233280400
8/6	233280600

Plug - male thread

BSPP	
G1/8	233110018
G1/4	233110028

Plug - female thread

BSPP	
G1/8	233120018
G1/4	233120028

Plug - hose barb

ID Hose	
4	233130400
6	233130600
9	233130900

Plug - push on fitting

O/D I/D tube	
6/4	233160400
8/6	233160600

Plug - spring guard

O/D I/D tube	
6/4	233190400
8/6	233190600

Socket - male thread

BSPP	
G1/8	233210018
G1/4	233210028

Socket - female thread

BSPP	
G1/8	233220018
G1/4	233220028

Socket - hose barb

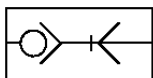
ID Hose	
4	233230400
6	233230600
9	233230900

Socket - push on fitting

O/D I/D tube	
6/4	233260400
8/6	233260600

Single shut off quick release couplings

238 Series



Durable construction

High flow rates, low pressure drop

Can be used with steel plugs fitted to air tools

Technical data

Operating pressure:
0 to 35 bar

Ambient temperature:
-20°C to +100°C

Air flow:
(6 bar inlet pressure)
 $C_v = 1,476$

Compatibility

Rectus 25/26, Legris 25/26

Bosch size 3

Parker PE/PEF52

Cejn 320

PCL AC71

Materials

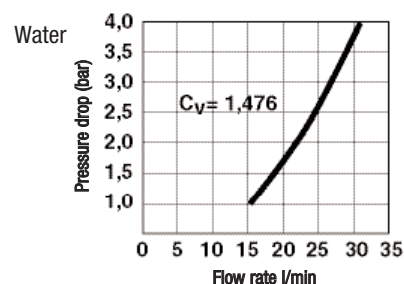
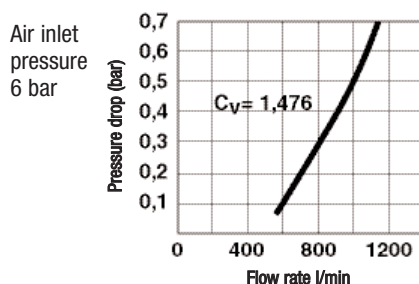
Coupler back, body & sleeve:
nickel plated brass

Valve: brass

Spring & balls: stainless steel

Seals: Buna N

Plug: nickel plated brass



Socket - male thread

BSPP	
1/4	238210028
3/8	238210038
1/2	238210048



Plug - male thread

BSPP	
1/8	238110018
1/4	238110028
3/8	238110038
1/2	238110048



Socket - female thread

BSPP	
1/4	238220028
3/8	238220038
1/2	238220048



Plug - female thread

BSPP	
1/4	238120028
3/8	238120038
1/2	238120048



Socket - hose barb

ID Hose	
6	238230600
9	238230900
13	238231300

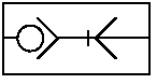


Plug - hose barb

ID Hose	
6	238130600
9	238130900
13	238131300

Single shut off quick release couplings

234 Series



Low pressure drop
High flow rate
Compact & robust
Wide range of connections

Technical data

Operating pressure:
0 to 35 bar

Ambient temperature:
-20°C to +100°C

Air flow:
(6 bar inlet pressure)
 $C_v = 2,764$

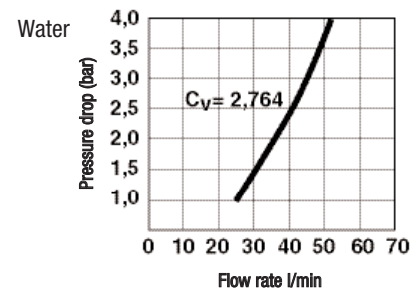
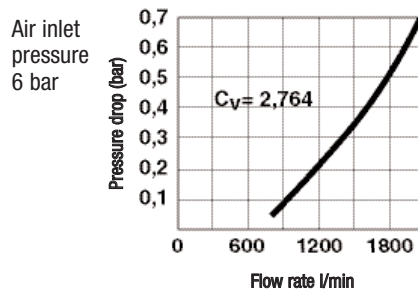


Compatibility

Rectus 25/26, Legris 25/26,
Parker PEF/PF52, PCL AC71
Bosch size 3, Cejn 320,

Materials

Coupler back & body: nickel plated brass
Valve: zinc die-casting nickel plated
Spring & balls: stainless steel
Seals: Buna N
Sleeve & plug: hardened nickel plated steel



Socket - male thread

BSPP	
R1/4	234210028
R3/8	234210038
R1/2	234210048



Plug - male thread

BSPP	
R1/8	234110018
R1/4	234110028
R3/8	234110038
R1/2	234110048



Socket - female thread

BSPP	
G1/4	234220028
G3/8	234220038
G1/2	234220048



Plug - female thread

BSPP	
G1/4	234120028
G3/8	234120038
G1/2	234120048



Socket - hose barb

ID Hose	
6	234230600
9	234230900
13	234231300

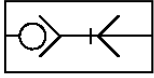


Plug - hose barb

ID Hose	
6	234130600
9	234130900
13	234131300

Single shut off quick release couplings

235 Series



Very high flow
Low pressure drop
Compact & robust

Technical data

Operating pressure:
0 to 35 bar

Ambient temperature:
-20°C to +100°C

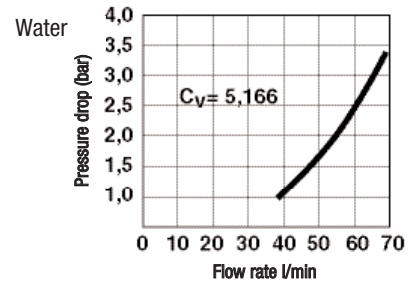
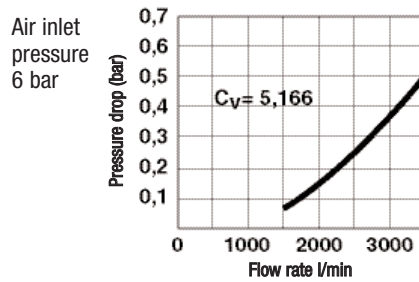
Air flow:
(6 bar inlet pressure)
 $C_v = 5,166$

Compatibility

Rectus 27
Legris 27
Parker PEF 53
Cejn 410

Materials

Coupler back & body: nickel plated brass
Valve: brass
Spring & balls: stainless steel
Seals: Buna N
Sleeve & plug: hardened nickel plated steel



Socket - male thread

BSPP	
1/4	235210028
3/8	235210038
1/2	235210048



Plug - male thread

BSPP	
1/4	235110028
3/8	235110038
1/2	235110048



Socket - female thread

BSPP	
1/4	235220028
3/8	235220038
1/2	235220048



Plug - female thread

BSPP	
1/4	235120028
3/8	235120038
1/2	235120048



Socket - hose barb

ID Hose	
9	235230900
13	235231300

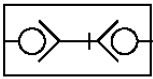


Plug - hose barb

ID Hose	
9	235130900
13	235131300

Double shut-off quick release couplings

233 Series



Double valve allows full flow but prevents leak on disconnection
 Compact dimensions
 Single hand operation

Technical data

Operating pressure:

0 to 35 bar

Ambient temperature:

-20°C to +100°C

Air flow:

(6 bar inlet pressure)

$C_v = 0,475$



Compatibility

233 Double shut off are not compatible with 233 single shut off due to valve connection method

Materials

Coupler back, body & sleeve:

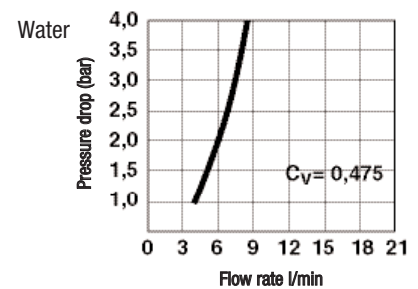
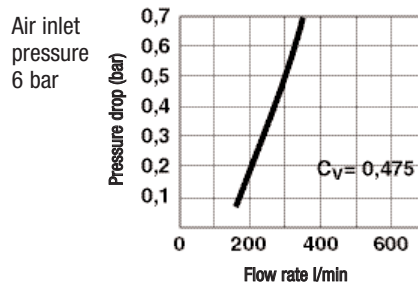
nickel plated brass

Valve: brass

Spring & balls: stainless steel

Seals: Buna N

Plug: nickel plated brass



Socket - male thread

BSPP
1/4 233410028



Plug - male thread

BSPP
1/4 233310028



Socket - female thread

BSPP
1/4 233420028



Plug - female thread

BSPP
1/4 233320028



Socket - hose barb

ID Hose
6 233430600



Plug - hose barb

ID Hose
6 233330600



Socket - hose barb panel mount

ID Hose
6 233470600



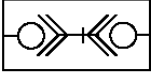
Plug - push on fitting

ID Hose
6 233360600

Double shut-off quick release couplings

DH Series

US Mil C4109 1/4" to 3/4"



Technical data

Operating pressure:

Brass

1/8": 250 bar

1/4", 3/8": 200 bar

1/2": 150 bar

3/4" and 1": 100 bar

Stainless steel

1/8", 1/4", 3/8", 1.2": 250 bar

3/4": 160 bar

1": 100 bar

Ambient temperature:

-20°C to +100°C for Buna N seals

-15°C to +200°C for Viton seals

Air flow:

Please refer to graphs

Compatibility

The plug profile is manufactured in accordance with ISO - 7241-1 series B

Materials

Brass with Buna N seals

Back body, sleeve and valve: brass

Spring and locking ring: stainless steel

Locking balls: stainless steel

Seals: Buna N

Plug: brass

Stainless steel with Viton seals

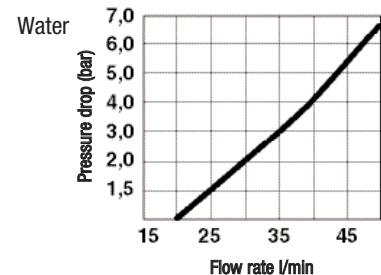
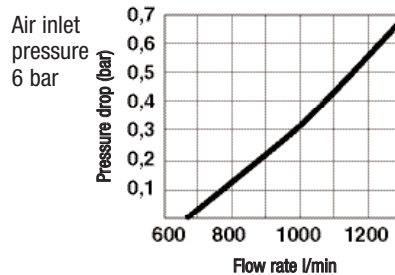
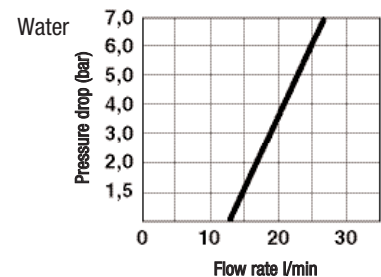
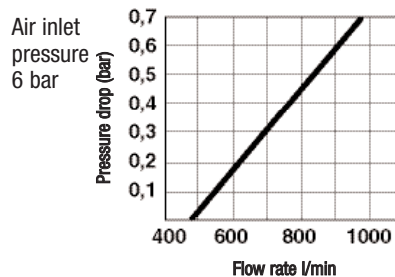
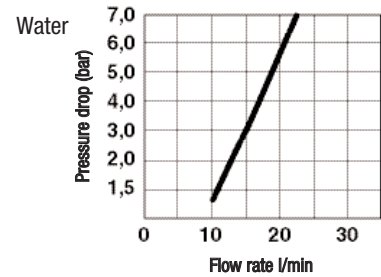
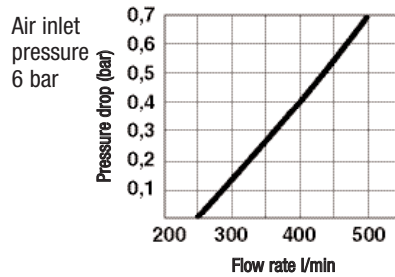
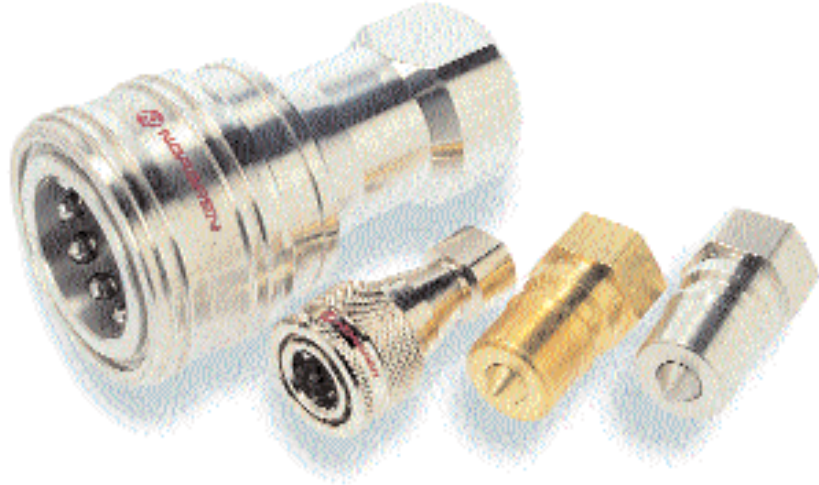
Back body, sleeve and valve: stainless steel

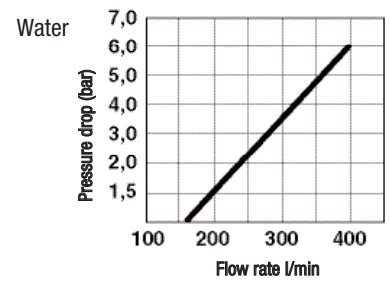
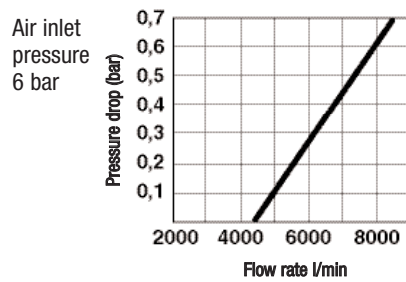
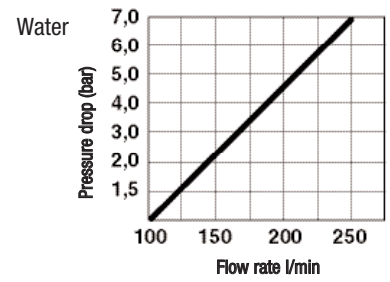
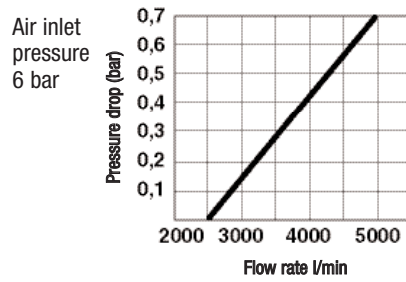
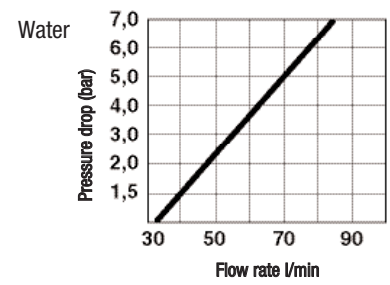
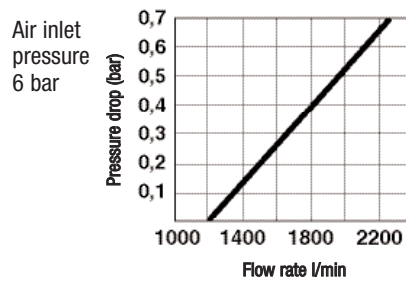
Spring and locking ring: stainless steel

Locking balls: stainless steel

Seals: Viton

Plug: stainless steel





Brass double shut off socket (Buna N seal) - female threads

Brass double shut off plug (Buna N seal) - female threads

Profile	BSP parallel	Material	Max working pressure	
1/8	1/8	Brass	250	DHS-220BP
1/4	1/4	Brass	250	DHS-440BP
3/8	3/8	Brass	200	DHS-660BP
1/2	1/2	Brass	150	DHS-880BP
3/4	3/4	Brass	100	DHS-12120BP
1	1	Brass	100	DHS-16160BP

Profile	BSP parallel	Material	Max working pressure	
1/8	1/8	Brass	250	DHP-220BP
1/4	1/4	Brass	250	DHP-440BP
3/8	3/8	Brass	200	DHP-660BP
1/2	1/2	Brass	150	DHP-880BP
3/4	3/4	Brass	100	DHP-12120BP
1	1	Brass	100	DHP-16160BP



Stainless steel double shut off socket (Viton seals) - female threads

Stainless steel double shut off plug (Viton seals) - female threads

Profile	BSP parallel	Material	Max working pressure	
1/8	1/8	Stainless steel	250	DHS-220SVP
1/4	1/4	Stainless steel	250	DHS-440SVP
3/8	3/8	Stainless steel	250	DHS-660SVP
1/2	1/2	Stainless steel	250	DHS-880SVP
3/4	3/4	Stainless steel	160	DHS-12120SVP
1	1	Stainless steel	100	DHS-16160SVP

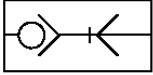
Profile	BSP parallel	Material	Max working pressure	
1/8	1/8	Stainless steel	250	DHP-220SVP
1/4	1/4	Stainless steel	250	DHP-440SVP
3/8	3/8	Stainless steel	250	DHP-660SVP
1/2	1/2	Stainless steel	250	DHP-880SVP
3/4	3/4	Stainless steel	160	DHP-12120SVP
1	1	Stainless steel	100	DHP-16160SVP

Quick release couplings

237 Series

US Mil C4109 1/4"

(Dynaquip D3 compatible)



High flow rate, low pressure drop
Industrial standard profile

Technical data

Operating pressure:
0 to 35 bar

Ambient temperature:
-20°C to +100°C

Air flow:
(6 bar inlet pressure)
 $C_v = 1,382$



Compatibility

DYNAQUIP D3

Rectus 23/24	Legris 23,
Parker 30 1/4,	Cejn 310,
Aignep 220	Hansen 3000

Materials

Coupler back & body: nickel plated brass

Valve: brass

Spring & balls: stainless steel

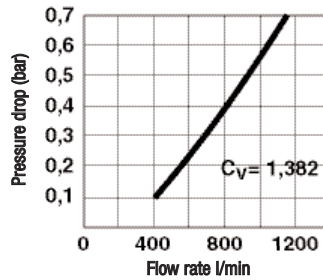
Seals: Buna N

Sleeve & plug: hardened nickel plated steel

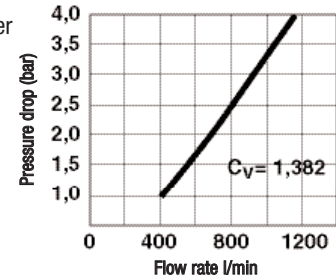
Also available

Series 23D, low flow version of this coupling

Air inlet pressure
6 bar



Water



Socket - male thread

BSPP	
1/4	237210028
3/8	237210038
1/2	237210048



Plug - male thread

BSPP	
1/4	237110028
3/8	237110038
1/2	237110048



Socket - female thread

BSPP	
1/4	237220028
3/8	237220038
1/2	237220048



Plug - female thread

BSPP	
1/4	237120028
3/8	237120038
1/2	237120048



Socket - hose barb

ID Hose	
6	237230600
9	237230900
13	237231300



Plug - hose barb

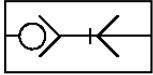
ID Hose	
6	237130600
9	237130900
13	237131300

Quick release couplings

231 Series

US Mil C4109 3/8"

(Dynaquip D4 compatible)



Heavy duty
Good flow rates
Industrial standard

Technical data

Operating pressure:
 0 to 15 bar

Ambient temperature:
 -20°C to +100°C

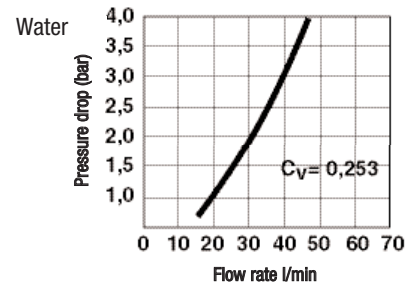
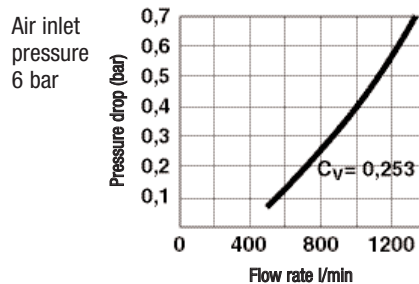
Air flow:
 (6 bar inlet pressure) $C_v = 1,689$

Compatibility

DYNAQUIP D4
 Rectus 30
 Parker 30 3/8
 Cejn 430
 Hansen 4000

Materials

Coupler back & sleeve: nickel plated brass
 Coupler body: nickel plated steel
 Valve: nickel plated steel
 Spring & pins: stainless steel
 Seals: Buna N
 Plug: hardened & nickel plated steel



Socket - male thread

BSPP	
3/8	231220038
1/2	231220048



Plug - male thread

BSPP	
3/8	231110038
1/2	231110048



Socket - female thread

BSPP	
3/8	231220038
1/2	231220048



Plug - female thread

BSPP	
3/8	231120038
1/2	231120048



Socket - hose barb

ID Hose	
9	231230900



Plug - hose barb

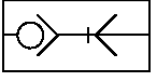
ID Hose	
9	231130900
13	231131300

Quick release couplings

239 Series

US Mil C4109 1/2"

(Dynaquip D5 compatible)



Heavy duty
High flow rates
Industrial standard

Technical data

Operating pressure:
 0 to 35 bar

Ambient temperature:
 -20°C to +100°C

Air flow:
 (6 bar inlet pressure)
 $C_v = 3,609$

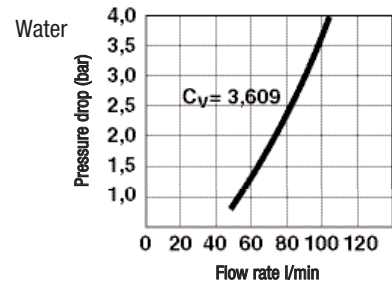
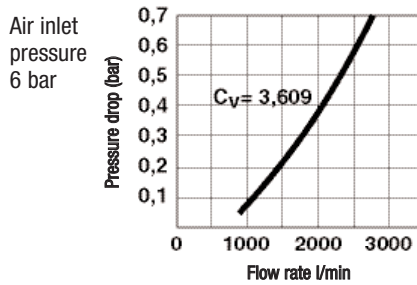


Compatibility

DYNAQUIP D5
 US Mil C4109,
 Rectus 37
 Parker PB54
 Cejn 550
 Hansen 5000

Materials

Coupler back, body & sleeve:
 nickel plated brass
 Valve: brass
 Spring & pins: stainless steel
 Seals: Buna N
 Plug: hardened & nickel plated
 steel



Socket - male thread

BSPP	
1/2	239210048
3/4	239210068



Plug - male thread

BSPP	
1/2	239110048
3/4	239110068



Socket - female thread

BSPP	
1/2	239220048
3/4	239220068



Plug - female thread

BSPP	
1/2	239120048
3/4	239120068



Socket - hose barb

ID Hose	
13	239231300
19	239231900



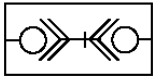
Plug - hose barb

ID Hose	
13	239131300
19	239131900

Self venting safety coupling

EN 983 Compliant quick release couplings

US Mil C4109 1/4"



This single shut off coupling has a two stage disconnection. The first stage closes the valve and allows the downstream pressure to vent whilst the coupling is still joined, avoiding whiplash.

Once the pressure is vented the second stage disconnection releases the plug from the socket.

This complies to the requirement of EN 983.

Technical data

Operating pressure:
0 to 15 bar

Ambient temperature:
-20°C to +100°C

Air flow:
(6 bar inlet pressure)
 $C_v = 1,920$

Compatibility

Norgren 237 Series

Materials

Coupler back & sleeve: nickel plated brass

Valve: brass

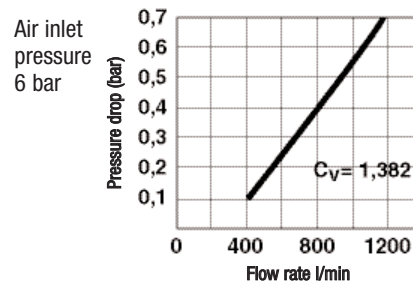
Spring, pins & balls: stainless steel

Seals: Buna N

Body & plug: hardened nickel plated steel

Alternative models

Self venting couplings are also available in coupling and plug serves as per our 238, 234, 237, 239 series.



Socket - male thread

BSPP	
1/4	237610028
3/8	237610038
1/2	237610048



Socket - female thread

BSPP	
1/4	237620028
3/8	237620038
1/2	237620048



Socket - hose barb

ID Hose	
6	237630600
9	237630900
13	237631300

Blow guns

BG Series

Rc1/4, G1/4

BG4000:

Bright chrome finish.

Cushioned corporate vinyl thumb grip.

Exhausts air when nozzle is blocked.

Complies with O.S.H.A.

BG5000:

One piece design in moulded high impact plastic.

Exhausts air when nozzle is blocked.

Complies with O.S.H.A.

Technical data

Medium:

Non-lubricated compressed air, filtered

Connection:

G1/4 (BG4000 and BG5000)

Operating pressure:

10 bar maximum line pressure

The USA O.S.H.A. recommendations state that nozzle pressures should not exceed 2 bar. This ensures that the blocked end condition pressure will not exceed the 0,4 bar that could penetrate human skin with possibly fatal consequences. Blow guns should always be supplied through a suitable pressure regulator to ensure safe operation

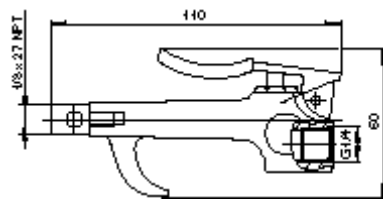
Mounting

Hand-held incorporating finger guard

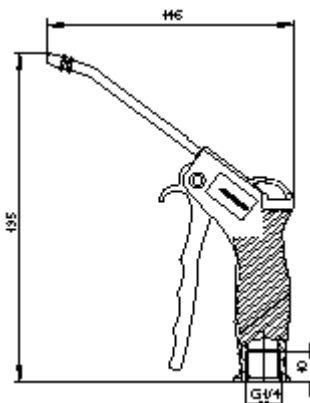


Size	
G1/4	BG4000
G1/4	BG5000

BG4000

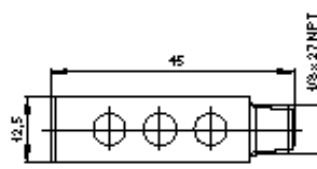


BG5000

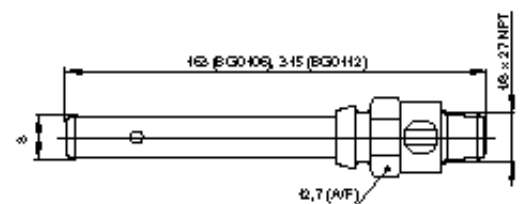


Accessories for BG4000

Safety booster BG0100



Extension tubes BG0106, BG0112



Quietaire heavy duty silencers

MA and MB Series

1/8" to 2" BSPT, BSPP or PTF



Reduce the noise levels of pneumatic equipment.

Prevent open line exhaust dangers.

Corrosion resistant.

High flow capacity with low back pressure.

Brass mesh screen and aluminium construction provide improved flow, longer life and cleanable element.

Prevent metal chips, abrasive grits, dust and other contaminants from entering open exhaust ports.

Technical data

Medium:

Compressed air, filtered, lubricated and non-lubricated, inert gases

Operating pressure:

-1 to 20 bar

Ambient temperature:

-20°C to + 80°C

Operation:

Exhaust silencer

Mounting:

Directly in the exhaust port

Materials

Aluminium body and shell, brass mesh element

Alternative models

M/S & C/S range of porous plastic silencers.

T40 series of Quietaire sintered bronze silencers

Male thread

Model	PTF	BSPT	Port size	Flow Factor Cv*/C**	kg
MB001A	MB001B		1/8"	1,3 / 5,3	0,03
MB002A	MB002B		1/4"	2,3 / 9,4	0,03
MBP03A	MBP03B		3/8"	2,9 / 11,8	0,03
MB003A	MB003B		3/8"	4,9 / 20,0	0,10
MB004A	MB004B		1/2"	6,8 / 27,7	0,09
MBP06A	MBP06B		3/4"	7,2 / 29,4	0,09
MB006A	MB006B		3/4"	14,8 / 60,4	0,45
MB008A	MB008B		1"	18,0 / 73,4	0,04
MBP10A	MBP10B		1 1/4"	23,6 / 96,3	0,04

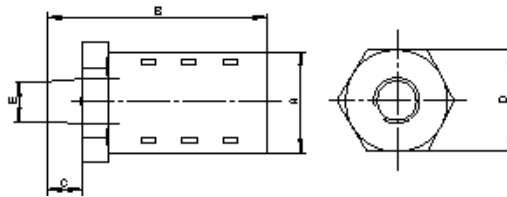
*Cv measured in US/gall/min **C measured in dm³/(s.bar)

Female thread

Model	PTF	BSPT	BSPP	Port size	Flow Factor Cv*/C**	kg
MA001	MA001B			1/8"	0,8 / 3,26	0,03
MA002	MA002B			1/4"	2,4 / 9,79	0,03
MA003	MA003B			3/8"	5,7 / 23,3	0,10
MA004	MA004B			1/2"	6,9 / 28,1	0,09
MA006	MA006B			3/4"	18,0 / 73,4	0,45
MA008	MA008B			1"	20 / 81,6	0,40
MA010			MA010C	1 1/4"	42 / 171,4	0,62
MA012			MA012C	1 1/2"	39 / 159,1	0,60
MA016A			MA016C	2"	59 / 241,0	0,76

*Cv measured in US/gall/min **C measured in dm³/(s.bar)

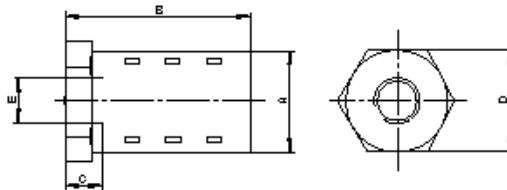
Male thread



A	B	C	D	E*	
21	51	9	20,6	1/8"	MB001
21	55	13	20,6	1/4"	MB002
21	55	13	20,6	3/8"	MBP03
32	88	13	31,7	3/8"	MB003
32	92	17	31,7	1/2"	MB004
32	92	17	31,7	3/4"	MBP06
51	134	20	50,8	3/4"	MB006
51	138	23	50,8	1"	MB008
51	140	26	50,8	1 1/4"	MBP10

* For MB***B Rc (BSPT) according to BS21 and ISO - 7/1
For MB***A PTF-SAE SHORT according to ANSI-B1.20.1x

Female thread



A	B	C	D	E*	
21	42	6	20,6	1/8"	MA001
21	45	9	20,6	1/4"	MA002
32	78	9	31,7	3/8"	MA003
32	83	12	31,7	1/2"	MA004
51	118	12	50,8	3/4"	MA006
51	118	15	50,8	1"	MA008
64	144	15	63,5	1 1/4"	MA010
64	144	15	63,5	1 1/2"	MA012
76	168	16	76,2	2"	MA016A

* For MA***B Rc (BSPT) according to BS21 and ISO - 7/1
For MA***A PTF-SAE SHORT according to ANSI-B1.20.1
For MA***C G (BSPP) according to BS2779 and ISO-228/x

Additional ranges

Plasfit push-in tube fittings

O/D Tube	Series
5 ... 12 mm	11
3/16 ... 1/2	13

For use in drinks dispense, food processing and general industrial compressed air applications.

Quick and simple assembly.

Tamper resistant with optional snap-on cover.

Suitable for rigid and flexible tubing.

SK and WRC approval.



82 Series fittings (Metric)

O/D Tube	Series
5 ... 28 mm	82

For use in areas of vibration

Pre-assembled units

No special assembly tools or heat required

Can be remade

Thinner tube can be used

Will cope with some tube misalignment



Cartridge push-in fittings (kits)

Allows compact product design

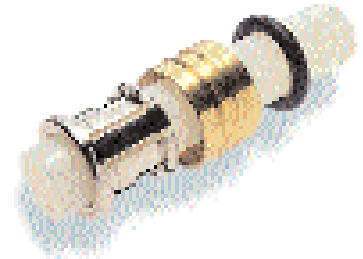
Fitting becomes integral part of component

Suitable for vacuum up to 98%

Ease of component assembly

Suitable for use with both plastic and metal components

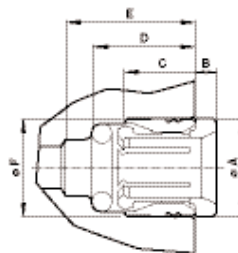
Silicone free O-rings gives positive seal



General dimensions

O/D Tube	A	B Length	C Depth	D Depth	E Depth	F	
4	7,5	2,0	6,0	8,6	12,0	8,1	100080400
5	10,0	2,2	6,8	9,6	12,8	9,1	100080500
6	11,0	2,2	7,3	10,1	13,2	10,1	100080600
8	13,0	2,2	7,3	10,1	14,2	12,1	100080800
10	14,5	2,2	9,6	14,6	18,7	16,1	100081000
12	18,0	2,2	12,3	17,2	22,2	18,3	100081200

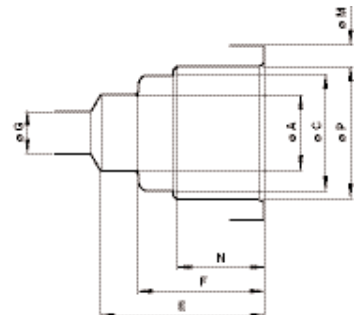
Inch version also available upon request.



Port form dimensions

O/D Tube	A	C	E	F	G	N	S	T	For plastic components		For metal components	
									M Rec min. wall thickness	P +0,10 -0	M Rec min. wall thickness	P +0,05 -0
4	4,08	6,95	12,10	8,70	2,80	6,00	0,7	0,30	1,5	8,20	1,5	8,30
5	5,08	8,15	12,90	9,70	3,40	6,80	0,7	0,50	1,5	9,20	1,5	9,30
6	6,08	9,20	13,30	10,20	4,40	7,30	0,7	0,50	1,5	10,20	1,5	10,30
8	8,10	11,30	14,30	10,30	6,00	7,30	0,7	0,50	1,5	12,10	1,5	12,30
10	10,10	13,95	18,80	14,70	7,60	9,60	0,7	0,50	2,0	16,05	2,0	16,30
12	12,20	17,02	22,30	17,30	9,65	12,30	0,7	0,50	2,0	18,20	2,0	18,50

Inch version also available upon request.



Additional ranges

Sintered bronze silencers, T40 series

BSPT		BSPP	
		M5	T40M0500
1/8	T40B1800	1/8	T40C1800
1/4	T40B2800	1/4	T40C2800
3/8	T40B3800	3/8	T40C3800
1/2	T40B4800	1/2	T40C4800
3/4	T40B6800	3/4	T40C6800
1	T40B8800	1	T40C8800

Reduce the noise levels of pneumatic equipment.
Compact and efficient.
 Screw directly into the exhaust port.
 Prevent the ingress of dirt.



Pressure indicators

Type		
10-32 UNF	Low pressure	5VS-100 Series
G1/8	High pressure	5VS-400 Series

Indicate the presence or absence of a pneumatic signal
Wide angle of visibility
 Contrasting colour combinations for positive identification



Pressure drop indicators

Type		
G1/8	In-line ports	18-833-001
	In-line ports	18-833-009
	Rear ports	18-833-017
	Rear ports, panel mounted	18-833-025

Give visual indication of level of pressure drop across units.
 Provide indication of condition of filter elements.
Domed lens gives wide angle of visibility.
 Enable pressure drop in various parts of the system to be monitored.



M/S & T45 Porous plastic silencers

	NPT Model	BSPP
M5		M/1545
1/8	C/S1	M/S1
1/4	C/S2	M/S2
3/8	C/S3	M/S3
1/2	C/S4	M/S4
3/4	C/S6	M/S6
1	C/S8	M/S8

Reduce the noise levels of pneumatic equipment.
Compact, efficient and lightweight.
 Screw directly into the exhaust port.
 Prevent the ingress of dirt.
 Low cost.

Threaded silencers



O/D Tube	
4	T45P0004
6	T45P0006
8	T45P0008
10	T45P0010
12	T45P0012
5/32	T45Y0002
1/4	T45Y0004
5/16	T45Y0005
3/8	T45Y0006

Reduce the noise levels of pneumatic equipment
Compact, efficient and lightweight
 Insert directly into Push-In Fitting exhaust port
 Prevent the ingress of dirt
 Low cost

Stem or PIF silencers



Exhaust filters

	BSPP
G1/8	M/1511
G1/4	M/1512
G1/2	M/1514
G3/4	M/1516
G1	M/1518

Prevent the ingress of dirt with minimal flow restriction.
Robust and compact.
 Screw directly into the exhaust port.



Additional ranges

Pressure indicators panel mounted

Size	
G1/4	V14B517A-Q2700

Can be mounted directly on the valve body.
Compact design

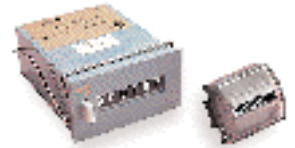


Pneumatic counters

	Recorded impulses	
M5	999999	M/616
	999999	M/617*

Compact design

*M/617 is magnetically actuated, ideal for recording magnetic cylinder cycles



Slow rotating joints

BSPT Taper	
1/8	04 0174 00
1/4	04 0175 00
3/8	04 0176 00

For use with a variety of fluids
7 bar maximum
50 r.p.m. maximum.



Fast rotating joints

	BSPT Taper	
Pressure	1/4	04 0161 00
Vacuum	1/4	04 0162 00

Pressure and vacuum models
For use with a variety of fluids
7 bar maximum
2000 r.p.m. maximum



Air reservoirs

Volume	
0,1 dm ³	M/1428
0,16 dm ³	M/1429
0,15 dm ³	M/163/15
0,50 dm ³	M/163/50
1,00 dm ³	M/163/100
2,00 dm ³	M/164/200

Robust construction



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