

Table of Contents

Series QR1 Pneumatic Fittings

Plastic Fittings, QR1 standard - inch.....	2
Plastic Fittings, QR1 mini - inch.....	26
Function Fittings, QR1 - inch.....	39
Plastic Tubing, inch , PUR (Polyurethane).....	52
Silencers, inch.....	52
Adapter Fittings Metric to inch/ Common Pipe Fittings.....	53

Note: "Pack quantity" listed is the package size, order quantities must be in package size multiples

Plastic fittings, series QR1-Inch Standard

Products

★ Technical Data

See page 5



▲ Accessories

▲ ★ Straight male, series QR1-RPN

See page 6



▲ ★ Straight female, series QR1-RAI

See page 6



▲ ★ Bulkhead gland, series QR1-RSI

See page 7



▲ ★ Male stand pipe, series QR1-RAS

See page 7



▲ ★ Male elbow, series QR1-RVT

See page 8



▲ ★ Male extended elbow, series QR1-RVL

See page 8



▲ ★ Female elbow, series QR1-RVI

See page 9



▲ ★ 45° elbow, series QR1-RAT

See page 9



▲ ★ Single banjo, Serie QR1-RW1

See page 10



▲ ★ Double banjo, series QR1-RWD

See page 11



▲ ★ Single banjo with internal thread, series QR1-RIW

See page 11



▲ ★ Double banjo with internal thread, series QR1-RID

See page 12



Plastic fittings, series QR1-Inch Standard

▲ Accessories

▲ ★ Reducing manifold, series QR1-RMG

See page 12



▲ ★ Male branch TEE, series QR1-RTT

See page 13



▲ ★ Male run TEE, series QR1-RLT

See page 14



▲ ★ Y-fitting, series QR1-RAY

See page 15



▲ ★ Straight union connector, series QR1-RSK

See page 16



▲ ★ Reducing union, series QR1-RSR

See page 16



▲ ● Bulkhead union, series QR1-RSM

See page 17



▲ ★ Elbow union, series QR1-RVK

See page 17



▲ ★ Triple reducing manifold, series QRT-RMT

See page 18



▲ ★ Tube to tube TEE, series QR1-RTK & RTR(reducing)

See page 18



▲ ★ Tube to tube Y, series QR1-RYK

See page 19



▲ ★ Reducing Y, series QR1-RYR

See page 20



▲ ★ Cross union, series QR1-RXS

See page 20



▲ ★ Straight push-in reducer, series QR1-RED

See page 21



▲ ★ Push-in elbow, series QR1-RVA

See page 21



▲ ★ Extended push-in elbow, series QR1-RLL

See page 22



▲ ★ Push-in 45° elbow, series QR1-RVW

See page 22



▲ ★ Triple push-in reducing manifold, series QR1-RMS

See page 23



Plastic fittings, series QR1-Inch Standard

▲ Accessories

▲ ★ Push-in Y, series QR1-RY2

See page 23



▲ ★ Push-in reducing Y, series QR1-R2R

See page 24



▲ ★ Blanking cap, series QR1-RCA

See page 24



▲ ★ Blanking plug, series QR1-RBS

See page 25



▲ ★ Male connector, series QR1-RDS

See page 25



▲ ★ Male connector, reducing, series QR1-RDR

See page 25



Plastic fittings, series QR1-Inch

Technical Data (standard and mini)

Technical Data

Working pressure Vacuum, -14 to 145 psi
 Temperature range 32 °F to +140 °F

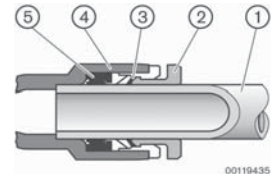


Application area

For compressed air and vacuum

Technical Information, Material

1. Compressed air hose - (PU, PA, PE) size based on the outside diameter
2. Release ring - POM
3. Tooth lock release - 301 stainless steel
4. Housing - Polybutylene terephthalate (PBT)
5. Form ring - Buna-N



Thread - NPT to ANSI B1. 20.1, Teflon coated, electroless nickel-plated brass

Assembly and disconnection (compressed air hoses)

Always cut the compressed air hose at right angles.
 The assembly and disassembly is carried out without any additional tools.
 Reliable connections due to defined center of pressure.
 Easy disassembly with oval release ring.

Dimension Ø	PU (Polyurethane)	PA (Polyamide)
1/8"	± 0.004"	± 0.003"
5/32"	± 0.004"	± 0.003"
1/4"	± 0.005"	± 0.004"
5/16"	± 0.006"	± 0.005"
3/8"	± 0.006"	± 0.005"
1/2"	± 0.006"	± 0.006"

For PE (Polyethylene), all sizes +/- 0.004"

Assembly and Disconnection (push-in fitting)

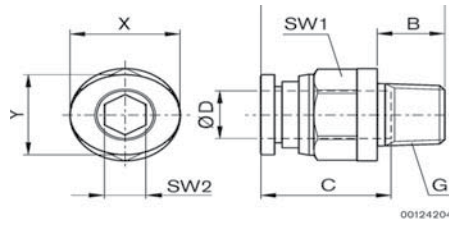
Interchangeability between the QR1 (plastic) and QR2 (metal) series
 QR2 blanking plugs and threaded connectors may not be combined with the QR1 series for safety and reliability.



Thread size		10-32 UNF	NPT 1/8	NPT 1/4	NPT 3/8	NPT 1/2
Recom. Torque	kgf/cm	15-19	70-90	120-140	220-240	280-300
	in lb	13-16	62-80	106-124	195-212	248-265

Plastic fittings, series QR1-Inch Standard

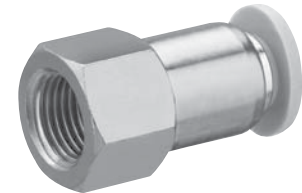
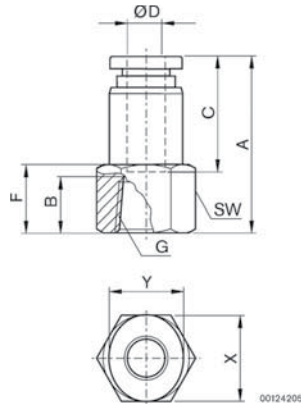
10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube



G	Ø D	A	B	C	SW1	SW2	X	Y	Weight [lbs.]	Per Pack	Part no.
10-32 UNF	5/32	0.867	0.158	0.630	7/16	0.094	0.473	0.394	0.02	10	R432000139
10-32 UNF	1/4	0.985	0.158	0.670	1/2	0.094	0.552	0.473	0.03	10	R432000126
NPT1/8	5/32	0.867	0.315	0.630	7/16	0.094	0.473	0.394	0.02	10	R432000141
NPT 1/8	1/4	0.926	0.315	0.670	1/2	0.156	0.552	0.473	0.02	10	R432000128
NPT 1/8	5/16	1.139	0.315	0.729	9/16	0.188	0.630	0.394	0.04	10	R432000137
NPT 1/8	3/8	1.240	0.315	0.830	11/16	0.187	0.750	0.670	0.06	10	R432002636
NPT 1/4	5/32	0.867	0.433	0.630	9/16	0.094	0.473	0.394	0.03	10	R432000140
NPT 1/4	1/4	1.004	0.433	0.670	9/16	0.157	0.552	0.473	0.04	10	R432000127
NPT 1/4	5/16	1.080	0.433	0.729	9/16	0.219	0.630	0.473	0.04	10	R432000136
NPT 1/4	3/8	1.375	0.433	0.827	11/16	0.219	0.749	0.827	0.07	10	R432000133
NPT 1/4	1/2	1.182	0.433	0.887	7/8	0.25	0.906	0.670	0.09	10	R432000124
NPT3/8	1/4	0.985	0.473	0.670	11/16	0.156	0.552	0.473	0.05	10	R432000129
NPT 3/8	5/16	1.013	0.473	0.729	11/16	0.219	0.630	0.552	0.06	10	R432000138
NPT 3/8	3/8	1.202	0.473	0.827	11/16	0.313	0.749	0.669	0.06	10	R432000134
NPT3/8	1/2	1.281	0.473	0.887	7/8	0.313	0.906	0.827	0.09	10	R432000125
NPT 1/2	5/16	1.103	0.591	0.729	7/8	0.219	0.630	0.670	0.11	10	R432000135
NPT 1/2	3/8	1.182	0.591	0.827	7/8	0.313	0.749	0.669	0.11	10	R432000132
NPT 1/2	1/2	1.360	0.591	0.887	7/8	0.313	0.906	0.906	0.11	5	R432000123

Dimensions in inches

★ Straight female, series QR1-RAI



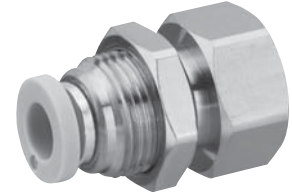
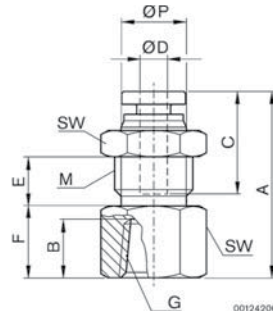
G	Ø D	A	B	F	C	SW	Y	X	Weight [lbs]	Per Pack	Part no.
NPT 1/8	5/32	1.009	0.355	0.433	0.63	9/16	0.394	0.473	0.03	10	R432000030
NPT 1/8	1/4	1.06	0.355	0.394	0.67	9/16	0.473	0.551	0.03	10	R432000020
NPT 1/8	5/16	1.126	0.355	0.473	0.729	9/16	0.552	0.63	0.04	10	R432000027
NPT 1/4	5/32	1.127	0.473	0.552	0.63	11/16	0.394	0.473	0.05	10	R432000029
NPT 1/4	1/4	1.178	0.473	0.552	0.67	11/16	0.473	0.551	0.05	10	R432000019
NPT 1/4	5/16	1.233	0.473	0.591	0.729	11/16	0.552	0.63	0.06	10	R432000026
NPT 1/4	3/8	1.336	0.473	0.512	0.827	11/16	0.67	0.749	0.07	10	R432000023
NPT 1/4	1/2	1.434	0.473	0.512	0.887	7/8	0.827	0.906	0.12	10	R432000017
NPT 3/8	1/4	1.229	0.512	0.591	0.67	7/8	0.473	0.551	0.08	10	R432000021
NPT 3/8	5/16	1.281	0.512	0.63	0.729	7/8	0.552	0.63	0.09	10	R432000028
NPT 3/8	3/8	1.375	0.512	0.591	0.827	7/8	0.67	0.749	0.1	10	R432000024
NPT 3/8	1/2	1.474	0.512	0.552	0.887	7/8	0.827	0.906	0.13	10	R432000018
NPT 1/2	5/16	1.399	0.63	0.749	0.729	7/8	0.552	0.63	0.12	10	R432000025
NPT 1/2	3/8	1.556	0.63	0.749	0.827	7/8	0.67	0.749	0.12	10	R432000022
NPT 1/2	1/2	1.556	0.63	0.749	0.887	7/8	0.827	0.906	0.14	10	R432000016

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

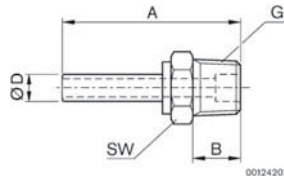
★ Bulkhead gland, series QR1-RSI



G	Ø D	M	A	B	C	E	F	SW	Ø P	Weight [lbs]	Per Pack	Part no.
NPT 1/8	1/4	UNF 9/16	1.084	0.355	0.67	0.251	0.351	11/16	0.473	0.06	10	R432000144
NPT 1/4	1/4	UNF 9/16	1.261	0.473	0.67	0.251	0.532	11/16	0.473	0.07	10	R432000143
NPT 1/4	5/16	UNF 5/8	1.414	0.473	0.729	0.325	0.552	3/4	0.552	0.09	10	R432000147
NPT 1/4	3/8	UNF 7/8	1.399	0.473	0.827	0.232	0.552	1	0.67	0.13	10	R432000145
NPT 3/8	5/16	UNF 5/8	1.454	0.512	0.729	0.325	0.591	3/4	0.552	0.08	10	R432000149
NPT 3/8	3/8	UNF 7/8	1.438	0.512	0.827	0.232	0.591	1	0.67	0.16	10	R432000146
NPT 3/8	1/2	UNF 7/8	1.517	0.512	0.887	0.335	0.591	1	0.796	0.18	10	R432000142

Dimensions in inches

★ Male stand pipe, series QR1-RAS

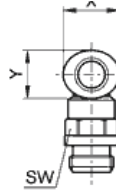
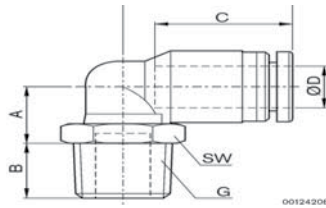


G	Ø D	A	B	SW	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	1.454	0.158	3/8	0.01	10	R432000045
10-32 UNF	1/4	1.651	0.158	3/8	0.03	10	R432000034
NPT 1/8	5/32	1.3	0.315	13/32	0.01	10	R432000047
NPT 1/8	1/4	1.497	0.315	13/32	0.04	10	R432000036
NPT 3/8	1/4	1.655	0.473	11/16	0.05	10	R432000037
NPT 1/4	5/32	1.418	0.433	9/16	0.03	10	R432000046
NPT 1/4	1/4	1.615	0.433	9/16	0.05	10	R432000035
NPT 1/4	5/16	1.694	0.433	9/16	0.06	10	R432000042
NPT 1/4	3/8	2.167	0.433	19/32	0.05	10	R432000039
NPT 1/4	1/2	2.443	0.433	23/32	0.07	10	R432000032
NPT 3/8	5/16	1.734	0.473	11/16	0.07	10	R432000044
NPT 3/8	3/8	1.931	0.473	11/16	0.06	10	R432000040
NPT 3/8	1/2	2.399	0.473	23/32	0.08	10	R432000033
NPT 1/2	3/8	2.049	0.591	27/32	0.08	10	R432000038
NPT 1/2	1/2	2.246	0.591	27/32	0.1	5	R432000031

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

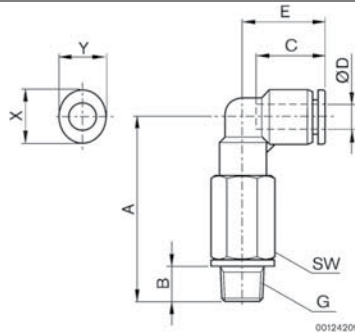
10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube



G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32UNF	5/32	0.65	0.217	0.630	0.713	5/16	0.473	0.394	0.01	10	R432000243
10-32UNF	1/4	0.69	0.217	0.670	0.812	5/16	0.552	0.473	0.02	10	R432000232
NPT 1/8	5/32	0.65	0.315	0.630	0.713	7/16	0.473	0.394	0.03	10	R432000245
NPT 1/8	1/4	0.67	0.315	0.670	0.812	7/16	0.552	0.473	0.03	10	R432000234
NPT 1/8	5/16	0.75	0.315	0.729	0.894	7/16	0.630	0.552	0.04	10	R432000241
NPT 1/8	3/8	0.94	0.310	0.830	1.026	11/16	0.670	0.750	0.07	10	R432002637
NPT 1/4	5/32	0.65	0.433	0.630	0.713	9/16	0.473	0.394	0.04	10	R432000244
NPT 1/4	1/4	0.71	0.433	0.670	0.812	9/16	0.552	0.473	0.05	10	R432000233
NPT 1/4	5/16	0.79	0.433	0.729	0.894	9/16	0.630	0.552	0.05	10	R432000240
NPT 1/4	3/8	0.94	0.433	0.827	1.028	19/32	0.749	0.670	0.07	10	R432000237
NPT 1/4	1/2	1.02	0.433	0.887	1.154	19/32	0.906	0.827	0.10	10	R432000230
NPT3/8	1/4	0.75	0.473	0.670	0.812	11/16	0.552	0.473	0.07	10	R432000235
NPT 3/8	5/16	0.79	0.473	0.729	0.894	11/16	0.630	0.552	0.07	10	R432000242
NPT 3/8	3/8	0.94	0.473	0.827	1.028	11/16	0.749	0.670	0.09	10	R432000238
NPT3/8	1/2	1.02	0.473	0.887	1.154	11/16	0.906	0.827	0.11	10	R432000231
NPT 1/2	5/16	0.83	0.591	0.729	0.894	7/8	0.630	0.552	0.11	10	R432000239
NPT 1/2	3/8	0.94	0.591	0.827	1.028	7/8	0.749	0.670	0.12	10	R432000236
NPT 1/2	1/2	1.02	0.591	0.887	1.154	7/8	0.906	0.827	0.13	10	R432000229

Dimensions in inches

★ Extended male elbow, series QR1-RVL

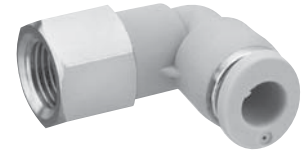
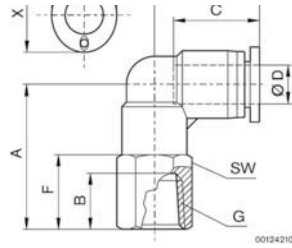


G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32UNF	5/32	1.188	0.2 17	0.630	0.713	5/16	0.473	0.394	0.04	10	R432000226
10-32 UNF	1/4	1.236	0.2 17	0.670	0.813	5/16	0.552	0.473	0.04	10	R432000215
NPT 1/8	5/32	1.279	0.315	0.630	0.713	7/16	0.473	0.394	0.04	10	R432000228
NPT 1/8	1/4	1.326	0.315	0.670	0.813	7/16	0.552	0.473	0.06	10	R432000217
NPT 1/8	5/16	1.456	0.315	0.729	0.898	7/16	0.630	0.552	0.08	10	R432000224
NPT 1/8	3/8	1.990	0.315	0.830	1.026	11/16	0.670	0.750	0.13	10	R432002638
NPT 1/4	5/32	1.397	0.433	0.630	0.713	9/16	0.473	0.394	0.07	10	R432000227
NPT 1/4	1/4	1.444	0.433	0.670	0.812	9/16	0.552	0.473	0.08	10	R432000216
NPT 1/4	5/16	1.535	0.433	0.729	0.898	9/16	0.630	0.552	0.09	10	R432000223
NPT 1/4	3/8	1.964	0.433	0.827	1.028	19/32	0.749	0.670	0.14	10	R432000220
NPT 1/4	1/2	2.031	0.433	0.887	1.154	19/32	0.906	0.827	0.24	10	R432000213
NPT 3/8	1/4	1.503	0.473	0.670	0.812	11/16	0.552	0.473	0.12	10	R432000218
NPT 3/8	5/16	1.994	0.473	0.729	0.898	11/16	0.630	0.552	0.13	10	R432000225
NPT 3/8	3/8	1.929	0.473	0.827	1.028	11/16	0.749	0.670	0.16	10	R432000221
NPT 3/8	1/2	1.996	0.473	0.887	1.154	11/16	0.906	0.827	0.25	10	R432000214
NPT 1/2	3/8	2.047	0.59 1	0.827	1.028	7/8	0.749	0.670	0.23	10	R432000219
NPT 1/2	1/2	2.114	0.59 1	0.887	1.154	7/8	0.906	0.827	0.26	10	R432000212

Dimensions in inches

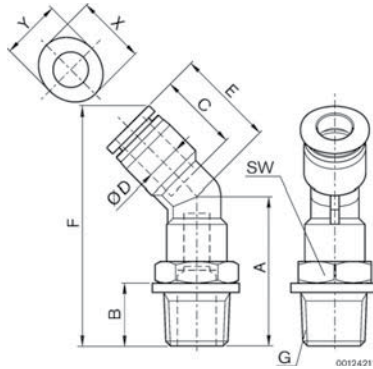
Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube



G	Ø D	A	B	C	E	F	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	0.63	0.197	0.63	0.729	0.315	7/16	0.473	0.394	0.02	10	R432000204
10-32 UNF	1/4	0.63	0.197	0.67	0.8	0.315	7/16	0.552	0.473	0.04	10	R432000194
NPT 1/8	5/32	0.67	0.236	0.63	0.729	0.433	9/16	0.473	0.394	0.02	10	R432000206
NPT 1/8	1/4	0.67	0.236	0.67	0.8	0.473	9/16	0.552	0.473	0.05	10	R432000196
NPT 1/8	5/16	1.024	0.355	0.729	0.89	0.473	9/16	0.63	0.552	0.04	10	R432000202
NPT 1/4	5/32	0.93	0.355	0.63	0.729	0.552	11/16	0.473	0.394	0.02	10	R432000205
NPT 1/4	1/4	0.906	0.355	0.67	0.8	0.552	11/16	0.552	0.473	0.05	10	R432000195
NPT 1/4	5/16	1.143	0.473	0.729	0.89	0.591	11/16	0.63	0.552	0.06	10	R432000201
NPT 1/4	3/8	1.3	0.473	0.827	1.064	0.512	11/16	0.749	0.67	0.07	10	R432000199
NPT 3/8	1/4	1.024	0.473	0.67	0.8	0.63	7/8	0.552	0.473	0.06	10	R432000197
NPT 3/8	5/16	1.182	0.512	0.729	0.89	0.591	7/8	0.63	0.552	0.07	10	R432000203
NPT 3/8	3/8	1.36	0.512	0.827	1.064	0.827	7/8	0.749	0.67	0.08	10	R432000200
NPT 1/2	3/8	1.497	0.63	0.827	1.064	0.887	7/8	0.749	0.67	0.1	10	R432000198

★ 45° Elbow, series QR1-RAT



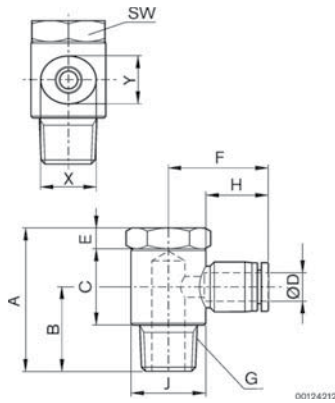
G	Ø D	A	B	C	E	F	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	0.87	0.217	0.63	0.713	1.37	7/16	0.473	0.394	0.02	10	R432000298
10-32 UNF	1/4	0.91	0.217	0.67	0.812	1.481	1/2	0.552	0.473	0.02	10	R432000286
NPT 1/8	5/32	0.91	0.315	0.63	0.713	1.409	7/16	0.473	0.394	0.02	10	R432000300
NPT 1/8	1/4	0.989	0.315	0.67	0.812	1.56	1/2	0.552	0.473	0.03	10	R432000288
NPT 1/8	5/16	1.064	0.315	0.729	0.894	1.695	9/16	0.63	0.552	0.04	10	R432000296
NPT 1/8	3/8	1.261	0.315	0.827	1.028	1.984	11/16	0.749	0.67	0.07	10	R432000292
NPT 1/8	1/2	1.34	0.315	0.887	1.154	2.155	7/8	0.906	0.827	0.09	10	R432000284
NPT 1/4	5/32	1.087	0.433	0.63	0.713	1.472	9/16	0.473	0.394	0.04	10	R432000299
NPT 1/4	1/4	1.147	0.433	0.67	0.812	1.718	9/16	0.552	0.473	0.05	10	R432000287
NPT 1/4	5/16	1.221	0.433	0.729	0.894	1.853	9/16	0.63	0.552	0.05	10	R432000295
NPT 1/4	3/8	1.379	0.433	0.827	1.028	2.102	11/16	0.749	0.67	0.07	10	R432000291
NPT 1/4	1/2	1.458	0.433	0.887	1.154	2.273	7/8	0.906	0.827	0.1	10	R432000283
NPT 3/8	1/4	1.225	0.473	0.67	0.812	1.8	11/16	0.552	0.473	0.07	10	R432000289
NPT 3/8	5/16	1.261	0.473	0.729	0.894	1.892	11/16	0.63	0.552	0.07	10	R432000297
NPT 3/8	1/2	1.497	0.473	0.887	1.154	2.313	7/8	0.906	0.827	0.11	10	R432000285
NPT 1/2	5/16	1.418	0.591	0.729	0.894	2.05	7/8	0.63	0.552	0.11	10	R432000294
NPT 1/2	3/8	1.537	0.591	0.827	1.028	2.26	7/8	0.749	0.67	0.12	10	R432000290

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

▲ ★ Single banjo, series QR1-RW1



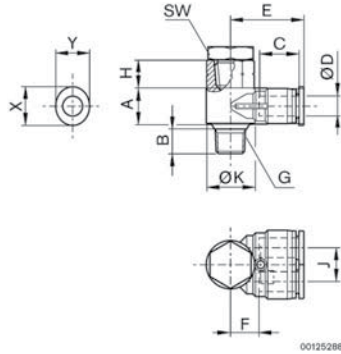
G	Ø D	A	B	C	E	F	H	Ø J	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	0.607	–	0.351	0.118	0.78	0.63	0.411	13/32	0.473	0.394	0.02	10	R432000254
NPT 1/8	5/32	0.945	–	0.473	0.158	0.847	0.63	0.567	7/16	0.473	0.394	0.03	10	R432000255
NPT 1/8	1/4	0.945	–	0.473	0.158	0.93	0.67	0.567	7/16	0.552	0.473	0.04	10	R432000248
NPT 1/8	5/16	1.076	–	0.465	0.177	1.115	0.729	0.725	9/16	0.63	0.552	0.07	10	R432000253
NPT 1/4	1/4	1.076	–	0.465	0.177	1.013	0.67	0.725	9/16	0.552	0.473	0.06	10	R432000249
NPT 1/4	3/8	1.076	–	0.465	0.177	1.245	0.827	0.725	9/16	0.749	0.67	0.07	10	R432000250
NPT 1/4	5/16	1.281	–	0.611	0.197	1.131	0.729	0.867	3/4	0.63	0.552	0.12	10	R432000252
NPT 3/8	3/8	1.281	–	0.611	0.197	1.261	0.827	0.867	3/4	0.749	0.67	0.12	10	R432000251
NPT 3/8	1/2	1.281	–	0.611	0.197	1.43	0.887	0.867	3/4	0.906	0.827	0.13	10	R432000247
NPT 1/2	1/2	1.485	–	0.697	0.197	1.43	0.887	1.103	1	0.906	0.827	0.21	10	R432000246

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

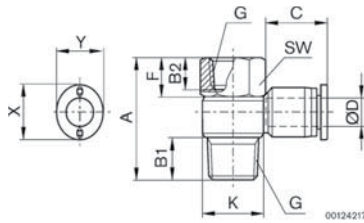
★ Double banjo, series QR1-RWD



G	Ø D	A	B	B2	C	E	H	J	Ø K	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	0.351	0.158	--	0.63	0.827	0.256	0.394	0.394	5/16	0.473	0.394	0.02	10	R432000011
NPT 1/8	1/4	0.591	0.315	--	0.67	1.19	0.453	0.552	0.788	9/16	0.552	0.473	0.06	10	R432000008
NPT 1/4	5/16	0.709	0.433	--	0.729	1.351	0.532	0.67	0.906	11/16	0.63	0.552	0.11	10	R432000010
NPT 3/8	3/8	0.827	0.473	--	0.827	1.509	0.67	0.788	1.182	7/8	0.749	0.67	0.18	10	R432000009
NPT 1/2	1/2	0.827	0.591	--	0.887	1.509	0.67	0.788	1.182	1	0.906	0.827	0.29	10	R432000007

Dimensions in inches

★ Single banjo, internal thread, series QR1-RIW



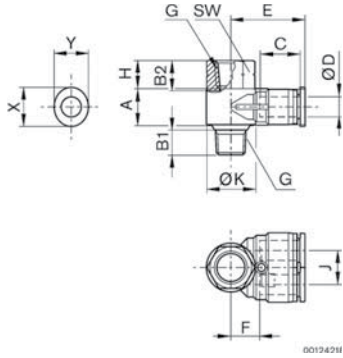
G	Ø D	A	B1	B2	C	F	Ø K	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	0.827	0.158	0.197	0.63	0.256	0.394	5/16	0.473	0.394	0.02	10	R432000086
10-32 UNF	1/4	0.827	0.158	0.197	0.67	0.256	0.394	5/16	0.552	0.473	0.02	10	R432000078
NPT 1/8	5/32	0.887	0.197	0.236	0.63	0.276	0.394	9/16	0.473	0.394	0.04	10	R432000087
NPT 1/8	1/4	1.418	0.433	0.473	0.67	0.453	0.567	9/16	0.552	0.473	0.05	10	R432000080
NPT 1/8	5/16	1.198	0.315	0.355	0.729	0.374	0.567	9/16	0.63	0.552	0.05	10	R432000084
NPT 1/4	1/4	1.418	0.433	0.473	0.67	0.453	0.725	11/16	0.552	0.473	0.08	10	R432000079
NPT 1/4	5/16	1.418	0.433	0.473	0.729	0.453	0.725	11/16	0.63	0.552	0.08	10	R432000083
NPT 1/4	3/8	1.418	0.433	0.473	0.827	0.453	0.725	11/16	0.749	0.67	0.09	10	R432000081
NPT 3/8	5/16	1.647	0.473	0.512	0.729	0.532	0.867	7/8	0.63	0.522	0.14	10	R432000085
NPT 3/8	3/8	1.647	0.473	0.512	0.827	0.552	0.867	7/8	0.749	0.67	0.14	10	R432000082
NPT 3/8	1/2	1.647	0.473	0.512	0.887	0.552	0.867	7/8	0.906	0.827	0.16	10	R432000077
NPT 1/2	1/2	2.009	0.591	0.63	0.887	0.67	1.103	1	0.906	0.827	0.24	10	R432000076

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

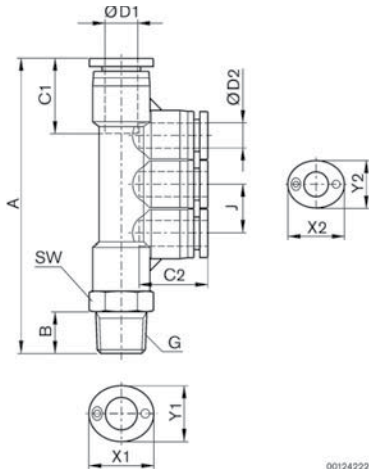
★ Double banjo with internal thread, series QR1-RID



G	Ø D	A	B1	B2	C	E	H	J	Ø K	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	0.351	0.158	0.197	0.63	0.827	0.256	0.394	0.394	5/16	0.473	0.394	0.02	10	R432000075
NPT 1/8	1/4	0.591	0.315	0.473	0.67	1.19	0.453	0.552	0.788	9/16	0.552	0.473	0.06	10	R432000072
NPT 1/4	5/16	0.709	0.433	0.512	0.729	1.351	0.532	0.67	0.906	11/16	0.63	0.552	0.11	10	R432000074
NPT 3/8	3/8	0.827	0.473	0.63	0.827	1.509	0.67	0.788	1.182	7/8	0.749	0.67	0.18	10	R432000073
NPT 1/2	1/2	0.827	0.591	0.63	0.887	1.509	0.67	0.788	1.182	1	0.906	0.827	0.29	10	R432000071

Dimensions in inches

★ Reducing manifold, series QR1-RMG



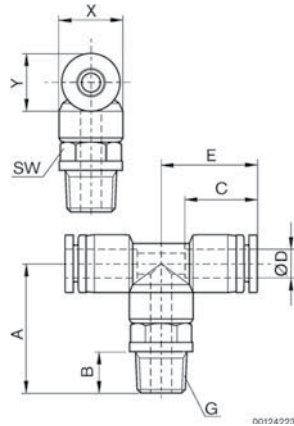
G	Ø D1	Ø D2	A	B	C1	C2	J	SW	X1	Y1	X2	Y2	Weight [lbs]	per Pack	Part no.
NPT 1/4	5/16	5/32	2.51	0.433	0.729	0.63	0.394	9/16	0.63	0.552	0.473	0.394	0.07	10	R432000112
NPT 1/4	5/16	1/4	2.695	0.433	0.729	0.67	0.473	9/16	0.63	0.552	0.552	0.473	0.07	10	R432000111
NPT 3/8	3/8	5/16	2.34	0.473	0.827	0.729	0.552	7/32	0.63	0.67	0.63	0.552	0.12	10	R432000110

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

★ Male branch TEE, series QR1-RTT



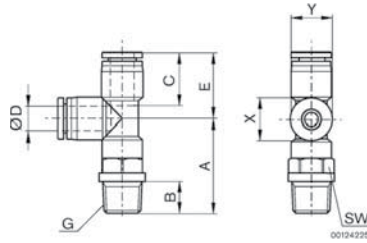
G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	Ø5/32	0.87	0.22	0.63	0.71	7/16	0.47	0.39	0.03	10	R432000185
10-32 UNF	Ø1/4	0.91	0.22	0.67	0.81	1/2	0.55	0.47	0.03	10	R432000174
1/8 NPT	Ø5/32	0.97	0.32	0.63	0.71	7/16	0.47	0.39	0.03	10	R432000187
1/8 NPT	Ø1/4	0.99	0.32	0.67	0.81	1/2	0.55	0.47	0.04	10	R432000176
1/8 NPT	Ø5/16	1.06	0.32	0.73	0.89	9/16	0.63	0.55	0.04	10	R432000183
1/8 NPT	Ø3/8	1.26	0.32	0.83	1.03	11/16	0.75	0.67	0.08	10	R432002639
1/4 NPT	Ø5/32	1.09	0.43	0.63	0.71	9/16	0.47	0.39	0.04	10	R432000186
1/4 NPT	Ø1/4	1.15	0.43	0.67	0.81	9/16	0.55	0.47	0.05	10	R432000175
1/4 NPT	Ø5/16	1.22	0.43	0.73	0.89	9/16	0.63	0.55	0.06	10	R432000182
1/4 NPT	Ø3/8	1.38	0.43	0.83	1.03	11/16	0.75	0.67	0.09	10	R432000179
1/4 NPT	Ø1/2	1.46	0.43	0.89	1.15	7/8	0.91	0.83	0.11	5	R432000172
3/8 NPT	Ø5/32	1.13	0.47	0.63	0.71	11/16	0.47	0.39	0.07	5	R432000188
3/8 NPT	Ø1/4	1.23	0.47	0.67	0.81	11/16	0.55	0.47	0.08	10	R432000177
3/8 NPT	Ø5/16	1.26	0.47	0.73	0.89	11/16	0.63	0.55	0.08	10	R432000184
3/8 NPT	Ø3/8	1.42	0.47	0.83	1.03	11/16	0.75	0.67	0.1	10	R432000180
3/8 NPT	Ø1/2	1.5	0.47	0.89	1.15	7/8	0.91	0.83	0.13	5	R432000173
1/2 NPT	Ø5/16	1.43	0.59	0.73	0.89	7/8	0.63	0.55	0.09	10	R432000181
1/2 NPT	Ø3/8	1.54	0.59	0.83	1.03	7/8	0.75	0.67	0.14	10	R432000178
1/2 NPT	Ø1/2	1.62	0.59	0.89	1.15	7/8	0.91	0.83	0.15	5	R432000171

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

▲ ★ Male run TEE, series QR1-RLT



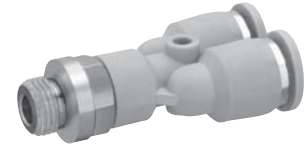
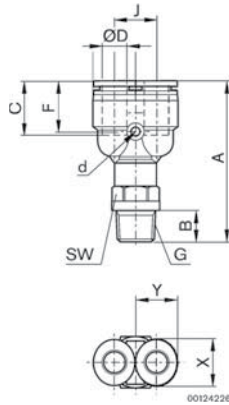
G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	5/32	0.871	0.217	0.63	0.713	7/16	0.473	0.394	0.03	10	R432000107
10-32 UNF	1/4	0.906	0.217	0.67	0.812	1/2	0.552	0.473	0.03	10	R432000096
NPT 1/8	5/32	0.969	0.315	0.63	0.713	7/16	0.473	0.394	0.03	10	R432000109
NPT 1/8	1/4	0.985	0.315	0.67	0.812	1/2	0.552	0.473	0.04	10	R432000098
NPT 1/8	5/16	1.004	0.315	0.729	0.89	9/16	0.63	0.552	0.04	10	R432000104
NPT 1/4	5/32	1.087	0.433	0.63	0.713	9/16	0.473	0.394	0.04	10	R432000108
NPT 1/4	1/4	1.143	0.433	0.67	0.812	9/16	0.552	0.473	0.05	10	R432000097
NPT 1/4	5/16	1.162	0.433	0.729	0.89	9/16	0.63	0.552	0.06	10	R432000105
NPT 1/4	3/8	1.379	0.433	0.827	1.028	11/16	0.749	0.67	0.09	10	R432000101
NPT 1/4	1/2	1.458	0.433	0.887	1.143	7/8	0.906	0.827	0.12	10	R432000094
NPT 3/8	1/4	1.221	0.473	0.67	0.812	11/16	0.552	0.473	0.08	10	R432000099
NPT 3/8	5/16	1.202	0.473	0.729	0.89	11/16	0.63	0.552	0.08	10	R432000106
NPT 3/8	3/8	1.418	0.473	0.827	1.028	11/16	0.749	0.67	0.11	10	R432000102
NPT 3/8	1/2	1.467	0.473	0.887	1.143	7/8	0.906	0.827	0.13	10	R432000095
NPT 1/2	5/16	1.36	0.591	0.729	0.89	20	0.63	0.552	0.11	10	R432000103
NPT 1/2	3/8	1.537	0.591	0.827	1.028	7/8	0.749	0.67	0.14	10	R432000100
NPT 1/2	1/2	1.615	0.591	0.887	1.143	7/8	0.906	0.827	0.15	10	R432000093

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

▲ ★ Y-fitting, series QR1-RAY



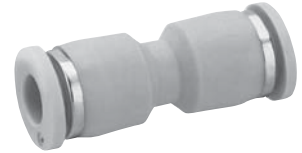
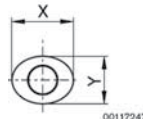
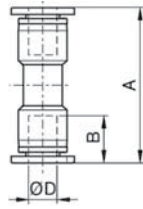
G	Ø D	A	B	C	SW	J	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	5/32	1.563	0.217	0.63	7/16	0.378	0.394	0.472	0.422	10	R432000473
10-32 UNF	1/4	1.642	0.217	0.67	1/2	0.472	0.472	0.551	0.503	10	R432000476
NPT 1/8	5/32	1.661	0.315	0.63	7/16	0.378	0.394	0.472	0.496	10	R432000474
NPT 1/8	1/4	1.720	0.315	0.67	1/2	0.472	0.472	0.551	0.577	10	R432000477
NPT 1/8	5/16	1.878	0.217	0.729	9/16	0.551	0.551	0.630	0.732	10	R432000480
NPT 1/8	3/8	2.173	0.315	0.827	11/16	0.709	0.669	0.748	1.109	10	R432000484
NPT 1/4	5/32	1.772	0.433	0.63	9/16	0.378	0.394	0.472	0.708	10	R432000475
NPT 1/4	5/16	2.035	0.315	0.728	9/16	0.551	0.551	0.630	0.989	10	R432000481
NPT 1/4	1/4	1.878	0.433	0.669	9/16	0.472	0.472	0.551	0.852	10	R432000478
NPT 1/4	3/8	2.291	0.433	0.827	11/16	0.709	0.669	0.748	0.366	10	R432000485
NPT 1/4	1/2	2.390	0.433	0.887	7/8	0.819	0.827	0.906	1.950	10	R432000488
NPT 3/8	1/4	1.957	0.472	0.67	11/16	0.472	0.472	0.551	1.274	10	R432000479
NPT 3/8	5/16	2.075	0.433	0.729	11/16	0.551	0.551	0.630	1.257	10	R432000482
NPT 3/8	3/8	2.331	0.472	0.827	11/16	0.709	0.669	0.748	1.742	10	R432000486
NPT 3/8	1/2	2.429	0.472	0.887	7/8	0.819	0.827	0.906	2.052	10	R432000489
NPT 1/2	5/16	2.232	0.472	0.729	7/8	0.551	0.551	0.630	1.767	10	R432000483
NPT 1/2	3/8	2.449	0.591	0.827	7/8	0.709	0.669	0.748	2.242	10	R432000487
NPT 1/2	1/2	2.547	0.591	0.887	7/8	0.819	0.827	0.906	2.478	10	R432000490

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

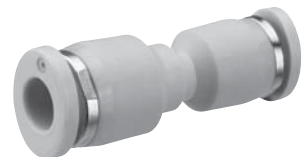
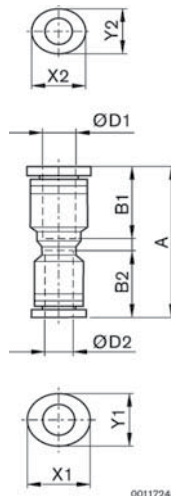
▲ ★ Straight union, series QR1-RSK



Ø D	A	B	X	Y	Weight [lbs]	per Pack	Part no.
5/32	1.269	0.63	0.473	0.394	0.01	10	R432000154
1/4	1.395	0.67	0.552	0.473	0.01	10	R432000151
5/16	1.537	0.729	0.63	0.552	0.02	10	R432000153
3/8	1.694	0.827	0.749	0.67	0.03	10	R432000152
1/2	1.852	0.887	0.906	0.827	0.04	10	R432000150

Dimensions in inches

▲ ★ Reducing union, series QR1-RSR



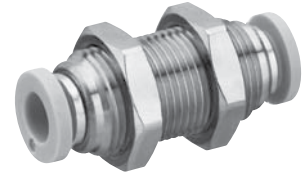
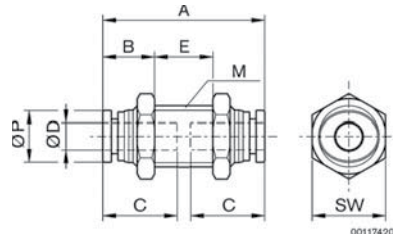
Ø D1	Ø D2	A	B1	B2	X1	Y1	X2	Y2	Weight [lbs]	per Pack	Part no.
1/4	5/32	1.411	0.709	0.63	0.552	0.473	0.473	0.394	0.01	10	R432000162
5/16	1/4	1.525	0.729	0.67	0.63	0.552	0.552	0.473	0.01	10	R432000164
3/8	1/4	1.694	0.827	0.756	0.749	0.552	0.552	0.473	0.07	10	R432000161
3/8	5/16	1.675	0.827	0.729	0.749	0.67	0.63	0.552	0.02	10	R432000163
1/2	3/8	1.832	0.875	0.827	0.906	0.827	0.749	0.67	0.04	10	R432000160

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for \varnothing 5/32" to 1/2" tube

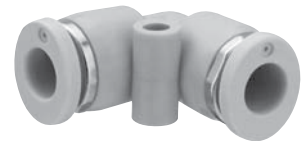
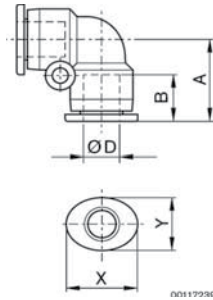
▲ Bulkhead union, metal, series QR1-RSM



\varnothing D	M	A	B	C	E	SW	\varnothing P	Weight [lbs]	Per Pack	Part no.
5/32	UNF 1/2	1.269	0.741	0.630	0.339	9/16	0.394	0.04	10	R432000159
3/16	UNF 9/16	1.390	0.480	0.669	0.429	11/16	0.406	0.06	10	R432030411
1/4	UNF 9/16	1.407	0.508	0.669	0.390	11/16	0.473	0.06	10	R432000156
5/16	UNF 5/8	1.509	0.571	0.729	0.366	3/4	0.552	0.07	10	R432000158
3/8	UNF 7/8	1.706	0.646	0.827	0.414	1	0.669	0.17	10	R432000157
1/2	UNF 7/8	1.891	0.615	0.887	0.662	1	0.796	0.16	10	R432000155

Dimensions in inches

▲★ Elbow union, series QR1-RVK



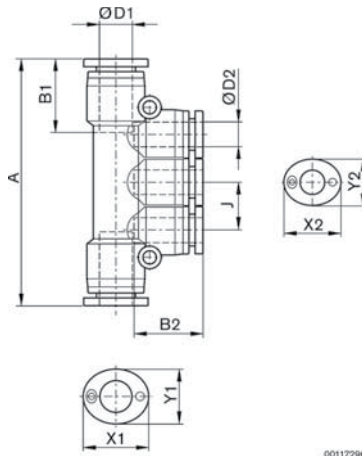
\varnothing D	A	B	X	Y	Weight [lbs]	per Pack	Part no.
5/32	0.713	0.63	0.473	0.394	0.01	10	R432000211
1/4	0.812	0.67	0.552	0.473	0.01	10	R432000208
5/16	0.898	0.729	0.63	0.552	0.02	10	R432000210
3/8	1.028	0.827	0.749	0.67	0.03	10	R432000209
1/2	1.143	0.887	0.906	0.827	0.04	10	R432000207

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

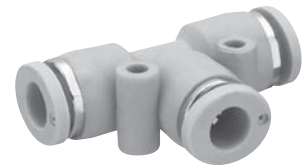
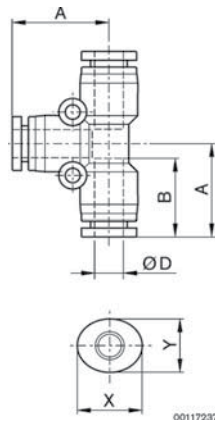
★ Triple reducing manifold, series QRT-RMT



Ø D1	Ø D2	A	B1	B2	J	X1	Y1	X2	Y2	Weight [lbs]	per Pack	Part no.
5/16	5/32	2.443	0.729	0.63	0.394	0.63	0.552	0.473	0.394	0.04	10	R432000121
5/16	1/4	3.12	0.729	0.67	0.473	0.63	0.552	0.552	0.473	0.04	10	R432000119
3/8	1/4	3.357	0.827	0.67	0.473	0.749	0.67	0.552	0.473	0.06	10	R432000122
3/8	5/16	3.357	0.827	0.729	0.552	0.749	0.67	0.63	0.552	0.07	10	R432000118

Dimensions in inches

★ Tube to tube TEE, series QR1-RTK



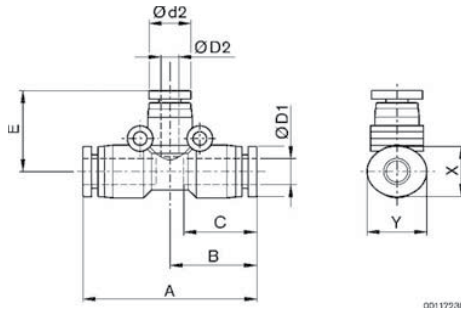
Ø D	A	B	X	Y	Weight [lbs]	per Pack	Part no.
5/32	0.713	0.63	0.473	0.394	0.02	10	R432000170
1/4	0.812	0.67	0.552	0.473	0.02	10	R432000167
5/16	0.894	0.729	0.63	0.552	0.03	10	R432000169
3/8	1.028	0.827	0.749	0.67	0.05	10	R432000168
1/2	1.154	0.887	0.906	0.827	0.07	10	R432000166

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

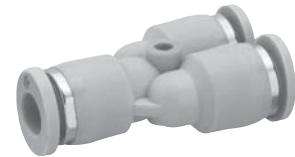
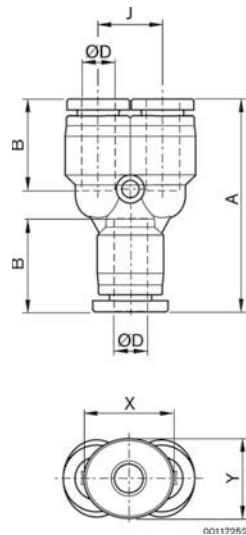
▲ ★ T-plug connector, reducing, series QR1-RTR



D1	D2	d2	A	B	C	E	X	Y	Weight [lbs]	Per Pack	Part no.
1/4	5/32	0.409	1.60	0.80	0.67	0.75	0.47	0.55	0.02	10	R432003253
5/16	5/32	0.409	1.79	0.89	0.73	0.83	0.55	0.63	0.03	10	R432003254
3/8	1/4	0.488	2.05	1.03	0.83	1.00	0.67	0.75	0.07	10	R432003256
3/8	5/16	0.566	2.05	1.03	0.83	0.92	0.67	0.75	0.04	10	R432003257
1/2	3/8	0.692	2.30	1.15	0.89	1.07	0.83	0.90	0.06	10	R432003259

Dimensions in inches

▲ ★ Tube to tube Y, series QR1-RYK



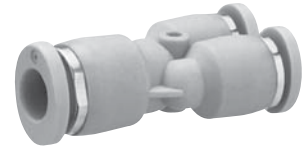
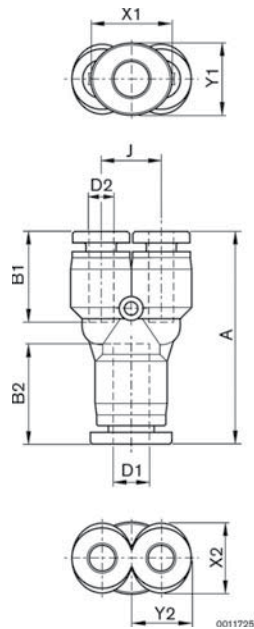
Ø D	A	B	J	X	Y	Weight [lbs]	per Pack	Part no.
5/32	1.367	0.63	0.378	0.473	0.394	0.02	10	R432000270
1/4	1.552	0.67	0.473	0.552	0.473	0.02	10	R432000267
5/16	1.793	0.729	0.552	0.63	0.552	0.03	10	R432000269
3/8	1.99	0.827	0.709	0.749	0.67	0.06	10	R432000268
1/2	2.088	0.887	0.82	0.906	0.827	0.06	10	R432000266

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

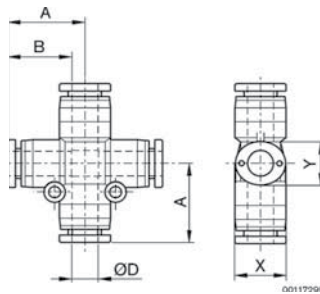
▲ ★ Reducing Y, series QR1-RYR



Ø D1	Ø D2	A	B1	B2	J	X1	Y1	X2	Y2	Weight [lbs]	per Pack	Part no.
1/4	5/32	1.454	0.67	0.67	0.418	0.552	0.473	0.473	0.394	0.03	10	R432000273
5/16	1/4	1.6	0.67	0.729	0.473	0.63	0.552	0.552	0.473	0.02	10	R432000272
3/8	1/4	–	0.693	0.756	0.709	0.749	0.67	0.552	0.473	0.07	10	R432000274
3/8	5/16	1.946	0.729	0.827	0.552	0.749	0.67	0.63	0.552	0.04	10	R432000276
1/2	3/8	2.108	0.827	0.887	0.709	0.906	0.827	0.749	0.67	0.06	10	R432000271

Dimensions in inches

▲ ★ Cross union, series QR1-RXS



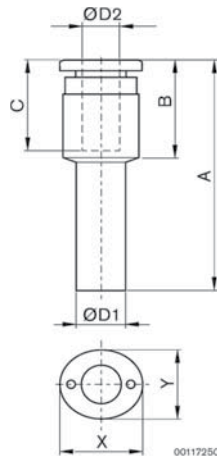
Ø D	A	B	X	Y	Weight [lbs]	per Pack	Part no.
5/32	0.729	0.63	0.394	0.473	0.09	10	R432000260
1/4	0.898	0.67	0.473	0.552	0.03	10	R432000257
5/16	1.024	0.729	0.552	0.63	0.04	10	R432000259
3/8	1.15	0.827	0.67	0.749	0.06	10	R432000258
1/2	1.154	0.887	0.827	0.906	0.09	10	R432000256

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for \varnothing 5/32" to 1/2" tube

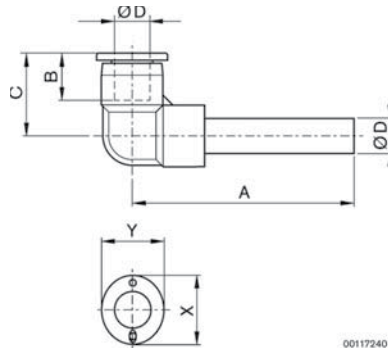
★ Straight reducer, series QR1-RED



Ø D1	Ø D2	A	B	C	X	Y	Weight [lbs]	Per Pack	Part no.
1/4	5/32	1.6	0.693	0.67	0.473	0.394	0.01	10	R432000066
5/16	5/32	1.702	0.693	0.729	0.473	0.394	0.01	10	R432000070
5/16	1/4	1.741	0.756	0.729	0.552	0.473	0.01	10	R432000069
3/8	1/4	1.82	0.756	0.827	0.552	0.473	0.01	10	R432000067
3/8	5/16	1.872	0.801	0.827	0.63	0.552	0.01	10	R432000068
1/2	1/4	1.899	0.756	0.67	0.552	0.473	0.01	10	R432000063
1/2	5/16	1.95	0.801	0.729	0.63	0.552	0.02	10	R432000065
1/2	3/8	2.065	0.906	0.827	0.749	0.67	0.02	10	R432000064

Dimensions in inches

★ Push-in elbow, series QR1-RVA



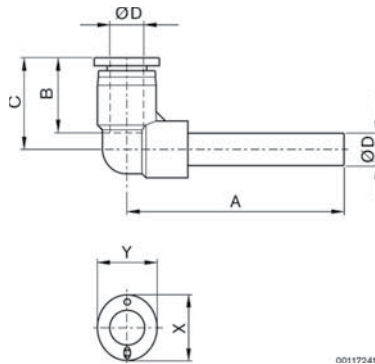
Ø D	A	B	C	X	Y	Weight [lbs]	Per Pack	Part no.
5/32	1.206	0.63	0.713	0.473	0.394	0.01	10	R432000193
1/4	1.422	0.67	0.812	0.552	0.473	0.01	10	R432000190
5/16	1.576	0.729	0.898	0.63	0.552	0.02	10	R432000192
3/8	1.848	0.827	1.028	0.749	0.67	0.03	10	R432000191
1/2	2.049	0.887	1.154	0.906	0.827	0.05	10	R432000189

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

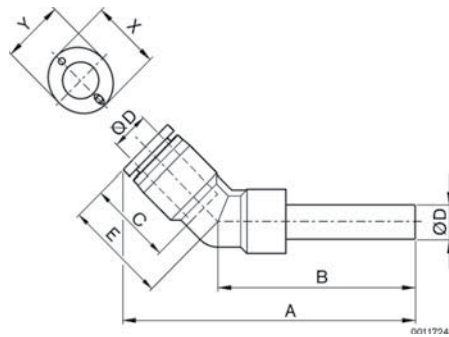
▲ ★ Extended push-in elbow, series QR1-RLL



Ø D	A	B	C	X	Y	Weight [lbs]	Per Pack	Part no.
5/32	1.548	0.63	0.737	0.473	0.394	0.01	10	R432000092
1/4	1.962	0.67	0.831	0.552	0.473	0.01	10	R432000089
5/16	2.128	0.729	0.898	0.63	0.552	0.02	10	R432000091
3/8	2.443	0.827	1.028	0.749	0.67	0.03	10	R432000090
1/2	2.699	0.887	1.154	0.906	0.827	0.04	10	R432000088

Dimensions in inches

▲ ★ Push-in 45° elbow, series QR1-RVW



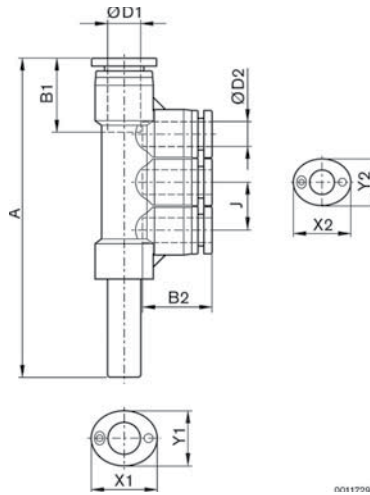
Ø D	A	B	C	E	X	Y	Weight [lbs]	Per Pack	Part No.
5/32	1.787	1.206	0.63	0.713	0.473	0.394	0.01	10	R432000281
1/4	2.072	1.501	0.67	0.792	0.552	0.473	0.02	10	R432000278
5/16	2.286	1.773	0.729	0.894	0.63	0.552	0.03	10	R432000280
3/8	2.614	1.891	0.827	1.028	0.749	0.67	0.04	10	R432000279
1/2	2.943	2.128	0.887	1.154	0.906	0.827	0.06	10	R432000277

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

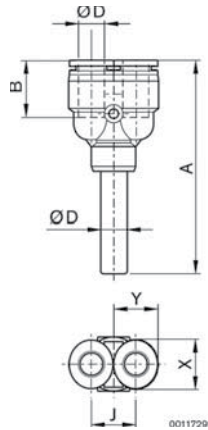
▲ ★ Push-in reducing manifold, series QRT-RMS



Ø D1	Ø D2	A	B1	B2	J	X1	Y1	X2	Y2	Weight [lbs]	Per Pack	Part no.
1/4	5/32	2.982	0.729	0.709	0.394	0.552	0.473	0.473	0.394	0.03	10	R432000113
5/16	5/32	3.081	0.729	0.63	0.394	0.63	0.552	0.473	0.394	0.04	10	R432000117
5/16	1/4	3.235	0.729	0.67	0.473	0.63	0.552	0.552	0.473	0.04	10	R432000115
3/8	5/16	4.121	0.827	0.729	0.552	0.749	0.67	0.63	0.552	0.07	10	R432000114

Dimensions in inches

▲ ★ Push-in Y, series QR1-RY2



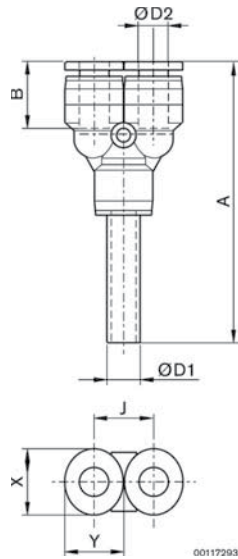
Ø D	A	B	J	X	Y	Weight [lbs]	Per Pack	Part no.
5/32	1.899	0.63	0.378	0.473	0.394	0.02	10	R432000265
1/4	1.501	0.67	0.473	0.552	0.473	0.02	10	R432000262
5/16	1.655	0.729	0.552	0.63	0.552	0.03	10	R432000264
3/8	1.891	0.827	0.709	0.749	0.67	0.05	10	R432000263
1/2	2.128	0.887	0.82	0.906	0.827	0.07	10	R432000261

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for \varnothing 5/32" to 1/2" tube

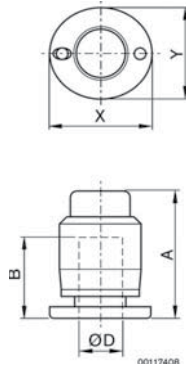
▲ ★ Push-in reducing Y, series QR1-R2R



Ø D1	Ø D2	A	B	J	X	Y	Weight [lbs]	Per Pack	Part no.
1/4	5/32	2.175	0.63	0.378	0.473	0.394	0.02	10	R432000013
5/16	1/4	2.313	0.67	0.473	0.552	0.473	0.02	10	R432000015
3/8	5/16	2.155	0.729	0.552	0.63	0.552	0.04	10	R432000014
1/2	3/8	2.963	0.827	0.709	0.749	0.67	0.06	10	R432000012

Dimensions in inches

▲ ★ Blanking cap, series QR1-RCA



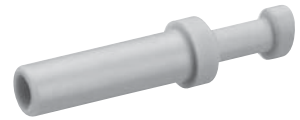
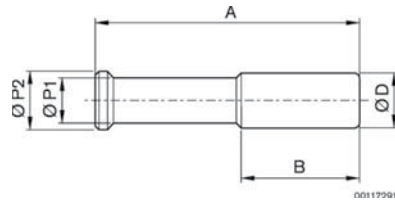
Ø D	A	B	X	Y	Weight [lbs]	Per Pack	Part no.
5/32	0.689	0.603	0.473	0.394	0.08	20	R432002351
1/4	0.768	0.67	0.552	0.473	0.01	20	R432000052
5/16	0.803	0.723	0.552	0.630	0.15	20	R432002352
3/8	0.926	0.827	0.749	0.67	0.02	20	R432000053
1/2	1.004	0.887	0.906	0.827	0.02	20	R432000051

Dimensions in inches

Plastic fittings, series QR1-Inch Standard

10-32 UNF – 1/2" NPTF, straight fitting for Ø 5/32" to 1/2" tube

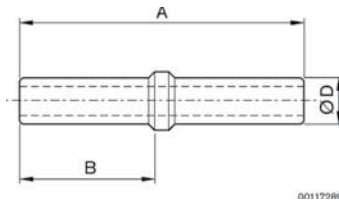
▲ ★ Blanking plug, series QR1-RBS



Ø D	A	B	Ø P1	Ø P2	Weight [lbs]	per Pack	Part no.
5/32	1.102	0.630	0.118	0.157	0.018	20	R432002353
1/4	1.261	0.67	0.177	0.25	0.01	20	R432000049
5/16	1.654	0.728	0.276	0.394	0.05	20	R432002354
3/8	1.655	0.827	0.276	0.374	0.01	20	R432000050
1/2	1.734	0.887	0.335	0.5	0.01	20	R432000048

Dimensions in inches

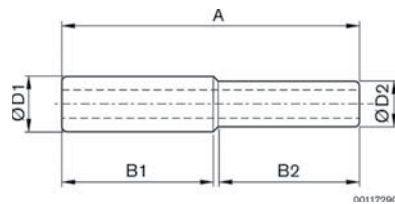
▲ ★ Male connector, series QR1-RDS



Ø D1	Ø D2	A	B	Weight [lbs]	per Pack	Part no.
5/32	5/32	1.38	0.630	0.01	20	R432000062
1/4	1/4	1.46	0.670	0.01	20	R432000056
5/16	5/16	1.81	0.830	0.01	20	R432000060
3/8	3/8	1.97	0.827	0.01	20	R432000058
1/2	1/2	1.97	0.887	0.01	20	R432000054

Dimensions in inches

▲ ★ Male connector, reducing, series QR1-RDR



Ø D1	Ø D2	A	B1	B2	Weight [g]	per Pack	Part no.
1/4	5/32	1.418	0.67	0.63	0.01	20	R432000057
5/16	1/4	1.537	0.729	0.67	0.01	20	R432000061
3/8	5/16	1.694	0.827	0.827	0.01	20	R432000059
1/2	3/8	1.891	0.887	0.887	0.01	20	R432000055

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

Products

Technical Data

See page 5



Accessories

★ Straight fitting, external hex, series QR1-MAN

See page 28



★ Straight fitting, internal hex, series QR1-MIN

See page 28



★ Straight female, series QR1-MAI

See page 29



★ Elbow, series QR1-MVT

See page 29



★ Extended elbow, series QR1-MVL

See page 30



★ Male branch TEE, series QR1-MTT

See page 31



★ Male run TEE, series QR1-MLT

See page 31



★ Straight union, series QR1-MSK

See page 32



★ Reducing union, series QR1-MSR

See page 32



★ Bulkhead connector metal, series QR1-MSM

See page 33



★ Elbow union, series QR1-MVK

See page 33



★ Union TEE, series QR1-MTK

See page 34



Plastic fittings, series QR1-Inch Mini

▲ Accessories

▲ ★ Tube to tube Y, series QR1-MYK

See page 34



▲ ★ Reducing Y, series QR1-MYR

See page 35



▲ ★ Cross connector, series QR1-MXS

See page 35



▲ ★ Straight reducer, series QR1-MED

See page 36



▲ ★ Push-in elbow, series QR1-MVA

See page 36



▲ ★ Push-in Y, series QR1-MYZ

See page 37



▲ ★ Push-in reduc. Y, ser. QR1-MY2

See page 37



▲ ★ Blanking cap, series QR1-MCA

See page 38



▲ ★ Plug, series QR1-MBS

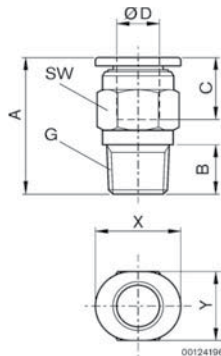
See page 38



Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

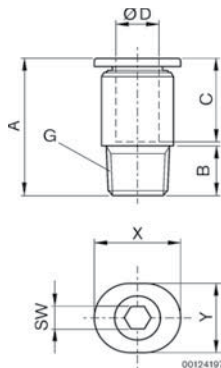
▲ ★ Straight fitting, external hex, series QR1-MAN



G	Ø D	A	B	C	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	1/8	0.461	0.138	0.406	5/16	0.284	0.244	0.01	25	R432000322
NPT1/8	1/8	0.563	0.315	0.406	13/32	0.284	0.244	0.01	25	R432000321
10-32 UNF	5/32	0.634	0.138	0.441	5/16	0.394	0.315	0.01	25	R432000332
NPT1/8	5/32	0.599	0.315	0.441	13/32	0.394	0.315	0.01	25	R432000330
10-32 UNF	1/4	0.678	0.138	0.461	13/32	0.473	0.394	0.01	25	R432000314
NPT1/8	1/4	0.739	0.315	0.461	13/32	0.473	0.394	0.01	25	R432000313

Dimensions in inches

▲ ★ Straight fitting, internal hex, series QR1-MIN



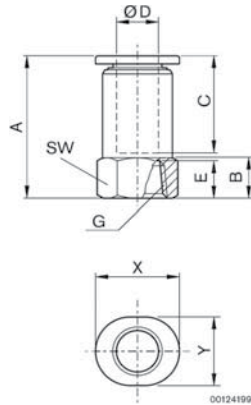
G	Ø D	A	B	C	SW	X	Y	Weight [lbs]	Per Pack	Part no.
10-32 UNF	1/8	0.599	0.138	0.406	3/32	0.284	0.244	0.01	25	R432000326
NPT1/8	1/8	0.563	0.315	0.406	3/32	0.284	0.244	0.01	25	R432000325
10-32 UNF	5/32	0.634	0.138	0.441	3/32	0.394	0.315	0.01	25	R432000333
NPT1/8	5/32	0.599	0.315	0.441	3/32	0.394	0.315	0.01	25	R432000331
10-32 UNF	1/4	0.697	0.138	0.461	3/32	0.473	0.394	0.01	25	R432000318
NPT1/8	1/4	0.741	0.315	0.461	5/32	0.473	0.394	0.01	25	R432000317

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

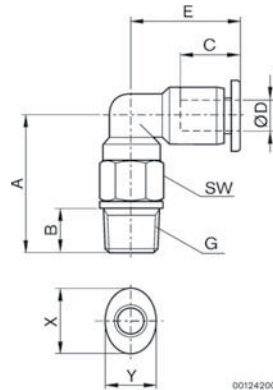
★ Straight female, series QR1-MAI



G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	1/8	0.623	0.197	0.406	0.197	5/16	7.2	0.244	0.01	25	R432000301
10-32 UNF	5/32	0.623	0.197	0.441	0.197	5/16	0.394	0.315	0.01	25	R432000302

Dimensions in inches

★ Elbow, series QR1-MVT



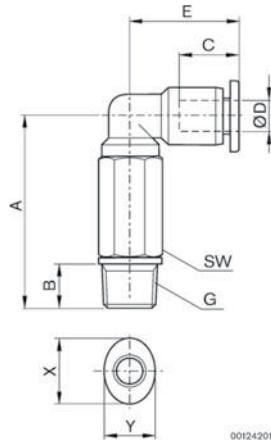
G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	1/8	0.567	0.138	0.355	0.416	5/16	0.284	0.244	0.01	25	R432000358
NPT1/8	1/8	0.67	0.315	0.355	0.416	13/32	0.284	0.244	0.01	25	R432000357
10-32 UNF	5/32	0.567	0.138	0.461	0.615	5/16	0.394	0.315	0.01	25	R432000360
NPT1/8	5/32	0.678	0.315	0.461	0.615	13/32	0.394	0.315	0.01	25	R432000359
10-32 UNF	1/4	0.607	0.138	0.473	0.642	5/16	0.473	0.394	0.01	25	R432000356
NPT1/8	1/4	0.687	0.315	0.473	0.642	13/32	0.473	0.394	0.01	25	R432000355

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

▲ ★ Extended elbow, series QR1-MVL

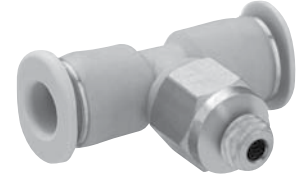
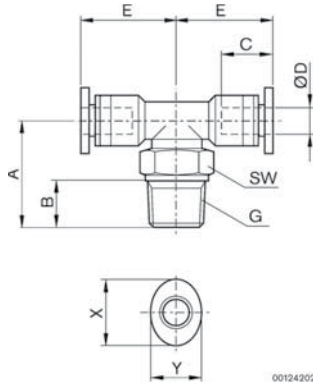


G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	1/8	0.981	0.138	0.355	0.315	5/16	0.284	0.244	0.02	25	R432000352
NPT1/8	1/8	1.064	0.315	0.355	0.416	13/32	0.284	0.244	0.02	25	R432000351
10-32 UNF	5/32	0.981	0.138	0.461	0.615	5/16	0.394	0.315	0.02	25	R432000354
NPT1/8	5/32	1.032	0.315	0.461	0.615	13/32	0.394	0.315	0.03	25	R432000353
10-32 UNF	1/4	1.02	0.138	0.473	0.642	5/16	0.473	0.394	0.02	25	R432000350
NPT1/8	1/4	1.178	0.315	0.473	0.642	13/32	0.473	0.394	0.03	25	R432000349

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

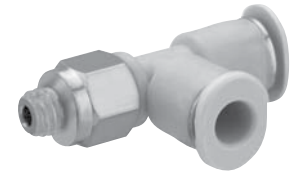
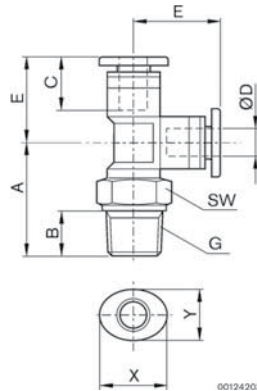
10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH



G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	1/8	0.981	0.138	0.355	0.516	5/16	0.284	0.244	0.01	25	R432000342
NPT1/8	1/8	1.064	0.315	0.355	0.516	13/32	0.284	0.244	0.01	25	R432000341
10-32 UNF	5/32	0.981	0.138	0.461	0.615	5/16	0.394	0.315	0.01	25	R432000344
NPT1/8	5/32	1.032	0.315	0.461	0.615	13/32	0.394	0.315	0.02	25	R432000343
10-32 UNF	1/4	1.02	0.138	0.473	0.654	5/16	0.473	0.394	0.01	25	R432000340
NPT1/8	1/4	1.178	0.315	0.473	0.654	13/32	0.473	0.394	0.02	25	R432000339

Dimensions in inches

★ Male run TEE, series QR1-MLT



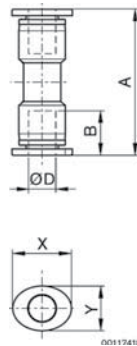
G	Ø D	A	B	C	E	SW	X	Y	Weight [lbs]	per Pack	Part no.
10-32 UNF	1/8	0.981	0.138	0.355	0.433	5/16	0.284	0.244	0.01	25	R432000310
NPT1/8	1/8	1.064	0.315	0.355	0.433	13/32	0.284	0.244	0.01	25	R432000309
10-32 UNF	5/32	0.981	0.138	0.697	0.536	5/16	0.394	0.315	0.01	25	R432000312
NPT1/8	5/32	1.032	0.315	0.697	0.539	13/32	0.394	0.315	0.02	25	R432000311
10-32 UNF	1/4	1.02	0.138	0.473	0.583	5/16	0.473	0.394	0.01	25	R432000308
NPT1/8	1/4	1.178	8	0.473	0.583	13/32	0.473	0.394	0.02	25	R432000307

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

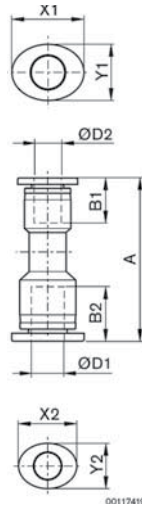
▲ ★ Straight union, series QR1-MSK



Ø D	A	B	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.753	0.355	0.284	0.244	0.01	25	R432000336
1/4	0.945	0.473	0.473	0.394	0.01	25	R432000335

Dimensions in inches

▲ ★ Reducing union, series QR1-MSR



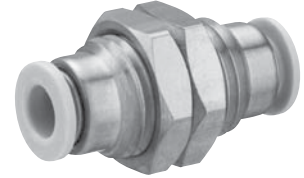
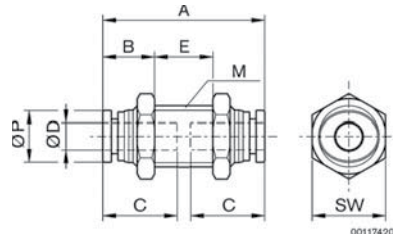
Ø D1	Ø D2	A	B1	B2	X1	Y1	X2	Y2	Weight [lbs]	Per Pack	Part no.
5/32	1/8	0.845	0.461	0.355	0.284	0.244	0.394	0.315	0.01	25	R432000328

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

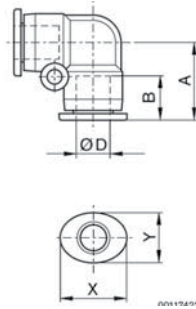
▲ ★ Bulkhead connector metal, series QR1-MSM



Ø D	Ø P	B	E	A	SW	C	M	Weight [lbs]	Per Pack	Part no.
1/8	0.236	0.276	0.296	0.705	13/32	0.406	M8x0.75	0.01	25	R432000334

Dimensions in inches

▲ ★ Elbow union, series QR1-MVK



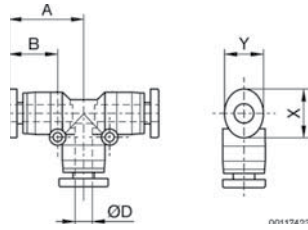
Ø D	A	B	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.431	0.355	0.284	0.244	0.01	25	R432000348
1/4	0.583	0.473	0.473	0.394	0.01	25	R432000347

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

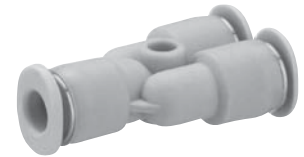
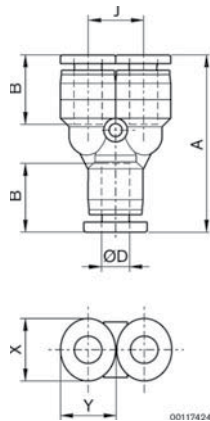
▲ ★ Union TEE, series QR1-MTK



Ø D	A	B	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.431	0.355	0.284	0.244	0.01	25	R432000338
1/4	0.583	0.473	0.473	0.394	0.01	25	R432000337

Dimensions in inches

▲ ★ Tube to tube Y, series QR1-MYK



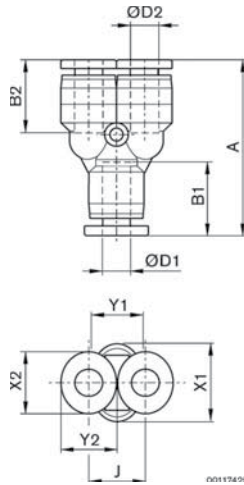
Ø D	A	B	J	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.374	0.191	0.323	0.284	0.244	0,01	25	R432000327
1/4	0.493	0.268	0.411	0.473	0.394	0,01	25	R432000319

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPTF, push-in fitting for tubes Ø 1/8 to 1/4 INCH

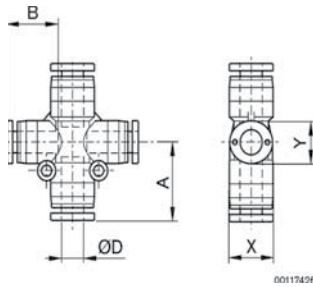
▲ ★ Reducing Y, series QR1-MYR



Ø D1	Ø D2	A	B1	B2	J	X1	Y1	X2	Y2	Weight [lbs]	Per Pack	Part no.
1/8	5/32	1.143	0.355	0.355	0.323	0.284	0.244	0.276	0.236	0.01	25	R432000364
5/32	1/4	1.152	0.461	0.355	0.323	0.394	0.315	0.284	0.244	0.01	25	R432000363

Dimensions in inches

▲ ★ Cross connector, series QR1-MXS



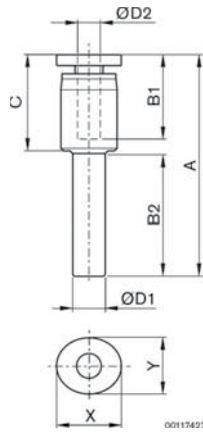
Ø D	A	B	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.355	0.191	0.244	0.284	0.01	25	R432000323
1/4	0.473	0.268	0.473	0.473	0.01	25	R432000315

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPT, push-in fitting for tubes Ø 1/8 to 1/4 INCH

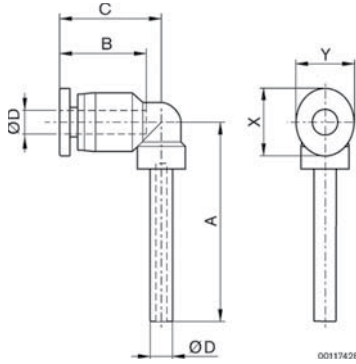
▲ ★ Straight reducer, series QR1-MED



Ø D2	Ø D1	A	B1	B2	C	X	Y	Weight [lbs]	Per Pack	Part no.
5/32	1/4	1.292	0.461	0.473	0.504	0.394	0.315	0.01	25	R432000305

Dimensions in inches

▲ ★ Push-in elbow, series QR1-MVA



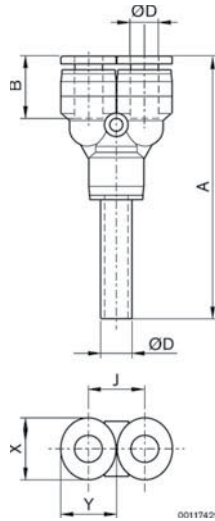
Ø D	A	B	C	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.89	0.355	0.414	0.284	0.244	0.01	25	R432000346
1/4	1.245	0.473	0.642	0.473	0.394	0.01	25	R432000345

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPT, push-in fitting for tubes \varnothing 1/8 to 1/4 INCH

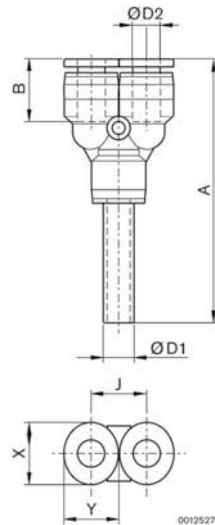
▲ ★ Push-in Y, series QR1-MYZ



\varnothing D	A	B	J	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	1.714	0.355	0.323	0.284	0.244	0.01	25	R432000324
1/4	1.99	0.473	0.402	0.473	0.394	0.01	25	R432000316

Dimensions in inches

▲ ★ Push-in reducing Y, series QR1-MY2



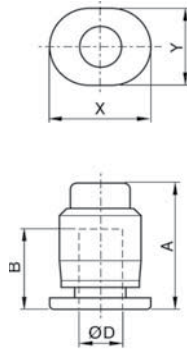
\varnothing D1	\varnothing D2	P	\varnothing d	F	J	C1	C2	B	X	Y	Weight [lbs]	Per Pack	Part no.
5/32	1/8	0.323	0.126	0.402	0.323	0.461	0.354	1.760	0.283	0.244	0.01	25	R432000362
1/4	5/32	0.315	0.126	0.402	0.315	0.472	0.461	1.882	0.394	0.315	0.01	25	R432000361

Dimensions in inches

Plastic fittings, series QR1-Inch Mini

10-32 UNF - 1/8 NPT, push-in fitting for tubes Ø 1/8 to 1/4 INCH

▲ ★ Blanking cap, series QR1-MCA



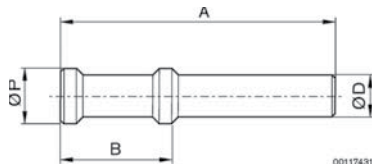
00117430



Ø D	A	B	X	Y	Weight [lbs]	Per Pack	Part no.
1/8	0.422	0.374	0.276	0.236	0.01	25	R432000304
1/4	0.492	0.472	0.472	0.393	0.01	25	R432000303

Dimensions in inches

▲ ★ Plug, series QR1-MBS



00117431



Ø D	A	B	Ø P	Weight [lbs]	per Pack	Part no.
1/8	0.867	0.374	0.158	0.01	25	R432000329

Dimensions in inches

Function Fittings, QR1 - Inch

Index

Products

★ Technical Data

See page 5



▲ Accessories

▲ ★ Straight fitting with built-in check valve, series QR1-ANR

See page 40



▲ ★ Straight fitting, self-sealing, series QR1-AAN

See page 41



▲ ★ Straight union with built-in check valve, series QR1-SKR

See page 43



▲ ★ Plug connector, self-sealing, series QR1-ASK

See page 44



▲ ★ Bulkhead, self-sealing, series QR1-ASS

See page 45



▲ ★ Ball valve, thread to push-in fitting, series QR1-BGS

See page 46



▲ ★ Elbow ball valve, thread to push-in fitting, series QR1-BWG

See page 47



▲ ★ Bulkhead ball valve, push-in fitting to push-in fitting, series QR1-BSS

See page 48



▲ ★ Ball valve, push-in fitting to push-in fitting, series QR1-BSK

See page 49



▲ ★ Right angle flow control valve, series QR1-DWA

See page 50



▲ Right angle flow control valve, series QR1-DWB mini

See page 51



▲ ★ In-line flow control valve, block shape, series QR1-DBS

See page 52



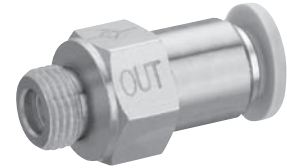
Function Fittings, QR1 - Inch

Straight fitting with built-in check valve

▲ ★ Straight fitting with built-in check valve, series QR1-ANR

Type	Poppet valve/ sealing lip valve	
Max. pressure	145 psi	
Opening pressure	12 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

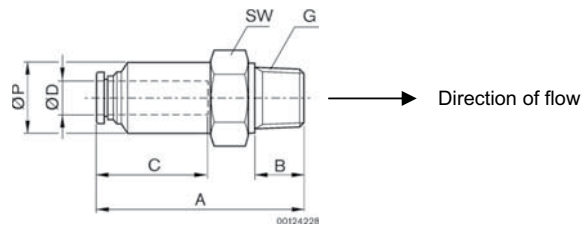
Materials	Body Seals	Brass nickel-plated Buna-N
-----------	---------------	-------------------------------



▶ ★ Part no.

	G	Ø D	Weight [lbs]	Per Pack	Part no.
	10-32 UNF	5/32	0.03	5	R432000424
	NPT 1/8	5/32	0.03	5	R432000423
	NPT 1/8	5/16	0.03	5	R432000422
	NPT 1/8	1/4	0.03	5	R432000417
	NPT 1/4	1/4	0.05	5	R432000418
	NPT 1/4	5/16	0.05	5	R432000421
	NPT 3/8	3/8	0.05	5	R432000419
	NPT 3/8	1/2	0.08	2	R432000415
	NPT 1/2	3/8	0.06	2	R432000420
	NPT 1/2	1/2	0.06	2	R432000416

Fig. 1



Part no.	G	Ø D	A	B	C	SW	Ø P
R432000424	10-32 UNF	5/32	1.182	0.217	0.63	7/16	0.394
R432000423	NPT 1/8	5/32	1.221	0.315	0.63	7/16	0.394
R432000422	NPT 1/8	5/16	1.127	0.315	0.729	9/16	0.406
R432000417	NPT 1/4	1/4	0.973	0.315	0.67	1/2	0.473
R432000418	NPT 1/4	1/4	1.127	0.433	0.67	1/2	0.511
R432000421	NPT 1/4	5/16	1.127	0.433	0.729	9/16	0.406
R432000419	NPT 3/8	3/8	2.45	0.473	0.827	11/16	0.989
R432000415	NPT 3/8	1/2	2.537	0.473	0.887	7/8	0.985
R432000420	NPT 1/2	3/8	2.466	0.591	0.827	7/8	1.103
R432000416	NPT 1/2	1/2	2.778	0.591	0.887	7/8	1.103

Dimensions in inches

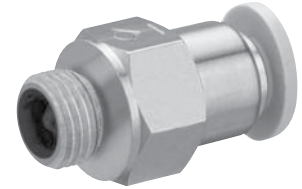
Function Fittings, QR1 - Inch

Straight fitting, self-sealing

▲ ★ Straight fitting, self-sealing, series QR1-AAN

Type	Poppet valve/ sealing lip valve	
Max. pressure	145 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

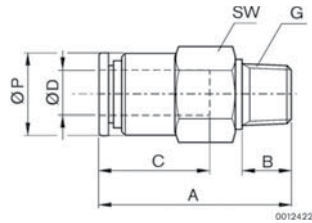
Materials	Body Seals	Brass nickel-plated Buna-N
-----------	---------------	-------------------------------



▶ ★ Part no.

	G	Ø D	Weight [lbs]	Per Pack	Part no.
	NPT 1/8	5/32	0.02	10	R432000442
	NPT 1/8	1/4	0.03	10	R432000436
	NPT 1/4	1/4	0.03	10	R432000437
	NPT 1/4	5/16	0.04	10	R432000440
	NPT 3/8	5/16	0.08	10	R432000441
	NPT 3/8	3/8	0.09	10	R432000438
	NPT 3/8	1/2	0.13	10	R432000434
	NPT 1/2	3/8	0.13	10	R432000439
	NPT 1/2	1/2	0.15	10	R432000435

Fig. 1



Part no.	G	Ø D	A	B	C	SW	Ø P
R432000442	NPT 1/8	5/32	1.004	0.315	0.63	7/16	0.394
R432000436	NPT 1/8	1/4	1.095	0.315	0.67	1/2	0.473
R432000437	NPT 1/4	1/4	1.095	0.433	0.67	9/16	0.552
R432000440	NPT 1/4	5/16	1.253	0.433	0.729	9/16	0.552
R432000441	NPT 3/8	5/16	1.253	0.473	0.729	11/16	0.67
R432000438	NPT 3/8	3/8	1.422	0.473	0.827	11/16	0.67
R432000434	NPT 3/8	1/2	1.749	0.473	0.887	7/8	0.796
R432000439	NPT 1/2	3/8	1.422	0.591	0.827	7/8	0.709
R432000435	NPT 1/2	1/2	1.741	0.591	0.887	7/8	0.796

Dimensions in inches

Function Fittings, QR1 - Inch

Straight union with built-in check valve

★ Straight union with built-in check valve, series QR1-SKR

Type	Poppet valve / sealing lip valve	
Max. pressure	145 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

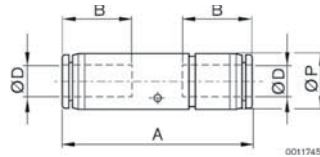
Materials	Body Seals	PBT Buna-N
-----------	---------------	---------------



★ Part no.

	Ø D	Weight [lbs]	Per Pack	Part no.
	5/32	0.01	5	R432000433
	1/4	0.02	5	R432000430
	5/16	0.02	5	R432000432
	3/8	0.03	2	R432000431
	1/2	0.03	2	R432000429

Fig. 1



Part no.	Ø D	A	B	Ø P
R432000433	5/32	1.407	0.63	0.394
R432000430	1/4	1.639	0.67	0.489
R432000432	5/16	2.033	0.729	0.567
R432000431	3/8	3.046	0.827	0.985
R432000429	1/2	3.152	0.887	0.985

Dimensions in inches

Function Fittings, QR1 - Inch

Plug connector, self-sealing

★ Plug connector, self-sealing, series QR1-ASK

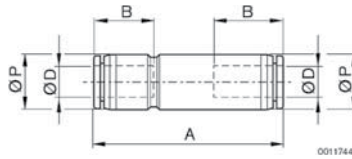
Type	Poppet valve / sealing lip valve
Max. pressure	145 psi
Ambient temperature range	32 °F to +140 °F
Medium	Compressed air, lubricated or non-lubricated
Weight	See table



★ Part no.

	Ø D	Weight [lbs]	Per Pack	Part no.
	5/32	0.01	10	R432000461
	1/4	0.02	10	R432000458
	5/16	0.03	10	R432000460
	3/8	0.06	10	R432000459
	1/2	0.07	10	R432000457

Fig. 1



Part no.	Ø D	A	B	Ø P
R432000461	5/32	1.69	0.63	0.394
R432000458	1/4	1.86	0.67	0.489
R432000460	5/16	2.072	0.729	0.567
R432000459	3/8	2.38	0.827	0.693
R432000457	1/2	2.774	0.887	0.835

Dimensions in inches

Function Fittings, QR1 - Inch

Bulkhead, self-sealing


★ Bulkhead, self-sealing, series QR1-ASS

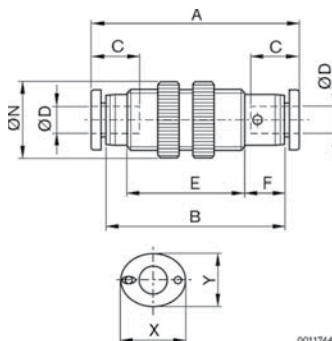
Type	Poppet valve / sealing lip valve	
Max. pressure	145 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

Materials	Body Seals	PBT Buna-N
-----------	---------------	---------------



★ Part no.

	Ø D	Weight [lbs]	Per Pack	Part no.
	5/32	0.02	5	R432000466
	1/4	0.02	5	R432000463
	5/16	0.04	5	R432000465
	3/8	0.06	5	R432000464
	1/2	0.08	5	R432000462



00117441

Part no.	Ø D	A	B	C	E	F	Ø N	X	Y
R432000466	5/32	1.474	37.4	0.63	—	0.37	0.67	0.473	0.394
R432000463	1/4	1.635	41.5	0.67	—	0.39	0.801	0.552	0.473
R432000465	5/16	1.86	47.2	0.729	—	0.418	0.906	0.63	0.552
R432000464	3/8	2.124	52.9	0.827	—	0.445	1.143	0.749	0.67
R432000462	1/2	2.494	63.3	0.887	—	0.414	1.261	0.906	0.827

Dimensions in inches

Function Fittings, QR1 - Inch

Ball valve, thread to push-in fitting

★ Ball valve, thread to push-in fitting, series QR1-BGS

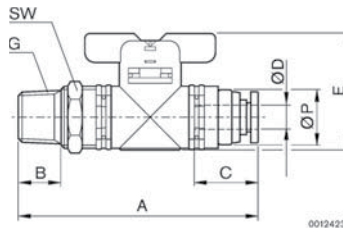
Type	Ball valve
Max. pressure	145 psi
Ambient temperature range	32 °F to +140 °F
Medium	Compressed air, lubricated or non-lubricated
Weight	See table

Materials	Body Seals	PBT Buna-N
-----------	---------------	---------------



▶ ★ Part no.

Symbol	G	Ø D	Weight [lbs]	Per Pack	Part no.
	NPT 1/8	1/4	0.12	5	R432000366
	NPT 1/8	5/16	0.12	5	R432000369
	NPT 1/4	1/4	0.12	5	R432000365
	NPT 1/4	5/16	0.13	5	R432000368
	NPT 1/4	3/8	0.28	5	R432000375
	NPT 1/4	1/2	0.29	5	R432000372
	NPT 3/8	1/4	0.14	5	R432000367
	NPT 3/8	5/16	0.15	5	R432000370
	NPT 3/8	3/8	0.29	5	R432000376
	NPT 3/8	1/2	0.29	5	R432000373
	NPT 1/2	3/8	0.32	5	R432000374
	NPT 1/2	1/2	0.33	5	R432000371



Part no.	G	Ø D	A	B	C	E	SW	Ø P
R432000366	NPT 1/8	1/4	2.38	0.315	0.67	0.906	11/16	0.67
R432000369	NPT 1/8	5/16	2.376	0.315	0.729	0.906	11/16	0.67
R432000365	NPT 1/4	1/4	2.498	0.433	0.67	0.906	11/16	0.67
R432000368	NPT 1/4	5/16	2.494	0.433	0.729	0.906	11/16	0.67
R432000375	NPT 1/4	3/8	3.247	0.433	0.827	1.103	31/32	0.945
R432000372	NPT 1/4	1/2	3.264	0.433	0.887	1.103	31/32	0.945
R432000367	NPT 3/8	1/4	2.537	0.473	0.67	0.906	11/16	0.67
R432000370	NPT 3/8	5/16	2.533	0.473	0.729	0.906	11/16	0.67
R432000376	NPT 3/8	3/8	3.286	0.473	0.827	1.103	31/32	0.945
R432000373	NPT 3/8	1/2	3.304	0.473	0.887	1.103	31/32	0.945
R432000374	NPT 1/2	3/8	3.444	0.591	0.827	1.103	31/32	0.945
R432000371	NPT 1/2	1/2	3.461	0.591	0.887	1.103	31/32	0.945

Dimensions in inches

Function Fittings, QR1 - Inch

Elbow ball valve, thread to push-in fitting

★ Elbow ball valve, thread to push-in fitting, series QR1-BWG

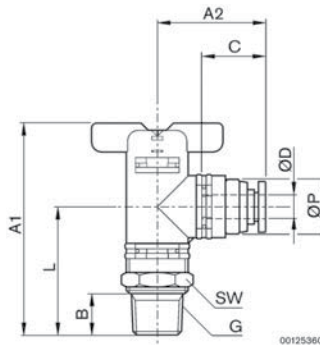
Type	Ball valve
Max. pressure	145 psi
Ambient temperature range	32 °F to +140 °F
Medium	Compressed air, lubricated or non-lubricated
Weight	See table

Materials	Body Seals	PBT Buna-N
-----------	---------------	---------------



★ Part no.

Symbol	G	Ø D	Weight [lbs]	Per Pack	Part no.
	NPT 1/8	1/4	0.12	5	R432000378
	NPT 1/8	5/16	0.12	5	R432000381
	NPT 1/4	1/4	0.13	5	R432000377
	NPT 1/4	5/16	0.13	5	R432000380
	NPT 1/4	3/8	0.29	5	R432000387
	NPT 1/4	1/2	0.29	5	R432000384
	NPT 3/8	1/4	0.15	5	R432000379
	NPT 3/8	5/16	0.15	5	R432000382
	NPT 3/8	3/8	0.29	5	R432000388
	NPT 3/8	1/2	0.3	5	R432000385
	NPT 1/2	3/8	0.33	5	R432000386
	NPT 1/2	1/2	0.34	5	R432000383



Part no.	G	ØD	A1	A2	B	C	L	SW	Ø P
R432000378	NPT 1/8	1/4	2.118	1.172	0.315	0.67	1.212	11/16	0.67
R432000381	NPT 1/8	5/16	2.118	1.192	0.315	0.729	1.212	11/16	0.67
R432000377	NPT 1/4	1/4	2.236	1.172	0.433	0.67	1.212	11/16	0.67
R432000380	NPT 1/4	5/16	2.236	1.192	0.433	0.729	1.212	11/16	0.67
R432000387	NPT 1/4	3/8	2.84	1.58	0.433	0.827	1.738	31/32	0.945
R432000384	NPT 1/4	1/2	2.84	1.576	0.433	0.887	1.736	31/32	0.945
R432000379	NPT 3/8	1/4	2.275	1.172	0.473	0.67	1.212	11/16	0.67
R432000382	NPT 3/8	5/16	2.275	1.192	0.473	0.729	1.212	11/16	0.67
R432000388	NPT 3/8	3/8	2.88	1.58	0.473	0.827	1.777	31/32	0.945
R432000385	NPT 3/8	1/2	2.88	1.576	0.473	0.887	1.777	31/32	0.945
R432000386	NPT 1/2	3/8	3.038	1.58	0.591	0.827	1.935	31/32	0.945
R432000383	NPT 1/2	1/2	3.038	1.576	0.591	0.887	1.935	31/32	0.945

Dimensions in inches

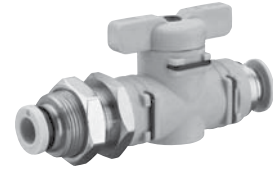
Function Fittings, QR1 - Inch

Bulkhead ball valve, push-in fitting to push-in fitting

★ Bulkhead ball valve, push-in fitting to push-in fitting, series QR1-BSS

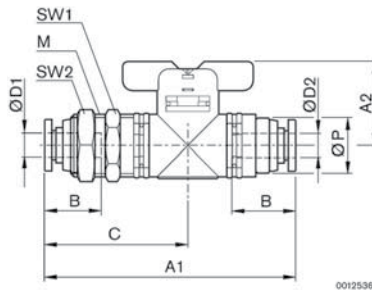
Type	Ball valve	
Max. pressure	145 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

Materials	Body Seals	PBT Buna-N
-----------	---------------	---------------



★ Part no.

Symbol	Ø D1	Ø D2	Weight [lbs]	Per Pack	Part no.
	1/4	1/4	0.1	5	R432000401
	5/16	1/4	0.11	5	R432000403
	5/16	5/16	0.1	5	R432000404
	3/8	3/8	0.24	5	R432000402
	1/2	3/8	0.26	5	R432000400



00125361

Part no.	Ø D1	Ø D2	M	A1	A2	B	C	SW1	SW2	Ø P
R432000401	1/4	1/4	UNF 5/8	2.9	0.906	0.67	1.73	3/4	3/4	0.67
R432000403	5/16	1/4	UNF 5/8	2.92	0.906	0.729	1.749	3/4	3/4	0.67
R432000404	5/16	5/16	UNF 5/8	2.92	0.906	0.729	1.749	3/4	3/4	0.67
R432000402	3/8	3/8	UNF 7/8	3.7	1.103	0.827	2.191	1	1	0.945
R432000400	1/2	3/8	UNF 7/8	3.684	1.103	0.887	2.167	1	1	0.945

Dimensions in inches

Function Fittings, QR1 - Inch

Ball valve, push-in fitting to push-in fitting

★ Ball valve, push-in fitting to push-in fitting, series QR1-BSK

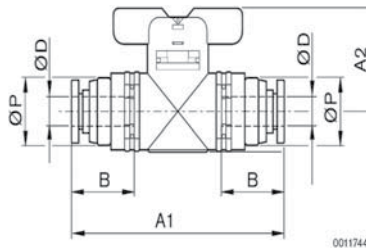
Type	Ball valve	
Max. pressure	145 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

Materials	Body Seals	PBT Buna-N
-----------	---------------	---------------



★ Part no.

Symbol	Ø D	Weight [lbs]	Per Pack	Part no.
	1/4	0.09	5	R432000406
	5/16	0.1	5	R432000408
	3/8	0.22	5	R432000407
	1/2	0.23	5	R432000405



00117441

Part no.	Ø D	A1	A2	B	Ø P
R432000406	1/4	2.34	0.906	0.67	0.67
R432000408	5/16	2.332	0.906	0.729	0.67
R432000407	3/8	3.089	1.103	0.827	0.945
R432000405	1/2	3.124	1.103	0.887	0.945

Dimensions in inches

Function Fittings, QR1 - Inch

Right angle flow control valve

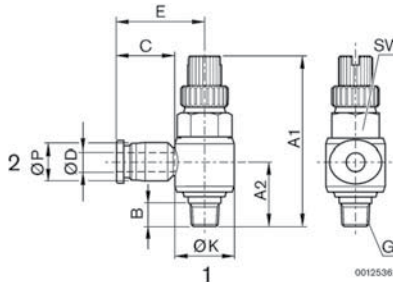
★ Right angle flow control valve, series QR1-DWA (meter out)

Type	Cone choke	
Max. pressure	145 psi	
Opening pressure (check valve)	7 psi	
Nominal flow rate Qn (SCFM) at 87 psi, Δp = 15 psi	See table	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	
Materials	Body	PBT
	Seals	Buna-N
	Throttling screw	Brass, nickel-plated



★ Part no.

	Direction of throttle	G	Ø D	Nominal flow rate [SCFM]	Weight [lbs]	Per Pack	Part no.
	1 --> 2	10-32 UNF	5/32	2.65	0.02	1	R432002367
		10-32 UNF	1/4	2.65	0.02	1	R432002369
		NPT 1/8	5/32	6.0	0.04	1	R432002368
		NPT 1/8	1/4	6.0	0.04	1	R432002370
		NPT 1/8	5/16	6.0	0.04	1	R432002373
		NPT 1/4	1/4	9.88	0.07	1	R432002371
		NPT 1/4	5/16	9.88	0.09	1	R432002374
		NPT 1/4	3/8	9.88	0.09	1	R432002377
		NPT 3/8	1/4	33.54	0.14	1	R432002372
		NPT 3/8	5/16	33.54	0.14	1	R432002375
		NPT 3/8	3/8	33.54	0.15	1	R432002378
		NPT 3/8	1/2	33.54	0.15	1	R432002380
		NPT 1/2	5/16	54.72	0.22	1	R432002376
		NPT 1/2	3/8	54.72	0.23	1	R432002379
		NPT 1/2	1/2	54.72	0.23	1	R432002381



Part no.	G	Ø D	A1 (max)	A2	B	C	E	Ø K	SW	Ø P
R432002367	10-32 UNF	5/32	1.044	0.256	0.138	0.63	0.725	0.394	5/16	0.411
R432002369	10-32 UNF	1/4	1.852	0.591	0.493	0.67	0.839	0.394	5/16	0.489
R432002368	NPT 1/8	5/32	1.044	0.256	0.138	0.63	0.725	0.394	7/16	0.411
R432002370	NPT 1/8	1/4	1.418	0.473	0.276	0.67	0.855	0.567	7/16	0.489
R432002373	NPT 1/8	5/16	2.049	0.619	0.611	0.729	0.926	0.567	7/16	0.567
R432002371	NPT 1/4	1/4	1.635	0.493	0.394	0.67	0.938	0.725	9/16	0.489
R432002374	NPT 1/4	5/16	1.635	0.571	0.394	0.729	1.052	0.725	9/16	0.567
R432002377	NPT 1/4	3/8	1.852	0.69	0.493	0.827	1.202	0.725	9/16	0.693
R432002372	NPT 3/8	1/4	1.852	0.571	0.496	0.67	1.036	0.867	3/4	0.489
R432002375	NPT 3/8	5/16	1.852	0.63	0.496	0.729	1.068	0.867	3/4	0.567
R432002378	NPT 3/8	3/8	2.049	0.749	0.611	0.827	1.217	0.867	3/4	0.693
R432002380	NPT 3/8	1/2	2.049	0.749	0.496	0.887	1.371	0.867	3/4	0.835
R432002376	NPT 1/2	5/16	2.049	0.682	0.611	0.729	1.143	1.103	1	0.567
R432002379	NPT 1/2	3/8	2.049	0.749	0.611	0.827	1.292	1.103	1	0.693
R432002381	NPT 1/2	1/2	2.049	0.749	0.611	0.887	1.43	1.103	1	0.835

Dimensions in inches

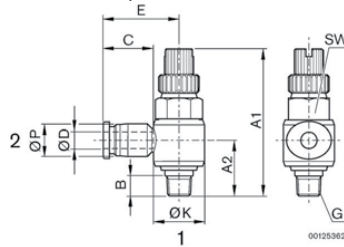
Function Fittings, QR1 - Inch

Right angle flow control valve, mini

★ Right angle flow control valve, series QR1-DWA

Type	Cone choke
Max. pressure	145 psi
Opening pressure (check valve)	7 psi
Nominal flow rate Qn (SCFM)	See table
at 87 psi, Δp = 15 psi	32 °F to +140 °F
Ambient temperature range	Compressed air, lubricated or non-lubricated
Medium	See table
Weight	

Materials	Body Seals Throttling screw	PBT Buna-N Brass, nickel-plated
-----------	-----------------------------------	---------------------------------------



	Direction of throttle	G	Ø D	Nominal Flow Rate [SCFM]	Weight [lbs]	Per Pack	Part No.
	2-->1 (meter-in)	NPT 1/4	1/4	9.88	0.07	1	R432000791
		NPT 3/8	3/8	33.54	0.15	1	R432000792
		NPT 1/2	1/2	54.72	0.23	1	R432000793

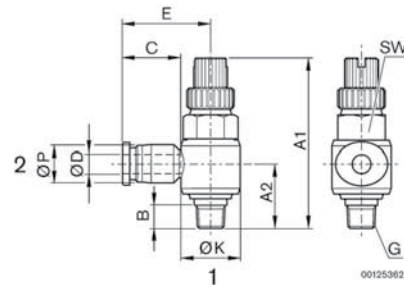
Part No.	G	ØD	A1 (max)	A2	B	C	E	ØK	SW	ØP
R442000791	NPT 1/4	1/4	1.635	0.493	0.394	0.7	0.938	0.725	9/16	0.489
R432000792	NPT 3/8	3/8	2.049	0.749	0.611	0.8	1.217	0.867	3/4	0.693
R432000793	NPT 1/2	1/2	2.049	0.749	0.611	0.9	1.430	1.103	1	0.835

Dimensions in inches

◆ Right angle flow control valve, series QR1-DWB - Mini

Type	Cone choke
Max. pressure	145 psi
Opening pressure (check valve)	7 psi
Nominal flow rate Qn (SCFM)	See table
at 87 psi, Δp = 15 psi	32 °F to +140 °F
Ambient temperature range	Compressed air, lubricated or non-lubricated
Medium	See table
Weight	

Materials	Body Seals Throttling screw	PBT Buna-N Brass, nickel-plated
-----------	-----------------------------------	---------------------------------------



Ø D	G	C	E	B	SW	Ø P	Ø K	A1 (max)	A2	Nominal flow rate [SCFM]	Weight [lbs]	Per Pack	Part no.
1/8	10-32 UNF	0.355	0.552	0.158	5/16	0.256	0.394	1.044	0.272	2.65	0.02	1	R432002362
5/32	10-32 UNF	0.461	0.617	0.158	5/16	0.315	0.394	1.044	0.252	2.65	0.02	1	R432002363
5/32	NPT 1/8	0.461	0.701	0.315	7/16	0.315	0.552	1.418	0.441	6.0	0.03	1	R432002364
1/4	10-32 UNF	0.473	0.662	0.158	5/16	0.411	0.394	1.044	0.252	2.65	0.02	1	R432002365
1/4	NPT 1/8	0.473	0.717	0.315	7/16	0.411	0.552	1.418	0.441	6.0	0.04	1	R432002366

Dimensions in inches

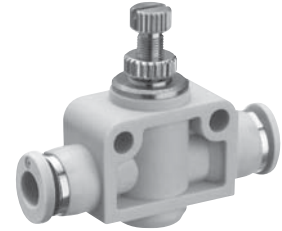
Function Fittings, QR1 - Inch

In-line flow control valve

▲ ★ In-line flow control valve, block shape, series QR1-DBS

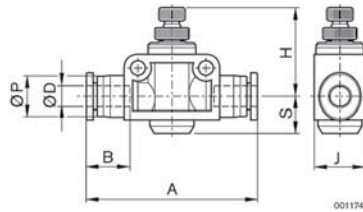
Type	Cone choke	
Max. pressure	145 psi	
Opening pressure (check valve)	7 psi	
Ambient temperature range	32 °F to +140 °F	
Medium	Compressed air, lubricated or non-lubricated	
Weight	See table	

Materials	Body	PBT
	Seals	NBR
	Throttling screw	Brass, nickel-plated



▲ ★ Part no.

	Ø D	Weight [lbs]	Per pack	Part no.
	5/32	0.03	5	R432002382
	1/4	0.06	5	R432002383
	5/16	0.09	5	R432002384
	3/8	0.15	5	R432002385
	1/2	0.24	5	R432002386



Part no.	Ø D	A	B	J	H	S	Ø P
R432002382	5/32	1.426	0.63	0.394	0.701	0.256	0.411
R432002383	1/4	1.682	0.67	0.591	1.064	0.433	0.489
R432002384	5/16	2.041	0.729	0.709	1.123	0.473	0.567
R432002385	3/8	2.348	0.827	0.827	1.34	0.473	0.693
R432002386	1/2	2.813	0.887	1.103	1.32	0.63	0.835

Dimensions in inches

Plastic Tubing - Inch

Plastic tubing, Polyurethane; Silencers

Plastic Tubing, Polyurethane (PUR) - Inch

Pressure medium	Air
Temperature range	-40° to 165°F
Vacuum rating	to 28" Hg
Diameter tolerance	± .005"
Working pressure	3 to 1 safety factor (see table)
UV stabilized	Yes
Material	Polyurethane

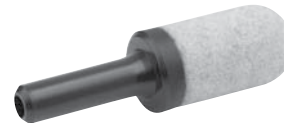
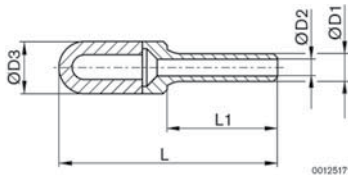


► Other tube sizes, colors and materials are available on request. Please contact factory for details.

Part Numbers: Tubing Size (Inch)	Blue Polyurethane Part Number	Clear Polyurethane Part Number	Bend Radius	Max. Pressure (psi)		Package Qty. (feet)	Weight (lbs.)
				75°F	150°F		
1/8" OD x .066 ID	R432026247	R432026251	1/4	255	100	50	0.25
1/4" OD x .160 ID	R432026248	R432026252	1/2	175	70	100	1.50
3/8" OD x .245 ID	R432026249	R432026253	7/8	170	70	100	3.40
1/2" OD x .320 ID	R432026250	R432030140	1 1/8	175	70	50	2.55

★ Silencers, NPT male threads

★ Silencers, male stem, inch push-in



Ø D1	Ø D2	Ø D3	L1	L	Per Pack	Part no.
6.4	3.5	12.5	20.5	45	5	R412005727
9.5	6.5	15.5	26.5	57.5	5	R412005728
12.5	9.2	18.5	29.0	82	5	R412007714

Dimensions in mm

Adapter Fittings

Adapters - metric to inch/common pipe fittings

Male/Female Adapter ISO G (BSPP) to Inch

A male	B female	Per Pack*	Part No.
ISO G1/8	1/8" NPT	10	R432011744
ISO G1/4	1/4" NPT	10	R432011874
ISO G3/8	3/8" NPT	10	R432011847
ISO G1/2	1/2" NPT	10	R432011745
1/8" NPT	ISO G1/8	10	R432012022
1/4" NPT	ISO G1/4	10	R432012023
3/8" NPT	ISO G3/8	10	R432012024
1/2" NPT	ISO G1/2	10	R432012025



M7 Adapter fittings

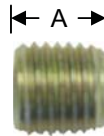
Type	Part No.	Thread	Tube O.D.	Pack Qty.*
straight	1823373100	M7	4mm	25
straight	1823373088	M7	6mm	25
elbow	R412005377	M7	4mm	25
elbow	R412005378	M7	6mm	25
straight	R412004925	M7	1/8"	25
straight	R412004926	M7	1/4"	25



Hex Socket Pipe Plug

Size	A min/max (in.)	Part No.	Pack Qty.*
1/8" NPT	0.290/0.370	R432027753	1
1/4" NPT	0.417/0.475	R432027754	1
3/8" NPT	0.475/0.520	R432012125	1
1/2" NPT	0.524/0.630	R432027755	1

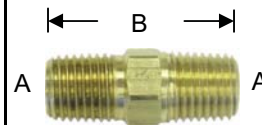
Material: Zinc plated steel



Hex Pipe Double Nipple

A	B (in.)	Hex Width (in.)	Part No.	Pack Qty.*
10-32 UNF	0.50	0.25	R432012043	1
1/8" NPT	0.97	0.44	R432012044	1
1/4" NPT	1.38	0.56	R432012041	1
3/8" NPT	1.41	0.69	R432030233	1
1/2" NPT	1.81	0.88	R432012042	1

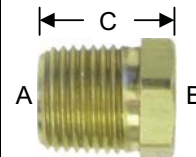
Material: Brass



Reducer Bushing

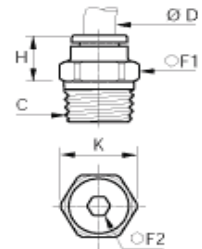
A male	B female	C (in.)	Hex Width (in.)	New Part No.*	Pack Qty.*
1/8" NPT	10-32 UNF	0.53	0.44	R432030232	1
1/4" NPT	1/8" NPT	0.75	0.64	R432027750	1
3/8" NPT	1/8" NPT	0.75	0.68	R432012159	1
3/8" NPT	1/4" NPT	0.75	0.68	R432027749	1
1/2" NPT	1/4" NPT	1.00	0.88	R432027751	1
1/2" NPT	3/8" NPT	1.00	0.88	R432030225	1
3/4" NPT	1/4" NPT	1.00	1.12	R432030202	1
3/4" NPT	3/8" NPT	1.00	1.13	R432030201	1
3/4" NPT	1/2" NPT	1.06	1.13	R432012160	1

Material: Brass, except R432012160 is zinc plated steel.



Hybrid Fittings - Inch tube to Male BSPT (R ISO)

Part Number	ØD (in.)	C	F1 (in.)	F2 (in.)	H (in.)	K (in.)	wt. (oz.)
R432016913	5/32	R1/8	0.39	0.12	0.37	0.43	0.282
R432016914	1/8	R1/8	0.43	0.12	0.34	0.47	0.176
R432016917	1/4	R1/8	0.43	0.16	0.47	0.47	0.212
R432016918	1/4	R1/4	0.55	0.16	0.37	0.59	0.741
R432016919	3/8	R1/4	0.71	0.20	0.30	0.77	0.600
R432016922	1/2	R1/4	0.87	0.24	1.06	0.94	1.552
R432016920	3/8	R3/8	0.51	0.20	0.79	0.55	0.670
R432016923	1/2	R3/8	0.87	0.28	1.02	0.94	1.693
R432016921	3/8	R1/2	0.55	0.24	0.66	0.59	2.152
R432016924	1/2	R1/2	0.94	0.28	0.81	0.94	1.728



Note: BSP-T (R ISO tapered) threads can be used in an ISO G (BSPP) female port, with sealing ensured by thread sealant.

*Pack Quantity is order quantity multiple due to package size.

NOTICE TO PRODUCT USERS

1. WARNING: FLUID MEDIA

AVENTICS pneumatic devices are designed and tested for use with filtered, clean, dry, chemical free air at pressures and temperatures within the specified limits of the device. For use with media other than air or for human life support systems, AVENTICS must be consulted. Hydraulic cylinders are designed for operation with filtered, clean, petroleum based hydraulic fluid; operation using fire-resistant or other special types of fluids may require special packing and seals. Consult the factory.

2. WARNING: MATERIAL COMPATIBILITY

Damage to product seals or other parts caused by the use of non-compatible lubricants, oil additives or synthetic lubricants in the air system compressor or line lubrication devices voids the AVENTICS warranty and can result in product failure or other malfunction. See lubrication recommendations below.

AIR LINE LUBRICANTS! In service higher than 18 cycles per minute or with continuous flow of air through the device, an air line lubricator is recommended.* (Do not use line lubrication with vacuum products.) However, the lubricator must be maintained since the oil will wash out the grease, and lack of lubrication will greatly shorten the life expectancy. The oils used in the lubricator must be compatible with the elastomers in the device. The elastomers are normally BUNA-N, NEOPRENE, VITON, SILICONE and HYTREL. AVENTICS recommends the use of only petroleum based oils without synthetic additives, and with an aniline point between 180° F and 210° F.

COMPRESSOR LUBRICANTS! All compressors (with the exception of special "oil free" units) pass oil mist or vapor from the internal crankcase lubricating system through to the compressed air. Since even small amounts of non-compatible lubricants can cause severe seal deterioration (which could result in component and system failure) special care should be taken in selecting compatible compressor lubricants.

3. WARNING: INSTALLATION AND MOUNTING

The user of these devices must conform to all applicable electrical, mechanical, piping and other codes in the installation, operation or repair of these devices.

INSTALLATION! Do not attempt to install, operate or repair these devices without proper training in the technique of working on pneumatic or hydraulic systems and devices, unless under trained supervision. Compressed air and hydraulic systems contain high levels of stored energy. Do not attempt to connect, disconnect or repair these products

when a system is under pressure. Always exhaust or drain the pressure from a system before performing any service work. Failure to do so can result in serious personal injury.

MOUNTING! Devices should be mounted and positioned in such a manner that they cannot be accidentally operated.

4. WARNING: APPLICATION AND USE OF PRODUCTS

The possibility does exist for any device or accessory to fail to operate properly through misuse, wear or malfunction. The user must consider these possibilities and should provide appropriate safe guards in the application or system design to prevent personal injury or property damage in the event of a malfunction.

5. WARNING: CONVERSION, MAINTENANCE AND REPAIR

When a device is disassembled for conversion to a different configuration, maintenance or repair, the device must be tested for leakage and proper operation after being reassembled and prior to installation.

MAINTENANCE AND REPAIR! Maintenance periods should be scheduled in accordance with frequency of use and working conditions. All AVENTICS products should provide a minimum of 1,000,000 cycles of maintenance free service when used and lubricated as recommended. However, these products should be visually inspected for defects and given an "in system" operating performance and leakage test once a year. Where devices require a major repair as a result of the one million cycles, one year, or routine inspection, the device must be disassembled, cleaned, inspected, parts replaced as required, rebuilt and tested for leakage and proper operation prior to installation. See individual catalogs for specific cycle life estimates.

6. PRODUCT CHANGES

Product changes including specifications, features, designs and availability are subject to change at any time without notice. For critical dimensions or specifications, contact factory.

*Many AVENTICS pneumatic valves and cylinders can operate with or without air line lubrication; see individual sales catalogs for details.

-Refer to the appropriate service manual for parts and service information, most are available for download from www.aventics.com/us/downloads