T51, T52 and T53 Series
In-line push-in non-return valves

Ø 4, 5, 6, 8, 10, 12 mm O/D metric tube
Ø 5/32", 3/16", ¼",5/16", ⅜", ½" O/D inch tube

Low cracking pressure

Releasable grab ring technology combining plastic and brass components for a compact and superior non-return design

Colour coding option with tamper-resistant feature

Non-PTFE based thread sealant on tapered threads

Moulded mounting brackets on tube connector designs (PIF/PIF plastic valves)

Red release sleeve indicating metric tube sizes for grab ring connection

Grey release sleeve indicating inch tube sizes for grab ring connection

Reliable and corrosion resistant

Technical data

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

Operating pressure:
0,1 to 10 bar (T51, T52)

0,3 to 10 bar (T53)

-0,1 to -1 bar vacuum (T51, T52)

Ambient temperature:
-20° ... +80°C

Consult our Technical Service for use below 2°C

Mounting:
Tube/tube PIF

Tube PIF/male thread

Male thread/tube PIF

Materials

4, 5, 6, 8 mm, 5/32", 3/16", 1/4", 5/8" inch O/D

Body: Plastic PBT

Valve: plastic PBT

Release sleeve: plastic POM

Natural brass insert

Seal: silicon free nitrile

Spring: stainless steel

Grab ring: stainless steel, BS 1440 Pt 2, grade 301.S21

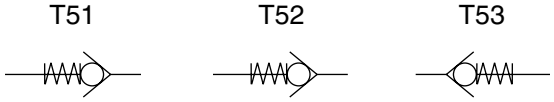
O/D 5 fitted with collet connection

T52 and T53 series, nickel plated brass threads. 10, 12 mm, 3/8", 1/2" inch O/D

Collet: nickel plated brass

Body: black anodised aluminium

Valve and insert: aluminium



Tube types

Nylon 11 or 12, polyurethane* and other plasticised or unplasticised tubing which conforms to the tolerances specified in DIN 73378, BS 5409/1, NFE 49-100 & 49-101, WD 16026, ISO/WD 16627

Copper and stainless steel

*Suitable for 85D, polyurethane is light-stable and has a hardness of 92 to 98 shore A.

Note: collet tube connections cannot be used for copper or stainless steel tubes, or soft plastic tubing such as 85D

Ordering information

To order quote product number from table overleaf:

eg: T51P0004 for OD4/OD4mm
T52B1806 for ⅛" BSPT/OD6mm
T53A2804 for OD¼" / ¼NPT

Alternative models

T55, T56 range of aluminium threaded non return valves, see data sheet 5.10.001, 5.11.001

S/520 range of brass threaded non return valve, see data sheet 5.10.001

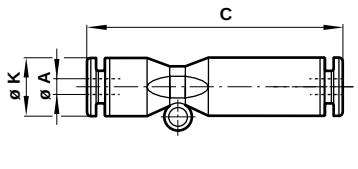
General Information

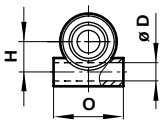
Pif/Pif Model		Tube size		Flow factor	Cracking pressure	Minimum operating pressure	Weight	Spares kit
Inch	Metric	Inch	Metric	C/CV*	(bar)	(bar)	(kg)	
T51Y0002	T51P0004	5/32"	4mm	0,75/0,18	0,03+0,06	0,1	0,006	–
T51Y0003	T51P0005	3/16"	5mm	1,16/0,28	0,03+0,06	0,1	0,018	–
T51Y0004	T51P0006	1/4"	6mm	1,9/0,47	0,03+0,06	0,1	0,011	–
T51Y0005	T51P0008	5/8"	8mm	3,5/0,86	0,03+0,06	0,1	0,013	–
T51Y0006	T51P00010	3/8"	10mm	4,7/1,15	0,03+0,06	0,1	0,049	–
T51Y0007	T51P00012	1/2"	12mm	7,5/1,84	0,03+0,06	0,1	0,066	–

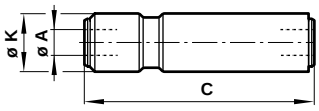
Pif Male/Thread, Male Thread/PIF Model				Port size x Tube size		Flow factor	Cracking pressure	Minimum operating pressure **	Weight		Spares kit
Inch	Inch	Metric	Metric	NPTF x inch	BSTP x metric	C/CV*	(bar)	(bar)	inch (kg)	metric (kg)	
		T52M0504	T53M0504		M5 x 4mm	0,55/0,13	0,03+0,06	0,1		0,008	–
T52A1802	T53A1802	T52B1804	T53B1804	1/8x5/32"	1/8x4mm	0,75/0,18	0,03+0,06	0,1	0,015	0,015	–
T52A1803	T53A1803	T52B1805	T53B1805	1/8x3/16"	1/8x5mm	1,4/0,34	0,03+0,06	0,1	0,022	0,022	–
T52A2803	T53A2803	T52B2805	T53B2805	1/4x3/16"	1/4x5mm	1,4/0,34	0,03+0,06	0,1	0,032	0,027	–
T52A1804	T53A1804	T52B1806	T53B1806	1/8x1/4"	1/8x6mm	1,9/0,47	0,03+0,06	0,1	0,020	0,020	–
T52A2804	T53A2804	T52B2806	T53B2806	1/4x1/4"	1/4x6mm	1,9/0,47	0,03+0,06	0,1	0,030	0,028	–
T52A1805	T53A1805	T52B1808	T53B1808	1/8x5/16"	1/8x8mm	3,5/0,86	0,03+0,06	0,1	0,021	0,021	–
T52A2805	T53A2805	T52B2808	T53B2808	1/4x5/16"	1/4x8mm	3,5/0,86	0,03+0,06	0,1	0,030	0,026	–

* C measured in dm^3/(s.bar) /Cv measured in US gal/min

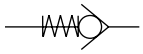
** Minimum Operating Pressure 0,3 bar for T53







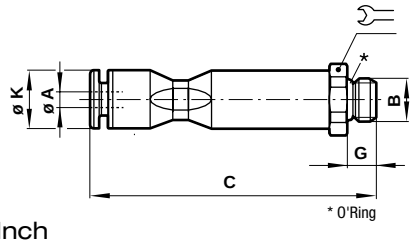
T51

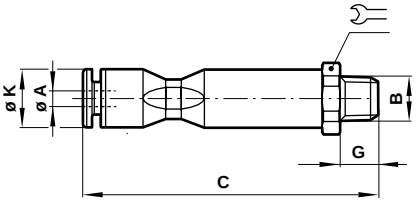


Inch Metric

	A	C	D	K	H	O	A	
T51Y0002	5/32	49,8	4,3	10,8	5,4	11,4	4	T51P0004
T51Y0003*	3/16	53,1	4,3	13	6,7	13,6	5	T51P0005*
T51Y0004	1/4	55,3	4,3	13	6,7	13,6	6	T51P0006
T51Y0005	5/16	62,5	4,3	14,6	7,6	15,2	8	T51P0008
T51Y0006*	3/8	77,4	–	20	–	–	10	T51P0010*
T51Y0007*	1/2	88,4	–	22	–	–	12	T51P0012*

* Available only with collet tube connection





T53 T52

Inch Metric

		A	B**	C	G	K		C	G	A	B**		
						10,8	12	49,2	4,3	4	M5	T52M0504	T53M0504
T52A1802	T53A1802	5/32	1/8	54,4	9,5	10,8	12	54,4	9,5	4	1/8	T52B1804	T53B1804
T52A1803*	T53A1803*	3/16	1/8	57,9	9,5	13	15	57,9	9,5	5	1/8	T52B1805*	T53B1805*
T52A2803*	T53A2803*	3/16	1/4	62,7	14,3	13	15	59,4	11	5	1/4	T52B2805*	T53B2805*
T52A1804	T53A1804	1/4	1/8	59,2	9,5	13	15	59,2	9,5	6	1/8	T52B1806	T53B1806
T52A2804	T53A2804	1/4	1/8	64	14,3	13	15	60,7	11	6	1/4	T52B2806	T53B2806
T52A1805	T53A1805	1/8	1/8	63,7	9,3	14,6	15	63,7	9,5	8	1/8	T52B1808	T53B1808
T52A2805	T53A2805	1/4	1/4	68,5	14,3	14,6	15	62,2	11	8	1/4	T52B2808	T53B2808

**NPT according to ANSI-B1.20.1

*Available only with collet tube connection

**BSPT according to ISO 7/1

M according to ISO.DIN 13

Thread sealant is applied to the full circumference of the thread. The recommended tightening torque figures for designs with thread sealant are found in the torque table beside

Thread (BSPT)	Tightening torque (Nm)
1/8	6,86 ... 8,82
1/4	11,76 ... 13,72
3/8	21,56 ... 25,32
1/2	27,44 ... 29,40

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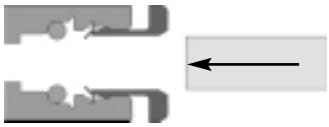
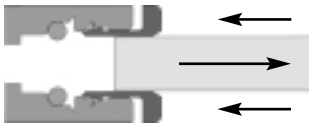
Method of assembly

1. Ensure that the end of the tube is cut square and is free from burrs.



2. Push the tube through the release button and grab ring into the fitting

3. Push the tube firmly through the 'O' ring until it bottoms on the tube stop then pull back.



4. To disconnect, push the tube into the fitting, hold down the release button and withdraw the tube

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under '**Technical Data**'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

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