

Ø 4, 5, 6, 8, 10, 12 mm O/D metric tube
 Ø 5/32", 3/16", 1/4", 5/16", 3/8", 1/2" 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

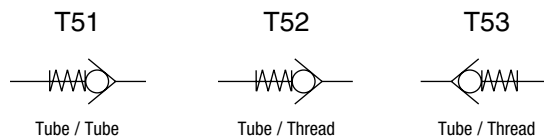
T52 and T53 series, nickel plated brass threads.

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 1/8" BSPT/OD6mm

T53A2804 for OD1/4" / 1/4NPT

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



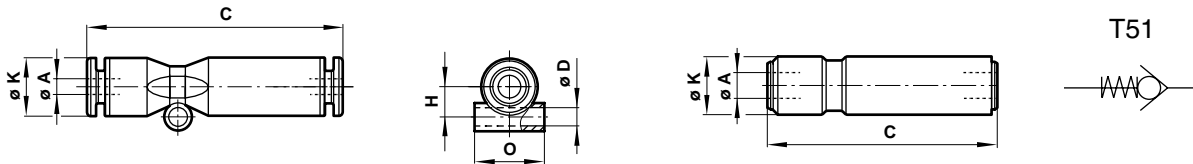
General Information

| 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 dm³/(s.bar) /Cv measured in US gal/min

** Minimum Operating Pressure 0,3 bar for T53

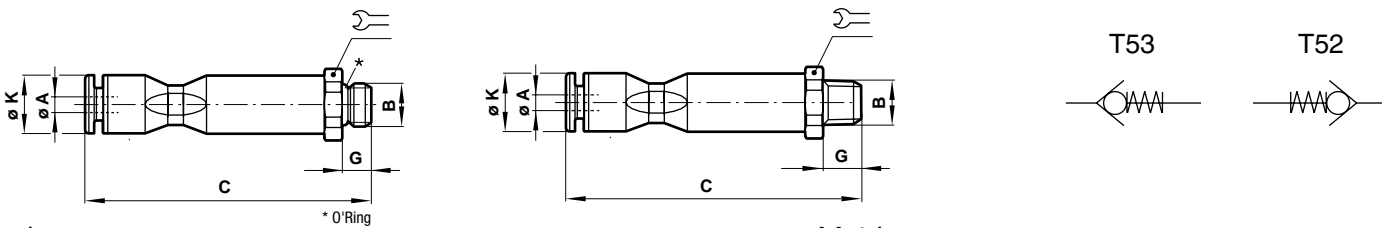


Inch

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



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

**BSTP according to ISO 7/1

*Available only with collet tube connection

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

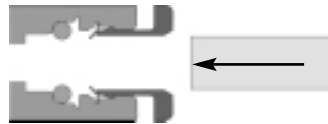
| Thread (BSPT) | Tightening torque (Nm) |
|---------------|------------------------|
| 1/8 | 6,86 ... 8,82 |
| 1/4 | 11,76 ... 13,72 |
| 3/8 | 21,56 ... 25,32 |
| 1/2 | 27,44 ... 29,40 |



Method of assembly



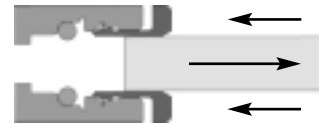
1. Ensure that the end of the tube is cut square and is free from burrs.



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.