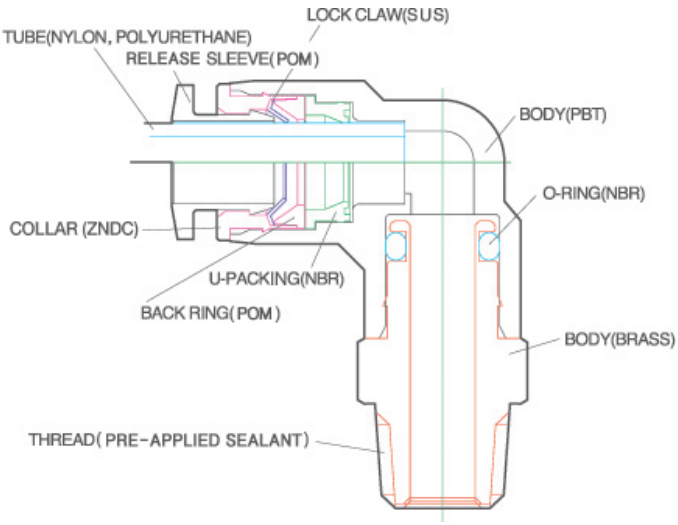
Pneumatic Push-to-Connect Fittings

NITRA pneumatic push-to-connect fitting bodies are made of a strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant (O-ring on #10-32 and M5 threads). The bodies of elbow and tee fittings with threaded connections can be rotated after installation to allow for variations in piping direction. NITRA Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing, press the circular release ring and the tubing can be easily pulled out.

- Large selection of fitting configurations
- Inch and metric sizes available
- NPT and BSPT (R) threads available
- Tough thermoplastic bodies, stainless steel tube gripping claws, nickel-plated threads with pre-applied Teflon sealant (O-ring on #10-32 and M5 threads)
- Threaded Elbow and Tee bodies can be rotated after installation
- Release rings are color coded to differentiate between inch and metric sizes
- For use with air only
- Working pressure: -29.5" Hg to 150 psi.
- Working temperature: 32 to 140°F (0 to 60°C)

Features

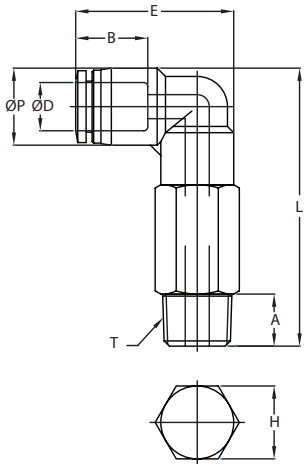


Fitting Cut-away Diagram

Company Information
Drives
Soft Starters
Motors
Power Transmission
Motion: Servos and Steppers
Motor Controls
Sensors: Proximity
Sensors: Photoelectric
Sensors: Encoders
Sensors: Limit Switches
Sensors: Current
Sensors: Pressure
Sensors: Temperature
Sensors: Level
Sensors: Flow Switches
Pushbuttons and Lights
Stacklights
Signal Devices
Process
Relays and Timers
Pneumatics: Air Prep
Pneumatics: Directional Control Valves
Pneumatics: Cylinders
Pneumatics: Tubing
Pneumatics: Air Fittings
Appendix Book 2
Terms and Conditions

NITRA PNEUMATICS

Pneumatic Push-to-Connect Fittings



NITRA pneumatic push-to-connect long male elbow fitting with rotating thermoplastic (PBT) body, nickel-plated brass threads, stainless steel tube gripping claws and pre-applied teflon thread sealant (O-ring on #10-32 and M5 threads). For use with polyurethane or nylon tubing. Five fittings per package.

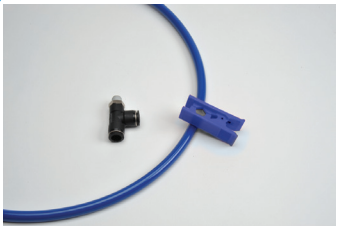
Inch Fitting

Metric Fitting

NITRA™ Long Male Elbow													
Inch Sizes - dimensions in inches (in.)													
Part No.	***Price***	***Size***	***øD***	***øP***	***T***	***L***	***E***	***A***	***B***	***H (Hex)***	***Orifice***	***Package Weight (lbs)***	***Qty. per pack***
MEL532-10N	$11.00	5/32 in. x #10-32	5/32	0.41	UNF 10-32	1.48	0.93	0.14	0.59	7/16	0.08	0.2	5
MEL532-18N	$11.00	5/32 in. x 1/8 NPT	5/32	0.41	NPT 1/8	1.62	0.93	0.33	0.59	7/16	0.12	0.2	5
MEL532-14N	$12.00	5/32 in.x 1/4 NPT	5/32	0.41	NPT 1/4	1.68	0.93	0.41	0.59	9/16	0.12	0.2	5
MEL14-10N	$10.50	1/4 in. x #10-32	1/4	0.51	UNF 10-32	1.73	1.04	0.14	0.66	1/2	0.08	0.3	5
MEL14-18N	$10.50	1/4 in. x 1/8 NPT	1/4	0.51	NPT 1/8	1.87	1.04	0.33	0.66	1/2	0.18	0.2	5
MEL14-14N	$11.50	1/4 in. x 1/4 NPT	1/4	0.51	NPT 1/4	1.99	1.04	0.41	0.66	9/16	0.18	0.3	5
MEL14-38N	$14.00	1/4 in. x 3/8 NPT	1/4	0.51	NPT 3/8	2.03	1.04	0.45	0.66	11/16	0.18	0.3	5
MEL38-18N	$16.00	3/8 in. x 1/8 NPT	3/8	0.68	NPT 1/8	2.24	1.27	0.33	0.79	11/16	0.24	0.3	5
MEL38-14N	$16.00	3/8 in. x 1/4 NPT	3/8	0.69	NPT 1/4	2.31	1.27	0.41	0.79	11/16	0.28	0.4	5
MEL38-38N	$16.50	3/8 in. x 3/8 NPT	3/8	0.69	NPT 3/8	2.35	1.27	0.45	0.79	11/16	0.28	0.5	5
MEL38-12N	$23.50	3/8 in. x 1/2 NPT	3/8	0.69	NPT 1/2	2.47	1.27	0.57	0.79	7/8	0.28	0.7	5
MEL12-14N	$23.50	1/2 in. x 1/4 NPT	1/2	0.83	NPT 1/4	2.68	1.49	0.41	0.90	3/4	0.31	0.6	5
MEL12-38N	$24.00	1/2 in. x 3/8 NPT	1/2	0.83	NPT 3/8	2.72	1.49	0.45	0.90	3/4	0.35	0.7	5
MEL12-12N	$24.50	1/2 in. x 1/2 NPT	1/2	0.83	NPT 1/2	2.83	1.49	0.57	0.90	7/8	0.35	0.8	5
Metric Sizes - dimensions in millimeters (mm)													
MEL4M-M5	$12.00	4 mm x M5	4	10.5	M5*0.8p	38.2	23.6	4.1	14.9	10	2.0	0.2	5
MEL4M-18R	$11.00	4 mm x R1/8	4	10.5	R 1/8	40.7	23.6	8.0	14.9	10	3.0	0.2	5
MEL4M-14R	$12.00	4 mm x R1/4	4	10.5	R 1/4	42.7	23.6	10.0	14.9	14	3.0	0.2	5
MEL6M-M5	$11.50	6 mm x M5	6	12.5	M5*0.8p	43.7	26.3	4.1	16.4	12	2.0	0.3	5
MEL6M-18R	$10.00	6 mm x R1/8	6	12.5	R 1/8	46.2	26.3	8.0	16.4	12	4.0	0.3	5
MEL6M-14R	$11.50	6 mm x R1/4	6	12.5	R 1/4	48.2	26.3	10.0	16.4	14	4.0	0.3	5
MEL6M-38R	$14.00	6 mm x R3/8	6	12.5	R 3/8	49.2	26.3	11.0	16.4	17	4.5	0.4	5
MEL8M-18R	$13.00	8 mm x R1/8	8	14.8	R 1/8	51.4	30.3	8.0	18.7	14	6.0	0.5	5
MEL8M-14R	$14.00	8 mm x R1/4	8	14.8	R 1/4	53.4	30.3	10.0	18.7	14	6.0	0.7	5
MEL8M-38R	$15.50	8 mm x R3/8	8	14.8	R 3/8	54.4	30.3	11.0	18.7	17	6.0	0.6	5
MEL8M-12R	$17.00	8 mm x R1/2	8	14.8	R 1/2	57.4	30.3	14.0	18.7	22	6.0	0.7	5
MEL10M-18R	$16.00	10 mm x R1/8	10	17.5	R 1/8	56.4	33.0	8.0	20.1	17	6.0	0.8	5
MEL10M-14R	$16.50	10 mm x R1/4	10	17.5	R 1/4	58.4	33.0	10.0	20.1	17	7.0	0.8	5
MEL10M-38R	$17.00	10 mm x R3/8	10	17.5	R 3/8	59.4	33.0	11.0	20.1	17	7.0	0.9	5
MEL10M-12R	$23.50	10 mm x R1/2	10	17.5	R 1/2	62.4	33.0	14.0	20.1	22	7.0	1.0	5
MEL12M-14R	$23.00	12 mm x R1/4	12	20.5	R 1/4	66.1	38.1	10.0	22.8	19	8.0	1.0	5
MEL12M-38R	$23.50	12 mm x R3/8	12	20.5	R 3/8	67.1	38.1	11.0	22.8	19	10.0	1.0	5
MEL12M-12R	$24.00	12 mm x R1/2	12	20.5	R 1/2	70.1	38.1	14.0	22.8	22	10.0	1.1	5

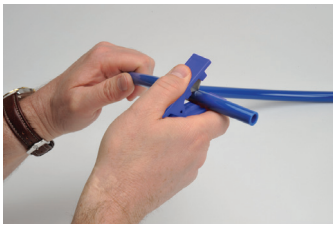
Pneumatic Fitting Instructions and Caution Information

Assembly Instructions

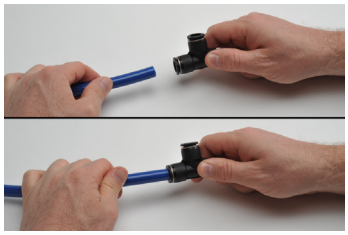


Prepare the **NITRA™**tubing for cutting and make sure to have the proper tubing cutters like the **NITRA** TC-12 or TC-20.

(If cutting bonded tubing, carefully split the tubes with a knife and then pull apart as needed.)

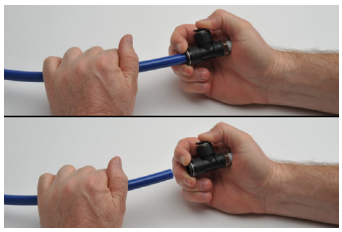


Cut the **NITRA** tubing at a right angle with the axis using a standard tube cutter. After cutting the tubing, make sure to check the cut end for an even cut with no debris.



Insertion of the **NITRA** tubing into fittings

- Make sure the tube is inserted fully into the fitting.
- Pull the tube gently to make sure it does not release.
- If the tube end is damaged or deformed, leakage or unexptected tube release may occur. Make sure to check tubing end thoroughly.



Removing the **NITRA** tubing from fittings

- Make sure the pressure in the tube is zero before releasing the tube from the fittings.
- To release the tubing, press the release ring at the end of the fitting and pull the tube with one hand.
- Inspect the released tube end and make a clean cut if it is damaged or deformed.

Common Precautions for Tubing and Fitting Products

Warnings:

- Do not use fittings with media other than air.
- Avoid installing with tubing under tension or with excessive bends.
- Do not use the product where weld spatters occur as fire may occur.
- Product damage or air leakage may occur at places where there is excessive rotation or vibration of the fittings.
- Use caution in water as the product may be damaged by surge pressure.
- Do not use the product where it is directly exposed to fluids such as cutting oil, lubricating oil, and coolant oil.

Cautions:

- Assemble the tubing only after cleaning away impurities such as dust and excess debris.
- Fitting products are recommended for air systems only. Avoid using for other purposes.
- When using tubing other than NITRA brand with NITRA fittings, be sure the tubing OD conforms to the tolerances in Table 1 below.

Table 1 - Tolerance of the Outer Diameter of the Tube

Tube Specifications	ø5/32 [ø4]	ø1/4 [ø6]	ø5/16 [ø8]	ø3/8 [ø10]	ø1/2 [ø12]
Permissible tolerance	+ 0.005 [+/- 0.13]				

Pneumatic Tubing Cutter

Part Number	*Description*	*Pcs/Pkg*	*Wt (lb)*	*Price*
TC-12	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	$4.25
TC-20	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	$7.25

TC-12

TC-20

NITRA® Pneumatic Air Fittings

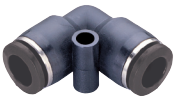
A variety of fittings are available including:

Union Straight
NITRA™ Pneumatic Fittings
from $5.75
(5 pack) (USxxx)

Union Reducer
NITRA™ Pneumatic Fittings
from $7.25
(5 pack) (URxxx)

Union Tee
NITRA™ Pneumatic Fittings
from $8.00
(5 pack) (UTxxx)

Union Tee Reducer
NITRA™ Pneumatic Fittings
from $8.25
(5 pack) (UTRxxx)



Union Elbow
NITRA™ Pneumatic Fittings
from $5.25
(5 pack) (ULxxx)

Union Y
NITRA™ Pneumatic Fittings
from $8.75
(5 pack) (UYxxx)

Union Y Reducer
NITRA™ Pneumatic Fittings
from $11.50
(5 pack) (URYxxx)

Union Cross
NITRA™ Pneumatic Fittings
from $13.50
(5 pack) (UXxxx)

Union Triple Branch
NITRA™ Pneumatic Fittings
from $18.50
(5 pack) (U3Bxxx)

Bulkhead Union
NITRA™ Pneumatic Fittings
from $12.00
(5 pack) (UBxxx)

Plug
NITRA™ Pneumatic Fittings
from $2.75
(5 pack) (PLUGxxx)

Plug-in Reducer
NITRA™ Pneumatic Fittings
from $4.75
(5 pack) (PRxxx)

Male Straight
NITRA™ Pneumatic Fittings
from $4.25
(5 pack) (MSxxx)

Female Straight
NITRA™ Pneumatic Fittings
from $8.00
(5 pack) (FSxxx)

Male Elbow
NITRA™ Pneumatic Fittings
from $6.00
(5 pack) (MExxx)

Long Male Elbow
NITRA™ Pneumatic Fittings
from $10.50
(5 pack) (MELxxx)

Female Elbow
NITRA™ Pneumatic Fittings
from $12.00
(5 pack) (FExxx)

Male Branch Tee
NITRA™ Pneumatic Fittings
from $9.75
(5 pack) (MBTxxx)

Male Run Tee
NITRA™ Pneumatic Fittings
from $11.00
(5 pack) (MRTxxx)

Male Y
NITRA™ Pneumatic Fittings
from $11.00
(5 pack) (MYxxx)

Bulkhead Female
NITRA™ Pneumatic Fittings
from $14.00
(5 pack) (FBxxx)

Manual Hand Valve
NITRA™ Pneumatic Fittings
from $13.00
(2 pack) (HVUxxx)

Stop Valve
NITRA™ Pneumatic Fittings
from $27.00
(5 pack) (SVUxxx)

Check Valve
NITRA™ Pneumatic Fittings
from $29.00
(5 pack) (CVUxxx)

Push-to-Connect Fittings

NITRA Pneumatic Push-to-Connect Fitting bodies are made of a strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.

The bodies of elbow and tee fittings with threaded connections can be rotated after installation to allow for variations in piping direction. NITRA Polyurethane and Nylon 12 tubing is easily connected by simply inserting the tubing end into the fitting. To release the tubing press the circular release ring and the tubing can be easily pulled out.

- Large selection of fitting configurations, including union, plug-in, straight, elbow, branch, and stop, hand and check valves
- Inch and metric sizes available
- NPT and BSPT (R) threads available
- Tough thermoplastic bodies, stainless steel tube gripping claws, nickel-plated threads with pre-applied Teflon sealant
- Elbow and Tee bodies can be rotated after installation
- Rings are color coded to differentiate between inch and metric sizes

Elbow Meter-in
NITRA™ Flow Control Valve
from $8.25
(2 pack) (FVRxxx)

Elbow Meter-out
NITRA™ Flow Control Valve
from $8.25
(2 pack) (FVSxxx)

In-line (Straight)
NITRA™ Flow Control Valve
from $12.00
(2 pack) (FVUxxx)

Push-to-Connect Flow Control (Speed Controller) Valves

NITRA Pneumatic Push-to-Connect Flow Control (Speed Controller) Valves provide accurate airflow regulation for precise motion control of pneumatic cylinders. NITRA flow control valve bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are nickel-plated brass and have pre-applied Teflon thread sealant. Flow control valve bodies can be rotated after installation to allow for variations in piping direction.

- Meter-in , meter-out and in-line configurations
- Inch and metric sizes available
- NPT and BSPT (R) threads available
- Tough thermoplastic bodies, stainless steel tube gripping claws, nickel-plated threads with pre-applied Teflon sealant
- Bodies can be rotated after installation
- Release rings are color coded to differentiate between meter-in and meter-out