GRIEGER

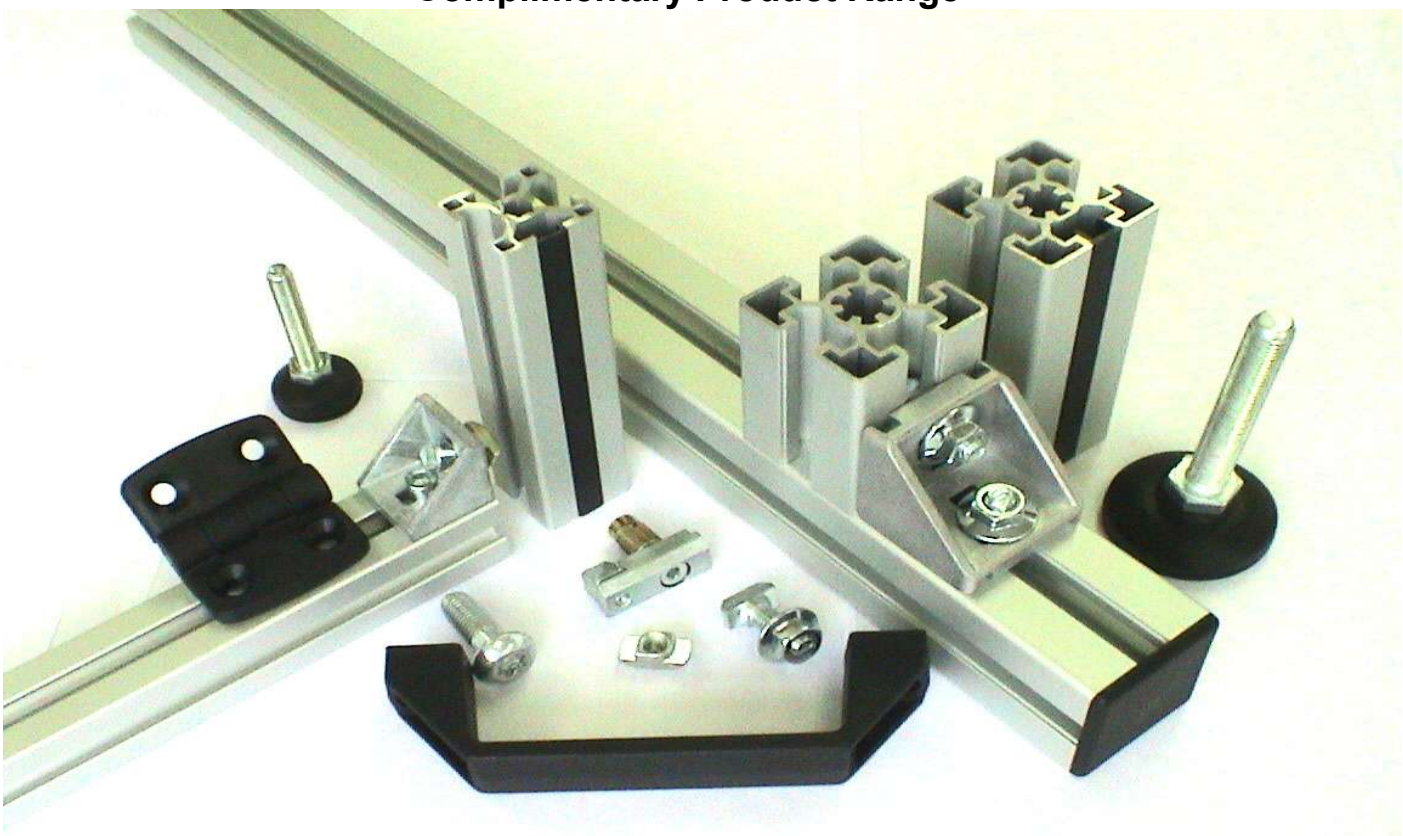
Pneumatic Fitting & Tubing

Short Catalogue

August 2006

Contents

Complimentary Product Range



GRIEGER Pneumatic Fitting & Tubing is a high quality product range made in Germany and Italy. This short catalogue assists you to select easily the required components. Please contact us for more details, quotations or any other inquiry. Our complimentary automation product range consists of:

- **Pneumatics:**
  - Valves
  - Cylinders
  - F.R.L.

- **Aluminium Profiles & Accessories (see picture)**
  - Profiles: 30x30, 30x60, 40x40L, 45x45L, 45x90L, 60x60L
  - Accessories: Connectors, hinges, feet, handles, etc...

- **Assembly Presses**
  - Manual
  - Pneumatical
  - Hydro-pneumatical

- **Bolting & Pressfit Systems**
  - Closed loop screw fastening systems
  - Closed loop assembly press systems

- **Hydraulics**
  - Pumps
  - Valves
  - Accumulators

A Series

The A series is our push-in fitting line, brass nickel plated. It allows quick connections with calibrated plastic hoses at any time, at any stage of the pneumatic circuit. The stainless steel grip and the O-ring inside the fitting are providing a tight, leakage free connection. Once the tube is inserted to the bottom of the fitting, the stainless collet grips onto it and prevents it from being released. By pushing onto the outer metal release ring the tube is disengaged.

Material: Body/release ring: Brass UNI EN 12164-5 Nickel plated, gripping collet: Stainless steel, O-ring: NBR, Tightness ring/protection ring: Acetal resin

Recommended hoses: Rilsan PA 11, Nylon 6, Polyurethane (98° Shore A), tube outside diameter tolerance: +/– 0.1 mm up to 10 mm, +/– 0.15 mm for diameter 14 mm • Application field: Pneumatic circuits • Max. pressure: 15 bar • Vacuum: up to 750 mmHg • Temperature Range: – 20 °C to +70 °C

Straight Thread

GR A12

03 M3
03 M5
04 M5
04 M6
04 18
04 14
06 M5
06 M6
06 18
06 14
08 18
08 14
08 38
10 14
10 38
10 12
12 14
12 38
12 12
14 38
06 M12 x1.25
06 M12 x 1.5

GR A13

04 18
06 18
06 14
08 18
08 14
10 14
10 38

GR A16

04 M5
04 M6
04 18
04 14
06 M5
06 M6
06 18
06 14
08 18
08 14
08 38
10 14
10 38
10 12
12 14

12 38
12 12
14 38
14 12
06 M12 x1.25
06 M12 x 1.5

GR A17

04 18
06 18
06 14
08 18
08 14
10 14
10 38

GR A18

03 M3
03 M5
04 M5
04 18
06 M5
06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12

GR A19

04 18
06 18
06 14
08 18
08 14

GR A21

04 18
04 14
06 18
06 14

08 18
08 14
08 38
10 14
10 38
10 12
12 14
12 38
12 12
14 38
14 12

GR A22

04 M5
04 18
06 M5
06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12

GR A24

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38
12 12

GR A27

03 03
04 04
06 06
08 08
10 10
12 12

GR A28

03 03
04 04
06 06
08 08
10 10
12 12
14 14

GR A29

03 03
04 04
06 06
08 08
10 10
12 12
14 14

GR A30

00 M5
00 18
00 14
00 38
00 12

GR A31

00 M5
00 18
00 14
00 38
00 12

GR A32

00 18
00 14
00 38
00 12

GR A33

00 18
00 14
00 38

GR A34

00 18
00 14
00 38

GR A35

04 M5
04 18
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38
12 12

GR A36

04 M5
04 18
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38
12 12

GR A38

04 M5
04 18
04 14
06 M5
06 18
06 14
08 18
08 14

10 18
10 14
10 38
12 38
12 12

GR A41

04 M5
04 18
06 M5
06 18
06 14
08 18
08 14

GR A42

04 M5
04 18
06 M5
06 18
06 14
08 18
08 14

Taper Thread

GR A11

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38
10 12
12 14
12 38
12 12
14 38
14 12

GR A14

04 18
04 14
06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12
14 38
14 12

GR A15

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38
12 12
14 38
14 12

GR A20

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38
12 12

GR A23

04 18
04 14
06 18
06 14
08 18
08 14
10 14
12 38
12 12

Without Thread

GR A25

03 04
04 06
04 08
04 10
04 12
06 08
06 10
06 12
06 14
08 10
08 12
08 14
10 12
10 14
12 14
06 04
08 06

GR A26

03 00
04 00
06 00
06 04
08 00
08 06
10 00
10 08
12 00
14 00

GR A37

04 04
06 06
08 08

GR A39

00 04
00 06
00 08
00 10
00 12
00 14

GR A40

00 03
00 04
00 06
00 08
00 10
00 12
00 14

GR A43

04 04
04 06
06 04
06 06
06 08
08 06
08 08
10 10

GR A44

04 04
04 06
06 06
06 08
08 08
08 10
10 10

GR A45

04 04
04 06
06 06
06 08
08 08
08 10
10 10

GR A46

04 04
04 06
06 06
06 08
08 08

GR A47

04 04
04 06
06 06
06 08
08 08

GR A48

04 00
06 00
08 00
10 00

*****Order code example: GR A12 03 M3 or GR A48 10 00**

Model Number Tube Diameter Thread/Tube Diameter

B Series

Our B series fittings are made of a acetal resin polymer. The technical features of this polymer make this fitting line stiff, corrosion and fatigue resistant and allow for dimensional stability, all characteristics necessary to bridge the gap between metal fittings and an ordinary plastic fitting line. The functioning principle of the B series is the same as our A series, therefore enabling quick, manual connection and disconnection with calibrated hoses at any stage of the pneumatic circuit.

Material: Body/Release ring/Protection ring: Acetal, Gripping collet: Stainless steel, Tightness ring/Threaded screw: Brass UNI EN 12164, O-ring: NBR

• Recommended hoses: Rilsan PA 11, Nylon 6, Polyurethane (98° Shore A), tube outside diameter tolerance: +/– 0.1 mm up to 10 mm, +/– 0.15 mm for diameter 12mm
• Application field : Pneumatic circuits • Allowed pressure range: Pressure varies depending on the kind of tubing used and in any case it never has to exceed 12 bar. Vacuum: up to 750 mmHg • Max. temperature range: – 20 °C +70 °C

Straight Thread

GR B12

04 18
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GR B13

04 18
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GR B18

04 M5
04 18
04 14

06 M5
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38
12 12

GR B19

04 M5
04 18
04 14
06 M5
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GR B20

04 M5
04 18
06 M5
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GR B22

04 M5
04 18
04 14
06 M5
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GR B24

04 M5
04 18
04 14
06 M5
08 18
08 14
08 38
10 04
10 38

GR B28

04 M5
04 18
06 18
06 14

08 18
08 14
08 38
10 14
10 38

GR B31

04 M5
04 18
04 14
06 18
06 14
08 18
08 14
08 38

GR B35

04 06
06 05
08 04

GR B37

04 M5
04 18
06 18
06 14
08 18
08 14

08 38
10 14
10 38

GR B42

00 M5
00 18
00 14
00 38
00 12

GR B44

04 18
04 14

Taper Thread

GRB16

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GRB17

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GR B21

04 18
04 14
06 18
06 14
08 18
08 14
08 38
10 14
10 38

GRB23

04 18
04 14
06 18
06 14

08 18
08 14
08 38
10 14
10 38

Without Thread

GR B14

04 00
06 00
08 00
10 00
12 00

GR B15

04 00
06 00
08 00
10 00
12 00

GRB25

04 00
06 00
06 04
08 00

08 06
10 00
10 08
12 00

GRB26

04 06
04 08
04 10
06 08
06 10
06 12
08 10
08 12
10 12

GR B27

06 04
08 06

GR B29

04 04
06 06
08 08
10 10

GR B30

04 04
04 06
04 08
06 06
08 08

GR B32

04 00
06 00
08 00
10 00

GR B33

04 00
06 00
08 00
10 00

GR B34

04 00
04 00-MT
06 00
06 00-MT
08 00
08 00-MT
10 00

GR B43

04 06
04 08

GR B48

04 04
06 06
08 08
10 10

*****Order code example: GR B12 04 18 or GR B48 10 00**

Model Number Tube Diameter Thread/Tube Diameter

C Series

Our C series are "Nut Fittings", brass nickel plated. The nozzle guarantees a perfect tightness of the tubing by just hand tightening the nut.

Material: Body/Nut: Brass nickel plated, O-ring: NBR

Recommended hoses: Polyethylene, Polyurethane and Rilsan PA 11, tube outside diameter tolerance: +/– 0.1 mm up to 10 mm, +/– 0.15 mm for 12/15 mm • Application field: Pneumatic circuits • Max. pressure: 15 bar • Vacuum: up to 750 mmHg • Temperature Range: – 18 °C to +70 °C

Straight Thread

GR C12

04 M5
04 18
05 M5
05 18
06 M5
06 18
06 14
06 38
08 18
08 14
08 38
10 18
10 14
10 38
10 12
12 38
12 12
15 12
06 12 x1.25
06 12 x1.5

GR C13

05 18
06 18
06 14
08 18
08 14
08 38
10 14
10 38
12 38

GR C17

05 18
06 18
06 14
08 18
08 14
10 14
12 38

GR C27

04 07
05 08
06 08
06 10
08 12
10 14
12 16
15 20

GR C30

06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12

GR C31

31 06 18
31 06 14
31 08 18
31 08 14
31 10 14
31 10 38
31 12 38
31 12 12

GR C32

06 04
08 06
10 08

GR C34

04 M5
04 18
05 M5
05 18
06 M5
06 18
06 14
08 18

GR C36

08 14
08 38
10 14
10 38
10 12
12 38
12 12
15 12

Taper Thread

GR C11

05 M5
05 18
06 M5
06 18
06 14
08 18
08 14
08 38
10 14
10 38
10 12
12 38
12 12
15 12

GR C16

04 18
05 18
06 18
06 14
06 38
08 18
08 14
08 38
10 18
10 14
10 38
12 38
12 12
15 12
0612x1.25
06 12x 1.5

GR C20

04 M5
04 18
05 18
06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12
15 12

GR C29

05 18
06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12

Without Thread

GR C14

05 00
06 00
08 00
10 00
12 00
15 00

GR C15

05 00
06 00
08 00
10 00
12 00
15 00

GR C18

05 00
06 00
08 00
10 00
12 00
15 00

GR C19

05 00
06 00
08 00
10 00
12 00
15 00

GR C21

05 18
06 18
06 14
08 18
08 14
10 14
10 38
12 38
12 12
15 12

GR C22

05 00
06 00
08 00
10 00
12 00
15 00

GR C23

04 M5
04 18
04 5R
05 M5
05 5R
05 18
06 M5
06 5R
06 18
06 14
08 18
08 14
08 38
10 14
10 38
10 12
12 38
12 12
15 12

GR C24

05 M5
05 18
06 M5
06 18
06 14
08 18
08 14
08 38
10 14
10 38
10 12
12 38
12 12
15 12

*****Order code example: GR C12 04 M5 or GR C24 15 12**

Model Number — Tube Diameter — Thread/Tube Diameter

V Series

Our V series is meeting the technologically most advanced principles and it is to be considered the core of a pneumatic installation. They provide for the following functions: flow control, non-return, on/off, exhaust, fail safe, pressure reduce, slow start, stroke sensor, logic, silencer and pressure gauge. We recommend filtered and oiled air to guarantee a long-lasting flawless function.

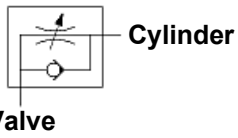
Material: On request

Flow Control Valves

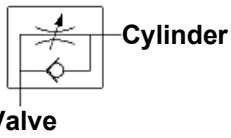
They are used to adjust the speed of cylinders by controlling the flow either by metering into the cylinder (meter in) or metering out of the cylinder (meter out) or both directions (throttle valve)

Recommended hoses: Polyethylene, Polyurethane and Rilsan PA 11, tube outside diameter tolerance: +/– 0.1 mm up to 10 mm • Application field: Pneumatic circuits • Nominal pressure: 6 bar • Working pressure: 0 ÷ 10 bar • Vacuum: up to 750 mmHg • Working temperature : 0 ÷ 70 °C

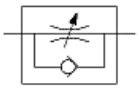
C = Meter in



V = Meter out



U = Throttle check valve



B = Throttle valve

Straight Thread Brass

GR V16
Modular-Knob

00 M5 C-V-B
00 18 C-V-B
00 14 C-V-B
00 38 C-V-B
00 12 C-B

GR V15
Modular-Screw

00 M5 C-V-B
00 18 C-V-B
00 14 C-V-B
00 38 C-V-B
00 12 C-B

GR V41
Swivel-Knob

04 M5 C-V-B
04 18 C-V-B
05 18 C-V-B
05 14 C-V-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V18
Swivel-Screw

04 M5 C-V-B
04 18 C-V-B
05 18 C-V-B
05 14 C-V-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V42
Swivel-Knob
Nut-Fitting

04 M5 C-V-B
05 M5 C-B
05 18 C-V-B
06 M5 C-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V20
Swivel-Screw
Nut-Fitting

04 M5 C-V-B
05 M5 C-B
05 18 C-V-B
06 M5 C-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V40
90°-Knob

00 M5 C-V-B
00 18 C-V-B
00 14 C-V-B
00 38 C-V-B
00 12 C-B

GR V17
90°-Screw

00 M5 C-V-B
00 18 C-V-B
00 14 C-V-B
00 38 C-V-B
00 12 C-B

GR V29
90°-Swivel
Screw

00 18 C
00 14 C
00 38 C
00 12 C

GR V49
Modular
Swivel-Screw

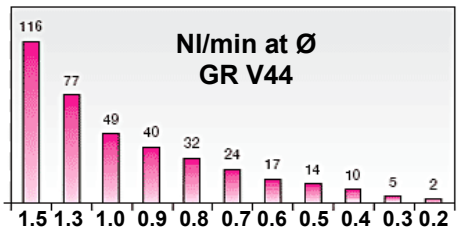
06 14 C-V-B
08 14 C-V-B
08 38 C-V-B
10 38 C-V-B

GR V10
Straight
Manual

00 18 U
00 14 U

GR V44
Fix-Orifice

04 M5 1)
04 18 1)
06 M5 1)
06 18 1)
06 14 1)
08 18 1)
08 14 1)



1) Kindly add the calibrated orifice diameter to the order code

Straight Thread Acetal

GR V37
Knob

04 M5 C-V-B
04 18 C-V-B
06 M5 C-V-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V39
Screw

04 M5 C-V-B
04 18 C-V-B
06 M5 C-V-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V36
Swivel-Knob

04 M5 C-V-B
04 18 C-V-B
06 M5 C-V-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V38
Swivel-Screw

04 M5 C-V-B
04 18 C-V-B
06 M5 C-V-B
06 18 C-V-B
06 14 C-V-B
08 18 C-V-B
08 14 C-V-B
08 38 C-V-B
10 14 C-V-B
10 38 C-V-B

GR V35
Straight

04 M5 C-V
04 18 C-V
06 18 C-V
06 14 C-V
08 18 C-V
08 14 C-V

Without Thread Acetal

GR V34
In-Line
Knob

04 04
06 06
08 08

GR V43
90°-Knob

04 04 C-V-B
06 06 C-V-B
08 08 C-V-B

Straight Thread Aluminium

GR V21
In-Line
Knob

00 M5 B-U
00 18 B-U
00 14 B-U
00 38 B-U
00 12 B-U

*****Order code example: GR V10 00 18U or GR C44 08 18 0.5**

Model Number — Tube Diameter — Thread/Tube Diameter — Orifice Diameter

Check Valves

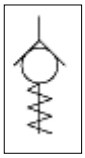
The flow is allowed only in one direction as engraved on the body.

GR V23

00 M5
00 18
00 14
00 38
00 12

GR V33

04 M5
04 18
06 18
06 14
08 18
08 14
10 14
10 38
12 12
14 12



- **Recommended hoses:** according to the fitting connected to the valve
- **Application:** pneumatic installations with filtered, lubricated air
- **Working pressure:** 2 ÷ 10 bar
- **Opening pressure:** 0.2 bar
- **Working temperature:** -10 ÷ 70 °C

Manual Operated Valves

The slide valve is used to section a pneumatic installation. Sliding the ring nut on the rod, both ON and OFF positions can be achieved. When the ring nut is against the rod hexagon, the flow goes in the arrow direction (ON); pushing it back the air supply is cut off and the installation flow is vented (OFF).

GR V26

00 M5
00 18
00 14
00 38
00 12

- **Recommended hoses:** according to the fitting connected to the valve
- **Application:** pneumatic circuit with filtered, lubricated air
- **Working pressure:** 0 ÷ 10 bar
- **Working temperature:** 0 ÷ 70 °C

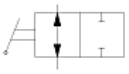
The pneumatic switch is basically an on/off valve. It is available in a 2/2 and 3/2-way version. The 3/2 way valve cuts off the flow and allows venting to the atmosphere.

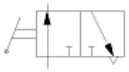
GR V46

00 18
00 14

GR V48

06 06
08 08





- **Recommended tubing:** Depending on the fitting connected to the switch
- **Application:** pneumatic circuit fed with filtered and lubricated air
- **Working pressure:** max 15 bar
- **Working temperature:** -10 ÷ 70 °C

The Ball valve provides a clear and leakage free on/off solution.

GR V24

00 18
00 14
00 38
00 12

GR V25

00 18
00 14
00 38
00 12

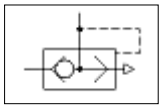
- **Recommended hoses:** according to the fitting connected to the valve
- **Application:** pneumatic circuit fed with filtered and lubricated air
- **Max inlet pressure:** 10 bar
- **Working temperature:** -10 ÷ 80 °C

Quick Exhaust Valve

This valve can easily vent the air flowing in the circuit in case of an air supply failure. If assembled on the cylinder port, it increases the cylinder speed.

GRV27

00 M5
00 18
00 14
00 38
00 12
00 34



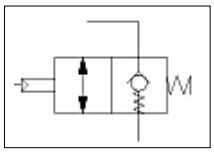
- **Recommended hoses:** according to the fitting connected to the stop valve
- **Application:** pneumatic circuits with filtered, lubricated air
- **Working pressure:** 2 ÷ 10 bar
- **Working temperature:** -10 ÷ 70 °C

Stop Valve/Pilot Operated Check Valve

Should a sudden pressure failure happen, if the stop valves are assembled in pairs on the cylinder, the stop valves make sure, that the cylinder piston rapidily stops. By operating the override device, it is possible to reset manually the piston stroke, which is particularly important during a set-up phase or in case of air shortage.

GR V45

00 18
00 14
00 38
00 12



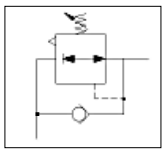
- **Recommended hoses:** according to the fitting connected to the stop valve
- **Application:** pneumatic circuits with filtered, lubricated air
- **Max. pressure:** 10 bar
- **Working temperature:** -5 ÷ 70 °C

Pressure Control

When installed in a pneumatic circuit, the pressure control sets the working pressure of all the connected components. The pressure adjustment will be therefore kept steady. It can also be used as an economizer when connected between the valve and the cylinder to operate. Pressure is being saved and rod speed decreased in the desired direction.

GR V47

00 18
00 14



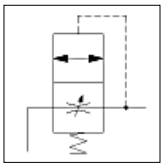
- **Recommended hoses:** according to the fitting connected to the pressure control
- **Application:** pneumatic circuits with filtered, lubricated air
- **Pressure setting:** 0 ÷ 10 bar
- **Max inlet pressure:** 10 bar
- **Working temperature:** 0 ÷ 70 °C

Slow Start Fitting

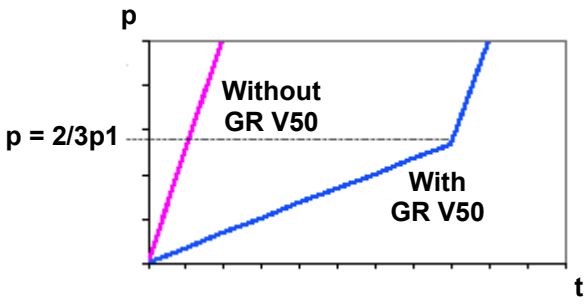
This fitting allows for a progressive pressurization of the installation and prevents the actuators from being hit hard in case of sudden pressure feeding of the previously vented circuit. Depending on the desired spindle setting, the Slow Start Fitting will open gradually, pressure will progressively flow into the circuit and the actuators will go back to their working position without being hit. Pressure feeding speed is determined by the rotation of the spindle. If turned clockwise, a very smooth pressurization will be achieved.

GR V50

00 14
00 38
00 12



- **Working pressure (p1): 3 ÷ 10 bar**
- **Total opening pressure (p): 2/3 p1**
- **Working temperature: 0 ÷ 70 °C**
- **Flow capacity:**
- **GR V50 1/4: 1800 Nl/min (6 bar)**
- **GR V50 3/8: 2400 Nl/min (6 bar)**
- **GR V50 1/2: 2900 Nl/min (6 bar)**
- **Material:**
- **Body: Brass nickel plated UNI EN 12164 CW614**
- **Seals: NBR**

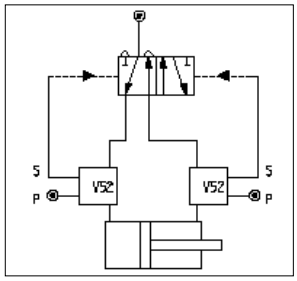


End of Stroke Sensor

End of stroke sensor can detect a pressure drop and signal it with a command signal (s). This component turns out to be especially useful when assembled directly onto the cylinder. When the piston completes its stroke (no more counter pressure available in the cylinder), a command signal is given out to a directional control valve to move the cylinder in the opposite direction. Major advantage of this component is to command the piston stroke changes without any electrical connections.

GRV52

00 18
00 14
00 38



- **Materials:**
- Sensor Body: Brass nickel plated UNI EN 12164 CW614
- O-Ring: NBR and PU
- **Working pressure:** 3 ÷ 10 bar

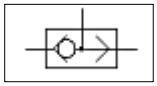
Working Pressure (bar)	Switching Pressure (bar)
3	0,3
4	0,5
5	0,65
6	0,9
7	1.0
8	1,2
9	1,4
10	1,6

Logics Elements

It is used when two valves have to operate the same equipment. The signal, no matter from which of the two valves it comes, is received by the shuttle valve and transmitted to the device to operate.

GRV32

00 18
00 14



- **Recommended hoses:** according to the fitting connected to the valve
- **Application:** pneumatic circuits with filtered, lubricated air
- **Working pressure:** 2 ÷ 10 bar
- **Working temperature:** -10 ÷ 70 °C

Silencers

GR V.....

11-BE	11-CO	11-CQ	11-FE	11-FEP	11-VE	14
						
00 M5 -BE	00 M5 -CO	00 18 -CQ	00 18 -FE	00 18 -FEP	00 18 -VE	00 M5
00 18 -BE	00 18 -CO	00 14 -CQ	00 14 -FE	00 14 -FEP	00 14 -VE	00 18
00 14 -BE	00 14 -CO	00 38 -CQ	00 38 -FE	00 38 -FEP	00 38 -VE	00 14
00 38 -BE	00 38 -CO	00 12 -CQ	00 12 -FE	00 12 -FEP	00 12 -VE	00 38
00 12 -BE	00 12 -CO					

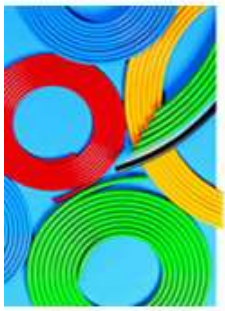
V11-BE: Sintered Bronze
V11-CO: Sintered Bronze
V11-CQ: Sintered Bronze
V11-FE: Stainless steel wire
V11-FEP:Stainless steel wire
V11-VE: Exhaust control with sintered Bronze
V14: Exhausting control with silencer

Pressure Gauge, In-Line

GRV51

06 06
06 18
06 14
08 08
08 18
08 14

PA Tubes, Nylon 11/12 Soft



Features

- lightweight
- excellent temperature resistance
- highly resistant to shock and impact
- excellent compressive strength
- high chemical resistance to oil, grease, fuels, solvent and hydraulic fluids
- excellent resistance to UV-rays
- highly resistant to stress cracking
- excellent abrasion resistance characteristics
- water insensitive
- easily fitted
- minimal pressure loss
- calibrated

Applications

- compressed air
- vacuum
- hydraulics*
- fuels
- grease lubrication systems*
- foodstuffs*

* on request only

Temperature Range

- -40°C to +90°C

Order Codes/Technical Data

GR TA.....	Outside Ø mm	Inside Ø mm	Wall Thickness mm	Weight g/m	Max. Pressure Bar at 23°C	Min. Bending Radius mm
04 02 B-N	4.0 +/-0.05	2.0	1.0	10	45	20
06 04 B-N	6.0 +/-0.05	4.0	1.0	16	27	25
08 06 B-N	8.0 +/-0.1	6.0	1.0	23	19	30
10 08 B-N	10.0 +/-0.1	8.0	1.0	30	15	60
12 09 B-N	12.0 +/-0.1	9.0	1.5	53	19	60
14 11 B-N	14.0 +/-0.1	11.0	1.5	62	14	65
15 12 B-N	15.0 +/-0.1	12.0	1.5	66	12	90

PUR Tubes, 98° Shore A

Features

- lightweight
- high flexibility at low temperatures
- UV resistant
- high buffering capacity
- excellent abrasion resistance
- kink resistant
- excellent resistance against tear propagation
- oil and grease resistant
- easily fitted
- minimal pressure loss
- small bending radius
- unplasticized so no embrittlement
- individual printing

Applications

- compressed air
- vacuum
- hydraulics*
- chemical*

* on request only

Temperature Range

- -40°C to +85°C

Order Codes/Technical Data

GR TU.....	Outside Ø mm	Inside Ø mm	Wall Thickness mm	Weight g/m	Max. Pressure Bar at 23°C	Min. Bending Radius mm
04 03 B-N	4.0 +/-0.1	2.6	0.7	9	15	20
06 04 B-N	6.0 +/-0.1	4.0	1.0	19	14	30
08 06 B-N	8.0 +/-0.1	6.0	1.0	27	10	35
10 07 B-N	10.0 +/-0.1	7.0	1.5	48	12	40
12 09 B-N	12.0 +/-0.15	9.0	1.5	60	10	50

B = Blue, N = Nature, other colors/dimensions on request
Delivery unit: 1 roll of 100 meter

*****Order code example: GR TA04 03 B or GR TU12 09 N**

Model Inside Diameter Outside Diameter Color

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