PRODUCT GUIDE

Pneumatic, Electrical, Mechanical and Electromechanical Components

bsi ISO 9001 Quality Management Systems CERTIFIED
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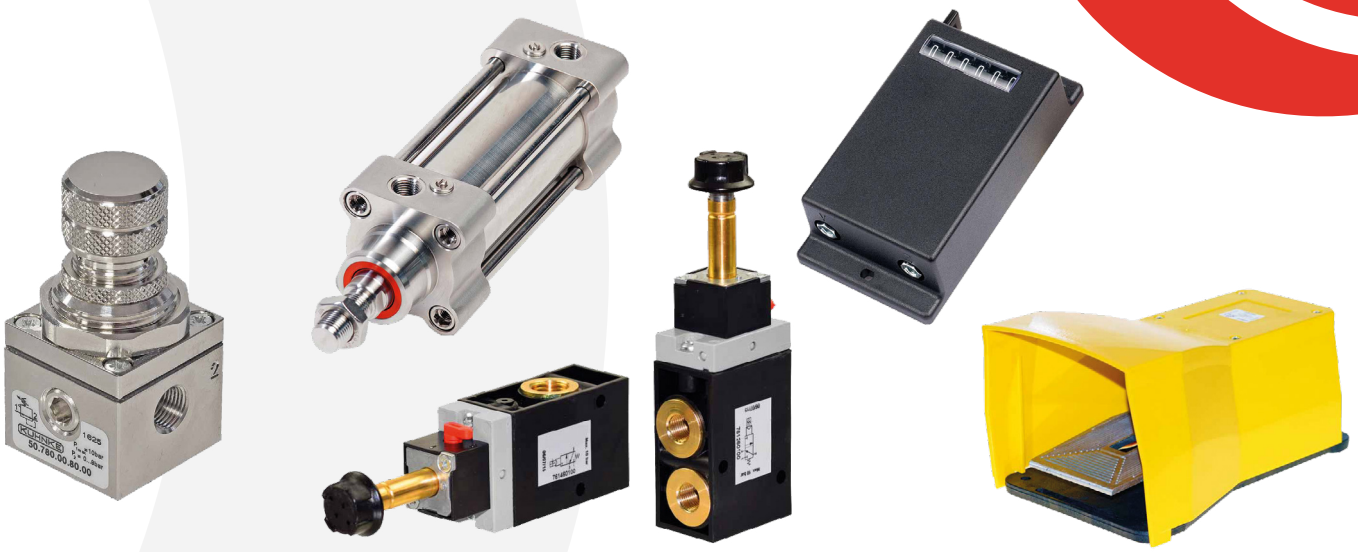
Impulse Automation



Established in 1960, Impulse Automation Limited is an ISO 9001 registered company based in the UK. An importer and distributor of mechatronic components, Impulse Automation is an official distribution partner for many prestigious brands including Hengstler, Kendrion, Kuhnke and The Shift.

Impulse Automation provides a comprehensive range of timers, counters, solenoids, vibratory drives, holding magnets, pneumatic components and process control equipment used within industrial, medical, automotive, marine, wind energy and agricultural sectors.

Offering the UK's largest range of timers and counters, Impulse Automation's range of ATEX pneumatic timers and counters are certified for gas, dust and mining, suitable for applications in hazardous environments.

Providing a complete portfolio of incremental and absolute rotary encoders for light to extreme heavy-duty use. The range includes solid and hollow shaft encoders, IP69K rated encoders, high-grade stainless steel options for corrosive environments, ATEX and explosion-proof variants.

The company's extensive range of pneumatic components includes mechanical, manual, air pilot and electrically controlled valves, cylinders, precision regulators, visual indicators, rotary actuators, logic valves and flow devices.

Impulse Automation has a wide selection of rotary, linear, and holding and locking solenoids used in various applications.

Typical examples of application use include door locks, oxygen mask release mechanisms, gearbox interlocks, cash dispensing machines, amusement arcades, printers, laser positioning, parking ticket machines, card readers, conveyor feeds and diverters.

Pneumatic push-in and miniature fittings, tubing, electrical coils and plugs, cylinder mountings and protective covers are also available.

impulse Automation

Contents

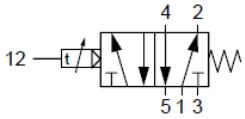
Click on the reference shown within each product section to link directly to the PDF datasheet, for example, **QY009**

Click on the link icon to visit our website for more information and product selection.

Pneumatic Timer - 56 Series

KUAX Pneumatic Clock Timer
Panel or Surface Mount

QY000



Surface mount bracket sold separately, page 7.

Technical information	
Pressure range:	0-10 bar
Temperature range:	-10°C +60°C
Mounting:	Panel mount
Reset:	Automatic - by removal of pressure (Control port 12)
Air consumption:	Approx. 9 l/min

Description	Order code
0.3 to 10 seconds	56.S21.010
3 to 100 seconds	56.S22.100
0.3 to 10 minutes	56.M23.010
3 to 100 minutes	56.M24.100
0.3 to 10 hours	56.H25.010
3 to 100 hours	56.H26.100
Ports	M5

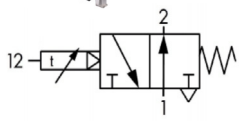
The 56 series pneumatic timer has a geared timing mechanism for precision, designed with conventional sweeping timing hands and a large rotary knob for quick and easy operation.

ON or OFF delay timing is achieved by blocking the respective ports with a blanking plug. Set the time by adjusting a large rotary knob. A black timing hand shows the preset time, and a red timing hand the remaining time.

Pneumatic Timer - OFF Delay Timing

Pneumatic Mini Timer
Panel Mount

QY009



Technical information	
Pressure range:	2-6 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Reset:	Automatic - by removal of pressure port 12
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

Description	Order code
2 to 30 seconds	51.021.03.00
20 to 300 seconds	51.021.30.00
Ports	M5

Accessories, page 7.

Set the pneumatic timer by adjusting the front rotary knob to the desired set-point. Two vertical scales indicate the set time and the remaining cycle time.

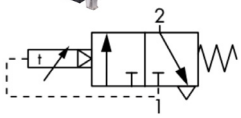
The OFF is delayed. The output valve is positive while timing and negative on timeout. Normally open timing.

ATEX Versions Available

Pneumatic Timer - ON Delay Timing

Pneumatic Mini Timer
Panel or DIN-Rail Mount

QY005



DIN-rail mount sold separately, page 7.

Technical information	
Pressure range:	2-6 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Reset:	Automatic - by removal of pressure port 1
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

Description	Order code
0.2 to 3 seconds	51.020.33.00
2 to 30 seconds	51.020.03.00
8 to 120 seconds	51.020.34.00
20 to 300 seconds	51.020.30.00
Ports	M5

Set the pneumatic timer by adjusting the front rotary knob to the desired set-point. Two vertical scales indicate the set time and the remaining cycle time.

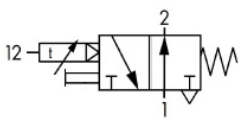
The ON is delayed. The output valve is negative while timing and positive on timeout. Normally closed timing.

ATEX Versions Available

Pneumatic Timer - Reset Module

Pneumatic Automatic Reset Module
Panel Mount

QY006



Technical information	
Pressure range:	2-6 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Reset:	Automatic - by removal of pressure port 1
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

Description	Order code
0.2 to 2 seconds	51.020.35.00
Ports	M5

Accessories, page 7.

Automatic reset modules are used alongside ON delay timers to create continuous pneumatic pulsed output signals from 0.2 to 2 seconds. The ON delay timer separates these pulsed outputs.

Automatic reset timers generate output signals that repeat while air is connected. Removal of air stops and resets the circuit. The front rotary knob sets the desired output time and, when pulled, resets the device.

ATEX Versions Available

Pneumatic Timer - Digital Series

Pneumatic Digital Timer
Panel Mount

QY002

Technical information	
Pressure range:	2-6 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Reset:	Pulse signal to port Y, min pulse length 180ms (Pneumatic reset versions only)
Operating Medium:	5 micron filtered, non-lubricated compressed air

Description	Order code
3 digit seconds timer	53.K21.03.00
3 digit minutes timer	53.K22.03.00
5 digit seconds timer	53.K52.05.00
5 digit minutes timer	53.K54.05.00
5 Digit seconds timer with automatic reset	53.K65.05.10
5 digits minutes timer with automatic reset	53.K66.05.10
Ports	M5

Accessories, page 7.

Digital pneumatic time counters retain the last timed value upon loss of air.

On air connection to the timing port, pneumatic pulses are generated and registered on a two-line display every second or minute.

There are two types of output upon reaching the preset value.

Standard or automatic.

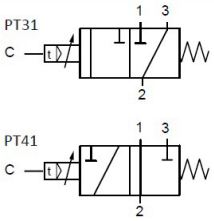
Please see data sheets for further information.

ATEX Versions Available

Pneumatic Timer - PT Series

PT Pneumatic Timer
Vertical Surface Mount

QY007



Technical information	
Pressure range:	1.4-9.5 bar
Temperature range:	-30°C +70°C
Mounting:	Upright vertical mount
Reset:	Removal of control pressure
Operating Medium:	5 micron filtered air or non-aggressive gas, non-lubricated

Description	Order code
Timing starts on application of air to control port C, valve switches on time out	PT31*
Timing starts by removal of air to control port C, valve returns to its spring condition on time out	PT41*
0.1 to 1 second	*A
0.5 to 5 seconds	*B
1.5 to 15 seconds	*C
5 to 50 seconds	*D
20 to 200 seconds	*E
1 to 300 seconds	*K
1 to 10 minutes	*F
3 to 30 minutes	*H
6 to 60 minutes	*I
Ports	1/8 NPT

The PT pneumatic timer is a reliable, robust, proven product that operates from -30°C to +70°C.

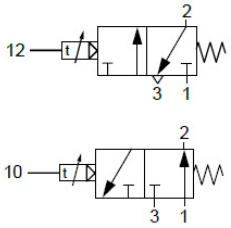
Valve connection: ON delay, OFF delay, or a diverter valve function.

The PT41 pneumatic timer is unique. It is the only timer where timing commences upon completely removing compressed air from the control port.

Pneumatic Timer - 52.SB Series

Set and Forget Timer
M5 Bottom Ported

QY003



Technical information	
Pressure range:	1.5-8 bar
Temperature range:	-10°C +60°C
Mounting:	Panel / Subplate mount
Reset:	Automatic by removal of pressure control port 12 or 10
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

Description	Order code
0.5 to 60 seconds (12)	52.SB20.060
1 to 120 seconds (12)	52.SB20.120
3 to 180 seconds (12)	52.SB20.180
0.5 to 60 seconds (10)	52.SB21.060
1 to 120 seconds (10)	52.SB21.120
Ports	M5

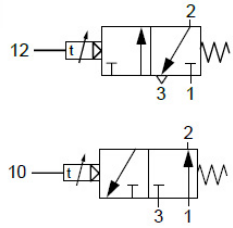
(10) The OFF is delayed. The output valve is positive while timing and negative on timeout. Normally open timing.

(12) The ON is delayed. The output valve is negative while timing and positive on timeout. Normally closed timing.

Pneumatic Timer - 52.SN Series

Set and Forget Timer
1/8 NPT Side Ported

QY004



Technical information	
Pressure range:	1.5-8 bar
Temperature range:	-10°C +60°C
Mounting:	Panel / Base mount
Reset:	Automatic by removal of pressure control port 12 or 10
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

Description	Order code
0.5 to 60 seconds (12)	52.SN20.060
1 to 120 seconds (12)	52.SN20.120
3 to 180 seconds (12)	52.SN20.180
0.5 to 60 seconds (10)	52.SN21.060
1 to 120 seconds (10)	52.SN21.120
Ports	1/8 NPT

(10) The OFF is delayed. The output valve is positive while timing and negative on timeout. Normally open timing.

(12) The ON is delayed. The output valve is negative while timing and positive on timeout. Normally closed timing.

Configuration: Isolated control pressure or same supply and control pressure. See data sheets for further information.

Pneumatic Totalising Counter

6 or 8 Digit Panel Mount

QZ002

Accessories, page 7.

Pneumatic totalising counters register incoming air pulses on a 6 or 8 digit display.

A single connection to the count input port is all that is required to start counting.

Choose a resettable counter or a counter without reset.

Pneumatic totalising counters are light yet durable; maintenance-free, designed for a tidy fast installation.

Technical information	
Pressure range:	2-8 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Manual Reset:	Front button reset
Pneumatic reset:	Pulse signal to port Y, min pulse length 180ms
Operating medium:	5 micron filtered, non-lubricated compressed air

Description	Order code
6 digit adding totalising counter	50.670
Ports	M5
8 digit adding totalising counter non-resettable	50.650
Ports	4mm Push-in

ATEX Versions Available

Pneumatic Totalising Counter

6 Digit Surface Mount

QZ003

Accessories, page 7.

The surface mount totalising counter registers incoming air pulses on a 6 digit display.

A single connection to the count input port is all that is required to start counting.

The counter is reset by a pulse to the reset port or by pressing the reset button.

Technical information	
Pressure range:	2-8 bar
Temperature range:	0°C +60°C
Mounting:	Surface mount
Manual Reset:	Top button reset
Pneumatic reset:	Pulse signal to port Y, min pulse length 180ms
Operating Medium:	5 micron filtered, non-lubricated compressed air

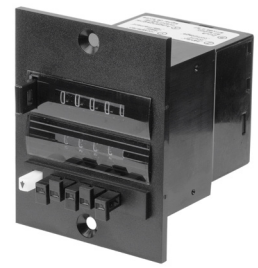
Description	Order code
6 digit adding totalising counter	50.660
Ports	M5

ATEX Versions Available

Pneumatic Preset Counter

3 or 5 Digit Adding Panel Mount

QZ000



Accessories, page 7.

Pneumatic preset counters register pneumatic pulses of air on a mechanical display.

Adding versions have a two-line display. The original preset value and process value are always visible.

The counter starts from zero and counts up to a preset value. The counter emits an output on reaching the preset.

Technical information	
Pressure range:	2-8 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Manual Reset:	Front button reset
Pneumatic Reset:	Pulse signal to port Y, min pulse length 180ms
Operating Medium:	5 micron filtered, non-lubricated compressed air

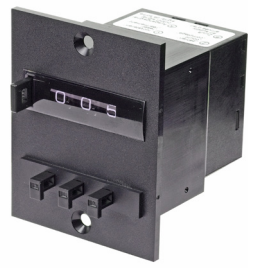
Description	Order code
3 digit adding pneumatic counter	50.695
5 digit adding pneumatic counter	50.680
Ports	M5
3 digit adding pneumatic counter	50.700
5 digit adding pneumatic counter	50.750
Ports	4mm Push-in

ATEX Versions Available

Pneumatic Preset Counter

3 or 5 Digit Subtracting Panel Mount

QZ001



Accessories, page 7.

Pneumatic preset counters register pneumatic pulses of air on a mechanical display.

Subtracting versions have a single-line display.

The preset value reduces for each input pulse. The counter emits an output on reaching zero.

Technical information	
Pressure range:	2-8 bar
Temperature range:	0°C +60°C
Mounting:	Panel mount
Manual Reset:	Front button reset
Pneumatic reset:	Pulse signal to port Y, min pulse length 180ms
Operating Medium:	5 micron filtered, non-lubricated compressed air

Description	Order code
3 digit subtracting pneumatic counter	50.685
5 digit subtracting pneumatic counter	50.690
Ports	M5

ATEX Versions Available

DIN-Rail Mountings

Suits 35mm Top Hat Rail

Description	Order code
M5 female threaded ports	51.031.00.00
4mm Instant push-in fittings	51.031.00.01

Only for use with ON delay mini timers, see product section QY005

Panel Frame

Size (W) 60mm x (H) 75mm

Description	Order code
Panel frame cut-out 52mm x 52mm	1.499.512

For use with product section QY005, QY006 and QY009
Use transparent cover size 2 with this product.

Transparent Protective Covers

Size 1 - IP65

Description	Order code
Hinged cover with rotary knob	1.405.611
Hinged cover with lock and key	1.405.612

For use with product section QY005, QY009, QY006 and QZ002

Transparent Protective Covers

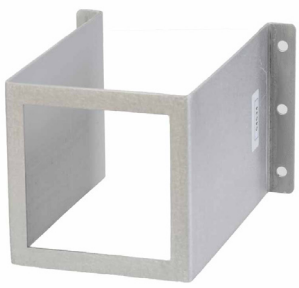
Size 2 - IP65

Description	Order code
Hinged cover with rotary knob	1.405.613
Hinged cover with lock and key	1.405.614

For use with product section QY002, QZ000 and QZ001

Surface Mount Bracket

56 Series Timers



Description	Order code
Surface mount bracket with M5 L-banjo fitting	54.534

For use with product section QY000

Vestolit Protective Covers

Size 2 - IP65

Description	Order code
Flexible Vestolit cover / silver frame	1.405.404
Flexible Vestolit cover / black frame	1.405.587

For use with product section QY002, QZ000 and QZ001

Pneumatic Precision Regulator

50.780 Precision Air Regulator Panel Mount

R1000

Technical information	
Pressure range:	Max 10 bar
Temperature range:	0°C +60°C
Housing:	Brass nickel plated
Seals:	NBR
Operating Medium:	Non-aggressive medium

Description	Max setting	Order code
Relieving	8.0 Bar	50.780.00.80.00
	2.5 Bar	50.780.00.25.00
	1.0 Bar	50.780.00.10.00
Non-relieving	8.0 Bar	50.780.00.80.10
	2.5 Bar	50.780.00.25.10
	1.0 Bar	50.780.00.10.10
Ports	G1/8	

Pneumatic Precision Regulator

50.880 Precision Air Regulator Panel Mount

R1001

Order code **50.883.00**

Technical information	
Pressure range:	Max 10 bar
Temperature range:	0°C +60°C
Housing:	Brass nickel plated
Seals:	NBR
Operating Medium:	Non-aggressive medium

Description	Max setting	Order code
Relieving	8.0 Bar	50.880.00.80.00
	4.0 Bar	50.880.00.40.00
	2.0 Bar	50.880.00.20.00
Non-relieving	8.0 Bar	50.880.00.80.10
	4.0 Bar	50.880.00.40.10
	2.0 Bar	50.880.00.20.10
Ports	M5	

Pneumatic Precision Regulator

48.200 Precision Air Regulator Side Mount

R1002

Technical information	
Pressure range:	Max 10 bar
Temperature range:	0°C +60°C
Housing:	Brass nickel plated/plastic
Seals:	NBR
Operating Medium:	Non-aggressive medium

Description	Max setting	Order code
Relieving	5.0 Bar	48.200.00.50.00
	2.5 Bar	48.200.00.25.00
	1.0 Bar	48.200.00.10.00
Non-relieving	5.0 Bar	48.200.00.50.10
	2.5 Bar	48.200.00.25.10
	1.0 Bar	48.200.00.10.10
Ports	M5	

Pneumatic Precision Regulator

48.250 Precision Air Regulator Side Mount

R1003

Technical information	
Pressure range:	Max 10 bar
Temperature range:	0°C +60°C
Housing:	Brass nickel plated/plastic
Seals:	NBR
Operating Medium:	Non-aggressive medium

Description	Max setting	Order code
Relieving	5.0 Bar	48.250.00.50.00
	1.0 Bar	48.250.00.10.00
Non-relieving	5.0 Bar	48.250.00.50.10
	1.0 Bar	48.250.00.10.10
Ports	G1/8	

Pneumatic Precision Regulator

50.805 Precision Air Regulator Manifold Mount

R1004

Technical information	
Pressure range:	Max 10 bar
Temperature range:	0°C +60°C
Housing:	Brass nickel plated
Seals:	NBR
Operating Medium:	Non-aggressive medium

Description	Max setting	Order code
Relieving	8.0 Bar	50.805.00.80.00
	1.0 Bar	50.805.00.10.00
Non-relieving	8.0 Bar	50.805.00.80.10
	1.0 Bar	50.805.00.10.10

Pneumatic Precision Regulator

50.806 Precision Air Regulator Manifold Mount

R1005

Technical information	
Pressure range:	Max 10 bar
Temperature range:	0°C +60°C
Housing:	Polyoxymethylene
Seals:	NBR
Operating Medium:	Non-aggressive medium

Description	Max setting	Order code
Relieving	5.0 Bar	50.806.00.50.00
	2.5 Bar	50.806.00.25.00
Non-relieving	5.0 Bar	50.806.00.50.10
	2.5 Bar	50.806.00.25.10

Pneumatic Air Preparation

Pressure Regulator — AG003 / AG023

Technical information	
Pressure range:	Max 12.5 bar
Regulation Range:	0-8 bar
Temperature range:	5°C +55°C
Flow rate (P = 6.3 bar):	G1/4 ports 850 Nl/min G3/8 ports 1500 Nl/min G1/2 ports 2300 Nl/min G1 ports 15000 Nl/min
Material:	Polyamide

Description	Ports	Order code
Pressure regulator	G1/4	R4ST
	G3/8	R3ST
	G1/2	R2ST
	G1	R10ST

Gauges and brackets available

Pneumatic Air Preparation

Filter Regulator — AG002 / AG022

Technical information	
Pressure range:	Max 12.5 bar
Regulation Range:	0-8 bar
Temperature range:	5°C +55°C
Filtration grade:	20 µm
Flow rate (P = 6.3 bar):	G1/4 ports 850 Nl/min G3/8 ports 1500 Nl/min G1/2 ports 2300 Nl/min G1 ports 13800 Nl/min
Material:	Transparent toughened Polyamide bowl with outer guard

Description	Ports	Order code
Filter regulator	G1/4	FR4STP
	G3/8	FR3STP
	G1/2	FR2STP
	G1	FR10STP

Gauges and brackets available

Pneumatic Air Preparation

Filter — AG001 / AG021

Technical information	
Pressure range:	Max 12.5 bar
Temperature range:	5°C +55°C
Filtration grade:	20 µm
Flow rate (P = 6.3 bar):	G1/4 ports 850 Nl/min G3/8 ports 2100 Nl/min G1/2 ports 2300 Nl/min G1 ports 11250 Nl/min
Material:	Transparent toughened Polyamide bowl with outer guard

Description	Ports	Order code
Filter	G1/4	F4STP
	G3/8	F3STP
	G1/2	F2STP
	G1	F10STP

Pneumatic Air Preparation

Lubricator — AG004 / AG024

Technical information	
Pressure range:	Max 12.5 bar
Temperature range:	5°C +55°C
Oil viscosity:	ISO VG32
Flow rate (P = 6.3 bar):	G1/4 ports 1500 Nl/min G3/8 ports 1700 Nl/min G1/2 ports 3000 Nl/min G1 ports 12000 Nl/min
Material:	Transparent toughened Polyamide bowl with outer guard

Description	Ports	Order code
Lubricator	G1/4	L4STP
	G3/8	L3STP
	G1/2	L2STP
	G1	L10STP

Pneumatic Air Preparation

Filter Regulator + Lubricator — AG005

Technical information	
Pressure range:	Max 12.5 bar
Regulation Range:	0-8 bar
Temperature range:	5°C +55°C
Filtration grade:	20 µm
Flow rate (P = 6.3 bar):	G1/4 ports 850 Nl/min G3/8 ports 1500 Nl/min G1/2 ports 2300 Nl/min G1 ports 12000 Nl/min
Material:	Transparent toughened Polyamide bowl with outer guard

Description	Ports	Order code
Filter regulator + lubricator	G1/4	FRL42STP
	G3/8	FRL32STP
	G1/2	FRL22STP
	G1	FRL102STP

Gauges and brackets available

Pneumatic Air Preparation

Filter + Regulator + Lubricator — AG006

Technical information	
Pressure range:	Max 12.5 bar
Regulation Range:	0-8 bar
Temperature range:	5°C +55°C
Filtration grade:	20 µm
Flow rate (P = 6.3 bar):	G1/4 ports 850 Nl/min G3/8 ports 1500 Nl/min G1/2 ports 2300 Nl/min G1 ports 11250 Nl/min
Material:	Transparent toughened Polyamide bowl with outer guard

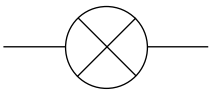
Description	Ports	Order code
Filter + regulator + lubricator	G1/4	FRL4STP
	G3/8	FRL3STP
	G1/2	FRL2STP
	G1	FRL10STP

Gauges and brackets available

Pneumatic Visual Indicator

Lens Type - Programmable Panel Mount

V1002



The programmable visual indicator provides two modes of operation. Moving an adjustment clip will give the device a pressure indication and a spring return no pressure indication. Detent mode allows for two alternating pressures. The indicator changes colour when applying a non-opposing pressure to its second control port.

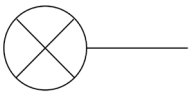
Technical information	
Pressure range:	25 to 150 PSI (Detent mode) 45 to 150 PSI (spring mode).
Temperature range:	35°F 150°F
Mounting:	Panel mounted
Materials	Acrylic lens, acetal housing (glass filled), buna N seals.
Operating Medium:	5 micron filtered, non-lubricated compressed air

Description	Order code
Visual indication of air pressure	15NF1-XXX
Indicator colour options:	
Red to Green	15NF1-RG
Green to Black	15NF1-GBK
Red to Black	15NF1-RBK
Yellow to Black	15NF1-YBK
Amber to Black	15NF1-ABK
Amber to Green	15NF1-AG
Black to White	15NF1-BKW
Green to White	15NF1-GW
Spare parts:	
Lens	3028
Mounting nut	1074
Sphere	NF5-XXX (colour code)
Ports	1/8 NPT

Pneumatic Visual Indicator

Lens Type - Indication Panel Mount

V1003



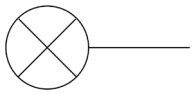
Technical information	
Pressure range:	20 to 120 PSI
Temperature range:	35°F 150°F
Mounting:	Panel mounted
Materials	Acrylic lens, acetal & ABS housing, buna N & silicone seals.
Operating Medium:	5 micron filtered, non-lubricated compressed air

Description	Ports	Order code
Visual indication of air pressure	10-32	AL19-XXX
	1/8 NPT	AL15-XXX
Indicator colour options:		
Red to Green		ALXX-RG
Green to Black		ALXX-GBK
Red to Black		ALXX-RBK
Yellow to Black		ALXX-YBK
Amber to Black		ALXX-ABK
Amber to Green		ALXX-AG
Black to White		ALXX-BKW
Green to White		ALXX-GW
Spare parts:		
Lens		3028
Mounting nut		1074
Sphere		AL-XXX (colour code)

Pneumatic Visual Indicator

Pop-Up Type Indication Port Mount

V1001



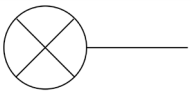
Technical information	
Pressure range:	3-10 bar
Temperature range:	-10°C +50°C
Mounting:	Port mounted
Housing:	Brass body/nylon seal/plastic pop-up
Switching frequency:	Approx. 5 Hz
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

Description	Connection	Colour	Order code
Red pop-up visual indication of air pressure	M5 Male	Red	50.590
Green pop-up visual indication of air pressure		Green	50.591

Pneumatic Visual Indicator

Lens Type Indication Panel Mount

V1000



Technical information	
Pressure range:	1.2-8 bar
Temperature range:	-10°C +50°C
Mounting:	Panel mounted
Housing:	Moulded polyamide
Switching frequency:	Approx. 5 Hz
Operating Medium:	5 micron filtered clean dry, non-lubricated compressed air

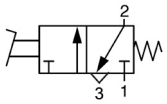
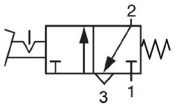
Description	Ports	Colour	Order code
Black to red visual indication of air pressure	M5 Female	Red	50.520
Black to green visual indication of air pressure		Green	50.521

Manually Operated Valves

Foot Pedal Valve - 3/2 Way G1/8 Ports

A1032

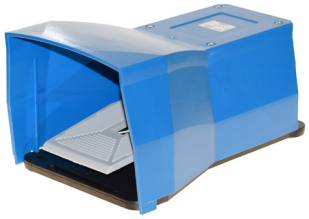
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Plastic polycarbonate
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron fi ltered, lubricated or non-lubricated compressed air
Ports:	G1/8

	Description	Colour	Order code
	3/2 way spring return normally closed	Yellow	76.026.68.21
		Blue	76.026.69.21
	3/2 way maintained position with latch	Yellow	76.026.68.29
		Blue	76.026.69.29

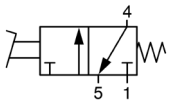
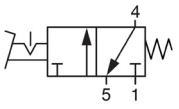
Manually Operated Valves

Foot Pedal Valve - 3/2 Way G1/4 Ports

A1033



Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Plastic polycarbonate
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron fi ltered, lubricated or non-lubricated compressed air
Ports:	G1/4

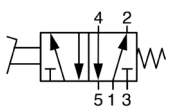
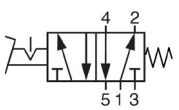
	Description	Colour	Order code
	3/2 way spring return normally closed	Yellow	76.046.68.21
		Blue	76.046.69.21
	3/2 way maintained position with latch	Yellow	76.046.68.29
		Blue	76.046.69.29

Manually Operated Valves

Foot Pedal Valve - 5/2 Way G1/4 Ports

A1034

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Plastic polycarbonate
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron fi ltered, lubricated or non-lubricated compressed air
Ports:	G1/4

	Description	Colour	Order code
	5/2 way spring return	Yellow	76.047.68.41
		Blue	76.047.69.41
	5/2 way maintained position with latch	Yellow	76.047.68.49
		Blue	76.047.69.49

Push Button Actuators

Shrouded Buttons Ø 29mm — AZ008

Technical information	
Temperature range:	Max +55˚C
IP Rating:	IP55
Housing:	High performance plastic material
Mechanical Lifetime:	500,000 actuations

Description	Coloured Disc	Order code
Push button	black, red and white	PT.00.57.5.00
Spare discs	Green	PT.00.57.0.01
	Yellow	PT.00.57.0.02
	Light Blue	PT.00.57.0.03
	White	PT.00.57.0.04
	Black	PT.00.57.0.05
	Red	PT.00.57.0.06

Push Button Actuators

Mushroom Buttons Ø 40mm — AZ008

Technical information	
Temperature range:	Max +55˚C
IP Rating:	IP55
Housing:	High performance plastic material
Mechanical Lifetime:	500,000 actuations

Description	Button	Order code
Mushroom push button	Red monostable	PT.00.57.5.40
	Black monostable	PT.00.57.5.41
	Red Bistable Twist to Unlock	PT.00.57.7.40

Push Button Actuators

Palm Buttons Ø 60mm — AZ008

Technical information	
Temperature range:	Max +55˚C
IP Rating:	IP55
Housing:	High performance plastic material
Mechanical Lifetime:	500,000 actuations

Description	Button	Order code
Palm button	Red monostable	PT.00.57.5.60
	Red Bistable Twist to Unlock	PT.00.57.7.60

Key Operated actuators

2 and 3 positions - Bistable — AZ010

Technical information	
Temperature range:	Max +55˚C
IP Rating:	IP55
Housing:	High performance plastic material
Mechanical Lifetime:	500,000 actuations

Description	Key Function	Function	Order code
Key operated selector two positions	Key removable in 0 position only	0 1	PT.00.58.7.00
	Key removable in all positions	0 1	PT.00.58.7.10
Key operated selector three positions	Key removable in 0 position only	2 0 1	PT.00.58.8.00

See data sheets for valve actuation

Rotary Selector Actuators

Short Lever - 2 and 3 positions — AZ009

Technical information	
Temperature range:	Max +55˚C
IP Rating:	IP55
Housing:	High performance plastic material
Mechanical Lifetime:	500,000 actuations

Description	Selector	Function	Order code
Short lever selector two positions	Bistable	0 1	PT.00.59.7.00
	Monostable	0←1	PT.00.59.5.00
Short lever selector three positions	Bistable	2 0 1	PT.00.59.8.00
	Monostable	2→0←1	PT.00.59.6.00

See data sheets for valve actuation

Release return position [→ ←]

Rotary Selector Actuators

Long Lever - 2 and 3 positions — AZ009

Technical information	
Temperature range:	Max +55˚C
IP Rating:	IP55
Housing:	High performance plastic material
Mechanical Lifetime:	500,000 actuations

Description	Selector	Function	Order code
Long lever selector two positions	Bistable	0 1	PT.00.59.7.10
	Monostable	0←1	PT.00.59.5.10
Long lever selector three positions	Bistable	2 0 1	PT.00.59.8.10
	Monostable	2→0←1	PT.00.59.6.10

See data sheets for valve actuation

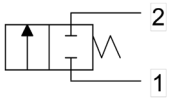
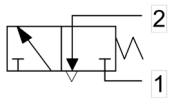
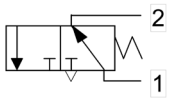
Release return position [→ ←]

Micro Pneumatic Valves

2 & 3 Way Valve Body for Actuators

AZ005

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports M5 threaded ports
Port orientation:	Side or bottom ports

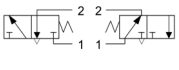
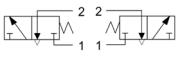
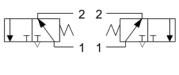
	Ports	Bottom	Side
	4mm	PT.00.22.1.B4	PT.00.22.1.S4
	M5	PT.00.22.1.B5	PT.00.22.1.S5
	4mm	PT.00.32.1.B4	PT.00.32.1.S4
	M5	PT.00.32.1.B5	PT.00.32.1.S5
	4mm	PT.00.32.2.B4	PT.00.32.2.S4
	M5	PT.00.32.2.B5	PT.00.32.2.S5

Micro Pneumatic Valves

5 Way (2 x 3 Way) Valve Body for Actuators

AZ006

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports M5 threaded ports
Port orientation:	Side or bottom ports

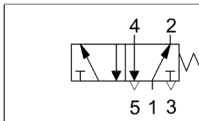
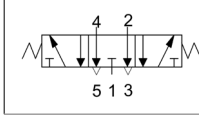
	Ports	Bottom	Side
	4mm	PT.00.52.0.B4	PT.00.52.0.S4
	M5	PT.00.52.0.B5	PT.00.52.0.S5
	4mm	PT.00.53.3.B4	PT.00.53.3.S4
	M5	PT.00.53.3.B5	PT.00.53.3.S5
	4mm	PT.00.53.4.B4	PT.00.53.4.S4
	M5	PT.00.53.4.B5	PT.00.53.4.S5

Micro Pneumatic Valves

5 Way Valve Body for Actuators

AZ007

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports
Port orientation:	Side or bottom ports

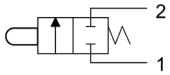
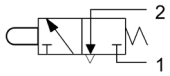
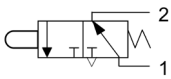
	Ports	Bottom	Side
	4mm	PT.00.54.0.B4	PT.00.54.0.S4
	4mm		PT.00.54.3.S4

Micro Pneumatic Valves

Plunger Valves - Flush Mount

AZ001

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports M5 threaded ports
Port orientation:	Side or bottom ports

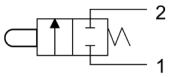
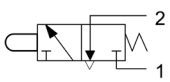
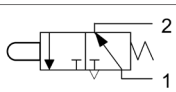
	Ports	Bottom	Side
	4mm	PT.21.22.1.B4	PT.21.22.1.S4
	M5	PT.21.22.1.B5	PT.21.22.1.S5
	4mm	PT.21.32.1.B4	PT.21.32.1.S4
	M5	PT.21.32.1.B5	PT.21.32.1.S5
	4mm	PT.21.32.2.B4	PT.21.32.2.S4
	M5	PT.21.32.2.B5	PT.21.32.2.S5

Micro Pneumatic Valves

Plunger Valves - Bulkhead Mount

AZ002

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports M5 threaded ports
Port orientation:	Side or bottom ports

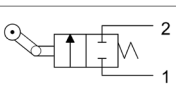
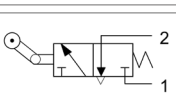
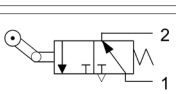
	Ports	Bottom	Side
	4mm	PT.20.22.1.B4	PT.20.22.1.S4
	M5	PT.20.22.1.B5	PT.20.22.1.S5
	4mm	PT.20.32.1.B4	PT.20.32.1.S4
	M5	PT.20.32.1.B5	PT.20.32.1.S5
	4mm	PT.20.32.2.B4	PT.20.32.2.S4
	M5	PT.20.32.2.B5	PT.20.32.2.S5

Micro Pneumatic Valves

Roller Lever Valves - One Way

AZ004

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports M5 threaded ports
Port orientation:	Side or bottom ports

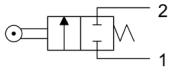
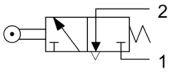
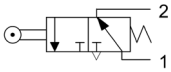
	Ports	Bottom	Side
	4mm	PT.24.22.1.B4	PT.24.22.1.S4
	M5	PT.24.22.1.B5	PT.24.22.1.S5
	4mm	PT.24.32.1.B4	PT.24.32.1.S4
	M5	PT.24.32.1.B5	PT.24.32.1.S5
	4mm	PT.24.32.2.B4	PT.24.32.2.S4
	M5	PT.24.32.2.B5	PT.24.32.2.S5

Micro Pneumatic Valves

Roller Lever Valves - Two Way

AZ003

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Actuation force:	6 N
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Aluminium
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	4mm push-in ports M5 threaded ports
Port orientation:	Side or bottom ports

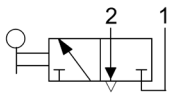
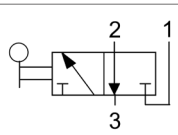
	Ports	Bottom	Side
	4mm	PT.23.22.1.B4	PT.23.22.1.S4
	M5	PT.23.22.1.B5	PT.23.22.1.S5
	4mm	PT.23.32.1.B4	PT.23.32.1.S4
	M5	PT.23.32.1.B5	PT.23.32.1.S5
	4mm	PT.23.32.2.B4	PT.23.32.2.S4
	M5	PT.23.32.2.B5	PT.23.32.2.S5

Micro Pneumatic Valves

Lever Valves - Short body

AZ011

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Nickel plated brass
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	M5 threaded ports
Port orientation:	Side ports only

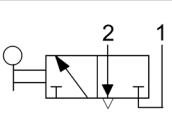
	Ports	Side
	M5	PT.25.60.1.S5
	M5	PT.25.62.1.S5

Micro Pneumatic Valves

Lever Valves - Long body

AZ011

Technical information	
Pressure range:	2-10 bar
Temperature range:	Max +60°C
Orifice/Flow rate:	2.5mm / 100 Nl/min
Housing:	Nickel plated brass
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Connections:	M5 threaded ports
Port orientation:	Side ports only

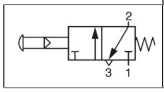
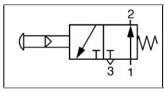
	Ports	Side
	M5	PT.25.61.1.S5

72 Series Miniature Valves

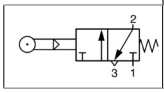
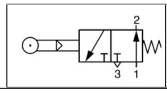
Button / Roller Lever — H1000 / H1001

Technical information	
Actuation force @ 8 bar:	Approx. 1N
Actuation stroke/override:	0.6 mm/1 mm
Air consumption @ 6 bar:	Approx. 0.7 l/min
Pressure range:	1.5-8 bar
Temperature range:	-10°C +60°C
Housing:	Polyamide with brass fittings
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

H1000

	Description	Ports	Order code
	3/2 way spring return normally closed sintered exhaust	Push-in 4mm	72.010
	3/2 way spring return normally open sintered exhaust		72.015

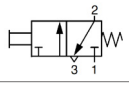
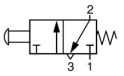
H1001

	Description	Ports	Order code
	3/2 way spring return normally closed sintered exhaust	Push-in 4mm	72.020
	3/2 way spring return normally open sintered exhaust		72.025

74 Series Miniature Valves

Push Button / Plunger — J1000

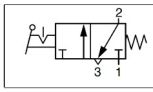
Technical information	
Actuation force @ 6 bar:	Approx. 25N
Pressure range:	0-12 bar
Temperature range:	-10°C +60°C
Housing:	Zinc alloy
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

	Description	Ports	Order code
	3/2 way plunger spring return normally closed sintered exhaust	M5	74.000
	3/2 way push button spring return normally closed sintered exhaust		74.002

74 Series Miniature Valves

Toggle Lever — J1001

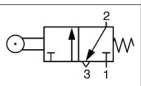
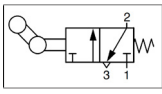
Technical information	
Actuation force @ 6 bar:	Approx. 4.5N
Pressure range:	0-12 bar
Temperature range:	-10°C +60°C
Housing:	Zinc alloy
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

	Description	Ports	Order code
	3/2 way toggle lever detented normally closed sintered exhaust	M5	74.001

74 Series Miniature Valves

Roller Lever — J1002

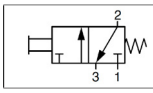
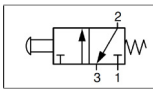
Technical information	
Actuation force @ 6 bar:	Approx. 9N
Pressure range:	0-12 bar
Temperature range:	-10°C +60°C
Housing:	Zinc alloy
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

	Description	Ports	Order code
	3/2 way roller (2 way) spring return normally closed sintered exhaust	M5	74.003
	3/2 way roller (1 way) spring return normally closed sintered exhaust		74.004

46 Series Miniature Valves

Push Button / Plunger J1003

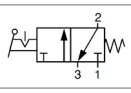
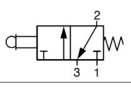
Technical information	
Actuation force @ 6 bar:	Approx. 13N
Actuation stroke:	Approx. 2 mm
Pressure range:	0-12 bar
Temperature range:	-10°C +70°C
Housing:	Brass
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

	Description	Ports	Order code
	3/2 way plunger spring return normally closed	M5	46.000
	3/2 way push button spring return normally closed		46.002

46 Series Miniature Valves

Toggle Lever / Roller Ball J1004

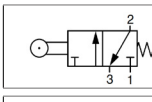
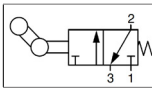
Technical information	
Actuation force @ 6 bar:	Approx. 13N
Actuation stroke:	Approx. 2 mm
Pressure range:	0-12 bar
Temperature range:	-10°C +70°C
Housing:	Brass
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

	Description	Ports	Order code
	3/2 way toggle lever detented normally closed	M5	46.001
	3/2 way roller ball spring return normally closed		46.005

46 Series Miniature Valves

Roller Lever J1005

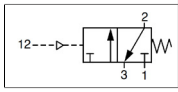
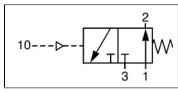
Technical information	
Actuation force @ 6 bar:	Approx. 6N
Actuation stroke:	Approx. 4 mm
Pressure range:	0-12 bar
Temperature range:	-10°C +70°C
Housing:	Brass
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

	Description	Ports	Order code
	3/2 way roller (one way) spring return normally closed	M5	46.003
	3/2 way roller (two way) spring return normally closed		46.004

46 Series Miniature Valves

Pilot Operated J1006

Technical information	
Pressure range:	0-12 bar
Control pressure:	1.5-8 bar
Temperature range:	-10°C +70°C
Housing:	Brass
Seals:	Perbunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	2mm

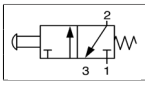
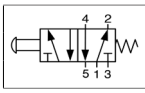
	Description	Ports	Order code
	3/2 way spring return normally closed	M5	46.006
	3/2 way spring return normally open		46.007

Manually Operated Valves

Push Button - Mushroom Button — A1001

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Lubricant:	Not required
Operating Medium:	5 micron filtered, non-lubricated compressed air
Ports:	G1/8

ATEX Versions Available

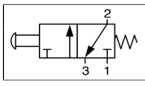
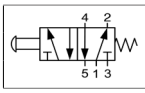
Description	Button	Order code
 3/2 way spring return normally closed	Red	76.022.61.21
	Black	76.022.61.23
	Green	76.022.61.24
 5/2 way spring return	Red	76.023.61.41
	Black	76.023.61.43
	Green	76.023.61.44

Manually Operated Valves

Push Button - Flush Button — A1002

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Lubricant:	Not required
Operating Medium:	5 micron filtered, non-lubricated compressed air
Ports:	G1/8

ATEX Versions Available

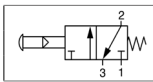
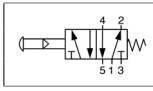
Description	Button	Order code
 3/2 way spring return normally closed	Red	76.022.62.21
	Black	76.022.62.23
	Green	76.022.62.24
 5/2 way spring return	Red	76.023.62.41
	Black	76.023.62.43
	Green	76.023.62.44

Manually Operated Valves

Push Button - Mushroom Button Air Pilot Assisted for Light Operation — A1003

Technical information	
Actuation force @ 6 bar:	4N 3/2 way 8N 5/2 way
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Lubricant:	Not required
Operating Medium:	5 micron filtered, non-lubricated compressed air
Ports:	G1/8

ATEX Versions Available

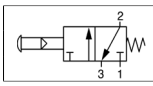
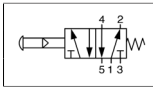
Description	Button	Order code
 3/2 way spring return normally closed	Red	76.022.65.21
	Black	76.022.65.23
	Green	76.022.65.24
 5/2 way spring return	Red	76.023.65.41
	Black	76.023.65.43
	Green	76.023.65.44

Manually Operated Valves

Push Button - Shrouded Button Air Pilot Assisted for Light Operation — A1004

Technical information	
Actuation force @ 6 bar:	4N 3/2 way 8N 5/2 way
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Lubricant:	Not required
Operating Medium:	5 micron filtered, non-lubricated compressed air
Ports:	G1/8

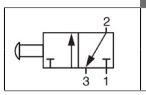
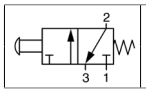
ATEX Versions Available

Description	Button	Order code
 3/2 way spring return normally closed	Red	76.022.66.21
	Black	76.022.66.23
	Green	76.022.66.24
 5/2 way spring return	Red	76.023.66.41
	Black	76.023.66.43
	Green	76.023.66.44

Manually Operated Valves

Knob Operator - 3/2 Way — A1005

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered G1/8 zinc alloy or G1/4 aluminium alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

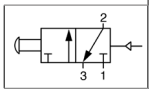
	Description	Ports	Order code
	3/2 way push-pull maintained position	G1/8	76.022.27.00
		G1/4	76.042.27.00
	3/2 way spring return normally closed	G1/8	76.022.27.21
		G1/4	76.042.27.21

ATEX Versions Available

Manually Operated Valves

Knob Operator- 3/2 Way — A1005

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

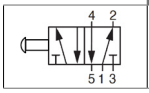
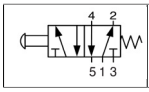
	Description	Ports	Order code
	3/2 way push-pull maintained position with pilot return	G1/8	76.022.27.22

ATEX Versions Available

Manually Operated Valves

Knob Operator - 5/2 Way — A1006

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

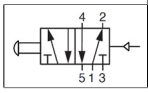
	Description	Ports	Order code
	5/2 way push-pull maintained position	G1/8	76.023.27.40
	5/2 way spring return	G1/8	76.023.27.41

ATEX Versions Available

Manually Operated Valves

Knob Operator - 5/2 Way — A1006

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

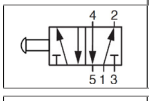
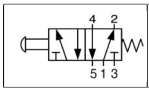
	Description	Ports	Order code
	5/2 way push-pull maintained position with pilot return	G1/8	76.023.27.42

ATEX Versions Available

Manually Operated Valves

Knob Operator - 5/2 Way — A1035

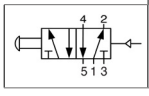
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	5/2 way push-pull maintained position	G1/4	76.143.27.40
	5/2 way spring return	G1/4	76.143.27.41

Manually Operated Valves

Knob Operator - 5/2 Way — A1035

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

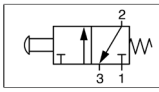
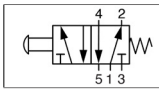
	Description	Ports	Order code
	5/2 way push-pull maintained position with pilot return	G1/4	76.143.27.42

Manually Operated Valves

Push Button Operated - Mushroom Button Ø 40mm — A1018

ATEX Versions Available

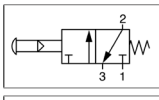
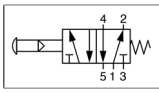
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.43.21
	5/2 way spring return	G1/8	76.023.43.41

Air Pilot Assisted — A1019

For Light Operation

Technical information	
Actuation force @ 6 bar:	8N
Pressure range:	2.5 - 10 bar

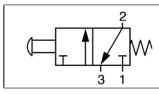
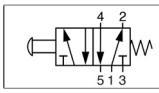
	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.53.21
	5/2 way spring return	G1/8	76.023.53.41

Manually Operated Valves

Push Button Operated - Shrouded Button Ø 30mm — A1017

ATEX Versions Available

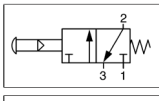
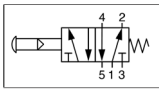
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.42.21
	5/2 way spring return	G1/8	76.023.42.41

Air Pilot Assisted — A1016

For Light Operation

Technical information	
Actuation force @ 6 bar:	8N
Pressure range:	2.5 - 10 bar

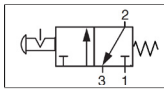
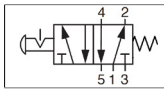
	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.52.21
	5/2 way spring return	G1/8	76.023.52.41

Manually Operated Valves

Push Button Operated - Punch Button Ø 40mm — A1020

ATEX Versions Available

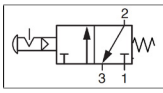
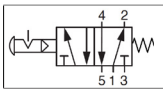
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way maintained position push to latch twist to unlatch	G1/8	76.022.44.21
	5/2 way maintained position push to latch twist to unlatch	G1/8	76.023.44.41

Air Pilot Assisted — A1021

For Light Operation

Technical information	
Actuation force @ 6 bar:	8N
Pressure range:	2.5 - 10 bar

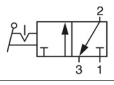
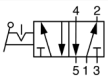
	Description	Ports	Order code
	3/2 way maintained position push to latch twist to unlatch	G1/8	76.022.54.21
	5/2 way maintained position push to latch twist to unlatch	G1/8	76.023.54.41

Manually Operated Valves

Rotary Selector - Short Selector — A1024

ATEX Versions Available

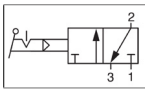
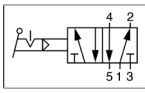
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way maintained position	G1/8	76.022.46.21
	5/2 way maintained position	G1/8	76.023.46.41

Air Pilot Assisted — A1025

For Light Operation

Technical information	
Pressure range:	2.5 - 10 bar

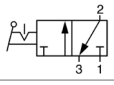
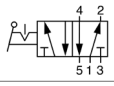
	Description	Ports	Order code
	3/2 way maintained position	G1/8	76.022.56.21
	5/2 way maintained position	G1/8	76.023.56.41

Manually Operated Valves

Rotary Selector - Long Selector — A1026

ATEX Versions Available

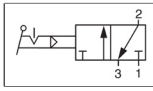
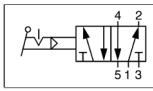
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way maintained position	G1/8	76.022.47.21
	5/2 way maintained position	G1/8	76.023.47.41

Air Pilot Assisted — A1027

For Light Operation

Technical information	
Pressure range:	2.5 - 10 bar

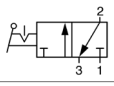
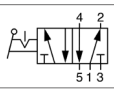
	Description	Ports	Order code
	3/2 way maintained position	G1/8	76.022.57.21
	5/2 way maintained position	G1/8	76.023.57.41

Manually Operated Valves

Rotary Selector - Key Operated — A1028

ATEX Versions Available

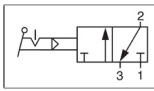
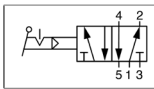
Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Keys:	Common keys. Keys are retractable in one position only.

	Description	Ports	Order code
	3/2 way maintained position. Includes 2 keys	G1/8	76.022.48.21
	5/2 way maintained position. Includes 2 keys	G1/8	76.023.48.41

Air Pilot Assisted — A1029

For Light Operation

Technical information	
Pressure range:	2.5 - 10 bar

	Description	Ports	Order code
	3/2 way maintained position. Includes 2 keys	G1/8	76.022.58.21
	5/2 way maintained position. Includes 2 keys	G1/8	76.023.58.41

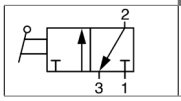
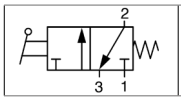
Manually Operated Valves

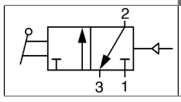
Lever Operator - 3/2 Way

A1007

ATEX Versions Available

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way maintained position	G1/8	76.022.25.00
	3/2 way spring return normally closed	G1/8	76.022.25.21

	Description	Ports	Order code
	3/2 way maintained position with pilot return	G1/8	76.022.25.22

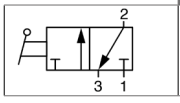
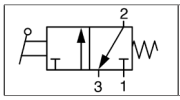
Manually Operated Valves

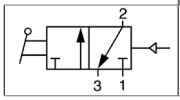
Lever Operator - 3/2 Way

A1037

ATEX Versions Available

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast aluminium alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way maintained position	G1/4	76.042.25.00
	3/2 way spring return normally closed	G1/4	76.042.25.21

	Description	Ports	Order code
	3/2 way maintained position with pilot return	G1/4	76.042.25.22

Manually Operated Valves

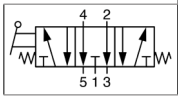
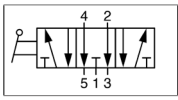
Lever Operator - 5/3 Way

A1009 / A1010

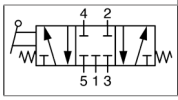
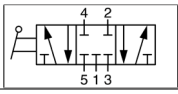
ATEX Versions Available

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

A1009

	Description	Ports	Order code
	5/3 way spring return to centre centre ports exhaust	G1/8	76.024.25.28
	5/3 way maintained position centre ports exhaust	G1/8	76.024.25.29

A1010

	Description	Ports	Order code
	5/3 way spring return to centre centre ports closed	G1/8	76.024.25.38
	5/3 way maintained position centre ports closed	G1/8	76.024.25.39

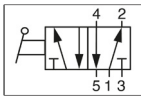
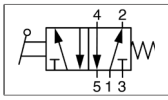
Manually Operated Valves

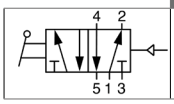
Lever Operator - 5/2 Way

A1008

ATEX Versions Available

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	5/2 way maintained position	G1/8	76.023.25.40
	5/2 way spring return	G1/8	76.023.25.41

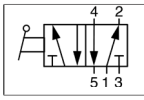
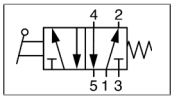
	Description	Ports	Order code
	5/2 way maintained position with pilot return	G1/8	76.023.25.42

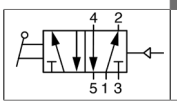
Manually Operated Valves

Lever Operator - 5/2 Way

A1036

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	5/2 way maintained position	G1/4	76.143.25.40
	5/2 way spring return	G1/4	76.143.25.41

	Description	Ports	Order code
	5/2 way maintained position with pilot return	G1/4	76.143.25.42

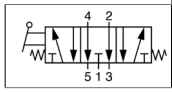
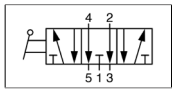
Manually Operated Valves

Lever Operator - 5/3 Way

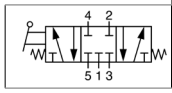
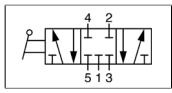
A1011 / A1012

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

A1011

	Description	Ports	Order code
	5/3 way spring return to centre centre ports exhaust	G1/4	76.144.25.28
	5/3 way maintained position centre ports exhaust	G1/4	76.144.25.29

A1012

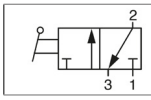
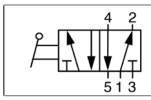
	Description	Ports	Order code
	5/3 way spring return to centre centre ports closed	G1/4	76.144.25.38
	5/3 way maintained position centre ports closed	G1/4	76.144.25.39

Manually Operated Valves

Lever Operator - 3/2 & 5/2 Way

A1013

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way maintained position	G1/8	76.022.26.21
	5/2 way maintained position	G1/8	76.023.26.41

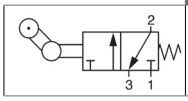
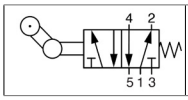
ATEX Versions Available

Mechanically Operated Valves

One Way Roller Lever - 3/2 & 5/2 Way

B1008

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.24.21
	5/2 way spring return	G1/8	76.023.24.41

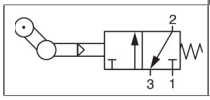
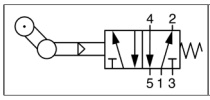
ATEX Versions Available

Mechanically Operated Valves

One Way Roller Lever - 3/2 & 5/2 Way Air Pilot Assisted for Light Operation

B1009

Technical information	
Actuation force @ 6 bar:	4N
Pressure range:	2.5 - 10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.34.21
	5/2 way spring return	G1/8	76.023.34.41

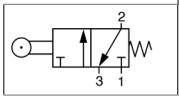
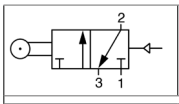
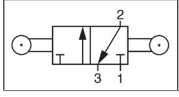
ATEX Versions Available

Mechanically Operated Valves

Two Way Roller Lever - 3/2 Way

B1005

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.23.21
	3/2 way maintained position with pilot return	G1/8	76.022.23.22
	3/2 way with roller on both ends	G1/8	76.022.23.10

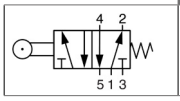
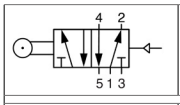
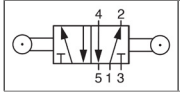
ATEX Versions Available

Mechanically Operated Valves

Two Way Roller Lever - 5/2 Way

B1006

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	5/2 way spring return	G1/8	76.023.23.41
	5/2 way maintained position with pilot return	G1/8	76.023.23.42
	5/2 way with roller on both ends	G1/8	76.023.23.10

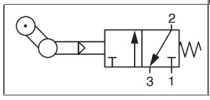
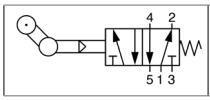
ATEX Versions Available

Mechanically Operated Valves

Two Way Roller Lever - 3/2 & 5/2 Way Air Pilot Assisted for Light Operation

B1007

Technical information	
Actuation force @ 6 bar:	4N
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.33.21
	5/2 way spring return	G1/8	76.023.33.41

ATEX Versions Available

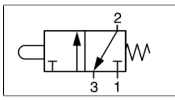
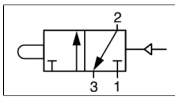
Mechanically Operated Valves

Plunger Operated - 3/2 Way Body Mounted

B1001

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

ATEX Versions Available

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.21.21
	3/2 way maintained position with pilot return	G1/8	76.022.21.22

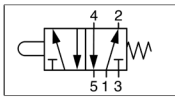
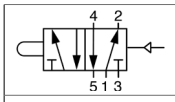
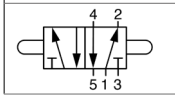
Mechanically Operated Valves

Plunger Operated - 5/2 Way Body Mounted

B1002

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

ATEX Versions Available

	Description	Ports	Order code
	5/2 way spring return	G1/8	76.023.21.41
	5/2 way maintained position with pilot return	G1/8	76.023.21.42
	5/2 way with plunger on both ends	G1/8	76.023.21.10

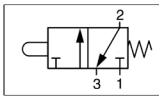
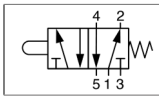
Mechanically Operated Valves

Plunger Operated - 3/2 & 5/2 Way Bulkhead Mounted

B1003

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

ATEX Versions Available

	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.22.21
	5/2 way spring return	G1/8	76.023.22.41

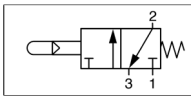
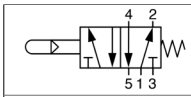
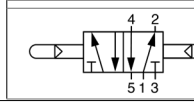
Mechanically Operated Valves

Plunger Valve - 3/2 & 5/2 Way Air Pilot Assisted for Light Operation

B1004

Technical information	
Actuation force @ 6 bar:	8N
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

ATEX Versions Available

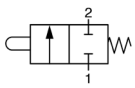
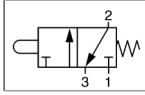
	Description	Ports	Order code
	3/2 way spring return normally closed	G1/8	76.022.32.21
	5/2 way spring return	G1/8	76.023.32.41
	5/2 way with plunger on both ends	G1/8	76.027.60.10

Mechanically Operated Valves

Plunger Operated - 2/2 & 3/2 Way Compact Design

B1010

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	PUR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

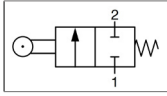
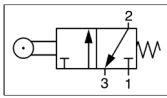
	Description	Ports	Order code
	2/2 way spring return normally closed	G1/8	76.025.21.21
	3/2 way spring return normally closed	G1/8	76.026.21.21

Mechanically Operated Valves

Two Way Roller Lever - 2/2 & 3/2 Way Compact Design

B1011

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	PUR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

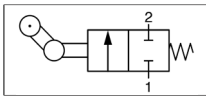
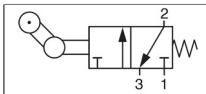
	Description	Ports	Order code
	2/2 way spring return normally closed	G1/8	76.025.23.21
	3/2 way spring return normally closed	G1/8	76.026.23.21

Mechanically Operated Valves

One Way Roller Lever - 2/2 & 3/2 Way Compact Design

B1012

Technical information	
Pressure range:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	PUR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

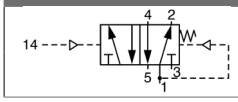
	Description	Ports	Order code
	2/2 way spring return normally closed	G1/8	76.025.24.21
	3/2 way spring return normally closed	G1/8	76.026.24.21

Pneumatically Operated Valves

Pilot Operated - 5/2 Way G1/8 Ports

D1001

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar (port 14 ≥ port 1 pressure)
Temperature range:	-15°C +50°C
Housing:	Plastic material (IXEF)
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Type	Order code
	5/2 way spring return	Poppet	76.127.71.41
		Spool	76.123.71.41

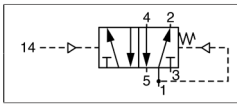
DIN-rail / surface mount accessories available.

Pneumatically Operated Valves

Pilot Operated - 5/2 Way G1/4 Ports

D1005

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar (port 14 ≥ port 1 pressure)
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Pilot Ports	G1/8

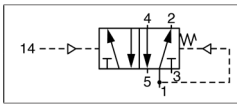
	Description	Type	Order code
	5/2 way spring return	Poppet	76.147.81.41
		Spool	76.143.81.41

Pneumatically Operated Valves

Pilot Operated - 5/2 Way G1/8 Ports Compact Design

D1003

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar (port 14 ≥ port 1 pressure)
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

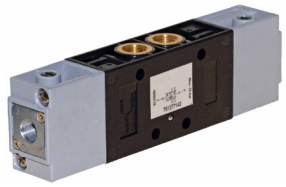
	Description	Type	Order code
	5/2 way spring return	Poppet	76.027.71.41
		Spool	76.023.71.41

ATEX Versions Available

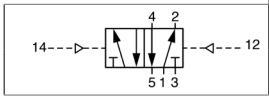
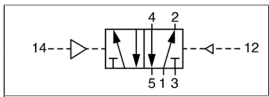
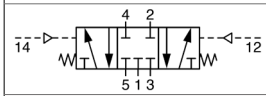
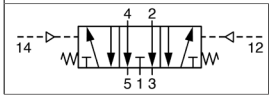
Pneumatically Operated Valves

Pilot Operated - 5/2 & 5/3 Way G1/8 Ports

D1002



Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Plastic material (IXEF)
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Type	Order code
	5/2 way double pilot	Poppet	76.127.71.42
		Spool	76.123.71.42
	5/2 way double pilot with priority	Poppet	76.127.71.47
		Spool	76.123.71.47
	5/3 way spring return to centre all ports closed	Spool	76.124.71.38
	5/3 way spring return to centre ports exhaust	Spool	76.124.71.28

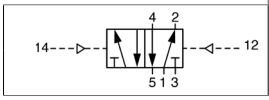
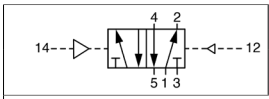
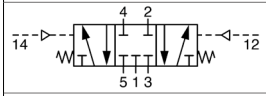
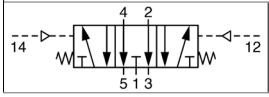
DIN-rail / surface mount accessories available.

Pneumatically Operated Valves

Pilot Operated - 5/2 & 5/3 Way G1/4 Ports

D1006

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Pilot Ports	G1/8

	Description	Type	Order code
	5/2 way double pilot	Poppet	76.147.81.42
		Spool	76.143.81.42
	5/2 way double pilot with priority	Poppet	76.147.81.47
		Spool	76.143.81.47
	5/3 way spring return to centre all ports closed	Spool	76.144.81.38
	5/3 way spring return to centre ports exhaust	Spool	76.144.81.28

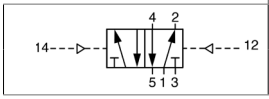
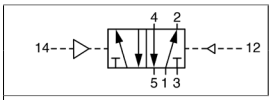
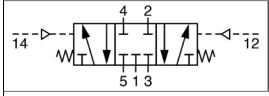
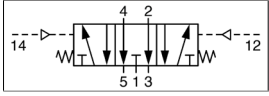
Pneumatically Operated Valves

Pilot Operated - 5/2 & 5/3 Way G1/8 Ports Compact Design

D1004

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

ATEX Versions Available

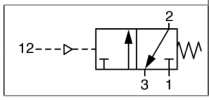
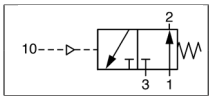
	Description	Type	Order code
	5/2 way double pilot	Poppet	76.027.71.42
		Spool	76.023.71.42
	5/2 way double pilot with priority	Poppet	76.027.71.47
		Spool	76.023.71.47
	5/3 way spring return to centre all ports closed	Spool	76.024.71.38
	5/3 way spring return to centre ports exhaust	Spool	76.024.71.28

Pneumatically Operated Valves

Pilot Operated - 3/2 Way G1/8 & G1/4 Ports

D1009

Technical information	
Pressure range:	0-10 bar
Control Pressure:	3.5-10 bar (port 14 ≥ port 1 pressure)
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Pilot Ports	G1/8

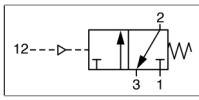
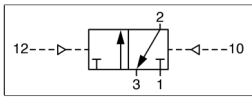
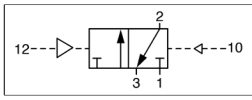
	Description	Ports	Order code
	3/2 way normally closed spring return	G1/8	76.126.71.21
		G1/4	76.146.71.21
	3/2 way normally open spring return	G1/8	76.126.71.31
		G1/4	76.146.71.31

Pneumatically Operated Valves

Pilot Operated - 3/2 Way G1/8 Ports

D1011

Technical information	
Pressure range:	0-10 bar
Control Pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Order code
	3/2 way normally closed spring return	76.022.71.21
	3/2 way double pilot	76.022.71.22
	3/2 way double pilot with priority	76.022.71.47

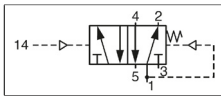
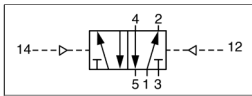
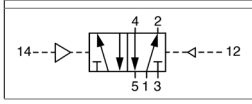
ATEX Versions Available

Pneumatically Operated Valves

Pilot Operated - 5/2 Way G1/8 Ports

D1012

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar (port 14 ≥ port 1 pressure)
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

	Description	Order code
	5/2 way spring return	KE.023.71.41
	5/2 way double pilot	KE.023.71.42
	5/2 way double pilot with prority	KE.023.71.47

ATEX Versions Available

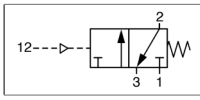
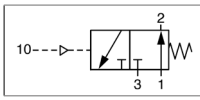
Pneumatically Operated Valves

Pilot Operated - 3/2 Way G1/2 Ports

D1010

ATEX Versions Available

Technical information	
Pressure range:	0-10 bar
Control Pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Pilot Ports	G1/8

	Description	Order code
	3/2 way normally closed spring return	76.066.81.21
	3/2 way normally open spring return	76.066.81.31

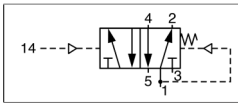
Pneumatically Operated Valves

Pilot Operated - 5/2 Way G1/2 Ports

D1007

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Control Pressure:	2.5-10 bar (port 14 ≥ port 1 pressure)
Temperature range:	-15°C +50°C
Housing:	Lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Pilot Ports	G1/8

	Description	Order code
	5/2 way spring return	76.067.81.41

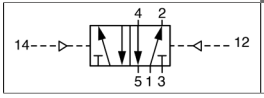
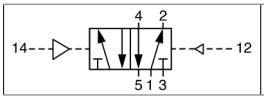
Pneumatically Operated Valves

Pilot Operated - 5/2 Way G1/2 Ports

D1008

ATEX Versions Available

Technical information	
Pressure range:	0-10 bar
Control Pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Pilot Ports	G1/8

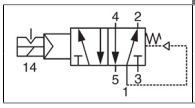
	Description	Order code
	5/2 way double pilot	76.067.81.42
	5/2 way double pilot with priority	76.067.81.47

Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/4 Ports

C1007

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm



Description	Type	Order code
5/2 way spring return	Poppet	76.147.91.00
	Spool	76.143.91.00

Coils and connection plug, see section M1002 - Page 36

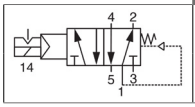
Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/8 Ports Compact Design

C1005

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm



Description	Type	Order code
5/2 way spring return	Poppet	76.027.91.00
	Spool	76.023.91.00

Coils and connection plug, see section M1002 - Page 36

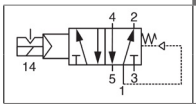
Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/8 Ports Compact Design

C1011

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm



Description	Type	Order code
5/2 way spring return	Poppet	76.027.94.00
	Spool	76.023.94.00

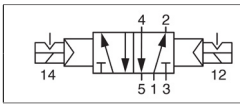
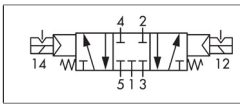
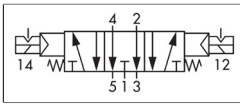
Coils and connection plug, see section M1002 - Page 36

Electrically Operated Valves

Solenoid Operated - 5/2 & 5/3 Way G1/4 Ports

C1008

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.147.92.00
		Spool	76.143.92.00
	5/3 way spring return to centre all ports closed	Spool	76.144.12.00
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.144.02.00

Coils and connection plug, see section M1002 - Page 36

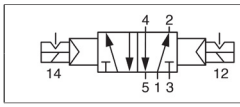
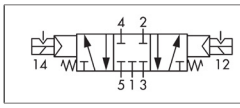
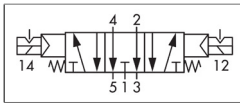
Electrically Operated Valves

Solenoid Operated - 5/2 & 5/3 Way G1/8 Ports Compact Design

C1006

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.027.92.00
		Spool	76.023.92.00
	5/3 way spring return to centre all ports closed	Spool	76.024.12.00
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.024.02.00

Coils and connection plug, see section M1002 - Page 36

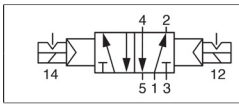
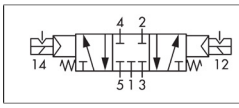
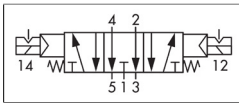
Electrically Operated Valves

Solenoid Operated - 5/2 & 5/3 Way G1/8 Ports Compact Design

C1012

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.027.95.00
		Spool	76.023.95.00
	5/3 way spring return to centre all ports closed	Spool	76.024.15.00
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.024.05.00

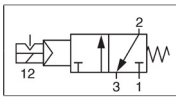
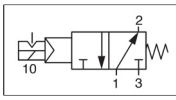
Coils and connection plug, see section M1002 - Page 36

Electrically Operated Valves

Solenoid Operated - 3/2 Way G1/8 & G1/4 Ports

C1001

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Type:	Poppet

	Description	Orifice	Ports	Order code
	3/2 way normally closed spring return	6mm	G1/8	76.126.01.00
		8mm	G1/4	76.146.01.00
	3/2 way normally open spring return	6mm	G1/8	76.126.11.00
		8mm	G1/4	76.146.11.00

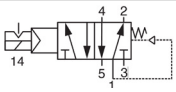
Coils and connection plug, see section M1002 - Page 36

Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/8 Ports

C1003

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Plastic material (IXEF)
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

	Description	Type	Order code
	5/2 way spring return	Poppet	76.127.91.00
		Spool	76.123.91.00

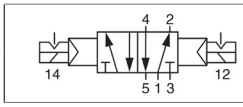
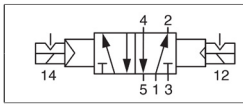
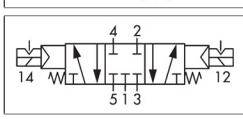
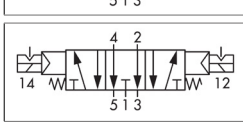
DIN-rail / surface mount accessories available.
Coils and connection plug, see section M1002 - Page 36

Electrically Operated Valves

Solenoid Operated - 5/2 & 5/3 Way G1/8 Ports

C1004

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Plastic material (IXEF)
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.127.92.00
		Spool	76.123.92.00
	5/2 way double solenoid with priority	Poppet	76.127.93.00
		Spool	76.123.93.00
	5/3 way spring return to centre all ports closed	Spool	76.124.12.00
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.124.02.00

DIN-rail / surface mount accessories available.
Coils and connection plug, see section M1002 - Page 36

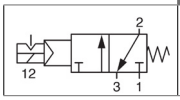
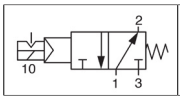
Electrically Operated Valves

Solenoid Operated - 3/2 Way G1/2 Ports

C1002

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Type:	Poppet
Orifice:	15mm

	Description	Order code
	3/2 way normally closed spring return	76.066.01.00
	3/2 way normally open spring return	76.066.11.00

Coils and connection plug, see section M1002 - Page 36

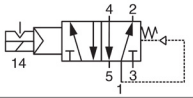
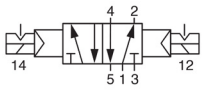
Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/2 Ports

C1009

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Type:	Poppet
Orifice:	15mm

	Description	Order code
	5/2 way spring return	76.067.91.00
	5/2 way double solenoid	76.067.92.00

Coils and connection plug, see section M1002 - Page 36

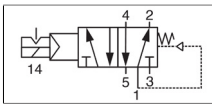
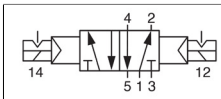
Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/2 Ports

C1010

ATEX Versions Available

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Type:	Poppet
Orifice:	15mm

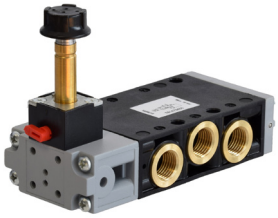
	Description	Order code
	5/2 way spring return	76.067.94.00
	5/2 way double solenoid	76.067.95.00

Coils and connection plug, see section M1002 - Page 36

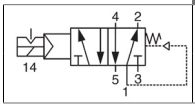
Electrically Operated Valves

Solenoid Operated - 5/2 Way G1/4 Ports

C1013



Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

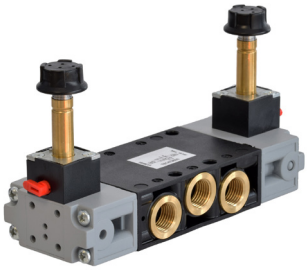
	Description	Type	Order code
	5/2 way spring return	Poppet	76.147.94.00
		Spool	76.143.94.00

Coils and connection plug, see section M1002

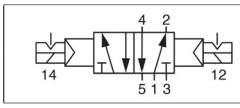
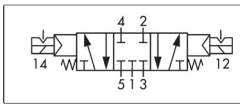
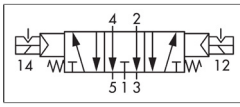
Electrically Operated Valves

Solenoid Operated - 5/2 & 5/3 Way G1/4 Ports

C1014



Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Glass fibre reinforced PPA
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.147.95.00
		Spool	76.143.95.00
	5/3 way spring return to centre all ports closed	Spool	76.144.15.00
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.144.05.00

Coils and connection plug, see section M1002

Electrical Coils

M1002

Voltage	Order code
12V DC	76.410.00.01
24V DC	76.410.00.02
48V DC	76.410.00.03
110V DC	76.410.00.04
24V AC	76.410.02.12
48V AC	76.410.02.13
110V AC	76.410.02.14
230V AC	76.410.02.15

Connection Plug

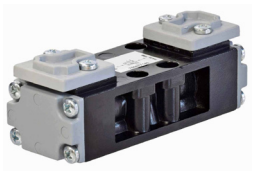
M1002

Order code
PBP.00.N.000
65.495.00

ISO 1 Pneumatically Operated Valves

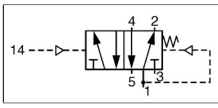
Pilot Operated - 5/2 & 5/3 Way

F1001 / F1002 / F1003

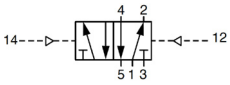
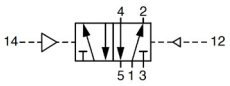


Technical information	
Pressure range:	2.5-10 bar
Control pressure:	F1001 2.5-10 bar, Port 14 ≥ port 1 pressure F1002 / F1003 2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

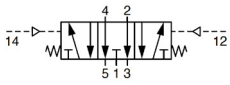
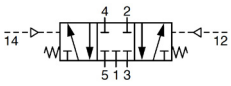
F1001

	Description	Type	Order code
	5/2 way spring return	Poppet	76.087.71.41
		Spool	76.083.71.41

F1002

	Description	Type	Order code
	5/2 way double pilot	Poppet	76.087.71.42
		Spool	76.083.71.42
	5/2 way double pilot with priority	Poppet	76.087.71.47
		Spool	76.083.71.47

F1003

	Description	Type	Order code
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.084.71.28
	5/3 way spring return to centre all ports closed	Spool	76.084.71.38

ATEX Versions Available

Manifolds and subplates available, see section M1004 / M1005 - Page 41

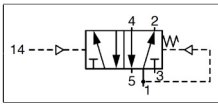
ISO 2 Pneumatically Operated Valves

Pilot Operated - 5/2 & 5/3 Way

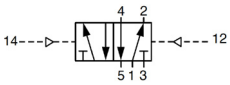
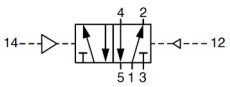
F1004 / F1005 / F1006

Technical information	
Pressure range:	2.5-10 bar
Control pressure:	F1004 2.5-10 bar, Port 14 ≥ port 1 pressure F1005 / F1006 2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

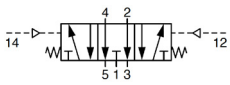
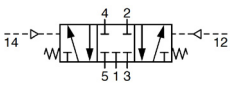
F1004

	Description	Type	Order code
	5/2 way spring return	Poppet	76.097.71.41
		Spool	76.093.71.41

F1005

	Description	Type	Order code
	5/2 way double pilot	Poppet	76.097.71.42
		Spool	76.093.71.42
	5/2 way double pilot with priority	Poppet	76.097.71.47
		Spool	76.093.71.47

F1006

	Description	Type	Order code
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.094.71.28
	5/3 way spring return to centre all ports closed	Spool	76.094.71.38

ATEX Versions Available

Manifolds and subplates available, see section M1004 / M1005 - Page 41

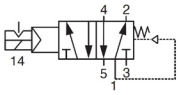
ISO 1 Electrically Operated Valves

Solenoid Operated - 5/2 & 5/3 Way

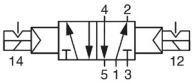
E1001 / E1002 / E1003

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

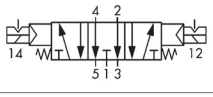
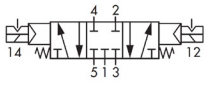
E1001

	Description	Type	Order code
	5/2 way spring return	Poppet	76.087.91.00
		Spool	76.083.91.00

E1002

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.087.92.00
		Spool	76.083.92.00

E1003

	Description	Type	Order code
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.084.02.00
	5/3 way spring return to centre all ports closed	Spool	76.084.12.00

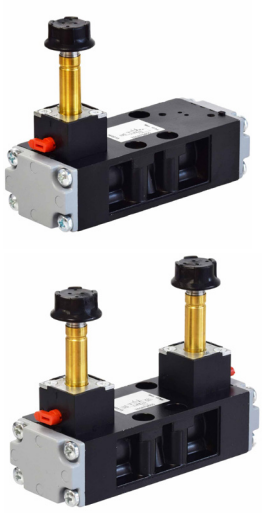
ATEX Versions Available

Manifolds and subplates available, see section M1004 / M1005 - Page 41
Coils and connection plug, see section M1002 - Page 36

ISO 1 Electrically Operated Valves

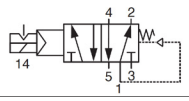
Solenoid Operated - 5/2 & 5/3 Way

E1004 / E1005 / E1006

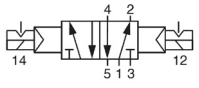


Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

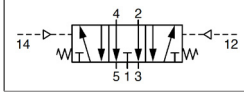
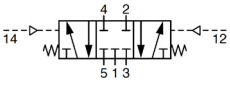
E1004

	Description	Type	Order code
	5/2 way spring return	Poppet	76.087.94.00
		Spool	76.083.94.00

E1005

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.087.95.00
		Spool	76.083.95.00

E1006

	Description	Type	Order code
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.084.05.00
	5/3 way spring return to centre all ports closed	Spool	76.084.15.00

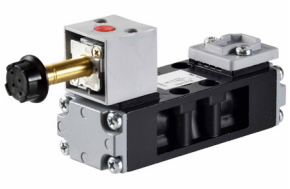
ATEX Versions Available

Manifolds and subplates available, see section M1004 / M1005 - Page 41
Coils and connection plug, see section M1002 - Page 36

ISO 1 Electrically Operated Valves

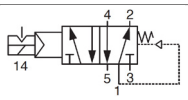
Solenoid Operated - 5/2 & 5/3 Way - CNOMO Coil

E1007 / E1008 / E1009

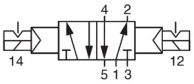


Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

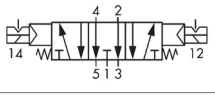
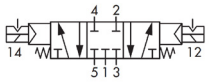
E1007

	Description	Type	Order code
	5/2 way spring return	Poppet	76.087.97.00
		Spool	76.083.97.00

E1008

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.087.98.00
		Spool	76.083.98.00

E1009

	Description	Type	Order code
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.084.08.00
	5/3 way spring return to centre all ports closed	Spool	76.084.18.00

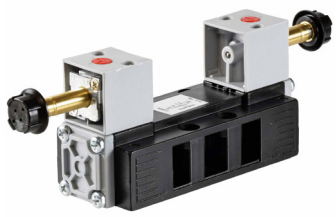
ATEX Versions Available

Manifolds and subplates available, see section M1004 / M1005 - Page 41
CNOMO coils and connection plug, see section M1003 - Page 41

ISO 2 Electrically Operated Valves

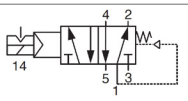
Solenoid Operated - 5/2 & 5/3 Way - CNOMO Coil

E1010 / E1011 / E1012

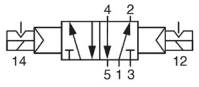


Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered aluminium alloy
Seals:	NBR
Lubricant:	Not required
Earthing contact:	Part of the standard device
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

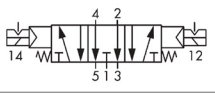
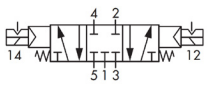
E1010

	Description	Type	Order code
	5/2 way spring return	Poppet	76.097.97.00
		Spool	76.093.97.00

E1011

	Description	Type	Order code
	5/2 way double solenoid	Poppet	76.097.98.00
		Spool	76.093.98.00

E1012

	Description	Type	Order code
	5/3 way spring return to centre, ports 2 & 4 exhaust	Spool	76.094.08.00
	5/3 way spring return to centre all ports closed	Spool	76.094.18.00

ATEX Versions Available

Manifolds and subplates available, see section M1004 / M1005 - Page 41
CNOMO coils and connection plug, see section M1003 - Page 41

Flip-Flop Valve

Pneumatically Controlled - 5/2 Way D1013

Technical information	
Pressure range:	2.5-10 bar
Control pressure:	0-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

Description	Pilot Port	Ports	Order code
5/2 way pulsed maintained position	G1/8	G1/4	76.083.89.42

The flip-flop valve provides a 5/2 way switched output from a pulse signal of at least 300ms to the pilot control port. The pulse signal changes the position of the 5/2 way valve. The valve position is maintained until the next pilot pulse signal is applied.

The control pilot signal must be more than 50% of the switched line pressure.

Oscillating Valve

Pneumatically Controlled - 5/2 Way D1014

Technical information	
Pressure range:	2.5-10 bar
Control pressure:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

Description	Ports	Order code
5/2 way oscillator valve	G1/8	76.083.90.42

The oscillator valve provides a continuous 5/2 way switched output function by maintaining pressure to the pilot control port. Removal of pilot pressure returns the valve to its start position.

Speed depends on the connected volume and line pressure. Control the speed by adding flow control valves, for example, on cylinder ports.

The typical rate is 16 cycles per minute.

Flip-Flop Valve

Electrically Controlled - 5/2 Way C1015

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	8mm

Description	Ports	Order code
5/2 way pulsed maintained position	G1/4	76.083.89.00

The flip-flop valve provides a 5/2 way switched output from a signal to the electrical coil of at least 300ms. The pulse signal changes the position of the 5/2 way valve and is maintained until the next electrical signal is applied.

Coils and connection plug, see section M1002 - Page 36

Oscillating Valve

Electrically Controlled - 5/2 Way C1016

Technical information	
Pressure range:	2.5-10 bar
Temperature range:	-15°C +50°C
Housing:	Die-cast and lacquered zinc alloy
Seals:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air
Orifice:	6mm

Description	Ports	Order code
5/2 way oscillator valve	G1/8	76.083.90.00

The oscillator valve provides a continuous 5/2 way switched output function by maintaining an electrical signal to the coil. Removal of power returns the valve to its start position.

Speed depends on the connected volume and line pressure. Control the speed by adding flow control valves, for example, on cylinder ports.

The typical rate is 16 cycles per minute.

Coils and connection plug, see section M1002 - Page 36

ISO 1 & 2 Manifolds & Subplates

Single Subplates for Individual Valve Mounting

M1004

Description	Ports	Order code
ISO 1 individual subplate	G1/4	76.420.00.11
ISO 2 individual subplate	G3/8	76.420.00.12

ISO 1 & 2 Manifolds & Subplates

Modular Subplates for Multiple Valve Mounting

M1005

Description	Ports	Order code
ISO 1 subplate includes accessories	G1/4	76.420.00.93
ISO 2 subplate includes accessories	G3/8	76.420.00.14

Don't forget to order input/end plates.

ISO 1 & 2 Manifolds & Subplates

Input Plates & Separation/Closed End Plates

M1005

A = Side ports
B = Top ports
C = Underside ports

Separation/closed end plates mount in any position.
Two end plates required per assembly.

Description	Ports			Order code
	A	B	C	
ISO 1 input plate includes accessories	G3/8	G1/4	G3/8	76.420.00.75
ISO 2 input plate includes accessories	G1/2	G1/4	G1/2	76.420.00.85
ISO 1 Separation/closed end plate includes accessories	No threaded Ports			76.420.00.27
ISO 2 Separation/closed end plate includes accessories	No threaded Ports			76.420.00.28

Electrical Coils - CNOMO

M1003

Voltage	Order code
12V DC	76.411.00.01
24V DC	76.411.00.02
48V DC	76.411.00.03
110V DC	76.411.00.04
24V AC	76.411.02.12
48V AC	76.411.02.13
110V AC	76.411.02.14
230V AC	76.411.02.15

Connection Plug - CNOMO

M1003

Order code
PAP.00.N00
67.499.00

Compact Cylinder

Single Acting Cylinder Ø 12mm - 100mm

CM000 / CM001 / CM002 / CM003

ATEX Versions Available

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C
Housing:	Aluminium tube/die-cast aluminium
Rod	Stainless steel
Seals:	PUR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Spare Seal Kits

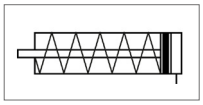
12mm	19.708.11
16mm	19.808.11
20mm	19.908.11
25mm	19.008.11
32mm	19.108.11
40mm	19.208.11
50mm	19.308.11
63mm	19.408.11
80mm	19.508.11
100mm	19.608.11

CM000 / CM002 12mm - 25mm

Piston Diameter mm	Stroke mm	Order code Female Threaded Rod	Order code Male Threaded Rod
12	5 - 10	19.705.0XX	19.795.0XX
16	5 - 25	19.805.0XX	19.895.0XX
20	5 - 25	19.905.0XX	19.995.0XX
25	5 - 25	19.005.0XX	19.095.0XX

CM001 / CM003 32mm - 100mm

Piston Diameter mm	Stroke mm	Order code Female Threaded Rod	Order code Male Threaded Rod
32	5 - 25	19.105.0XX	19.195.0XX
40	5 - 25	19.205.0XX	19.295.0XX
50	10 - 25	19.305.0XX	19.395.0XX
63	10 - 25	19.405.0XX	19.495.0XX
80	10 - 25	19.505.0XX	19.595.0XX
100	10 - 25	19.605.0XX	19.695.0XX



[XX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets

Sensors and mountings - please ask for further information

Compact Cylinder

Double Acting Cylinder Ø 12mm - 100mm

CM004 / CM005 / CM006 / CM007

ATEX Versions Available

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C
Housing:	Aluminium tube/die-cast aluminium
Rod	Stainless steel
Seals:	PUR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Spare Seal Kits

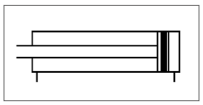
12mm	19.708.11
16mm	19.808.11
20mm	19.908.11
25mm	19.008.11
32mm	19.108.11
40mm	19.208.11
50mm	19.308.11
63mm	19.408.11
80mm	19.508.11
100mm	19.608.11

CM004 / CM006 12mm - 25mm

Piston Diameter mm	Stroke mm	Order code Female Threaded Rod	Order code Male Threaded Rod
12	5 - 200	19.704.XXX	19.794.XXX
16	5 - 200	19.804.XXX	19.894.XXX
20	5 - 200	19.904.XXX	19.994.XXX
25	5 - 200	19.004.XXX	19.094.XXX

CM005 / CM007 32mm - 100mm

Piston Diameter mm	Stroke mm	Order code Female Threaded Rod	Order code Male Threaded Rod
32	5 - 300	19.104.XXX	19.194.XXX
40	5 - 300	19.204.XXX	19.294.XXX
50	10 - 300	19.304.XXX	19.394.XXX
63	10 - 300	19.404.XXX	19.494.XXX
80	10 - 400	19.504.XXX	19.594.XXX
100	10 - 400	19.604.XXX	19.694.XXX



[XXX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets

Sensors and mountings - please ask for further information

Compact Cylinder

Double Acting Cylinder Ø 12mm - 100mm (Female Threaded Rod)

CM008 / CM009

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C
Housing:	Aluminium tube/die-cast aluminium
Rod	Stainless steel
Seals:	PUR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

CM008 12mm - 25mm

Piston Diameter mm	Stroke mm	Order code
12	5 - 200	19.734.XXX
16	5 - 200	19.834.XXX
20	5 - 200	19.934.XXX
25	5 - 200	19.034.XXX

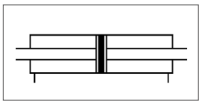
CM009 32mm - 100mm

Piston Diameter mm	Stroke mm	Order code
32	5 - 300	19.134.XXX
40	5 - 300	19.234.XXX
50	10 - 300	19.334.XXX
63	10 - 300	19.434.XXX
80	10 - 400	19.534.XXX
100	10 - 400	19.634.XXX

[XXX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets

Spare Seal Kits

12mm	19.708.11
16mm	19.808.11
20mm	19.908.11
25mm	19.008.11
32mm	19.108.11
40mm	19.208.11
50mm	19.308.11
63mm	19.408.11
80mm	19.508.11
100mm	19.608.11



ATEX Versions Available

Sensors and mountings - please ask for further information

Compact Cylinder

Double Acting Cylinder Ø 12mm - 100mm (Guided Rod)

CM010 / CM011

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C
Housing:	Aluminium tube/die-cast aluminium
Rod	Stainless steel
Seals:	PUR
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

CM010 12mm - 25mm

Piston Diameter mm	Stroke mm	Order code
12	5 - 200	19.744.XXX
16	5 - 200	19.844.XXX
20	5 - 200	19.944.XXX
25	5 - 200	19.044.XXX

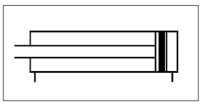
CM011 32mm - 100mm

Piston Diameter mm	Stroke mm	Order code
32	5 - 300	19.144.XXX
40	5 - 300	19.244.XXX
50	10 - 300	19.344.XXX
63	10 - 300	19.444.XXX
80	10 - 400	19.544.XXX
100	10 - 400	19.644.XXX

[XXX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets

Spare Seal Kits

12mm	19.708.11
16mm	19.808.11
20mm	19.908.11
25mm	19.008.11
32mm	19.108.11
40mm	19.208.11
50mm	19.308.11
63mm	19.408.11
80mm	19.508.11
100mm	19.608.11



ATEX Versions Available

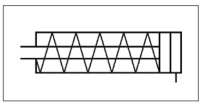
Sensors and mountings - please ask for further information

Clamping Cylinder

Single Acting Cylinder Ø 8mm - 63mm

CL000 / CL001

Technical information	
Pressure range:	≤ 10 bar
Temperature range:	-10°C +70°C
Housing:	Aluminium alloy
Rod/cap:	Corrosion resistant steel/brass
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Spare Seal Kits

8mm	39.601.01	32mm	39.601.04
12mm	39.601.02	50mm	39.601.05
20mm	39.601.03	63mm	39.601.06

CL000 8mm - 20mm

Piston Diameter mm	4	10
8	39.110.004	
12	39.120.004	39.120.010
20	39.130.004	39.130.010

CL001 32mm - 63mm

Piston Diameter mm	5	10	25
32	39.140.005	39.140.010	39.140.025
50		39.160.010	39.160.025
63		39.170.010	39.170.025

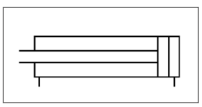
Port sizes - see data sheets

Clamping Cylinder

Double Acting Cylinder Ø 8mm - 63mm

CL002 / CL003

Technical information	
Pressure range:	≤ 10 bar
Temperature range:	-10°C +70°C
Housing:	Aluminium alloy
Rod/cap:	Corrosion resistant steel/brass
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Spare Seal Kits

8mm	39.601.01	32mm	39.601.04
12mm	39.601.02	50mm	39.601.05
20mm	39.601.03	63mm	39.601.06

CL002 8mm - 20mm

Piston Diameter mm	4	10
8	39.210.004	39.210.010
12	39.220.004	39.220.010
20	39.230.004	39.230.010

CL003 32mm - 63mm

Piston Diameter mm	5	10	25
32	39.240.005	39.240.010	39.240.025
50		39.260.010	39.260.025
63		39.270.010	39.270.025

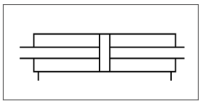
Port sizes - see data sheets

Clamping Cylinder

Double Acting Cylinder Ø 8mm - 63mm (Through Rod)

CL004 / CL005

Technical information	
Pressure range:	≤ 10 bar
Temperature range:	-10°C +70°C
Housing:	Aluminium alloy
Rod/cap:	Corrosion resistant steel/brass
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Spare Seal Kits

8mm	39.601.01	32mm	39.601.04
12mm	39.601.02	50mm	39.601.05
20mm	39.601.03	63mm	39.601.06

CL004 8mm - 20mm

Piston Diameter mm	4	10
8	39.212.004	39.212.010
12	39.222.004	39.222.010
20	39.232.004	39.232.010

CL005 32mm - 63mm

Piston Diameter mm	5	10	25
32	39.242.005	39.242.010	39.242.025
50		39.262.010	39.262.025
63		39.272.010	39.272.025

Port sizes - see data sheets

CB Cylinder

Single Acting Cylinder Ø 16mm - 100mm

SS001

Technical information	
Pressure range:	1.5 - 10 bar
Temperature range:	-10°C...+70°C
Housing:	Anodised aluminum alloy
Rod Ø 16 - 32mm	Chromium plated stainless steel
Rod Ø 40 - 100mm	C45 Chromium plated steel
Seals:	NBR/PUR (Viton upon request)
Operating medium:	Compressed air, dry, lubricant not necessary

Piston Diameter mm	Order code	
	Male Threaded Rod	Female Threaded Rod
16	CBM.016.0XX.SOM.9	CBM.016.0XX.SOM
20	CBM.020.0XX.SOM.9	CBM.020.0XX.SOM
25	CBM.025.0XX.SOM.9	CBM.025.0XX.SOM
32	CBM.032.0XX.SOM.9	CBM.032.0XX.SOM
40	CBM.040.0XX.SOM.9	CBM.040.0XX.SOM
50	CBM.050.0XX.SOM.9	CBM.050.0XX.SOM
63	CBM.063.0XX.SOM.9	CBM.063.0XX.SOM
80	CBM.080.0XX.SOM.9	CBM.080.0XX.SOM
100	CBM.100.0XX.SOM.9	CBM.100.0XX.SOM

Viton seals, stainless steel piston rod
and sensors - please refer to data sheets
Port sizes - see data sheets

[XX] Insert stroke mm
Non-magnetic versions - replace prefix code CBM with CBS

CB Cylinder

Double Acting Cylinder Ø 16mm - 100mm

SS001

Technical information	
Pressure range:	1.5 - 10 bar
Temperature range:	-10°C...+70°C
Housing:	Anodised aluminum alloy
Rod Ø 16 - 32mm	Chromium plated stainless steel
Rod Ø 40 - 100mm	C45 Chromium plated steel
Seals:	NBR/PUR (Viton upon request)
Operating medium:	Compressed air, dry, lubricant not necessary

Piston Diameter mm	Order code	
	Male Threaded Rod	Female Threaded Rod
16	CBM.016.XXX.DOM.9	CBM.016.XXX.DOM
20	CBM.020.XXX.DOM.9	CBM.020.XXX.DOM
25	CBM.025.XXX.DOM.9	CBM.025.XXX.DOM
32	CBM.032.XXX.DOM.9	CBM.032.XXX.DOM
40	CBM.040.XXX.DOM.9	CBM.040.XXX.DOM
50	CBM.050.XXX.DOM.9	CBM.050.XXX.DOM
63	CBM.063.XXX.DOM.9	CBM.063.XXX.DOM
80	CBM.080.XXX.DOM.9	CBM.080.XXX.DOM
100	CBM.100.XXX.DOM.9	CBM.100.XXX.DOM

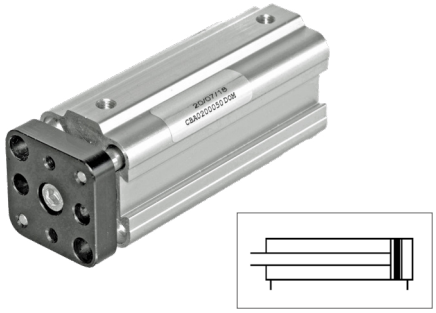
Viton seals, stainless steel piston rod
and sensors - please refer to data sheets
Port sizes - see data sheets

[XXX] Insert stroke mm
Non-magnetic versions - replace prefix code CBM with CBS

CB Cylinder

Double Acting Cylinder Ø 16mm - 100mm (Guided Rod)

SS001



Technical information	
Pressure range:	1.5 - 10 bar
Temperature range:	-10°C...+70°C
Housing:	Anodised aluminum alloy
Rod Ø 16 - 32mm	Chromium plated stainless steel
Rod Ø 40 - 100mm	C45 Chromium plated steel
Seals:	NBR/PUR (Viton upon request)
Operating medium:	Compressed air, dry, lubricant not necessary

Piston Diameter mm	Order code
16	CBA.016.XXX.DOM
20	CBA.020.XXX.DOM
25	CBA.025.XXX.DOM
32	CBA.032.XXX.DOM
40	CBA.040.XXX.DOM
50	CBA.050.XXX.DOM
63	CBA.063.XXX.DOM
80	CBA.080.XXX.DOM
100	CBA.100.XXX.DOM

Viton seals, stainless steel piston rod
and sensors - please refer to data sheets
Port sizes - see data sheets

[XXX] Insert stroke mm
Non-magnetic versions - replace prefix code CBA with CBB

CETOP Cylinder ISO 6432

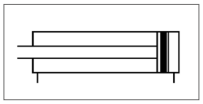
Double Acting Cylinder Ø 8mm - 25mm

ISO000 / ISO001 / ISO002 / ISO003 / ISO004

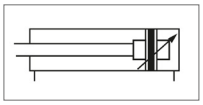
Technical information	
Pressure range:	Ø 8-10mm 1.5-10 bar Ø 12-16mm 1-10 bar Ø 20-25mm 0.5-10 bar
Temperature range:	-20°C...+70°C
Housing / end caps:	Cr-Ni steel/Aluminium
Rod:	Cr-Ni steel
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

S type cylinders are nose threaded only.
U type cylinders are threaded both ends.

Sensors and mountings - please ask for further information



CETOP cylinders are compatible with the **33.21.326** pneumatic proximity switch sensor.
Mounting strap **33.006**



Data Sheet PX001

ATEX Versions Available

Without Cushioning

ISO000 / ISO003 8mm - 12mm

Piston Diameter mm	Max Stroke mm	Order code S Type	Order code U Type ISO 6432
8	150	23.251.XXX	23.291.0XX
10	150	24.251.XXX	24.291.0XX
12	300	25.251.XXX	25.291.0XX

Without Cushioning

ISO001 / ISO004 16mm - 25mm

Piston Diameter mm	Max Stroke mm	Order code S Type	Order code U Type ISO 6432
16	350	26.251.XXX	26.291.XXX
20	500	27.251.XXX	27.291.XXX
25	500	28.251.XXX	28.291.XXX

With Cushioning

ISO002 16mm - 25mm

Piston Diameter mm	Max Stroke mm	Order code S Type	Order code U Type ISO 6432
16	350	-	26.241.XXX
20	500	-	27.241.XXX
25	500	-	28.241.XXX

[XXX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets

CETOP Cylinder ISO 6432

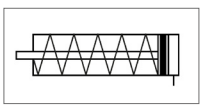
Single Acting Cylinder Ø 8mm - 25mm

ISO000 / ISO001 / ISO003 / ISO004

Technical information	
Pressure range:	Ø 8mm 2-10 bar Ø 10-25mm 1.5-10 bar
Temperature range:	-20°C...+70°C
Housing / end caps:	Cr-Ni steel/Aluminium
Rod:	Cr-Ni steel
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

S type cylinders are nose threaded only.
U type cylinders are threaded both ends.

Sensors and mountings - please ask for further information



ATEX Versions Available

Without Cushioning

ISO000 / ISO003 8mm - 12mm

Piston Diameter mm	Max Stroke mm	Order code S Type	Order code U Type ISO 6432
8	50	23.151.0XX	23.191.0XX
10	50	24.151.0XX	24.191.0XX
12	50	25.151.0XX	25.191.0XX

Without Cushioning

ISO001 / ISO004 16mm - 25mm

Piston Diameter mm	Max Stroke mm	Order code S Type	Order code U Type ISO 6432
16	50	26.151.0XX	26.191.0XX
20	50	27.151.0XX	27.191.0XX
25	50	28.151.0XX	28.191.0XX

[XX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets

21 Pneumatic Cylinder ISO 15552

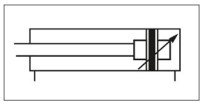
Double Acting Ø 32mm - 80mm

IC000

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C (Dry air for below 0°C)
Housing / end caps:	Aluminium alloy
Rod	C45 chromium plated steel (Optional Stainless steel)
Seals:	NBR/polyurethane (Optional Viton -10˚C...+150˚C)
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

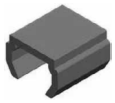
Piston Diameter mm	Order code
32	21.11A.XXXX
40	21.21A.XXXX
50	21.31A.XXXX
63	21.41A.XXXX
80	21.51A.XXXX

[XXXX] Insert stroke mm
Port sizes - see data sheets



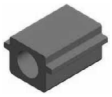
Spare Seal Kits

32mm	21.1R.11
40mm	21.2R.11
50mm	21.3R.11
63mm	21.4R.11
80mm	21.5R.11



Order code: **20.001**

Sensor groove cover
2000mm length



Order code: **20.002**

Standard groove cover
Specify length

ATEX Versions Available

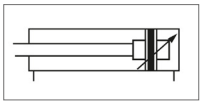
Sensors and mountings - please ask for further information

81 Pneumatic Cylinder ISO 15552 - Stainless Steel

Double Acting Ø 32mm - 125mm

SS081

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C (Dry air for below 0°C)
Housing /tie rods / end caps:	Stainless steel
Cushioning adjustment screw:	Stainless steel
Rod:	Stainless steel
Seals:	NBR/polyurethane (Optional Viton +150˚C)
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



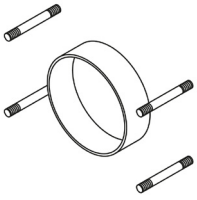
Stainless Grade 304

Piston Diameter mm	Order code
32	81.M32.A.XXXX
40	81.M40.A.XXXX
50	81.M50.A.XXXX
63	81.M63.A.XXXX
80	81.M80.A.XXXX
100	81.M100.A.XXXX
125	81.M125.A.XXXX

Stainless Grade 316

Piston Diameter mm	Order code
32	81.M32.AY.XXXX
40	81.M40.AY.XXXX
50	81.M50.AY.XXXX
63	81.M63.AY.XXXX
80	81.M80.AY.XXXX
100	81.M100.AY.XXXX
125	81.M125.AY.XXXX

[XXXX] Insert stroke mm
Port sizes - see data sheets



Ø 32 to 125mm
External tie-rods

81 series cylinders are compatible with the **33.21.326** pneumatic proximity switch sensor. (32mm to 100mm diameter cylinders only)
Mounting strap **33.006**

Data Sheet PX001

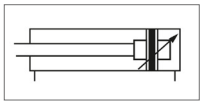
Sensors and mountings - please ask for further information

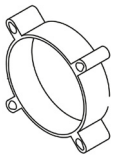
VF Pneumatic Cylinder ISO 15552

Double Acting Ø 32mm - 320mm

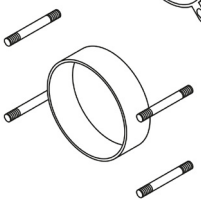
IC006 / IC009

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-10°C...+80°C (Dry air for below 0°C)
Housing / end caps:	Aluminium
Rod	C45 chromium plated steel (Optional stainless steel)
Seals:	NBR (Optional Viton -10˚C...+150˚C)
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air





Ø 32 to 200mm
Internal tie-rods



Ø 250 to 320mm
External tie-rods

VF series cylinders are compatible with the **33.21.326** pneumatic proximity switch sensor. (32mm to 100mm diameter cylinders only)
Mounting strap **33.006**

Data Sheet PX001

IC009

32mm - 100mm

Piston Diameter mm	Order code
32	VF.032.XXXX.DOM
40	VF.040.XXXX.DOM
50	VF.050.XXXX.DOM
63	VF.063.XXXX.DOM
80	VF.080.XXXX.DOM
100	VF.100.XXXX.DOM

IC006

125mm - 320mm

Piston Diameter mm	Order code
125	VF.125.XXXX.DOM
160	VF.160.XXXX.DOM
200	VF.200.XXXX.DOM
250	VF.250.XXXX.DOM
320	VF.320.XXXX.DOM

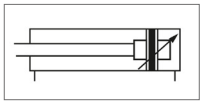
[XXXX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets
Sensors and mountings - please ask for further information

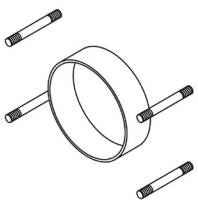
CNOMO Pneumatic Cylinder

Double Acting Ø 32mm - 320mm

CNM00 / CNM01

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C (Dry air for below 0°C)
Housing / end caps:	Aluminium
Rod:	C45 chromium plated steel (Optional stainless steel)
Seals:	NBR (Optional Viton -10˚C...+150˚C)
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air





Ø 32 to 320mm
External tie-rods

CNOMO cylinders are compatible with the **33.21.326** pneumatic proximity switch sensor. (8mm to 100mm diameter cylinders only)
Mounting strap **33.006**

Data Sheet PX001

CNM00

32mm - 100mm

Piston Diameter mm	Order code
32	C.032.XXXX.DOM
40	C.040.XXXX.DOM
50	C.050.XXXX.DOM
63	C.063.XXXX.DOM
80	C.080.XXXX.DOM
100	C.100.XXXX.DOM

CNM01

125mm - 320mm

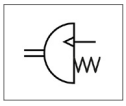
Piston Diameter mm	Order code
125	C.125.XXXX.DOM
160	C.160.XXXX.DOM
200	C.200.XXXX.DOM
250	C.250.XXXX.DOM
320	C.320.XXXX.DOM

[XXXX] Insert stroke mm
Non-magnetic versions - see data sheets
Port sizes - see data sheets
Sensors and mountings - please ask for further information

Miniature Rotary Actuators

50mm Diameter — RA000

Single Acting



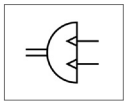
Technical information	
Pressure range:	2-8 bar
Temperature range:	-10°C +70°C
Return torque:	Approx. 0.165 Nm
Stroke volume:	Approx 7 cm^3
Angular travel:	90° + 10°
Housing/shaft:	Aluminium alloy / CrNi steel
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Description	Ports	Order code
Anti-clockwise rotation	G1/8	701.001
Clockwise rotation	G1/8	701.002

Miniature Rotary Actuators

35mm / 50mm Diameter — RA002 / RA001

Double Acting



Technical information	
Pressure range:	2-8 bar
Temperature range:	-10°C +70°C
35mm Stroke volume:	Approx 7 cm^3
50mm Stroke volume:	Approx 22 cm^3
Angular travel:	90° + 5°
Housing/shaft:	Aluminium alloy / CrNi steel
Seals:	Perbunan
Lubricant:	Shell Tellus C10
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Description	Ports	Order code
35mm diameter	M5	701.010
50mm diameter	M5	701.000

Logic & Flow Control

Pneumatic Shut-Off Sleeve Valve — CV011

Technical information	
Pressure range:	2-8 bar
Temperature range:	-18°C +70°C
Material:	Nickel plated brass
Sleeve:	Anodised aluminium
Seal:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Ports	Order code
G1/8	VM08
G1/4	VM04
G3/8	VM03
G1/2	VM02

Logic & Flow Control

Pneumatic Shut-Off Ball Valve — CV013

Technical information	
Pressure range:	0-10 bar
Temperature range:	-25°C +90°C
Material:	Nickel plated brass
Seal:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Ports	Order code
G1/8	VMB08
G1/4	VMB04
G3/8	VMB03
G1/2	VMB02

Logic & Flow Control

Pneumatic Quick Exhaust Valve — CV012

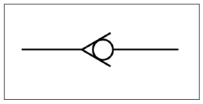
Technical information	
Pressure range:	0.3-10 bar
Temperature range:	-18°C +70°C
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Ports	Order code
G1/8	VSR08
G1/4	VSR04
G1/2	VSR02

Logic & Flow Control

Pneumatic Non-Return Valve — CV010

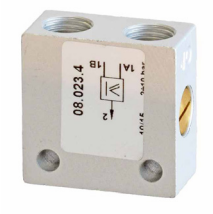
Technical information	
Pressure range:	2-8 bar
Temperature range:	-18°C +70°C
Material:	Nickel plated brass
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Ports	Order code
M5	VU05
G1/8	VU08
G1/4	VU04
G3/8	VU03
G1/2	VU02

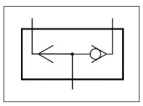
Logic & Flow Control

Pneumatic Logic Valve — CV015 / CV016



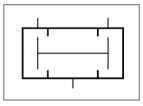
Technical information	
Pressure range:	2-8 bar / 2-10 bar
Temperature range:	-10°C +60°C
Material:	Anodised aluminium
Seal:	NBR
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

CV015



Description	Ports	Order code
OR logic valve 2-8 bar	G1/8	VOR08
	G1/4	VOR04

CV016



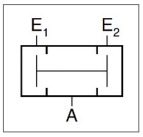
Description	Ports	Order code
AND logic valve 2-10 bar	G1/8	VAND08

Logic & Flow Control

Pneumatic Logic Valve — CV002 / CV003

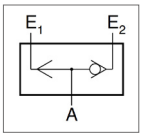
Technical information	
Pressure range:	Max. 8 bar
Control pressure:	>1 bar
Temperature range:	-10°C +70°C
Material:	Aluminium alloy body
Seal:	Prebunan
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

CV002



Description	Ports	Order code
AND logic valve	M5	47.002

CV003

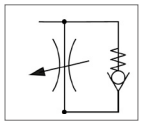


Description	Ports	Order code
OR logic valve	M5	47.003

Logic & Flow Control

Pneumatic Adjustable One-Way Flow Control Valve — CV008

Technical information	
Pressure range:	Max. 8 bar
Control pressure:	≥0.5 bar
Temperature range:	-10°C +70°C
Material:	Mazak body / stainless steel needle
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

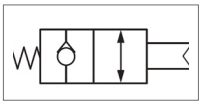


Ports	Order code
M5	47.370

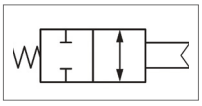
Logic & Flow Control

Pneumatic Blocking Valve — CV017

Technical information	
Pressure range:	Max. 8 bar / Max. 10 bar
Control pressure:	2 bar / 4.5 bar
Tube connections:	4mm push-in
Temperature range:	-10°C +80°C
Material:	Brass with zamak coating
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Description	Ports	Order code
One way Max. 10 bar	G1/8	V718800
One way Max. 10 bar	G1/4	V714400
One way Max. 10 bar	G3/8	V713300
One way Max. 10 bar	G1/2	V712201



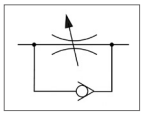
Description	Ports	Order code
Blocked Max. 8 bar	G1/8	V618800
Blocked Max. 8 bar	G1/4	V614400
Blocked Max. 8 bar	G3/8	V613300
Blocked Max. 8 bar	G1/2	V612201

On removal of pilot pressure to the control input port, blocking valves allow directional flow or block the passage of compressed air entirely to a system.

Logic & Flow Control - Stainless Steel

Pneumatic One-Way Flow Regulator SS073

Technical information	
Pressure range:	1-10 bar
Temperature range:	-10°C +120°C
Material:	Stainless steel 316L (1.4404)
Seals:	FKM
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Ports	Order code
G1/8	66085-18-00
G1/4	66085-14-00
G3/8	66085-38-00
G1/2	66085-12-00

Logic & Flow Control - Stainless Steel

Pneumatic Non-Return Valve SS071

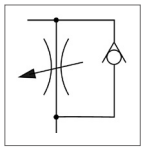
Technical information	
Pressure range:	0.3*-25 bar (*approximate opening pressure)
Temperature range:	-10°C +120°C
Material:	Stainless steel 316L (1.4404)
Seals:	FKM
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Ports	Order code
G1/8	66062-18-00
G1/4	66062-14-00
G3/8	66062-38-00
G1/2	66062-12-00

Logic & Flow Control - Stainless Steel

Pneumatic Exhaust Regulator SS072

Technical information	
Pressure range:	1-10 bar
Temperature range:	-10°C +120°C
Material:	Stainless steel 316L (1.4404)
Seals:	FKM
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

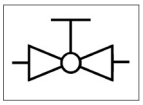


Ports	Order code
G1/8	66070-18-00
G1/4	66070-14-00

Logic & Flow Control - Stainless Steel

Pneumatic Shut-Off Ball Valve SS074

Technical information	
Pressure range:	-0.99-40 bar
Temperature range:	-15C +150°C
Material:	Stainless steel 316L (1.4404)
Seals:	PTFE seats / FKM O-rings
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

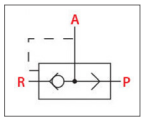


Ports	Order code
G1/8	66300-18-00
G1/4	66300-14-00

Logic & Flow Control - Stainless Steel

Pneumatic Quick Exhaust Valve SS070

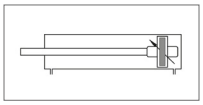
Technical information	
Pressure range:	2-10 bar
Temperature range:	-10°C +120°C / -20°C +80°C
Material:	Stainless steel 316L (1.4404)
Seals:	FKM / PU
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air



Description	Ports	Order code
-10°C +120°C - FKM seals	G1/8	66050-18-00
-10°C +120°C - FKM seals	G1/4	66050-14-00
-20°C +80°C - PU seals	G3/8	66050-38-00
-20°C +80°C - PU seals	G1/2	66050-12-00

Pneumatic Cylinder - Stainless Steel

Double Acting Ø 32mm – 125mm SS081



See page 47, section SS081 for ordering information

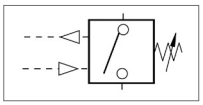
Technical information	
Pressure range:	Max. 10 bar
Temperature range:	-20°C...+80°C (Dry air for below 0°C)
Housing /tie rods / end caps:	Stainless steel grade 304 or 316
Cushioning adjustment screw:	Stainless steel
Rod:	Stainless steel
Seals:	NBR/polyurethane (Optional Viton +150˚C)
Lubricant:	Not required
Operating medium:	5 micron filtered, lubricated or non-lubricated compressed air

Pressure or Vacuum Switch

Adustable High Sensitivity

PS001

Technical information	
Pressure range:	3-30 mbar vacuum or pressure
Max. pressure:	100 mbar
Temperature range:	-15°C +70°C
Contact Material:	Ag - hard silver
Contact rating:	Max. 1 Amp / 220V AC
Switching rate:	Max. 25 Hz
Hysterisis:	0.5 mbar if free from vibration



Description	Connection	Order code
Vacuum or pressure switch	3mm id tube	60.006

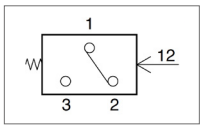
The high-sensitivity pressure switch offers a setting range of 3 to 30 mbar, used with weak pressure or vacuum signals.

Pressure Switch

Adustable PE Converter

PS000

Technical information	
Pressure range:	Max. 10 bar
Temperature range:	0°C +60°C
Housing:	Platic body, aluminium base
Diaphragm:	Viton
IP rating:	IP65 with plug and seal
Switching rate:	< 5 Hz
Hysterisis:	< 0.3 bar



Description	Range	Ports	Order code
Max, switching current at 220V AC 100mA	0.5 - 4 bar	M5	60.073.40.01
Max, switching current at 220V AC 100mA	3 - 8 bar	M5	60.073.80.01
Max, switching current at 220V AC 6A	3 - 8 bar	M5	60.073.80.60

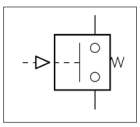
Adjustable pressure switches include changeover contacts which make or break a circuit when reaching a set pressure. Available setting ranges are 0.5 to 4 bar or 3 to 8 bar.

Pressure Switch

Non-Adustable PE Converter

PS002

Technical information	
Pressure range:	> 0.8-8 bar
Switch on pressure:	0.8 bar +/-25%
Temperature range:	-10°C +60°C
Contact material:	Ag 5 microns
Contact rating:	100mA 42V AC/DC Max. 1.5 W
Electrical connections:	Plug contacts
Switching rate:	< 12 Hz
Hysterisis:	0.5 bar



Description	Ports	Order code
Non-adjustable pressure switch	M5	60.060.01

The non-adjustable miniature pressure switch is suitable for battery-operated timers or counters. It provides a simple, low-cost solution for various serviceable timing or counting applications. Typical examples include regular filter changing, servicing of air tools and diaphragm pumps. Ask for further information.

Pneumatic Fittings

Male Stud
Parallel Thread - BSPP

AIG001

Tube Size	Thread	Order code
4	M5	50020N-04-05
4	1/8	50020N-04-10
4	1/4	50020N-04-13
5	M5	50020N-05-05
5	1/8	50020N-05-10
5	1/4	50020N-05-13
6	M5	50020N-06-05
6	1/8	50020N-06-10
6	1/4	50020N-06-13
6	1/2	50020N-06-21
8	1/8	50020N-08-10
8	1/4	50020N-08-13
8	1/2	50020N-08-21

Other tube and thread sizes available

Pneumatic Fittings

Female Coupling
Parallel Thread - BSPP

AIG002

Tube Size	Thread	Order code
4	M5	50030N-04-05
4	1/8	50030N-04-10
4	1/4	50030N-04-13
5	1/8	50030N-05-10
6	1/8	50030N-06-10
6	1/4	50030N-06-13
8	1/8	50030N-08-10
8	1/4	50030N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Elbow - Male
Parallel Thread - BSPP

AIG005

Tube Size	Thread	Order code
4	M5	50116N-04-05
4	1/8	50116N-04-10
4	1/4	50116N-04-13
5	M5	50116N-05-05
5	1/8	50116N-05-10
6	M5	50116N-06-05
6	1/8	50116N-06-10
6	1/4	50116N-06-13
8	1/8	50116N-08-10
8	1/4	50116N-08-13
8	1/2	50116N-08-21

Other tube and thread sizes available

Pneumatic Fittings

Orienting Elbow - Female
Parallel Thread - BSPP

AIG013

Tube Size	Thread	Order code
4	1/8	50106N-04-10
4	1/4	50106N-04-13
6	1/8	50106N-06-10
6	1/4	50106N-06-13
8	1/8	50106N-08-10
8	1/4	50106N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Elbow - Long Stem
Parallel Thread - BSPP

AIG006

Tube Size	Thread	Order code
4	1/8	50126N-04-10
4	1/4	50126N-04-13
5	1/8	50126N-05-10
6	1/8	50126N-06-10
6	1/4	50126N-06-13
8	1/8	50126N-08-10
8	1/4	50126N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Tee - Centre Leg
Parallel Thread - BSPP

AIG007

Tube Size	Thread	Order code
4	M5	50216N-04-05
4	1/8	50216N-04-10
5	M5	50216N-05-05
5	1/8	50216N-05-10
6	M5	50216N-06-05
6	1/8	50216N-06-10
6	1/4	50216N-06-13
8	1/8	50216N-08-10
8	1/4	50216N-08-13
8	1/2	50216N-08-21

Other tube and thread sizes available

Pneumatic Fittings

Orienting Tee - Offset Leg Parallel Thread - BSPP

AIG008

Tube Size	Thread	Order code
4	M5	50226N-04-05
4	1/8	50226N-04-10
4	1/4	50226N-04-13
5	M5	50226N-05-05
5	1/8	50226N-05-10
6	M5	50226N-06-05
6	1/8	50226N-06-10
6	1/4	50226N-06-13
8	1/8	50226N-08-10
8	1/4	50226N-08-13
8	1/2	50226N-08-21

Other tube and thread sizes available

Pneumatic Fittings

Equal Elbow

AIG009

Tube Size	Order code
4	50130N-04-00
5	50130N-05-00
6	50130N-06-00
8	50130N-08-00

Other tube sizes available

Pneumatic Fittings

Straight Connector

AIG003

Tube Size	Order code
4	50040N-04-00
5	50040N-05-00
6-4	50040N-06-04
6	50040N-06-00
8-6	50040N-08-06
8	50040N-08-00

Other tube sizes available

Pneumatic Fittings

Equal T

AIG010

Tube Size	Order code
4	50230N-04-00
5	50230N-05-00
6	50230N-06-00
8	50230N-08-00

Other tube sizes available

Pneumatic Fittings

Equal Y

AIG011

Tube Size	Order code
4	50310N-04-00
5	50310N-05-00
6	50310N-06-00
8	50310N-08-00

Other tube sizes available

Pneumatic Fittings

Bulkhead

AIG004

Tube Size	Bulkhead Thread	Order code
4	M12x1	50050N-04-00
5	M14x1	50050N-05-00
6	M14x1	50050N-06-00
8-6	M16x1	50050N-08-06
8	M16x1	50050N-08-00

Other tube sizes available

Pneumatic Fittings

Orienting Single Banjo Parallel Thread - BSPP

AIG014

Tube Size	Thread	Order code
4	M5	50550N-04-05
4	1/8	50550N-04-10
5	M5	50550N-05-05
5	1/8	50550N-05-10
5	1/4	50550N-05-13
6	M5	50550N-06-05
6	1/8	50550N-06-10
6	1/4	50550N-06-13
8	1/8	50550N-08-10
8	1/4	50550N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Double Banjo Parallel Thread - BSPP

AIG015

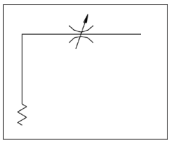
Tube Size	Thread	Order code
4	1/8	50560N-04-10
5	1/8	50560N-05-10
5	1/4	50560N-05-13
6	1/8	50560N-06-10
6	1/4	50560N-06-13
8	1/8	50560N-08-10
8	1/4	50560N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Flow Regulator Parallel Thread - BSPP - [Bi-directional]

AIG020



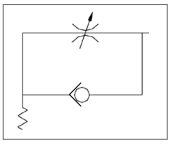
Tube Size	Thread	Order code
4	M5	50920N-04-05
4	1/8	50920N-04-10
5	M5	50920N-05-05
5	1/8	50920N-05-10
5	1/4	50920N-05-13
6	M5	50920N-06-05
6	1/8	50920N-06-10
6	1/4	50920N-06-13
8	1/8	50920N-08-10
8	1/4	50920N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Flow Regulator Parallel Thread - BSPP - [Inlet]

AIG019



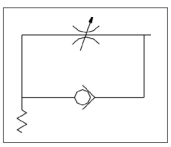
Tube Size	Thread	Order code
4	M5	50910N-04-05
4	1/8	50910N-04-10
5	M5	50910N-05-05
5	1/8	50910N-05-10
5	1/4	50910N-05-13
6	M5	50910N-06-05
6	1/8	50910N-06-10
6	1/4	50910N-06-13
8	1/8	50910N-08-10
8	1/4	50910N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Orienting Flow Regulator Parallel Thread - BSPP - [Outlet]

AIG018



Tube Size	Thread	Order code
4	M5	50901N-04-05
4	1/8	50901N-04-10
5	M5	50901N-05-05
5	1/8	50901N-05-10
5	1/4	50901N-05-13
6	M5	50901N-06-05
6	1/8	50901N-06-10
6	1/4	50901N-06-13
8	1/8	50901N-08-10
8	1/4	50901N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Reducer

AIG012

Tube Size	Order code
5-4	50700N-05-04
6-4	50700N-06-04
6-5	50700N-06-05
8-4	50700N-08-04
8-6	50700N-08-06

Other tube sizes available

Pneumatic Fittings

Single Banjo Body — AIG016

Tube Size	Stem Size	Order code
4	M5	50500N-04-05
4	1/8	50500N-04-10
5	M5	50500N-05-05
5	1/8	50500N-05-10
5	1/4	50500N-05-13
6	M5	50500N-06-05
6	1/8	50500N-06-10
6	1/4	50500N-06-13
8	1/8	50500N-08-10
8	1/4	50500N-08-13

Other tube and stem sizes available

Pneumatic Fittings

Double Banjo Body — AIG017

Tube Size	Stem Size	Order code
4	M5	50510N-04-05
4	1/8	50510N-04-10
5	1/8	50510N-05-10
5	1/4	50510N-05-13
6	1/8	50510N-06-10
6	1/4	50510N-08-13
8	1/8	50510N-08-10
8	1/4	50510N-08-13

Other tube and stem sizes available

Pneumatic Fittings

Single Banjo Stem Parallel Thread - BSPP — AIG016 / AIG017

Thread	Order code
M5	51410N-05-00
1/8	51410N-10-00
1/4	51410N-13-00

Other thread sizes available

Pneumatic Fittings

Single Banjo Stem - Male/Female Parallel Thread - BSPP — AIG016 / AIG017

Thread	Order code
1/8	51440N-10-00
1/4	51440N-13-00

Other thread sizes available

Pneumatic Fittings

Double Banjo Stem Parallel Thread - BSPP — AIG016 / AIG017

Thread	Order code
1/8	51420N-10-00
1/4	51420N-13-00

Other thread sizes available

Pneumatic Fittings

Triple Banjo Stem Parallel Thread - BSPP — AIG016 / AIG017

Thread	Order code
1/8	51430N-10-00
1/4	51430N-13-00

Other thread sizes available

Pneumatic Fittings

Male Adaptor
Parallel Thread - BSPP

AIG021

Tube Size	Thread	Order code
4	M5	50600N-04-05
4	1/8	50600N-04-10
5	M5	50600N-05-05
5	1/8	50600N-05-10
5	1/4	50600N-05-13
6	M5	50600N-06-05
6	1/8	50600N-06-10
6	1/4	50600N-06-13
8	1/8	50600N-08-10
8	1/4	50600N-08-13

Other tube and thread sizes available

Pneumatic Fittings

Double Joint

AIG022

Tube Size	Order code
4	50625N-04-00
5	50625N-05-00
6	50625N-06-00
8	50265N-08-00

Other tube sizes available

Pneumatic Fittings

5 Way Manifold

AIG024

Tube Size	Thread	Order code
4	2 x 1/8	50900N-04-10
6	2 x 1/8	50900N-06-10
6	2 x 1/4	50900N-06-13
8	2 x 1/4	50900N-08-13

Pneumatic Fittings

Blanking Plug

AIG023

Tube Size	Order code
4	50610N-04-00
5	50610N-05-00
6	50610N-06-00
8	50610N-08-00

Other tube sizes available

Pneumatic Tubing

Nylon (NFM) Wrapped Coils (30 Metre)

TU001

Technical information	
Temperature range:	-40°C...+70°C
Brittle point:	-70°C
Burst Pressure:	See data sheet

Tube od (mm)	Tube id (mm)	Order code
4	2.5	NFM4/25
5	3	NFM5/3
6	4	NFM6/4
8	5.5	NFM8/55
8	6	NFM8/6

NFM (Nylon) pneumatic tubing is suited for exterior use. It has a higher burst pressure and resists crushing, cracking and abrasion. Excellent for use where pipework is often exposed.

Available colours: Natural, Black, Blue, Green, Red, Yellow
Ordering example: **NFM4/25_BLUE**
All colours and tube lengths subject to stock availability
Other tube sizes and lengths available

Pneumatic Tubing

Polyurethane (PPU) Boxed Coils (30 Metre)

TU002

Technical information	
Temperature range:	-50°C...+80°C
Brittle point:	-70°C
Burst Pressure:	See data sheet

Tube od (mm)	Tube id (mm)	Order code
4	2.5	PPU4/25
5	3	PPU5/3
6	4	PPU6/4
8	5.5	PPU8/55
8	6	PPU8/6

PPU (Polyurethane) pneumatic tubing is a softer material offering an excellent bend radius. Great for use in control boxes where space is limited.

Available colours: Black, Blue, Green, Red, White, Yellow
Ordering example: **PPU4/25_BLUE**
All colours and tube lengths subject to stock availability
Other tube sizes and lengths available

Incremental Encoder

RI32-O — IE0512

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	30mm
Housing material:	Plastic
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 1,500
Shaft diameter:	5mm / 6mm solid shaft
Protection class:	IP40 / IP50
Operating temperature:	-10°C to +60°C
Channels:	A, B, N
Max. shaft load:	Axial 5 N / radial 10 N
Max. operating speed:	6,000 rpm
Connection:	Axial / radial cable
Flange options:	Pilot

Incremental Encoder

RI30-O — IE0501

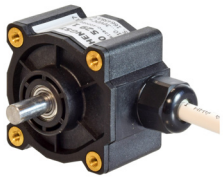
See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	30mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 1,500
Shaft diameter:	5mm solid shaft
Protection class:	IP64
Operating temperature:	-10°C to +70°C
Channels:	A, B, N + complementary
Max. shaft load:	Axial 5 N / radial 10 N
Max. operating speed:	10,000 rpm
Connection:	Axial / radial cable
Flange options:	Synchro or Pilot

Incremental Encoder

RI38-O — IE0513



See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	39mm
Housing material:	Glass fibre reinforced plastic
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 1,024
Shaft diameter:	6mm solid shaft
Protection class:	IP40 / IP50
Operating temperature:	-10°C to +60°C
Channels:	A, B, N
Max. shaft load:	Axial 5 N / radial 10 N
Max. operating speed:	10,000 rpm
Connection:	Radial cable
Flange options:	Square

Incremental Encoder

RI36-O — IE0502

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	36mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 3,600
Shaft diameter:	6mm / 6.35mm solid shaft
Protection class:	IP64
Operating temperature:	-10°C to +70°C
Channels:	A, B, N + complementary
Max. shaft load:	Axial 5 N / radial 10 N
Max. operating speed:	10,000 rpm
Connection:	M16, M23 or axial / radial cable
Flange options:	Synchro or Pilot

Incremental Encoder

RI42-O — IE0514

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	40mm
Housing material:	Plastic
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 1,024
Shaft diameter:	6mm solid shaft
Protection class:	IP64 / IP65
Operating temperature:	0°C to +60°C
Channels:	A, B, N + complementary
Max. shaft load:	Axial 5 N / radial 10 N
Max. operating speed:	10,000 rpm
Connection:	Axial cable
Flange options:	Pilot

Incremental Encoder

RI36-H — IE0505

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	36mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 3,600
Shaft diameter:	4mm / 6mm / 8mm / 10mm hubshaft
Protection class:	IP64
Operating temperature:	-10°C to +70°C
Channels:	A, B, N + complementary
Axial / radial tolerance:	± 0.5mm / ± 0.15mm
Max. operating speed:	10,000 rpm
Connection:	M23 or axial / radial cable
Flange options:	Spring tether

Incremental Encoder

RI41-O — **IE0503**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	40mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 3,600
Shaft diameter:	6mm solid shaft
Protection class:	IP40 / IP50
Operating temperature:	-10°C to +70°C
Channels:	A, B, N
Max. shaft load:	Axial 5 N / radial 10 N
Max. operating speed:	10,000 rpm
Connection:	Radial cable
Flange options:	Pilot

Incremental Encoder

RI58-O/T — **IE0504**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	58mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	1 to 10,000 / 4 to 2500
Shaft diameter:	6mm to 12mm solid shaft
Protection class:	IP64 / IP65 or IP67
Operating temperature:	-10°C to +70°C / -25°C to +100°C
Channels:	A, B, N + complementary
Max. shaft load:	See data sheets
Max. operating speed:	10,000 rpm
Connection:	M16, M23 or axial / radial cable
Flange options:	Synchro, clamping or square

Incremental Encoder

RI58-G/TG — **IE0509**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	58mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	50 to 5,000 / 50 to 2500
Shaft diameter:	14mm or 15mm hollow shaft
Protection class:	IP64
Operating temperature:	-10°C to +70°C / -10°C to +100°C
Channels:	A, B, N + complementary
Max. operating speed:	4,000 rpm
Connection:	Radial cable
Flange options:	Stator coupling and clamping ring

Incremental Encoder

RI58-H — **IE0510**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	58mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	1 to 5,000
Shaft diameter:	10mm or 12mm hollow shaft
Protection class:	IP64
Operating temperature:	-10°C to +70°C
Channels:	A, B, N + complementary
Max. operating speed:	3,000 rpm
Connection:	Radial cable
Flange options:	Synchro

Incremental Encoder

RI58-F — **IE0507**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	58mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	1 to 10,000
Shaft diameter:	6mm to 12mm hub / hollow shaft
Protection class:	IP64 / IP67
Operating temperature:	-10°C to +70°C
Channels:	A, B, N + complementary
Axial / radial tolerance:	± 1.5mm / ± 0.2mm
Max. operating speed:	4,000 / 6,000 rpm
Connection:	M23 or radial cable
Flange options:	Spring tether and clamping ring

Incremental Encoder

RI58-D/TD — **IE0506**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	58mm
Housing material:	Aluminium
Supply voltage:	5V or 5 to 30V DC
Pulses Per Revolution:	1 to 5,000 / 4 to 2500
Shaft diameter:	10mm to 14mm hub / hollow shaft
Protection class:	IP64 / IP65
Operating temperature:	-10°C to +70°C / -25°C to +100°C
Channels:	A, B, N + complementary
Axial / radial tolerance:	See data sheets
Max. operating speed:	4,000 / 6,000 rpm
Connection:	M23 or radial cable
Flange options:	Stator coupling and clamping ring

Incremental Encoder

RI64 — **IE0508**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	63mm
Housing material:	Aluminium
Supply voltage:	5V or 5 to 30V DC
Pulses Per Revolution:	360 to 5,000
Shaft diameter:	10mm to 16mm hub / hollow shaft
Protection class:	IP64 or IP67
Operating temperature:	-40°C to +100°C
Channels:	A, B, N + complementary
Axial / radial tolerance:	± 0.8mm / ± 0.2mm
Max. operating speed:	6,000 / 12,000 rpm
Connection:	M23 or radial cable
Flange options:	Spring tether and clamping ring

Incremental Encoder

RI76-TD — **IE0511**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	76mm
Housing material:	Aluminium
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	5 to 10,000
Shaft diameter:	15mm to 42mm hollow shaft
Protection class:	IP40 or IP64 / IP50
Operating temperature:	-25°C to +100°C
Channels:	A, B, N + complementary
Axial / radial tolerance:	See data sheets
Max. operating speed:	See data sheets
Connection:	Radial cable
Flange options:	Spring tether and clamping ring

Incremental Encoder

RI59-O — **IE0515**

See individual data sheets for full technical and ordering information.

HENGSTLER

Technical information	
Housing diameter:	58mm
Housing material:	Stainless steel
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	1 to 10,000
Shaft diameter:	9.52mm or 10mm solid shaft
Protection class:	IP67
Operating temperature:	-10°C to +70°C
Channels:	A, B, N + complementary
Max. shaft load:	Axial 40 N / radial 60 N
Max. operating speed:	10,000 rpm
Connection:	Axial / radial cable
Flange options:	Square

Incremental Encoder

RX70-TI/RX71-TI — **IE0516**

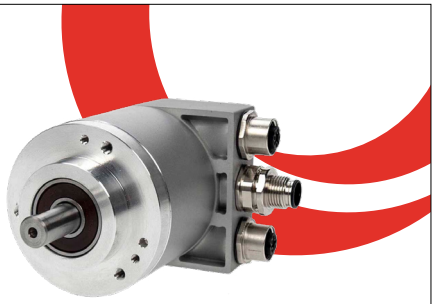
See individual data sheets for full technical and ordering information.

HENGSTLER

ATEX

Technical information	
Housing diameter:	70mm
Housing material:	Aluminium / stainless steel
Supply voltage:	5V or 10 to 30V DC
Pulses Per Revolution:	1 to 10,000
Shaft diameter:	10mm solid shaft
Protection class:	IP65 or IP67 / IP64 or IP67
Operating temperature:	See data sheets
Channels:	A, B, N + complementary
Max. shaft load:	Axial 40 N / radial 100 N
Max. operating speed:	10,000 rpm
Connection:	Axial / radial cable
Flange options:	Clamping

Absolute Rotary Encoders for Speed, Direction and Positional Feedback



- Fieldbus protocaols include: Parallel, BiSS / SSI, Profibus, CANopen, CANlayer2, DeviceNet, Interbus, SUCOnet, EtherCAT & Profinet
- ATEX certified models for Gas, Dust and Mining
- Stainless steel for optimal corrosion resistance
- Hollow and solid shaft designs
- Radial / Axial cable or plug connectivity
- High Protection Class
- High Resolutions

HENGSTLER

UK Official Distributor of Hengstler

Electromechanical Adding Counters

464-468 TTCC070

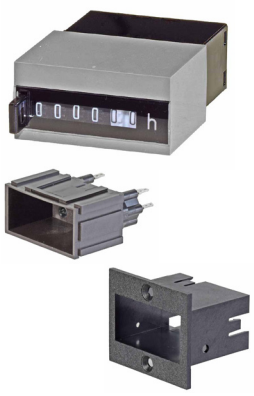
Technical information	
Display:	4, 6 or 8 digit
Digit height:	4mm
Supply voltage:	24V DC / 24, 115 & 230V AC
Reset:	Manual/electrical or non-reset
Pulse duty factor:	1:1
Max. count frequency:	DC 25 Hz / AC 10 Hz
Protection class:	IP40 / connections IP00
Operating temperature:	-10°C to +50°C
Mounting:	Modular 400 plug-in system

HENGSTLER

See individual data sheets for full technical and ordering information.

Electromechanical Time Counters

478 TTCC076



Technical information	
Display:	6 or 7 digit
Digit height:	4mm
Supply voltage:	12, 24V DC / 24, 115 & 220V AC
Reset:	Manual reset
Timing range:	0... 9999.99 h or 0... 99999.99 h
Duty cycle:	100%
Protection class:	IP40 / connections IP00
Operating temperature:	-10°C to +50°C
Mounting:	Modular 400 plug-in system

HENGSTLER

See individual data sheets for full technical and ordering information.

Electromechanical Preset Counters

446-447 TTCC073

Technical information	
Display:	3 or 5 digit subtracting
Digit height:	4mm
Supply voltage:	24V DC / 24, 115 & 230V AC
Reset:	Manual/electrical or automatic
Pulse duty factor:	1:1
Max. count frequency:	DC 25 Hz / AC 10 Hz
Protection class:	IP40 / connections IP00
Operating temperature:	-10°C to +50°C
Mounting:	Modular 400 plug-in system

HENGSTLER

See individual data sheets for full technical and ordering information.

Electromechanical Adding Counters

864-868 TTCC071

Technical information	
Display:	6 or 8 digit
Digit height:	4mm
Supply voltage:	24V DC / 24, 115 & 230V AC
Reset:	Manual/electrical or non-reset
Pulse duty factor:	1:1
Max. count frequency	DC 25 Hz / AC 10 Hz
Protection class:	IP40 / connections IP00
Operating temperature:	-10°C to +50°C
Mounting:	Screw or spring

HENGSTLER

See individual data sheets for full technical and ordering information.

Electromechanical Preset Counters

486-487 TTCC072

Technical information	
Display:	3 or 5 digit adding
Digit height:	4mm
Supply voltage:	24V DC / 24, 115 & 230V AC
Reset:	Manual/electrical or automatic
Pulse duty factor:	1:1
Max. count frequency:	DC 25 Hz / AC 10 Hz
Protection class:	IP40 / connections IP00
Operating temperature:	-10°C to +50°C
Mounting:	Modular 400 plug-in system

HENGSTLER

See individual data sheets for full technical and ordering information.

Electromechanical Preset Counters

886-887 TTCC074

Technical information	
Display:	3 or 5 digit adding
Digit height:	4mm
Supply voltage:	24V DC / 115 & 230V AC
Reset:	Manual/electrical
Pulse duty factor:	1:1
Max. count frequency	DC 25 Hz / AC 10 Hz
Protection class:	IP30 / connections IP00
Operating temperature:	-10°C to +50°C
Mounting:	Screw or spring

HENGSTLER

See individual data sheets for full technical and ordering information.

Revolution & Stroke Counters

125 — **TTCC125**

See individual data sheets for full technical and ordering information.

Technical information	
Display:	4 or 5 digit
Digit height:	4mm
Counting mode:	+ or (-), stroke counter (+) only
Reset:	Button reset
Shaft orientation:	Left or right single shaft
Sense of rotation:	Top shaft coming BZ / going BW
Transmission ratio:	1:1 / 1:10
Max. speed:	Revolution 1,500 rpm / 500 rpm
Max. stroke rate:	500 strokes/min
Protection class:	IP50

HENGSTLER

Revolution, Length & Stroke Counters

150 — **TTCC030**

See individual data sheets for full technical and ordering information.

Technical information	
Display:	6 digit
Digit height:	4mm
Counting mode:	+ (-), stroke counter (+) only
Reset:	Button reset
Shaft orientation:	Single or dual shaft
Sense of rotation:	Top shaft coming BZ / going BW
Transmission ratio:	1:1 / 1:2 / 1:10
Unit of measure:	m/dm length counter only
Max. speed:	Revolution 3,000 rpm / length 1,500 rpm
Max. stroke rate:	500 strokes/min
Protection class:	IP50

HENGSTLER

Revolution, Length & Stroke Counters

110, 205 & 312 — **TTCC312**

See individual data sheets for full technical and ordering information.

Technical information	
Display:	7 digit
Digit height:	8mm
Counting mode:	+ (-)
Reset:	Key reset
Shaft orientation:	Dual shaft
Sense of rotation:	Top shaft coming BZ / going BW
Transmission ratio:	1:1 / 1:2 / 1:5 / 1:10
Unit of measure:	m/dm length counter only
Max. speed:	3,000 digits/min
Protection class:	IP30

HENGSTLER

Revolution, Length & Stroke Counters

225 — **TTCC225**

See individual data sheets for full technical and ordering information.

Technical information	
Display:	6 digit
Digit height:	6.5mm
Counting mode:	+ (-), stroke counter (+) only
Reset:	Secure button reset
Shaft orientation:	Dual shaft
Sense of rotation:	Top shaft coming BZ / going BW
Transmission ratio:	1:1 / 1:5 / 1:10 / 1:50
Unit of measure:	m/dm or m/cm length counter only
Max. speed:	10,000 digits/min
Max. stroke rate:	800 strokes/min

HENGSTLER

Revolution, Length & Stroke Counters

250 preset with output — **TTCC250**

See individual data sheets for full technical and ordering information.

Technical information	
Display:	5 digit
Digit height:	6.5mm
Counting mode:	- (+), stroke counter (-) only
Reset:	Secure button reset
Shaft orientation:	Dual shaft
Sense of rotation:	Top shaft coming BZ / going BW
Transmission ratio:	1:1 / 2:1 / 1:5
Unit of measure:	m or m/dm length counter only
Max. speed:	10,000 digits/min
Max. stroke rate:	800 strokes/min
Protection class:	IP40 connections IP00
Output:	SPCO relay contact

HENGSTLER

Measuring Wheels

TTCC080

Technical information	
Circumference sizes:	0.2m or 0.5m
Bore sizes:	4mm, 6mm, 7mm, 10mm
Surface width:	4mm to 25mm
Surface material:	Aluminum, plastic or rubber coated

HENGSTLER

See individual data sheets for full technical and ordering information.

Linear Solenoid - Compact Design

RM Series

Technical information	
Stroke length:	3mm to 40mm
End stroke force:	~3N to ~1,500N
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	Push / pull or combination type with return spring
Connection:	Plug or flying leads

See individual data sheets for full technical and ordering information.

KUHNKE

Linear Solenoid - Heavy Duty Design

V Series

Technical information	
Stroke length:	8mm to 20mm
End stroke force:	~5N to ~500N
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	Push / pull type
Connection:	Plug or flying leads

See individual data sheets for full technical and ordering information.

KUHNKE

Rotary Solenoid - Compact Design

D Series

Technical information	
Degree of rotation:	25°, 35°, 45°, 65° and 95°
End rotation torque:	~0.35 Ncm to ~195 Ncm
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	CW or CCW with or without return spring
Shaft options:	Single or double shaft output
Connection:	Plug or flying leads

See individual data sheets for full technical and ordering information.

KUHNKE

Rotary Solenoid - Heavy Duty Design

E Series

Technical information	
Degree of rotation:	25°, 35°, 45°, 65° and 95°
End rotation torque:	~1.4 Ncm to ~450 Ncm
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	CW or CCW with or without return spring
Shaft options:	Single or double shaft output
Connection:	Plug or flying leads

See individual data sheets for full technical and ordering information.

KUHNKE

Linear Solenoid - Open Frame Design

H Series

Technical information	
Stroke length:	2mm to 20mm
End stroke force:	~1N to ~30N
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	Push / pull or combination type with return spring
Connection:	Plug or flying leads

See individual data sheets for full technical and ordering information.

KUHNKE

Holding Solenoid - Compact Design

HT-D Series

Technical information	
Diameters:	20mm to 70mm
Holding force:	~40N to ~1,400N
Supply voltage:	24V DC
Duty cycle:	100%
Operation:	Energised holding
Connection:	Flying leads

See individual data sheets for full technical and ordering information.

KUHNKE

Linear Solenoid - High Power Line

LHS / LHR Series

Technical information	
Stroke length:	7mm to 50mm
End stroke force:	~6N to ~880N
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	Push / pull type
Connection:	Plug connection

See individual data sheets for full technical and ordering information.

KENDRION

Linear Solenoid - Classic Line

LCL-D Series

Technical information	
Stroke length:	5mm to 30mm
End stroke force:	~8N to ~650N
Supply voltage:	24V DC, others on request
Duty cycle:	100%, others on request
Operation:	Push / pull type with optional return spring
Connection:	Plug or flying leads

See individual data sheets for full technical and ordering information.

KENDRION

Linear Solenoid - Locking Line

LLV Series

Technical information	
Stroke length:	8mm to 15mm
Bolt diameter:	10mm to 15mm
End stroke force:	~5N to ~12N
Lateral force:	~1,200 to ~4,000N
Supply voltage:	24V DC
Duty cycle:	100%
Operation:	Currentless locking (CL) or unlocking (CU)
Connection:	Plug connection
Other options:	Positional sensors / emergency manual unlocking

See individual data sheets for full technical and ordering information.

KENDRION

Vibration Generator - Inline Vibrator

OMW Series

Technical information	
Cycle stroke:	1.3mm to 1.5mm
Load weight:	~100g to ~17Kg
Supply voltage:	230V AC, others on request
Duty cycle:	100%
Protection class:	IP00 to IP54
Connection:	Flying leads

See individual data sheets for full technical and ordering information.

KENDRION

Vibration Generator - Linear Vibrator

OLV Series

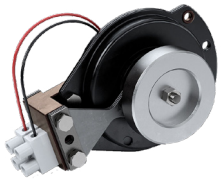
Technical information	
Cycle stroke:	4mm to 6mm
Supply voltage:	230V AC, others on request
Duty cycle:	100%
Protection class:	IP40
Connection:	Plug connection

See individual data sheets for full technical and ordering information.

KENDRION

Vibration Generator - Arc Vibrator

OAB Series



Technical information	
Cycle stroke:	1.5mm to 2mm
Supply voltage:	230V AC, others on request
Duty cycle:	100%
Protection class:	IP20
Connection:	Terminal clamp

KENDRION

See individual data sheets for full technical and ordering information.

Holding Solenoid - Energised Holding

GTB Series

Technical information	
Diameters:	15mm to 250mm
Holding force:	~36N to ~30,000N
Supply voltage:	24V DC
Duty cycle:	100%
Operation:	Energised holding
Connection:	Flying leads / terminals

See individual data sheets for full technical and ordering information.

KENDRION

Holding Solenoid - De-energised Holding

10 320 / PEM Series

Technical information	
Diameters:	12mm to 150mm
Holding force:	~8N to ~3,500N
Supply voltage:	24V DC
Duty cycle:	25%
Operation:	De-energised holding
Connection:	Flying leads

See individual data sheets for full technical and ordering information.

KENDRION

Holding Solenoid - Energised Holding

GTH Series

Technical information	
Diameters:	15mm to 100mm
Holding force:	~45N to ~4,890N
Supply voltage:	24V DC
Duty cycle:	100%
Operation:	Energised holding
Connection:	Flying leads

See individual data sheets for full technical and ordering information.

KENDRION

Holding Bar - Energised Holding

10 310 Series

Technical information	
Diameters:	100mm to 600mm (L) 32mm to 60mm (W)
Holding force:	~880N to ~10,400N
Supply voltage:	24V DC
Duty cycle:	100%
Operation:	Energised holding
Connection:	Cable gland

See individual data sheets for full technical and ordering information.

KENDRION

Holding Solenoid - Energised Holding

10 331 Series

Technical information	
Diameters:	56mm to 170mm
Holding force:	~750N to ~5,000N
Supply voltage:	24V DC
Duty cycle:	100%
Operation:	Energised holding
Connection:	Flying leads

See individual data sheets for full technical and ordering information.

KENDRION

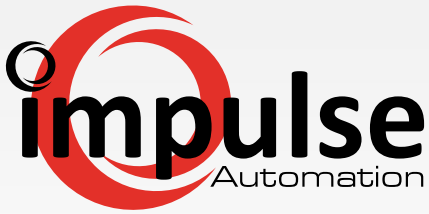
Holding Bar - De-energised Holding

01 310 Series

Technical information	
Diameters:	150mm or 200mm (L) 60mm (W)
Holding force:	~1,000N to ~1,530N
Supply voltage:	24V DC
Duty cycle:	25%
Operation:	De-energised holding
Connection:	Cable gland

See individual data sheets for full technical and ordering information.

KENDRION



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