



Directional control Valves

G1/8 & G1/4 Spool valves

Catalogue no: 2131GB-ca



Directional control valves G^{1/8} 3/2 - 5/2

Spool valves 3/2, 5/2 - G^{1/8} Ports

Available in 3/2 or 5/2 versions, all valves including double pilot and double solenoid types may be mounted in any position. The balanced spool design ensures that operating forces remain unaffected by variations in inlet pressure.

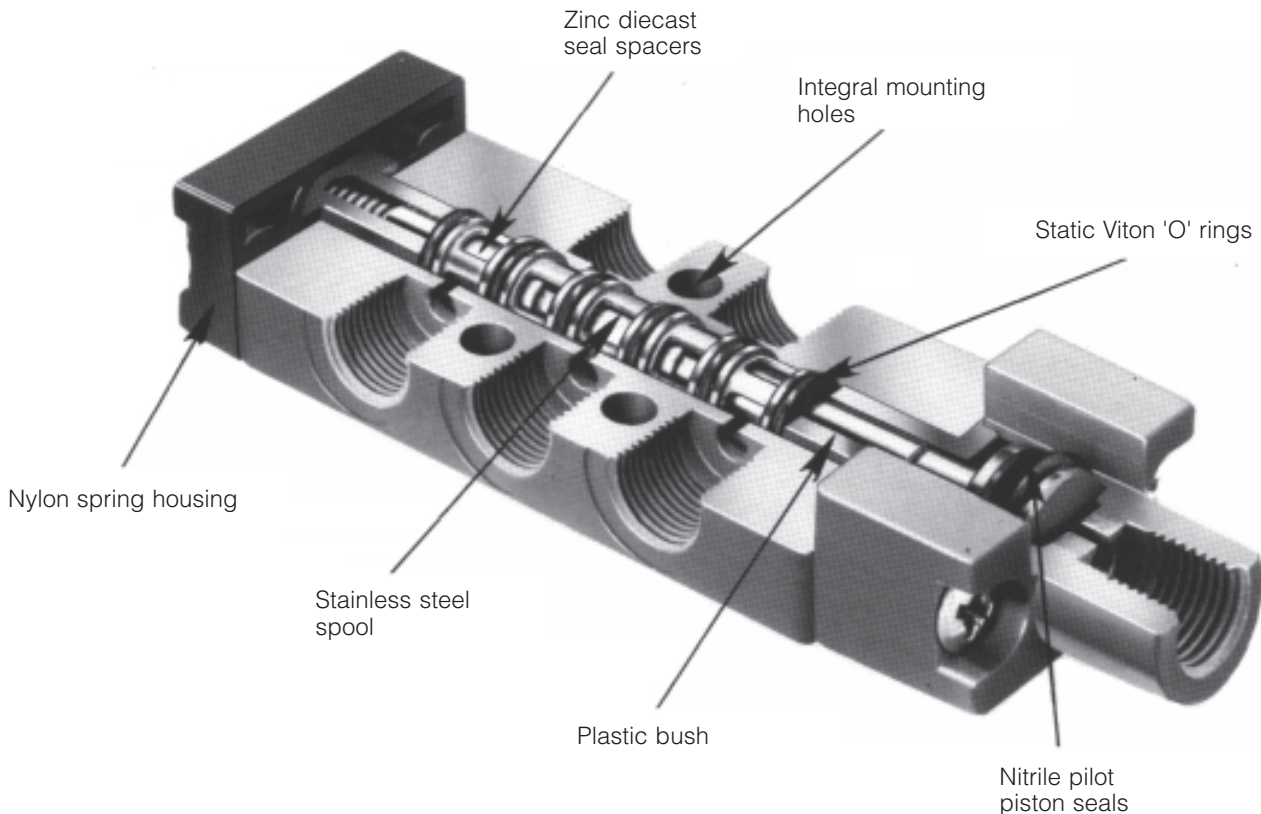
The body is a zinc alloy die-casting with stainless steel spool, sealed by viton rubber 'O' rings. All operating parts exposed to the working fluid are of non-corrosive material and all ports are threaded G^{1/8} B.S.P. parallel. The block design of the body with its three mounting holes is ideally suited to close banking and all valves may be serviced without disturbing the pipework simply by unscrewing the actuator and return assemblies.

The 3/2 valve can be piped normally open or closed simply by changing the air inlet from the normal inlet port to the exhaust port, and the 5/2 valve can be piped in different variations to suit the application required. Midget spool valves can also be used as impulse type valves, when the signal is required at the end of the cylinder stroke or when the tripping cylinder or machine cam is too small to clear the mechanical trip of the valve.

Operation of the actuator on the 5/2 valve opens the cylinder port nearest to the actuator. On the 3/2 version the inlet is piped to the port furthest away from the actuator for normally closed operation, and to the port nearest the actuator for normally open. Any of the actuators may be fitted with spring or pilot return mechanism. Valves may also be supplied with the same actuator at both ends; e.g. double roller. Roller versions are designed to give a common height on both 3/2 and 5/2 valves to ensure uniformity and efficiency in a multi-valve assembly.

The reasonably short travel and lightweight spool ensures that extremely high operating speeds are possible. A double pilot 5/2 valve has been tested at over 3000 cycles per minute, but for practical purposes the operating speed of the valve is determined by cylinder stroke and bore size.

Features



Directional control valves G^{1/8} 3/2 - 5/2

Basic body dimensions (mm)

Actuator mechanisms

Basic bodies

Return mechanisms

3/2 body

Solenoid pilot

Air pilot

Mechanical

- Plunger
- Whisker
- Roller
- One way trip
- One way roller trip

Manual

- Button
- Lock down lever
- Palm lever
- Foot

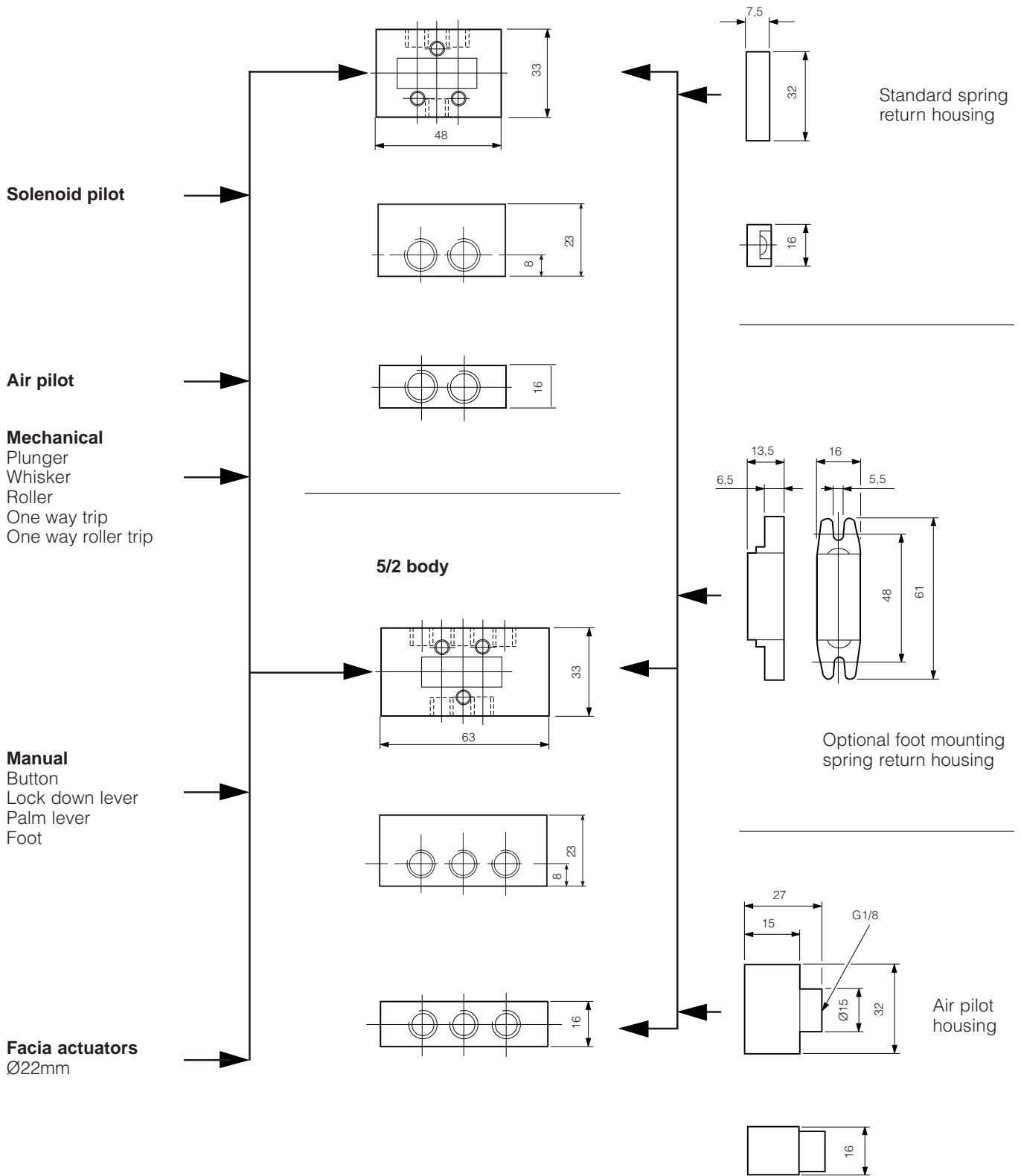
Facia actuators Ø22mm

5/2 body

Standard spring return housing

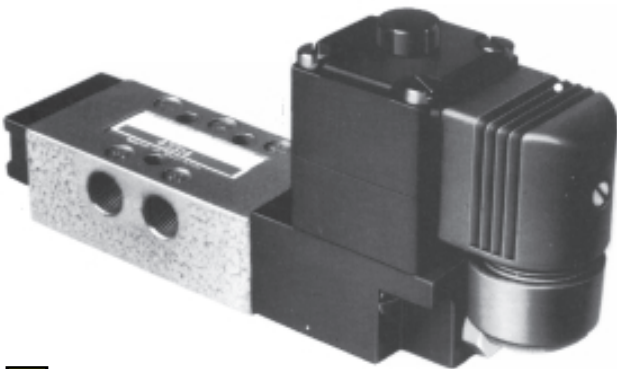
Optional foot mounting spring return housing

Air pilot housing



Directional control valves G¹/₈ 3/2 - 5/2

Solenoid pilot operated - spring return



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (solenoid)
Spring housing	Plastic

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	Vacuum to 10 bar	
Minimum	Spring return	3 bar
Nominal Ø	3,2mm	
Nominal flow at 7 bar	7 dm ³ /s	
Cv factor	0,24	

Electrical information

Power consumption	Inrush	Hold
AC	9VA	6VA
DC	5 Watt	
Rating	100% continuous	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	ISO 4400, BS 56361	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	20-26	10-13
TF	44-55	20-26
TC	85-110	44-55
S	94-120	47-60
TS	153-198	76-99
SA	204-264	102-132

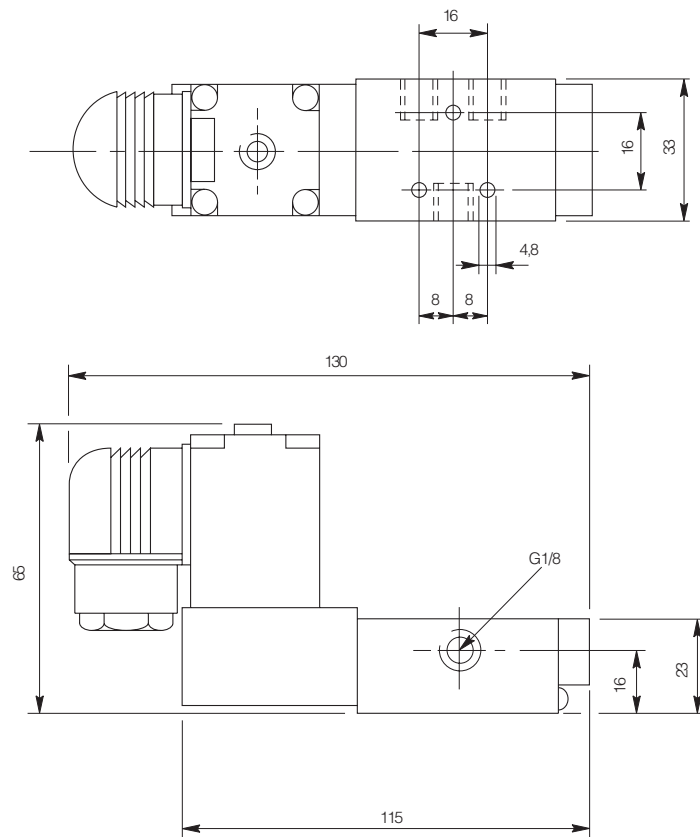
Ordering information

Part nos.	Type	Actuator	Return	Symbol
LB43313*	3/2	Solenoid pilot	Spring	
LB43314*	5/2	Solenoid pilot	Spring	

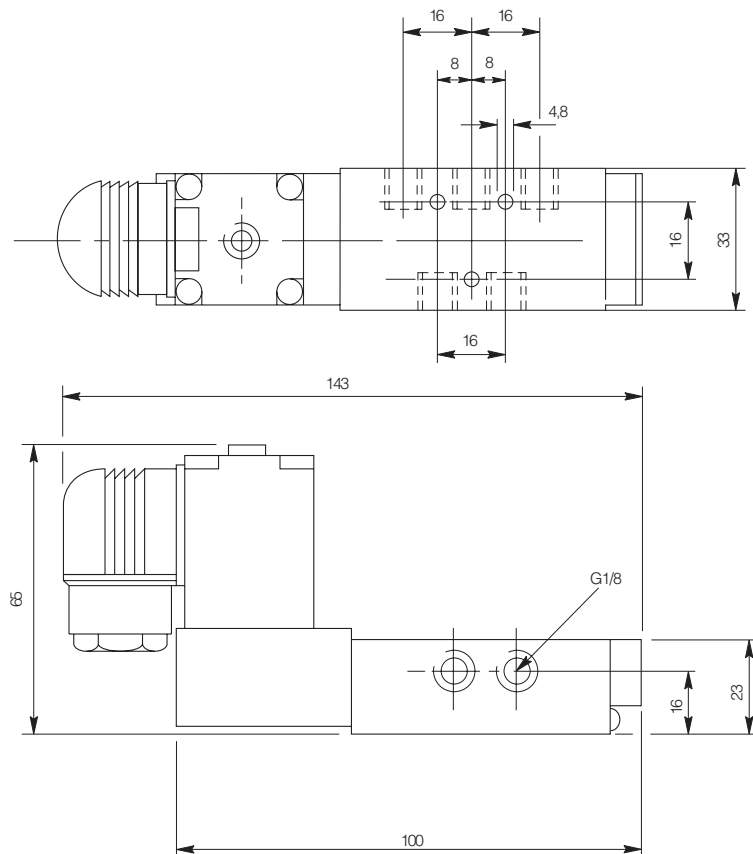
*Specify voltage and add suffix letters
For manual override add suffix M to part no.

Directional control valves G^{1/8} 3/2 - 5/2

3/2 valve dimensions (mm)

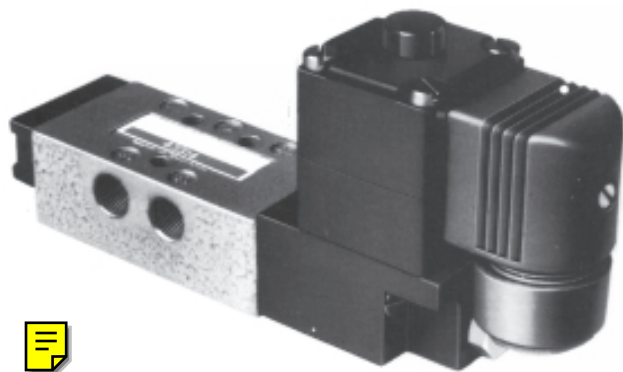


5/2 valve dimensions (mm)



Directional control valves G¹/₈ 3/2 - 5/2

Solenoid pilot operated - pilot return



Symbol



Materials

Body	Aluminium
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (solenoid)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	Vacuum to 10 bar	
Minimum	Spring return	3 bar
Nominal Ø	3,2mm	
Nominal flow at 7 bar	7 dm ³ /s	
Cv factor	0,24	

Electrical information

Power consumption	Inrush	Hold
AC	9VA	6VA
DC	5 Watt	
Rating	100% continuous	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	ISO 4400, BS 56361	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	20-26	10-13
TF	44-55	20-26
TC	85-110	44-55
S	94-120	47-60
TS	153-198	76-99
SA	204-264	102-132

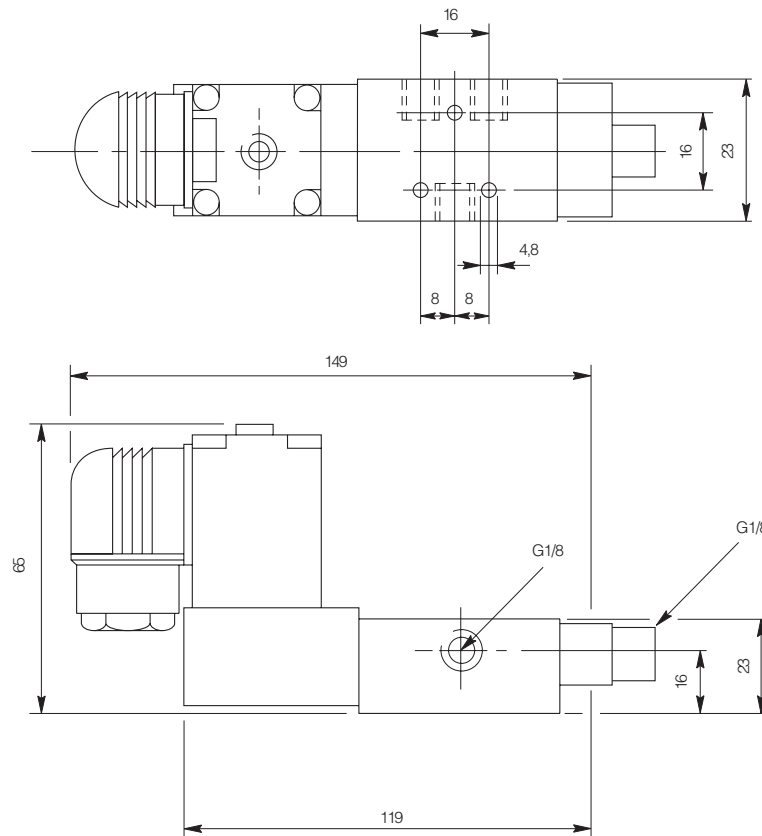
Ordering information

Part nos.	Type	Actuator	Return	Symbol
LB43333*	3/2	Solenoid pilot	Air pilot	
LB43334*	5/2	Solenoid pilot	Air pilot	

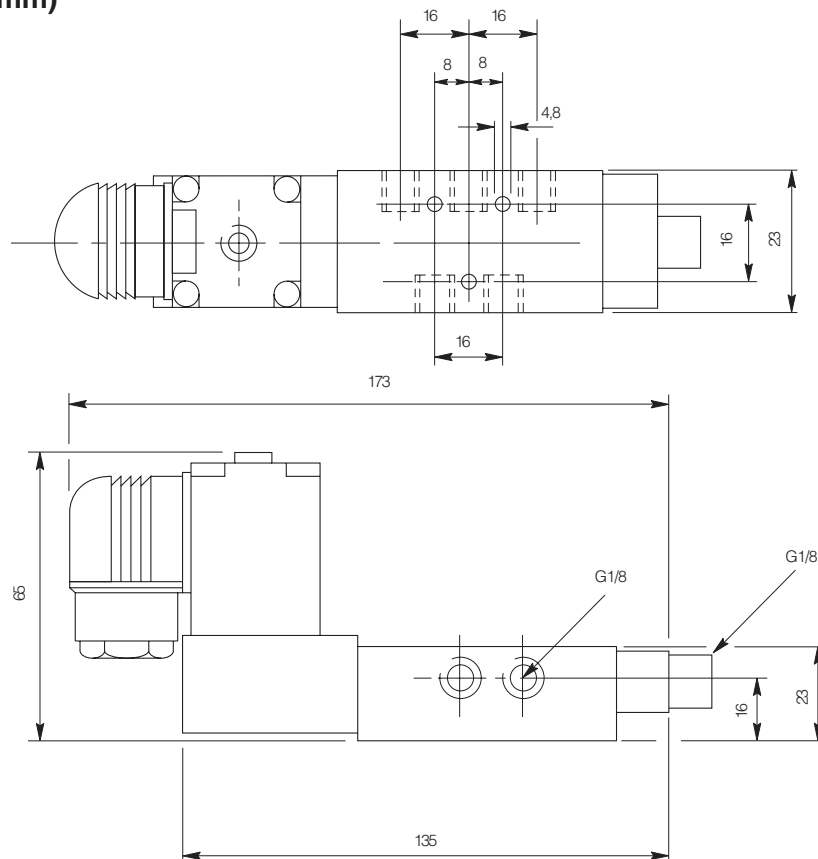
*Specify voltage and add suffix letters
For manual override add suffix M to part no.

Directional control valves G^{1/8} 3/2 - 5/2

3/2 valve dimensions (mm)

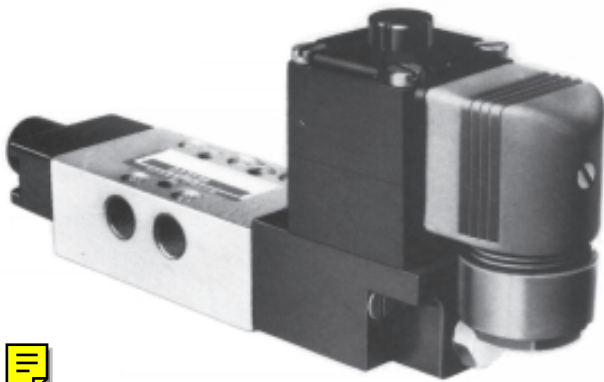


5/2 valve dimensions (mm)

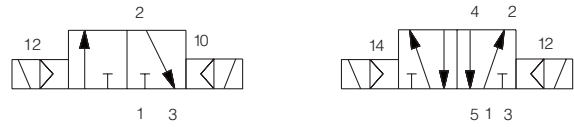


Directional control valves G¹/₈ 3/2 - 5/2

Double solenoid pilot operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (solenoid)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	Vacuum to 10 bar
Minimum	Spring return 3 bar
Nominal Ø	3,2mm
Nominal flow at 7 bar	7 dm ³ /s
Cv factor	0,24

Electrical information

Power consumption	Inrush	Hold
AC	9VA	6VA
DC	5 Watt	
Rating	100% continuous	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	ISO 4400, BS 56361	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	20-26	10-13
TF	44-55	21-26
TC	85-110	43-55
S	94-121	54-69
TS	153-242	94-121
SA	204-264	102-132

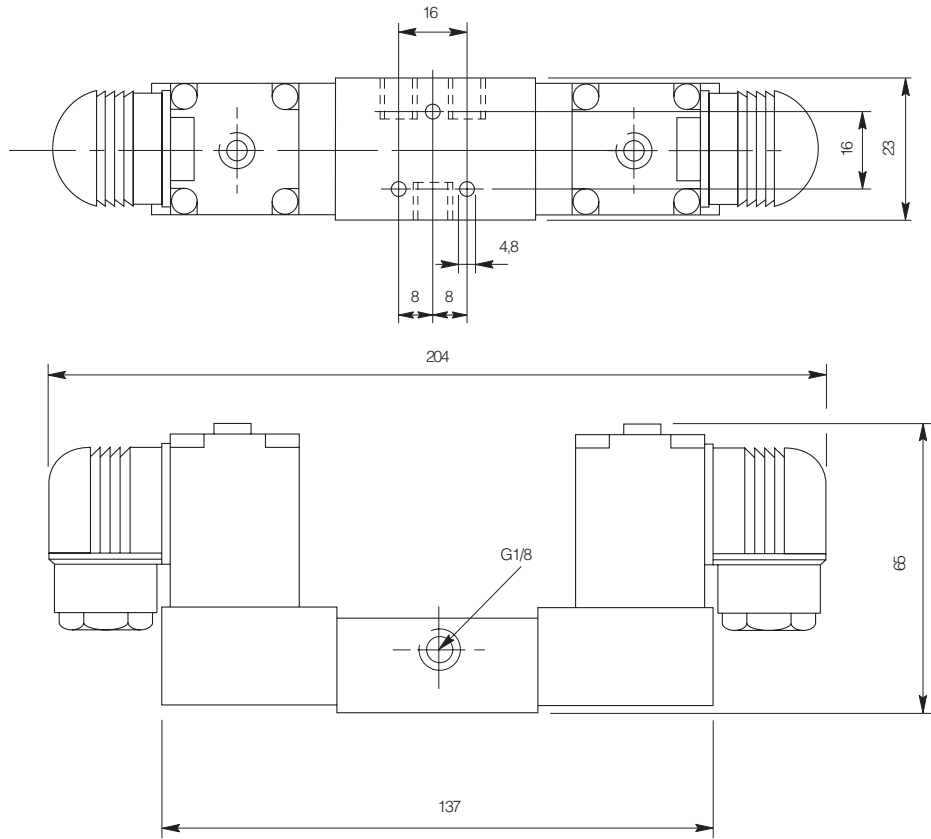
Ordering information

Part nos.	Type	Actuator	Return	Symbol
LB43323*	3/2	Solenoid pilot	Solenoid pilot	
LB43324*	5/2	Solenoid pilot	Solenoid pilot	

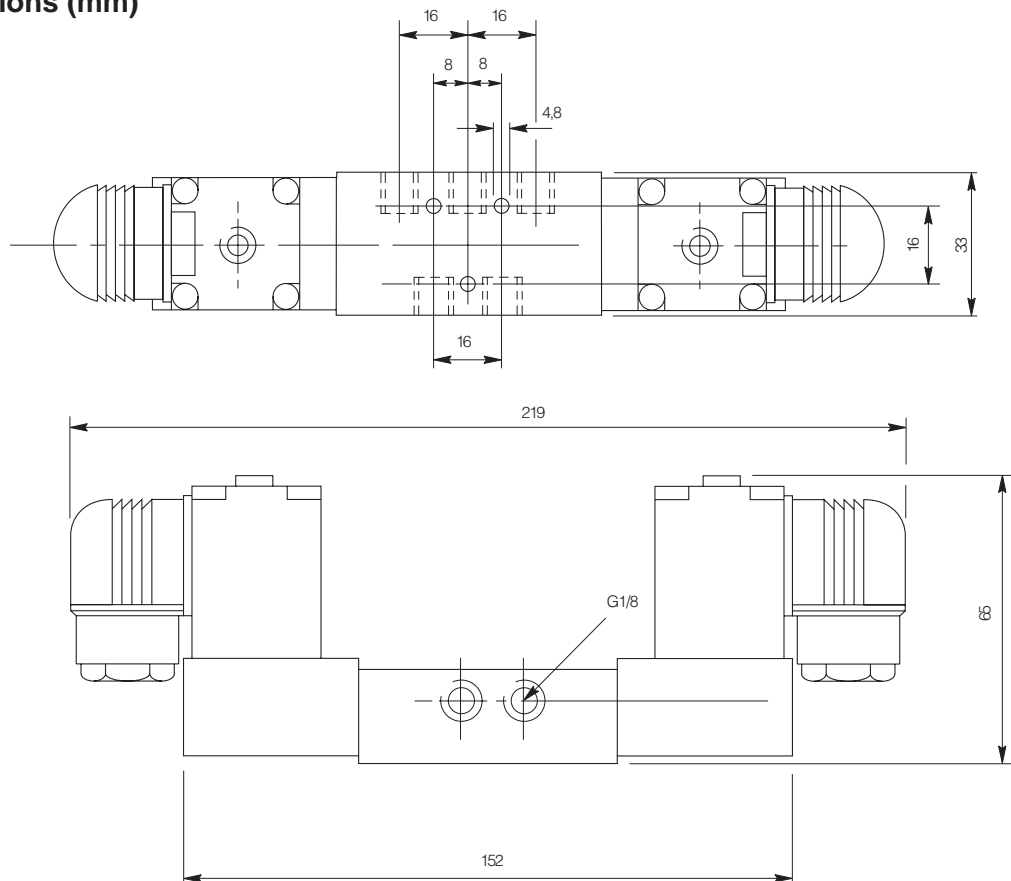
*Specify voltage and add suffix letters
For manual override add suffix M to part no.

Directional control valves G^{1/8} 3/2 - 5/2

3/2 valve dimensions (mm)



5/2 valve dimensions (mm)



Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Type Solenoid Actuators					
Catalogue:	2120GB, 2131GB, 2135GB, 2123GB					
Date of Issue:	February 2000					
Bulletin No:	IBL 10064					

150 Type Solenoids Obsolete

Due to technical difficulties with supply of the **150 Type Low Profile Solenoids** it has become necessary to make them obsolete with immediate effect.

This change will affect the following valve ranges: -

ISO Size 1

ISO Size 2

Midget G1/8 Spool Valves

Intermediate G1/4 Spool valves

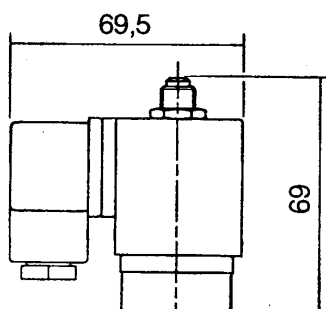
Direct Acting Solenoid Valves

It is planned to change all production on ISO Size 1 and ISO Size 2 immediately and to use the remaining stocks of 150s for the other ranges and progressively introduce the change during the next few months.

New 250 Type Solenoids

To replace the obsolete solenoid a new solenoid is available, the 250 Type Solenoid. The new 250 solenoid is a direct replacement for the old unit and is **fully interchangeable** but has some added advantages. The new solenoid is a post type unit, which means the coil, may be freely orientated through 360 degrees to suit the application, which will make attaching the plug easier. The 5-Watt consumption is identical to the previous unit.

Dimensions



Action Required					Distribution		
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Type Solenoid Actuators					
Catalogue:	2120GB, 2131GB, 2135GB, 2123GB					
Date of Issue:	February 2000					
Bulletin No:	IBL 10064					

Standard valves affected by this product modification

Apollo Series ISO Valves

Size 1	Size 2	Size 3
19114M*	29114M*	39414M*
19124M*	29124M*	39434MJ*
19134MJ*	29134MJ*	39434M*
19134M*	29134M*	
19414M*	29414M*	39424MX*
19424M*	29424M*	39424MY*
19434MJ*	29434MJ*	39424MZ*
19434M*	29434M*	
19124MX*	29124MX*	39434MX*
19124MY*	29124MY*	39434MY*
19124MZ*	29124MZ*	39434MZ*
19424MX*	29424MX*	
19424MY*	29424MY*	
19424MZ*	29424MZ*	
	29134MX*	
19134MX*	29134MY*	
19134MY*	29134MZ*	
19134MZ*	29434MX*	
19434MX*	29434MY*	
19434MY*	29434MZ*	
19434MZ*		

Intermediate G1/4 Spool Valves

LB53013*
LB53014*
LB53033*
LB53034*
LB53023*
LB53024*
LB53024X*
LB53024Y*
LB53024Z*
LB53034X*
LB53034Y*
LB53034Z*

Midget G1/8 Spool Valves

LB43313*
LB43314*
LB43333*
LB43334*
LB43323*
LB43324*
Stand Alone Series
154*
Midget Gang Manifolds
33202*
33203*
33204*
33205*
33206*
33207*
33208*
33209*
33210*

= * Solenoid suffix letter

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Action Required

Distribution

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Any amendments or additions to be forwarded to the Marketing Department,
Fax No 00 44 (0)1543 456032

Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

‘150’ Series Solenoids

Further to Information Bulletin IBL10064, ‘150’ series solenoids are now obsolete and the following valves are now being supplied with new ‘250’ series coils:

‘Apollo’ Series ISO Valves

‘LB53’ Series Spool Valves

Size 1	Size 2	3 Port	5 Port
19114*	29114*	LB53013*	LB53014*
19114M*	29114M*	LB53013M*	LB53014M*
19124*	29124*	LB53023*	LB53024*
19124M*	29124M*	LB53023M*	LB53024M*
19124X*	29124MX*	LB53033*	LB53024X*
19124MX*	29124MX	LB53033M*	LB53024MX*
19124Y*	29124Y*	LB53033J*	LB53024Y*
19124MY*	29124MY*		LB53024MY*
19124Z*	29124Z*		LB53024Z*
19124MZ*	29124MZ*		LB53024MZ*
19134*	29134*		LB53034*
19134M*	29134M*		LB53034M*
19134J*	29134J*		LB53034J*
19134MJ*	29134MJ*		LB53034MJ*
19134X*	29134X*		LB53034X*
19134MX*	29134MX*		LB53034MX*
19134Y*	29134Y*		LB53034Y*
19134MY*	29134MY*		LB53034MY*
19134Z*	29134Z*		LB53034Z*
19134MZ*	29134MZ*		LB53034M*

* Add voltage suffix letters, see note

Action Required

Distribution

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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

The 'Midget' Series spool valves and solenoid Gang Manifolds will change to the new solenoid over the next couple of months as stocks of '150' series solenoids are used.
The following valves will be effected by the change

Midget Spool Valves	Midget Gang Manifold
LB43313*	33202*
LB43313M*	33202M*
LB43314*	33203*
LB43314M*	33203M*
LB43323*	33204*
LB43323M*	33204M*
LB43324*	33205*
LB43324M*	33205M*
LB43333*	33206*
LB43333M*	33206M*
LB43334*	33207*
LB43334M*	33207M*
	33208*
	33208M*
	33209*
	33209M*
	33210*
	33210M*

* Add voltage suffix letters, see note

Action Required					Distribution		
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

The single stand-alone 3/2 direct acting Midget Solenoid Valve, 154*, will be replaced by a new valve on the 1st August 2000, Part Number, 254*

* Add voltage suffix letters, see note.

Voltage Suffix Letters

Since the initial introduction of the '150' series solenoids, suffix letters have been used at the end of the Part Number to denote the required voltage range. The voltage ranges on the new '250' series can in some cases replace two or more of the previously used ranges, see comparison chart shown below.

'250' Series Suffix letters	Voltage			Replaces '150' Suffix letters
	50Hz.ac	60Hz.ac	DC	
Replace '*' with letters				
'S'	110	110		'S', 'SC', 'TP'
'T'	12	12		'T', 'TE'
'TA'	24	24		'TA', 'TM'
'TC'			48	'TC'
'TF'			24	'TF'
'TL'	230	230	90	'TL', 'SA', 'TK', 'TS', 'TT'

Replacement Solenoids

Action Required					Distribution		
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

We will continue to supply replacement solenoid assemblies, '150C*' and '150CM*', until stocks are exhausted, however, it will be possible to convert valves fitted with these assemblies to the new type solenoid by use of a conversion kit.

The '250' series solenoid uses a slipover coil, therefore once converted, the coil only will be available as a replacement kit.

'250' Solenoid conversion kit	'250' Replacement Coil kit
250C*	250R*
250CM* with locking type manual override	250R*

* Add voltage suffix letters from chart above.

Action Required					Distribution		
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	3035 Series CNOMO Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	IBL10066					

‘3035’ Series ‘CNOMO’ Solenoids

Following the obsolescence of the ‘150’ series solenoid coil, it has become necessary to replace the ‘3035’ series CNOMO solenoid with a new ‘350’ Series.

As the ‘350’ series conform to the recognised ‘CNOMO’ standard they are directly interchangeable with the ‘3035’ series. The following valves will now be fitted with the new ‘350 series coils :

‘Apollo’ Series ISO Valves with CNOMO coils

Size 1	Size 2	Size 3
19414*	29414*	39414*
19414M*	29414M*	39414M*
19414N*	29414N*	39414N*
19424*	29424*	39424*
19424M*	29424M*	39424M*
19424N*	29424N*	39424N*
19424X*	29424X*	39424X*
19424MX*	29424MX*	39424MX*
19424NX*	29424NX*	39424NX*
19424Y*	29424Y*	39424Y*
19424MY*	29424MY*	39424MY*
19424NY*	29424NY*	39424NY*
19424Z*	29424Z*	39424Z
19424MZ*	29424MZ*	39424MZ*
19424NZ*	29424NZ*	39424NZ*
19434*	29434*	39434*
19434M*	29434M*	39434M*
19434N*	29434N*	39434N*
19434J*	29434J*	39434J*
19434MJ*	29434MJ*	39434MJ*
19434NJ*	29434NJ*	39434NJ*
19434X*	29434X*	39434X*

Action Required

Distribution

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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	3035 Series CNOMO Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	IBL10066					

19434MX*	29434MX*	39434MX*
19434NX*	29434NX*	39434NX*
19434Y*	29434Y*	39434Y*
19434MY*	29434MY*	39434MY*
19434NY*	29434NY*	39434NY*
19434Z*	29434Z*	39434Z*
19434MZ*	29434MZ*	39434MZ*
19434NZ*	29434NZ*	39434NZ*

* Add voltage suffix letters, see note
M = Solenoid with locking manual override
N = Solenoid with non locking manual override

Voltage Suffix Letters

Since the initial introduction of the '3035' series solenoids, suffix letters have been used at the end of the Part Number to denote the required voltage range. The voltage ranges on the new '350' series can in some cases replace two or more of the previously used ranges, see comparison chart shown below.

'350' Series Suffix letters	Voltage			Replaces '3035' Suffix letters
	50Hz.ac	60Hz.ac	DC	
Replace '**' with letters				
'S'	110	110	50	'S', 'SC', 'TP'
'T'	12	12	6	'T', 'TE'
'TA'	24	24	11	'TA', 'TM'
'TF'	48	48	24	'TF'
'TL'	230	230	120	'TL', 'SA', 'TK', 'TT'

Replacement Solenoids

Action Required					Distribution		
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Information Bulletin

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Title:	3035 Series CNOMO Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	IBL10066					

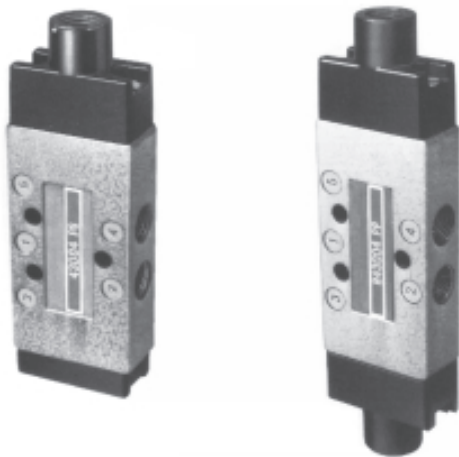
The complete 'CNOMO' solenoid assemblies can be supplied as replacements, order using the Part Numbers shown below :

Voltage	Without manual override	Non-locking manual override	Locking manual override	Valve suffix
12 v 50/60Hz / 6vdc	P2G-PV34B0	P2G-PV34B1	P2G-PV34B2	T
24 v 50/60Hz / 12vdc	P2G-PV34C0	P2G-PV34C1	P2G-PV34C2	TA
48 v 50/60Hz / 24vdc	P2G-PV32C0	P2G-PV32C1	P2G-PV32C2	TF
110 v 50/60Hz / 50vdc	P2G-PV34E0	P2G-PV34E1	P2G-PV34E2	S
230 v 50/60Hz / 120vdc	P2G-PV34J0	P2G-PV34J1	P2G-PV34J2	TL

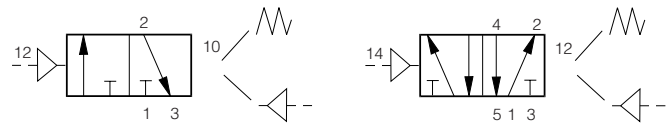
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Directional control valves G^{1/8} 3/2 - 5/2

Air pilot operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body)
Spring housing	Nylon

Technical information

Type	Spool valve
Style	Body ported
Port size	G ^{1/8}
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	Vacuum to 10 bar	
Minimum pilot pressure	Spring return	3 bar
	Air pilot return	2 bar
Nominal Ø	3,2mm	
Nominal flow at 7 bar	7 dm ³ /s	
Cv factor	0,24	

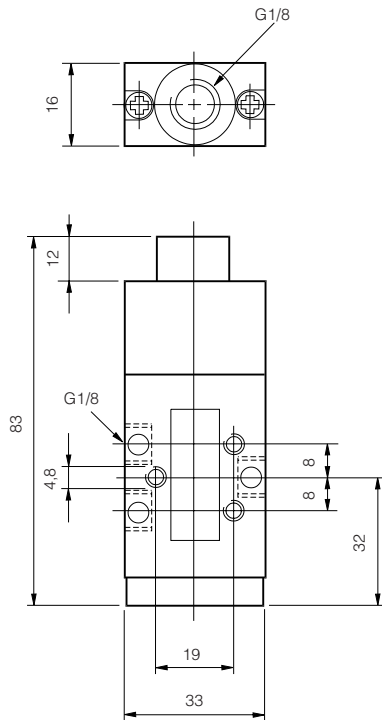
Ordering information

Part nos.	Type	Actuator	Return	Symbol
B43003PS	3/2	Air pilot	Spring	
B43004PS	5/2	Air pilot	Spring	
B43003PP	3/2	Air pilot	Air pilot	
B43004PP	5/2	Air pilot	Air pilot	

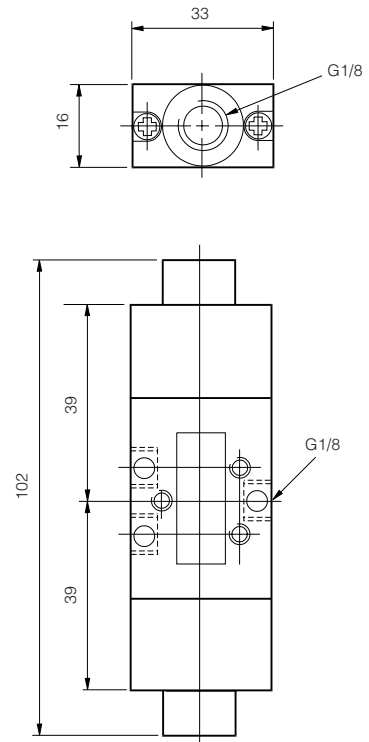
Directional control valves G^{1/8} 3/2 - 5/2

3/2 valve dimensions (mm)

Air pilot operated
spring return

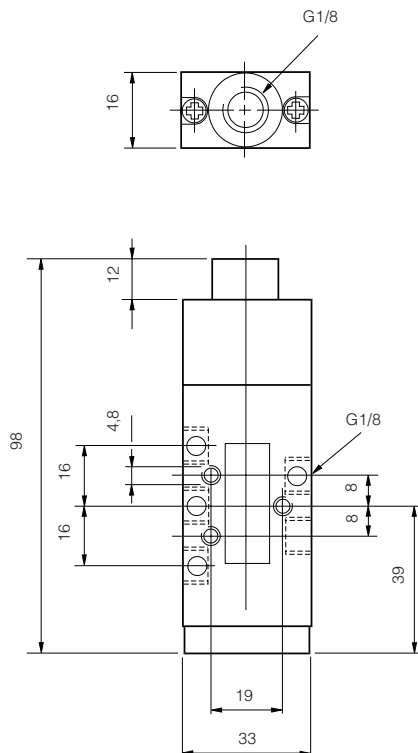


Air pilot operated
Air pilot return

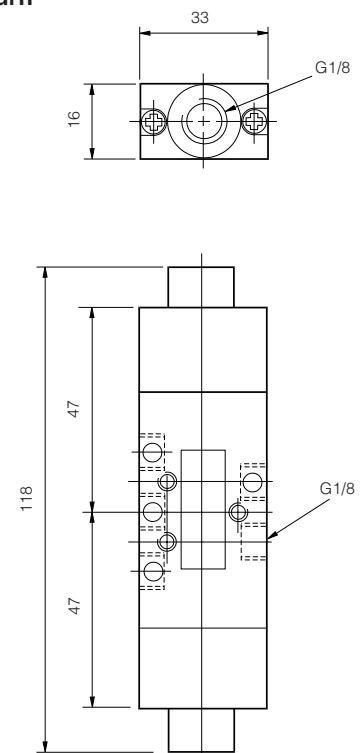


5/2 valve dimensions (mm)

Air pilot operated
spring return



Air pilot operated
Air pilot return

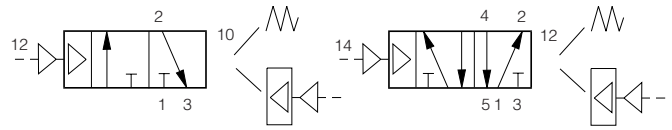


Directional control valves G¹/₈ 3/2 - 5/2

Diaphragm operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton
Spring housing	Zinc diecast
Diaphragm	Nitrile

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	Vacuum to 10 bar	
Minimum pilot pressure	Spring return	0,3 bar
	Diaphragm return	0,13 bar
Nominal Ø	3,2mm	
Nominal flow at 7 bar	7 dm ³ /s	
Cv factor	0,24	

Ordering information

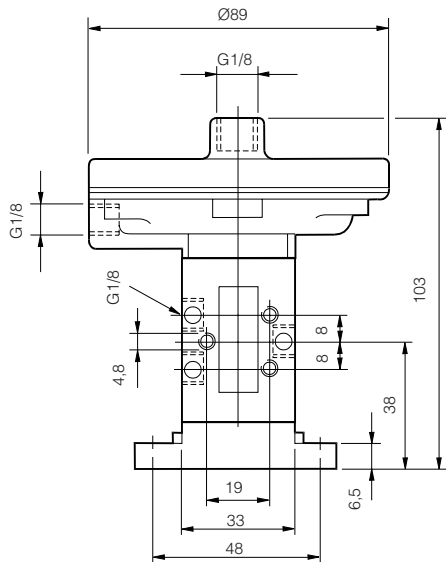
Part nos.	Type	Actuator	Return	Symbol
B43003DF	3/2	Diaphragm	Spring	
B43004DF	5/2	Diaphragm	Spring	
B43003DD	3/2	Diaphragm	Diaphragm	
B43004DD	5/2	Diaphragm	Diaphragm	
B43004D-50	Mounting bracket kit			

Comprises: 1 bracket, 3 bolts and nuts

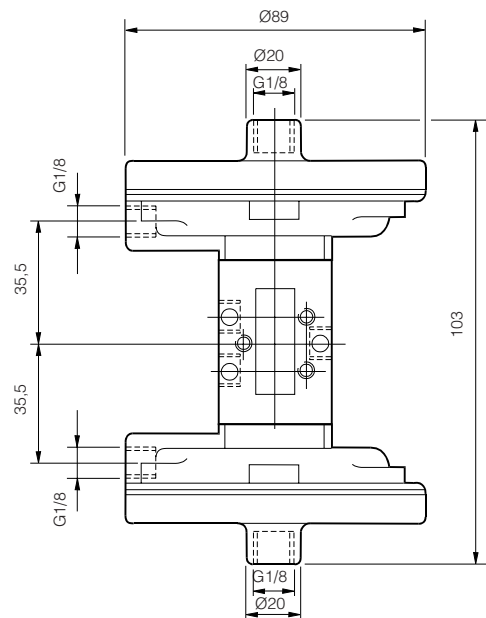
Directional control valves G¹/₈ 3/2 - 5/2

3/2 valve dimensions (mm)

Diaphragm operated
spring return

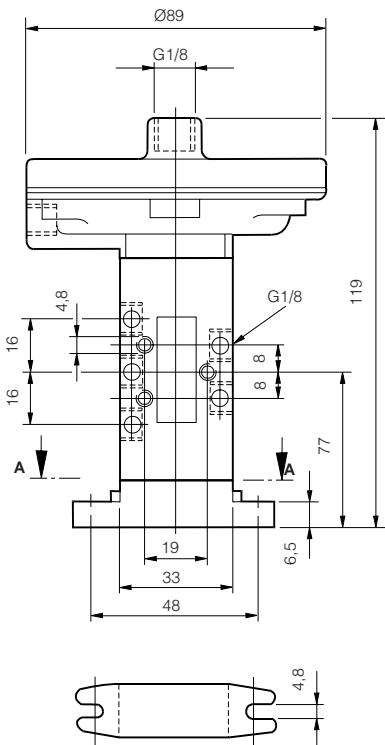


Diaphragm operated
Diaphragm return

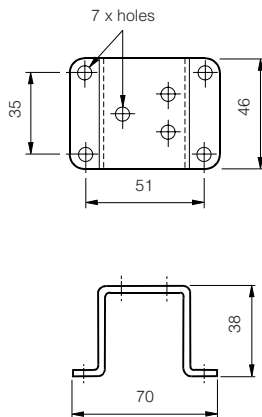


5/2 valve dimensions (mm)

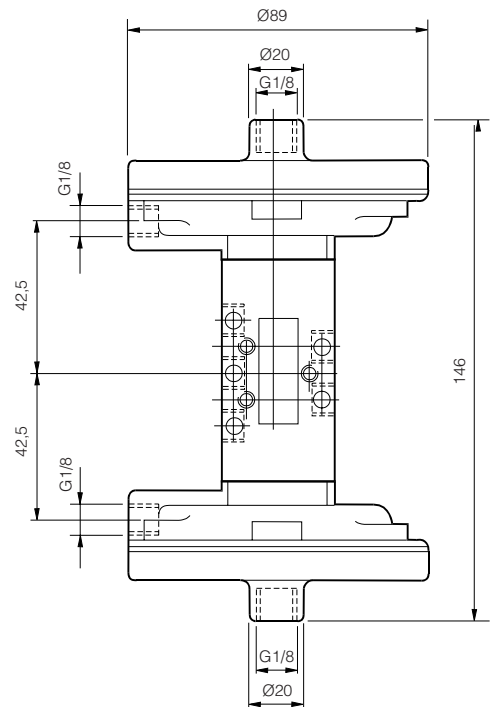
Diaphragm operated
spring return



Mounting brackets

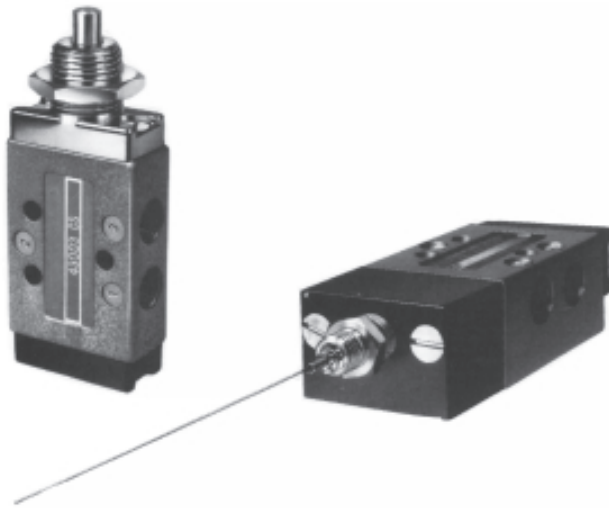


Diaphragm operated
Diaphragm return



Directional control valves G¹/₈ 3/2 - 5/2

Mechanically operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton
Spring housing	Nylon

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	Vacuum to 10 bar
Minimum pilot pressure	3 bar
Nominal Ø	3,2mm
Nominal flow at 7 bar	7 dm ³ /s
Cv factor	0,24

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B43003CS	3/2	Plunger	Spring		
B43004CS	5/2	Plunger	Spring		
B43003W	3/2	Whisker normally closed	Spring		
B43004WO	5/2	Whisker normally open	Spring		
B43004W	5/2	Whisker	Spring		

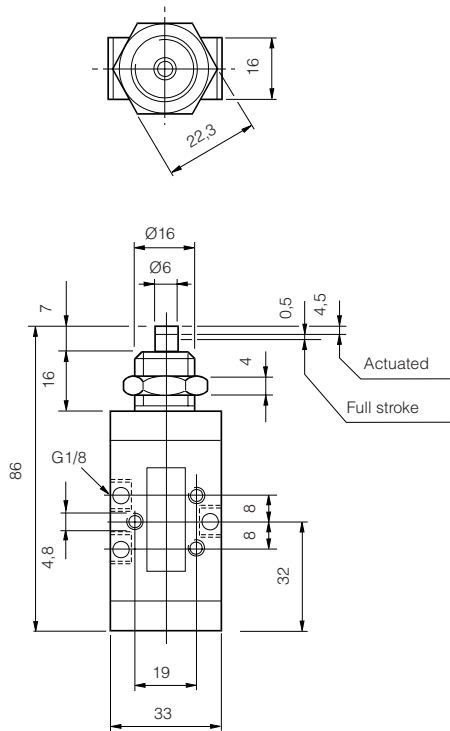
Note: All valves featured on this page are available with an air pilot return mechanism.

To order delete 'S' for spring and add 'P'. e.g. **B43003CP**
For dimensions of air pilot housing see page 3.

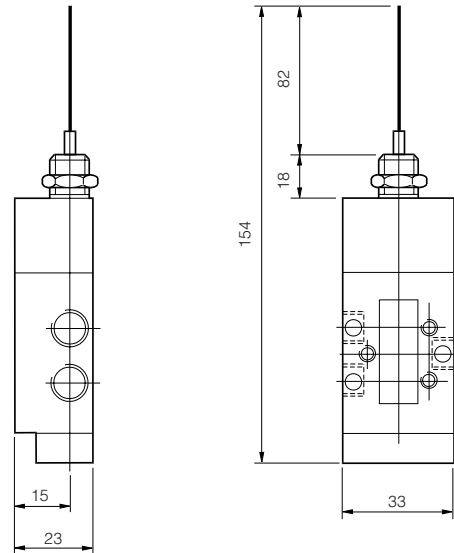
Directional control valves G¹/₈ 3/2 - 5/2

3/2 valve dimensions (mm)

Plunger operated
spring return

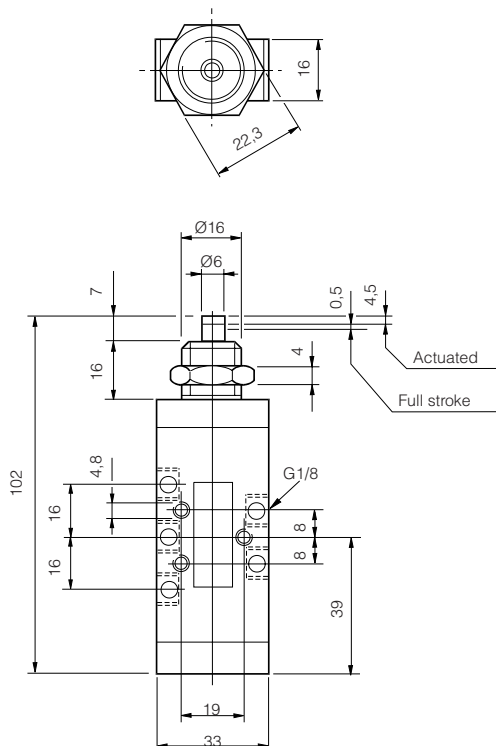


Whisker operated
spring return

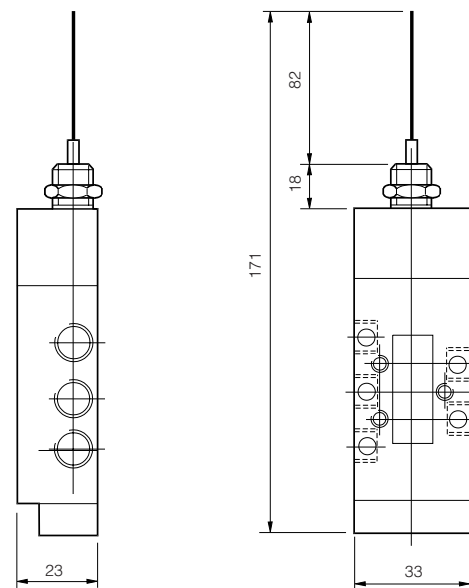


5/2 valve dimensions (mm)

Plunger operated
spring return

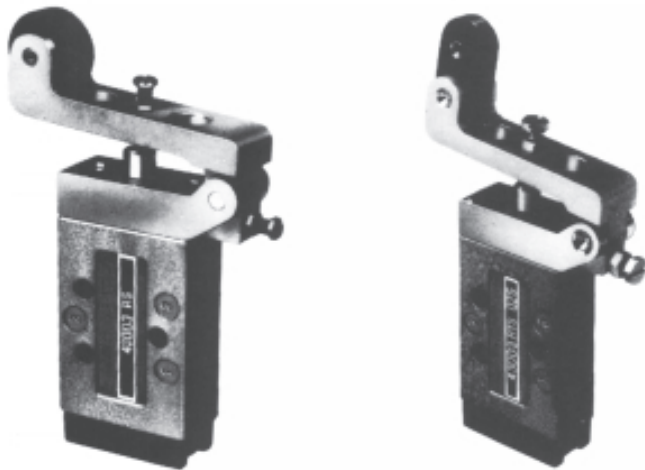


Whisker operated
spring return

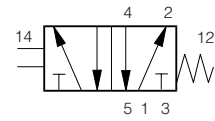
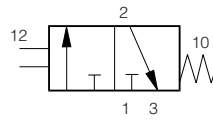


Directional control valves G^{1/8} 3/2 - 5/2

Mechanically operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton
Spring housing	Nylon

Technical information

Type	Spool valve
Style	Body ported
Port size	G ^{1/8}
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	Vacuum to 10 bar
Minimum pilot pressure	3 bar
Nominal Ø	3,2mm
Nominal flow at 7 bar	7 dm ³ /s
Cv factor	0,24

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B43003RS	3/2	Roller	Spring		
B43004RS	5/2	Roller	Spring		
B43003RTS	3/2	One way roller trip	Spring		
B43004RTS	5/2	One way roller trip	Spring		
B43003RT	3/2	One way trip	Spring		
B43004RT	5/2	One way trip	Spring		

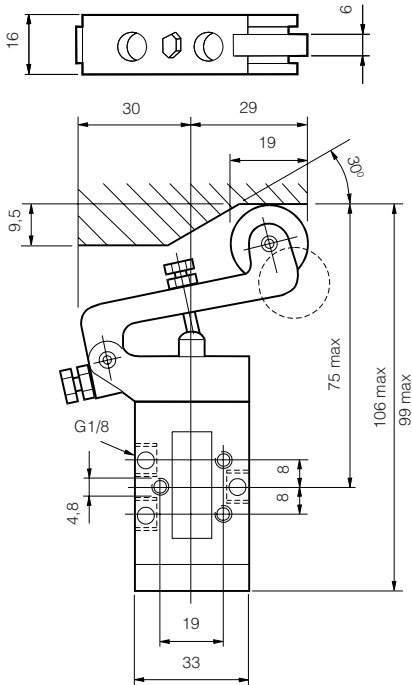
Note: All valves featured on this page are available with an air pilot return mechanism.

To order delete 'S' for spring and add 'P'. e.g. **B43003CP**
For dimensions of air pilot housing see page 3.

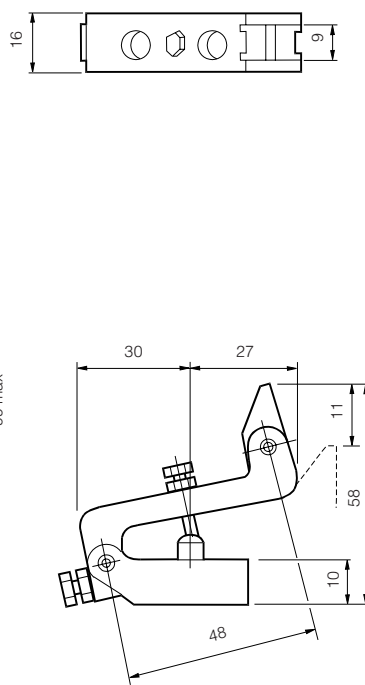
Directional control valves G^{1/8} 3/2 - 5/2

3/2 valve dimensions (mm)

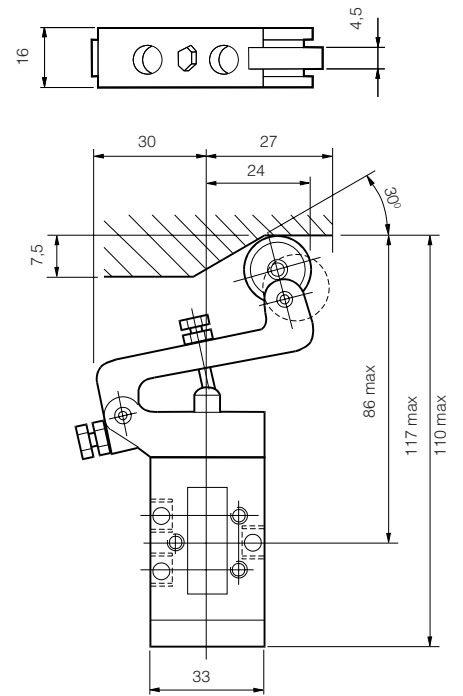
Roller operated
spring return



One way trip

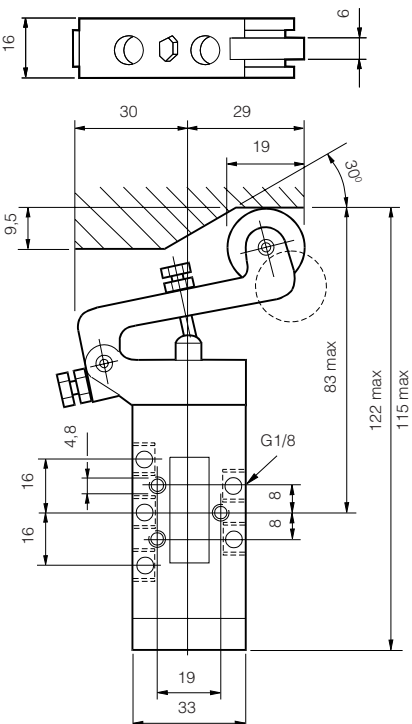


One way roller trip operated
spring return

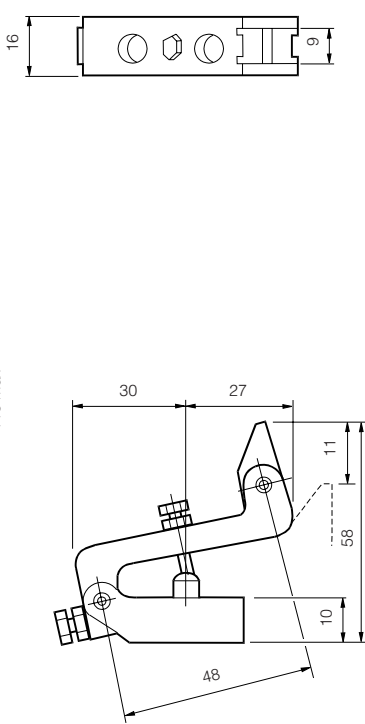


5/2 valve dimensions (mm)

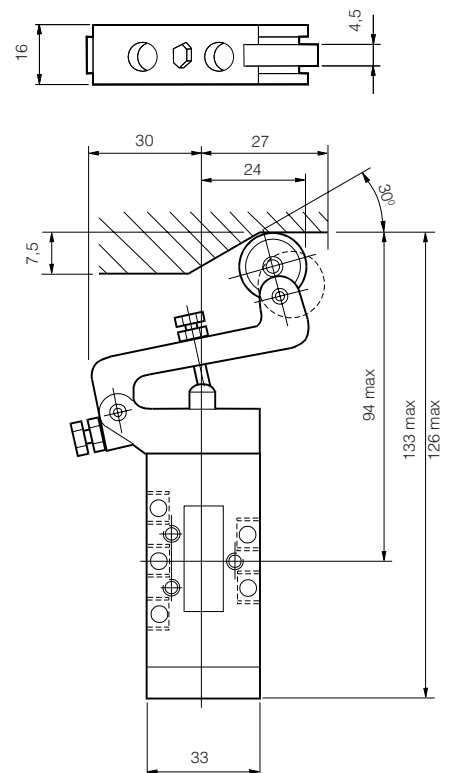
Roller operated
spring return



One way trip



One way roller trip operated
spring return

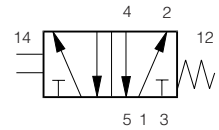
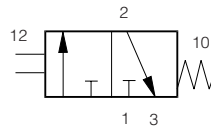


Directional control valves G¹/₈ 3/2 - 5/2

Manually operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton
Spring housing	Nylon

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	Vacuum to 10 bar
Minimum pilot pressure	3 bar
Nominal Ø	3,2mm
Nominal flow at 7 bar	7 dm ³ /s
Cv factor	0,24

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B43003BS	3/2	Button	Spring		
B43004BS	5/2	Button	Spring		
B43003HS	3/2	Button	Button		
B43004HS	5/2	Button	Button		
B43003LS	3/2	Lock down lever	Spring		
B43004LS	5/2	Lock down lever	Spring		

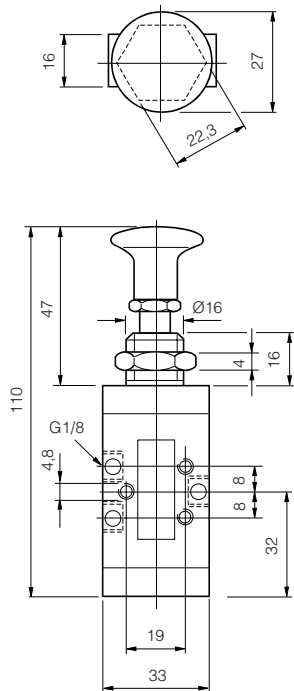
Note: All valves featured on this page are available with an air pilot return mechanism.

To order delete 'S' for spring and add 'P'. e.g. **B43003CP**
For dimensions of air pilot housing see page 3.

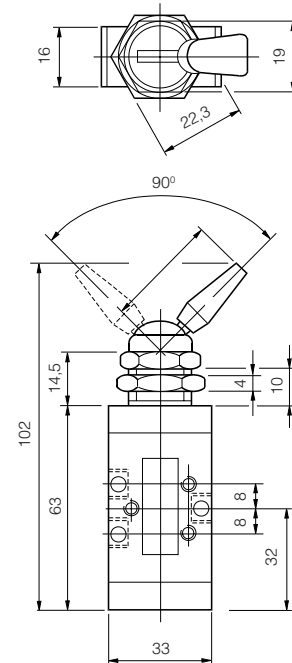
Directional control valves G¹/₈ 3/2 - 5/2

3/2 valve dimensions (mm)

Button operated
spring or button return

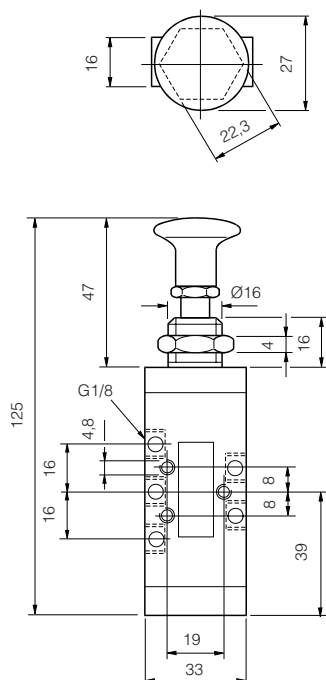


Lock down lever operated
spring return

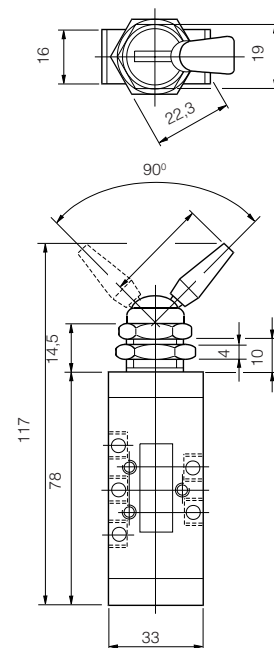


5/2 valve dimensions (mm)

Button operated
spring or button return

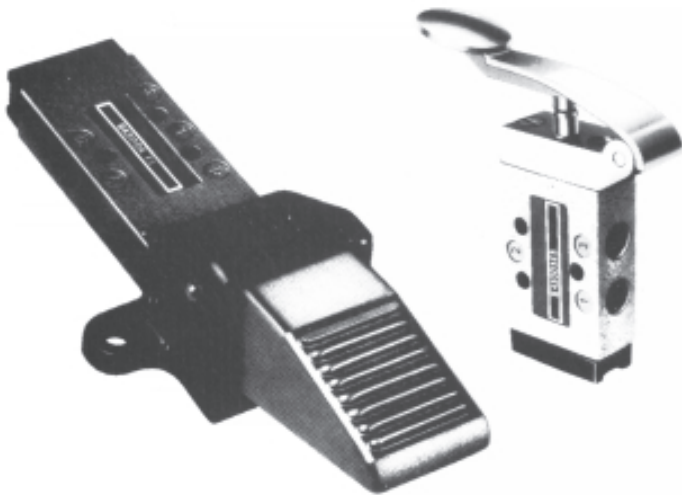


Lock down lever operated
spring return

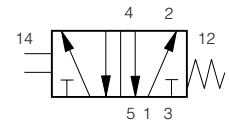
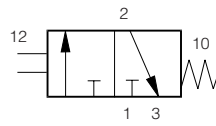


Directional control valves G¹/₈ 3/2 - 5/2

Manually operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton
Spring housing	Nylon

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₈
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	Vacuum to 10 bar
Minimum pilot pressure	3 bar
Nominal Ø	3,2mm
Nominal flow at 7 bar	7 dm ³ /s
Cv factor	0,24

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B43003ES	3/2	Palm lever	Spring		
B43004ES	5/2	Palm lever	Spring		
B43003FS	3/2	Foot pedal	Spring		
B43004FS	5/2	Foot pedal	Spring		

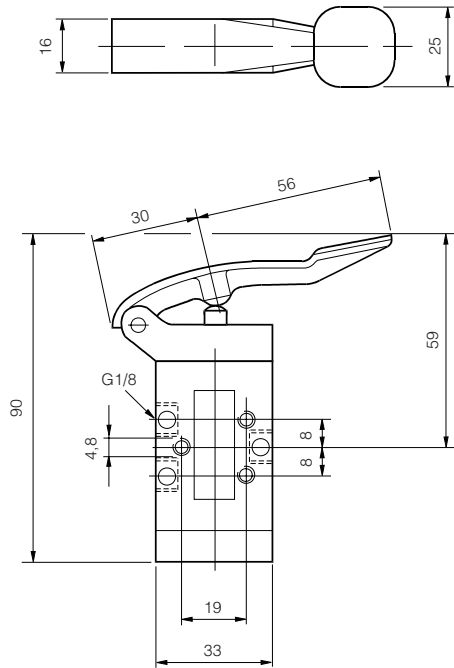
Note: All valves featured on this page are available with an air pilot return mechanism.

To order delete 'S' for spring and add 'P'. e.g. **B43003CP**
For dimensions of air pilot housing see page 3.

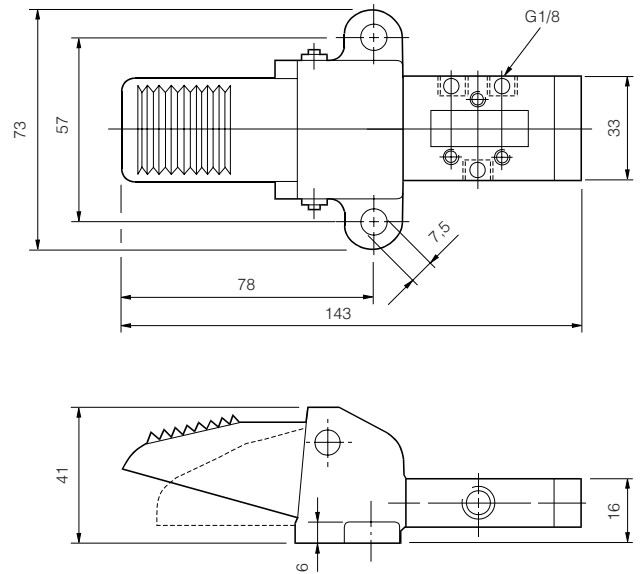
Directional control valves G^{1/8} 3/2 - 5/2

3/2 valve dimensions (mm)

Palm lever operated
spring return

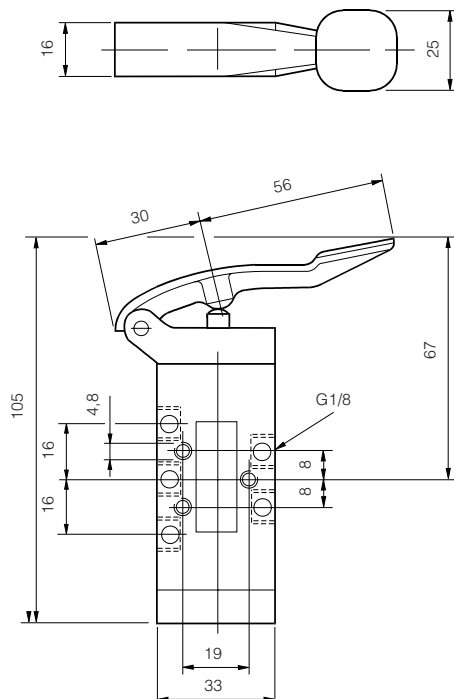


Foot pedal operated
spring return

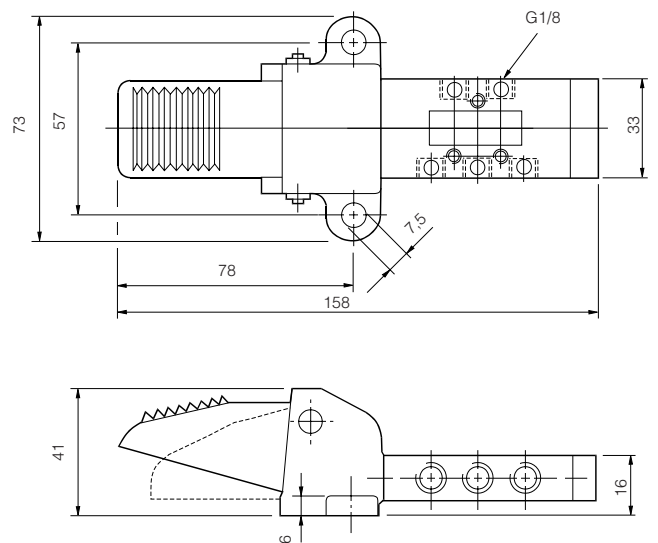


5/2 valve dimensions (mm)

Palm lever operated
spring return

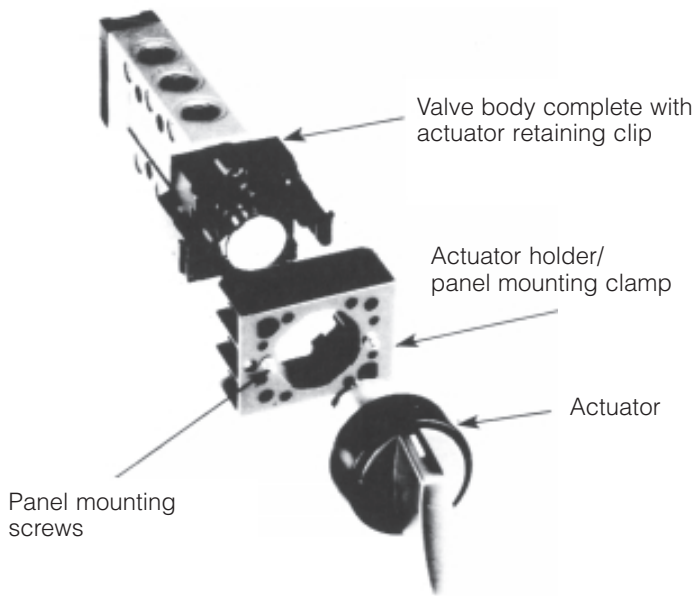


Foot pedal operated
spring return

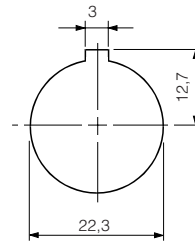


Facia actuators Ø22mm, G¹/₈ 3/2 - 5/2

The system



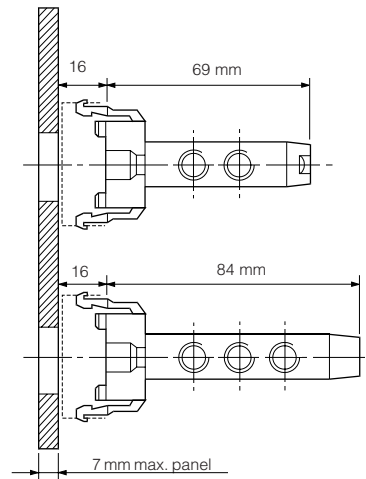
Ø22mm



Basic valve with adaptor

Part no.	Type	Symbol
B43003-100A	3/2	
B43004-100A	5/2	

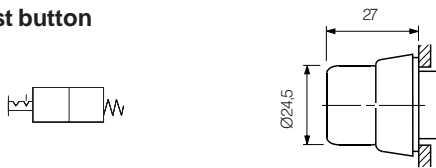
Dimensions (mm)



Mounting

Assembly is simple; the actuators fit into the holder/panel mounting clamp with bayonet fixing. The panel mounting screws may then be tightened up to the panel as required and the valve body assembly clipped on. No seals or special tools are required, interchanging actuators or valve body assemblies is equally simple.

Latching trust button



Colour	Order code
White	33000-100UFWS
Blue	33000-100UFXS

Key switch latching



Locked position	Withdrawal position	Order code
In or out	Either	33000-100KAS
In	Un-locked	33000-100KBS
Out	Locked	33000-100KCS

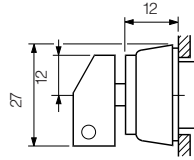
Key switch non-latching



Locked position	Withdrawal position	Order code
Out	Un-locked	33000-100KDS
In	Locked	33000-100KES

Directional control valves G¹/₈ 3/2 - 5/2

Key switch 'stay-put'



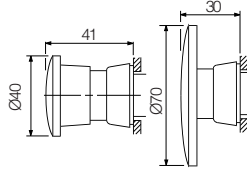
Withdrawal position

Order code

Either

33000-100KFS

Emergency button



Colour Order code

Type

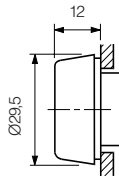
Red **33000-100BEYS** Ø40 Mushroom, key release

Red **33000-100BGYS** Ø40 Mushroom latching

Red **33000-100BPYS** Raised latching button

Red **33000-100BRYS** Ø70 Mushroom latching

Flush push button



Colour

Order code

Yellow **33000-100BATS**

Blue **33000-100BAUS**

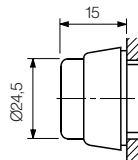
White **33000-100BAWS**

Black **33000-100BAXS**

Red **33000-100BAYS**

Green **33000-100BAZS**

Raised push button



Colour

Order code

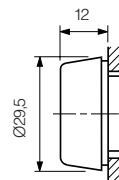
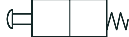
Yellow **33000-100BBTS**

Blue **33000-100BBUS**

Black **33000-100BBXS**

Red **33000-100BBYS**

Push button with boot



Colour

Order code

Yellow **33000-100BCTS**

Blue **33000-100BCUS**

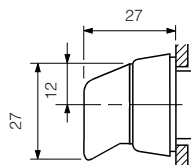
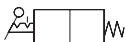
White **33000-100BCWS**

Black **33000-100BCXS**

Red **33000-100BCYS**

Green **33000-100BCZS**

Latching selector knob



Colour

Order code

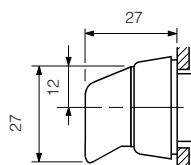
White **33000-100UAWS**

Black **33000-100UAXS**

Red **33000-100UAYS**

Green **33000-100UAZS**

Non latching selector knob



Colour

Order code

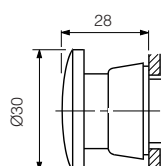
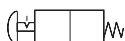
White **33000-100UBWS**

Black **33000-100UBXS**

Red **33000-100UBYS**

Green **33000-100UBZS**

Ø30mm Mushroom button



Colour

Order code

White **33000-100BDTS**

Black **33000-100BDXS**

Red **33000-100BDYS**

Green **33000-100BDZS**



Directional Control Valves

*G¹/₄, 3/2, 5/2, 3/3 and 5/3
Spool valves*



Directional control valves G¹/₄

3/2, 5/2, 3/3, 5/3 Spool Valves G¹/₄ Ports

This quality and proven range of valves feature a block form zinc diecast body passivated to prevent corrosion and designed to allow complete interchangeability of actuators and return mechanisms. The stainless steel spool is sealed by synthetic viton 'O' rings, with unique seal spacers to ensure full air flow through the open ports. Non corrosive materials are used on all operating parts exposed to the working fluid.

Individual valves may be mounted in any position, the block form construction is particularly convenient for compact banking. Valves may be serviced in-situ by removal of the actuator, facilitating extraction of the spool and 'O' rings.

Tell-tale indicators on both solenoid and pilot operated valves can be used to check the position of the main spool or as a manual over-ride.

Operation of the actuator on the 5/2 valve opens the cylinder port nearest to the actuator. On the 3/2 version the inlet is piped to the port furthest away from the actuator for normally closed operation, and to the port nearest the actuator for normally open. Any of the actuators may be fitted with spring or pilot return mechanism. Valves may also be supplied with the same actuator at both ends; e.g. double roller. Roller versions are designed to give a common height on both 3/2 and 5/2 valves to ensure uniformity and efficiency in a multi-valve assembly.

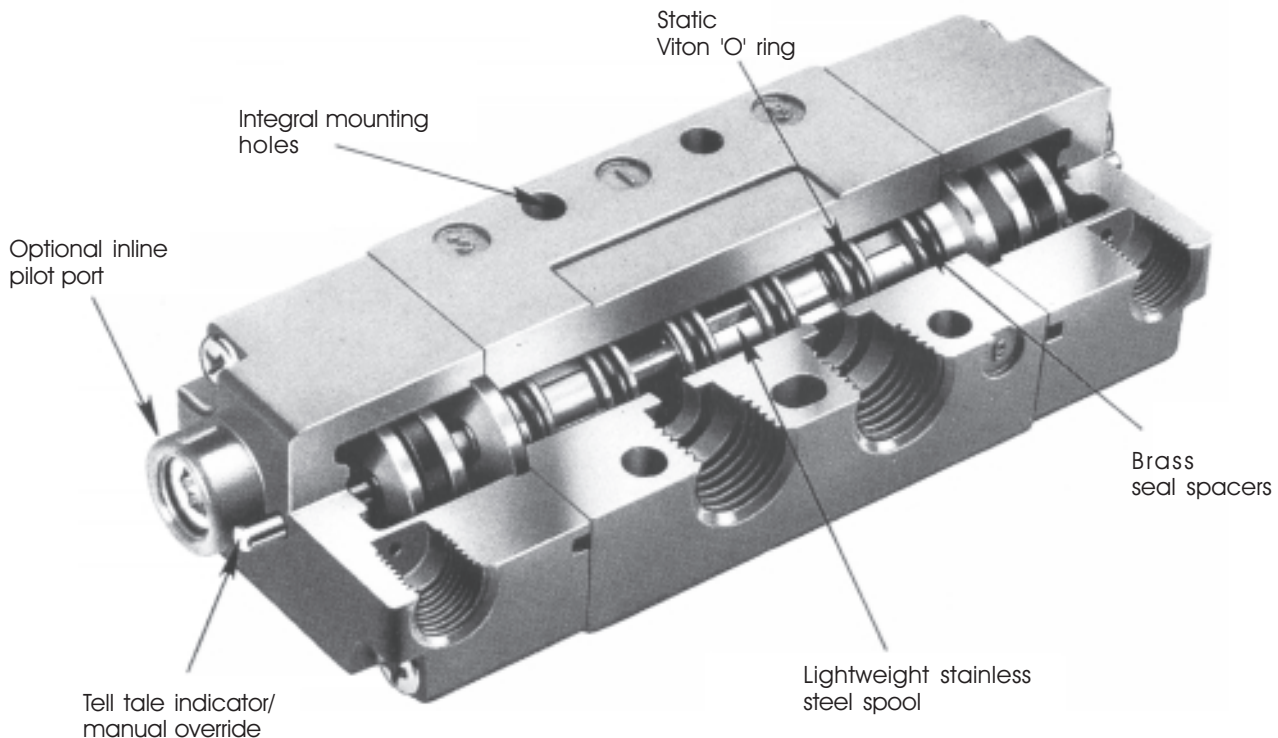
Centre position valves; either spring to centre or 3-position (detented mid-position) are available in the following configurations:

Neutral X - Spool in mid-position - all ports closed.

Negative Y - Spool in mid-position - Cylinder ports open to exhaust, inlet closed.

Positive Z - Spool in mid-position - both cylinder ports open to inlet, exhaust closed.

Features

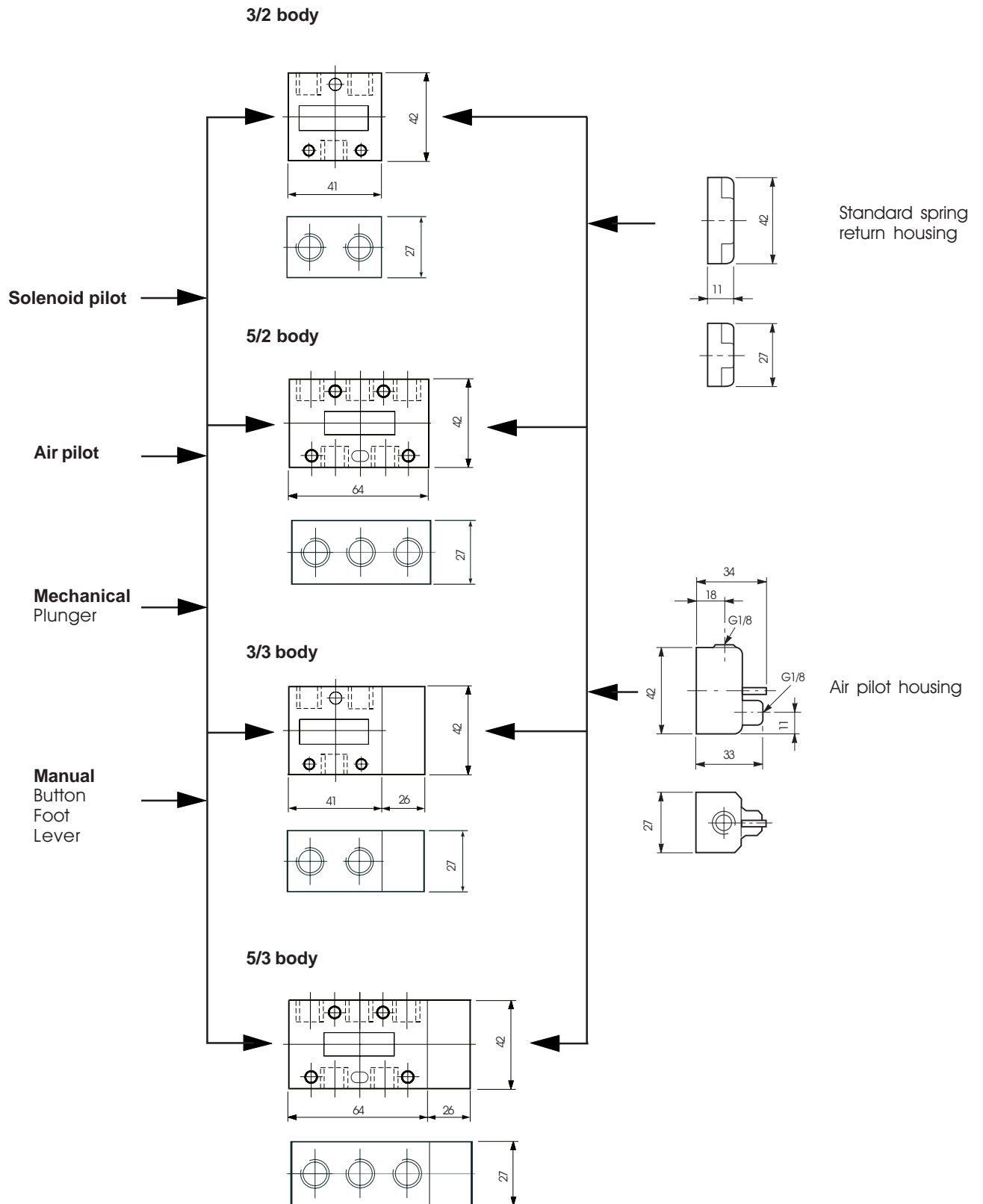


Basic body dimensions (mm)

Actuator mechanisms

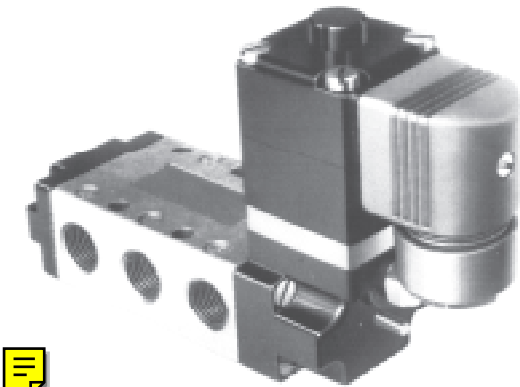
Basic bodies

Return mechanisms



Directional control valves G¹/₄, 3/2 - 5/2

Solenoid pilot operated 5 watt solenoid



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	0 to 10 bar
Minimum pilot pressure	2,7 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Electrical information

Power consumption	Inrush	Hold
AC	14VA	9VA
DC	5 Watt	
Rating	100% ED	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	DIN 43 650 Form B	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	2-26	10-13
TF	44-55	21-26
TC	85-110	43-55
S	94-121	54-69
TS	153-242	94-121
SA	204-264	102-132

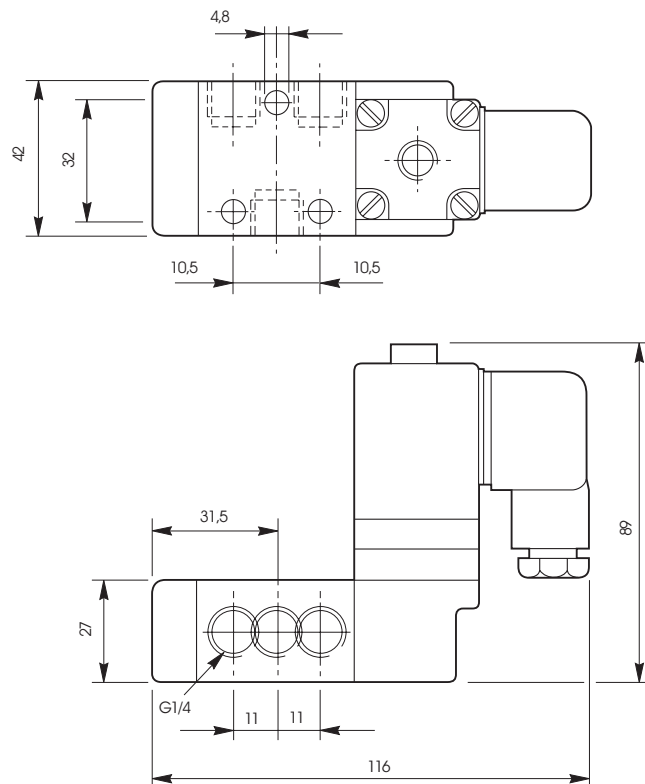
Ordering information

Part nos.	Type	Actuator	Return	Symbol
LB53013*	3/2	Solenoid pilot	Spring	
LB53014*	5/2	Solenoid pilot	Spring	

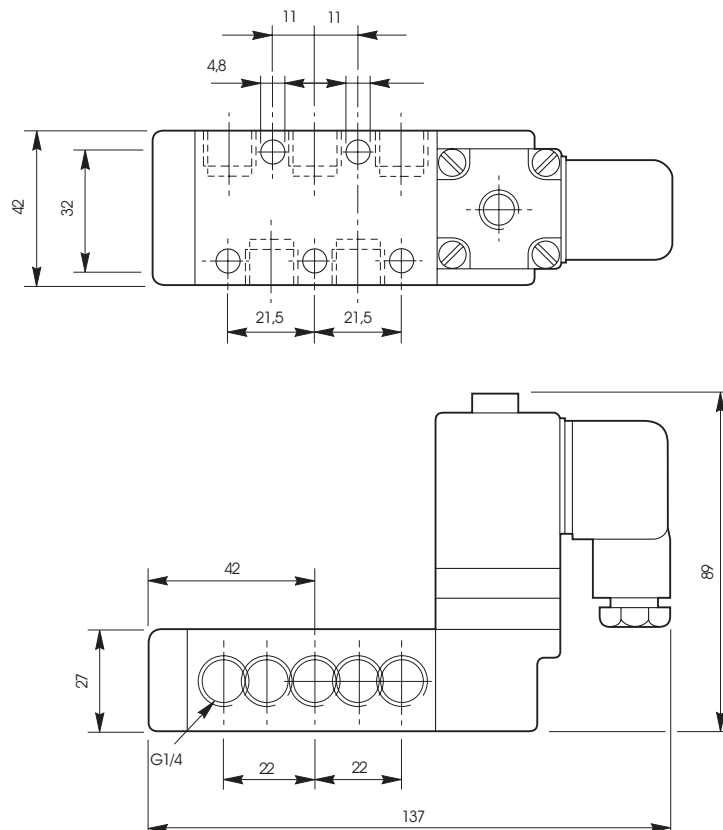
*Specify voltage and add suffix letters
For manual override add suffix M.

Directional control valves G¹/₄, 3/2 - 5/2

3/2 valve dimensions (mm)



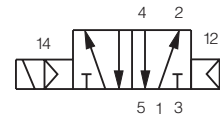
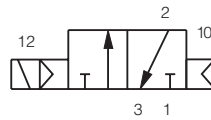
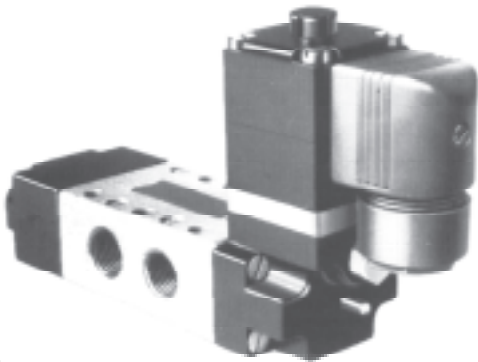
5/2 valve dimensions (mm)



Directional control valves G¹/₄, 3/2 - 5/2

Solenoid pilot operated 5 watt solenoid

Symbol



Materials

Body	Aluminium
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	0 to 10 bar
Minimum pilot pressure	2,7 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Electrical information

Power consumption	Inrush	Hold
AC	14VA	9VA
DC	5 Watt	
Rating	100% ED	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	DIN 43 650 Form B	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	2-26	10-13
TF	44-55	21-26
TC	85-110	43-55
S	94-121	54-69
TS	153-242	94-121
SA	204-264	102-132

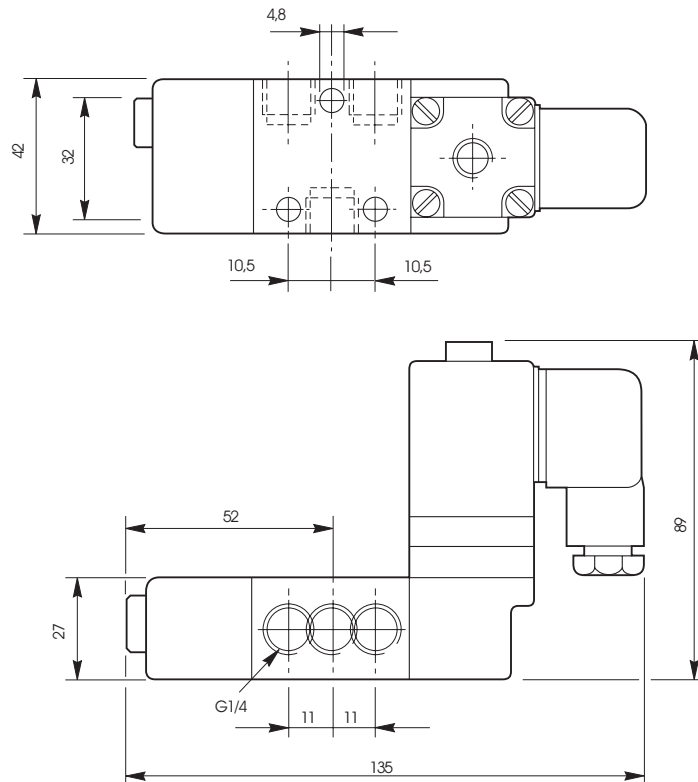
Ordering information

Part nos.	Type	Actuator	Return	Symbol
LB53033*	3/2	Solenoid pilot	Air pilot	
LB53034*	5/2	Solenoid pilot	Air pilot	

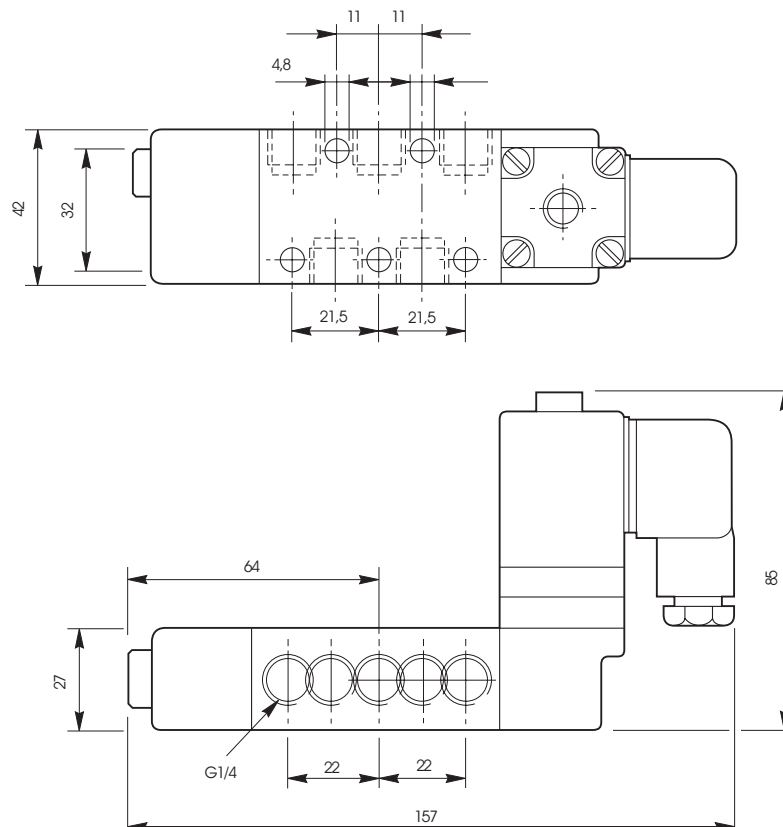
*Specify voltage and add suffix letters
For manual override add suffix M.

Directional control valves G¹/₄, 3/2 - 5/2

3/2 valve dimensions (mm)

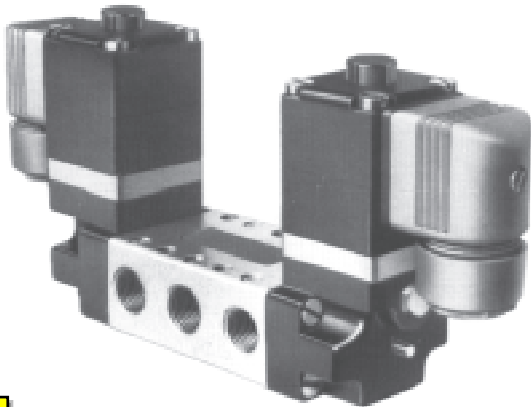


5/2 valve dimensions (mm)



Directional control valves G¹/₄, 3/2 - 5/2

Solenoid pilot operated 5 watt solenoid



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	0 to 10 bar
Minimum Spring return	2,7 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Electrical information

Power consumption	Inrush	Hold
AC	14VA	9VA
DC	5 Watt	
Rating	100% ED	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	DIN 43 650 Form B	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	2-26	10-13
TF	44-55	21-26
TC	85-110	43-55
S	94-121	54-69
TS	153-242	94-121
SA	204-264	102-132

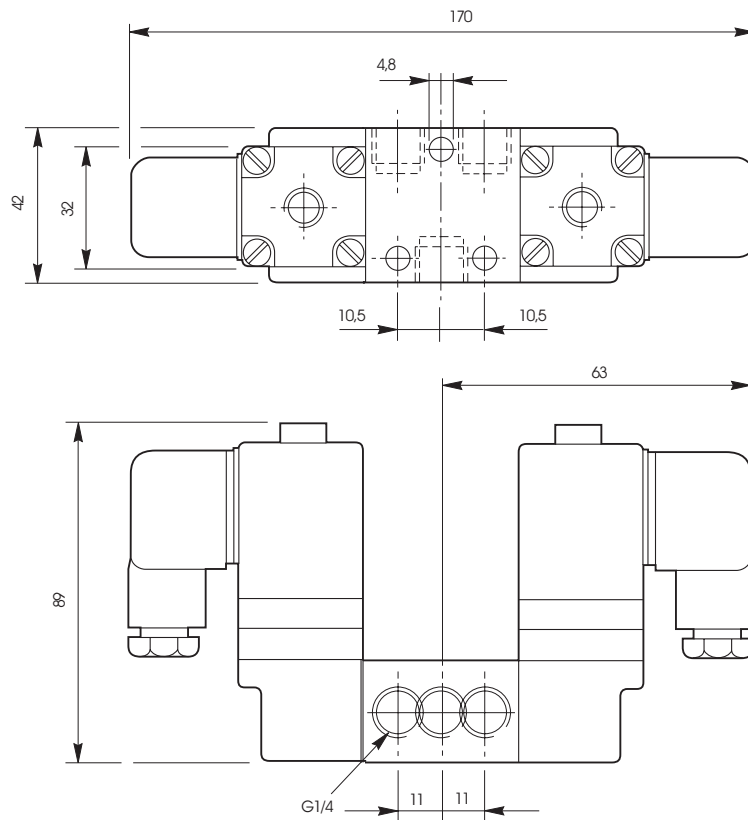
Ordering information

Part nos.	Type	Actuator	Return	Symbol
LB53033*	3/2	Solenoid pilot	Air pilot	
LB53034*	5/2	Solenoid pilot	Air pilot	

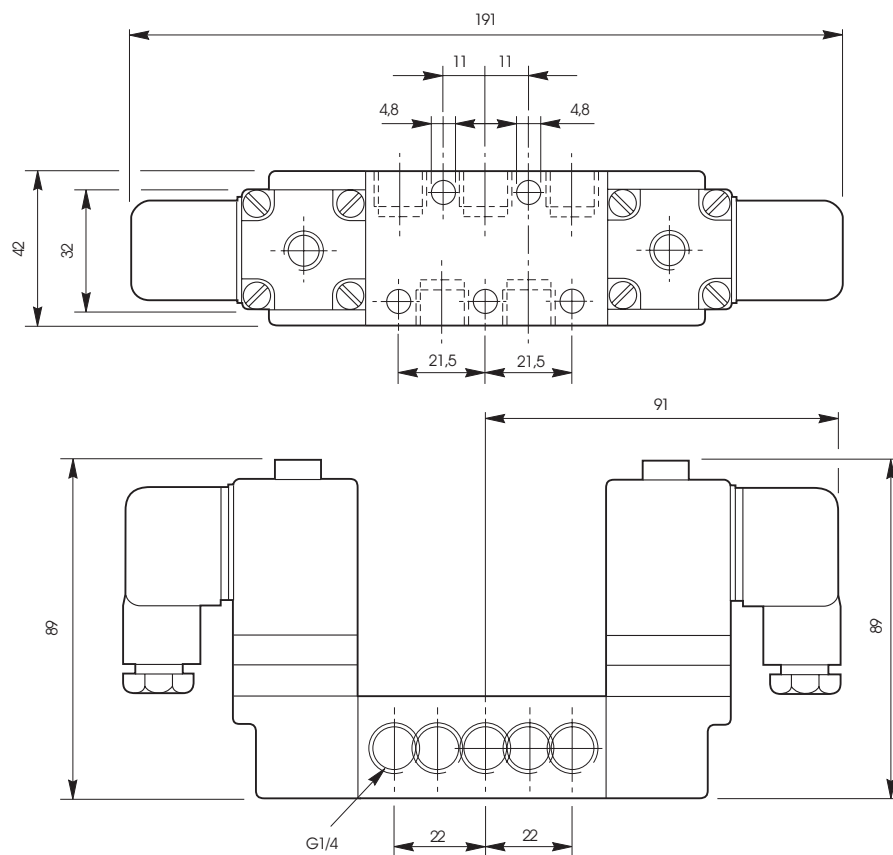
*Specify voltage and add suffix letters
For manual override add suffix M.

Directional control valves G¹/₄, 3/2 - 5/2

3/2 valve dimensions (mm)



5/2 valve dimensions (mm)



Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Type Solenoid Actuators					
Catalogue:	2120GB, 2131GB, 2135GB, 2123GB					
Date of Issue:	February 2000					
Bulletin No:	IBL 10064					

150 Type Solenoids Obsolete

Due to technical difficulties with supply of the **150 Type Low Profile Solenoids** it has become necessary to make them obsolete with immediate effect.

This change will affect the following valve ranges: -

ISO Size 1

ISO Size 2

Midget G1/8 Spool Valves

Intermediate G1/4 Spool valves

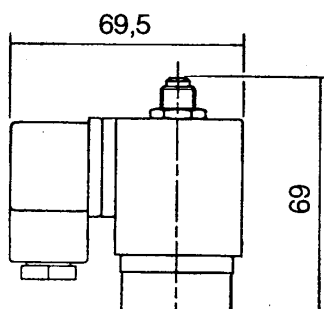
Direct Acting Solenoid Valves

It is planned to change all production on ISO Size 1 and ISO Size 2 immediately and to use the remaining stocks of 150s for the other ranges and progressively introduce the change during the next few months.

New 250 Type Solenoids

To replace the obsolete solenoid a new solenoid is available, the 250 Type Solenoid. The new 250 solenoid is a direct replacement for the old unit and is **fully interchangeable** but has some added advantages. The new solenoid is a post type unit, which means the coil, may be freely orientated through 360 degrees to suit the application, which will make attaching the plug easier. The 5-Watt consumption is identical to the previous unit.

Dimensions



Action Required					Distribution		
Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Type Solenoid Actuators					
Catalogue:	2120GB, 2131GB, 2135GB, 2123GB					
Date of Issue:	February 2000					
Bulletin No:	IBL 10064					

Standard valves affected by this product modification

Apollo Series ISO Valves

Size 1	Size 2	Size 3
19114M*	29114M*	39414M*
19124M*	29124M*	39434MJ*
19134MJ*	29134MJ*	39434M*
19134M*	29134M*	
19414M*	29414M*	39424MX*
19424M*	29424M*	39424MY*
19434MJ*	29434MJ*	39424MZ*
19434M*	29434M*	
19124MX*	29124MX*	39434MX*
19124MY*	29124MY*	39434MY*
19124MZ*	29124MZ*	39434MZ*
19424MX*	29424MX*	
19424MY*	29424MY*	
19424MZ*	29424MZ*	
	29134MX*	
19134MX*	29134MY*	
19134MY*	29134MZ*	
19134MZ*	29434MX*	
19434MX*	29434MY*	
19434MY*	29434MZ*	
19434MZ*		

Intermediate G1/4 Spool Valves

LB53013*
LB53014*
LB53033*
LB53034*
LB53023*
LB53024*
LB53024X*
LB53024Y*
LB53024Z*
LB53034X*
LB53034Y*
LB53034Z*

Midget G1/8 Spool Valves

LB43313*
LB43314*
LB43333*
LB43334*
LB43323*
LB43324*
Stand Alone Series
154*
Midget Gang Manifolds
33202*
33203*
33204*
33205*
33206*
33207*
33208*
33209*
33210*

= * Solenoid suffix letter

Page 2 : 2

Action Required

Distribution

Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Any amendments or additions to be forwarded to the Marketing Department,
Fax No 00 44 (0)1543 456032

Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

‘150’ Series Solenoids

Further to Information Bulletin IBL10064, ‘150’ series solenoids are now obsolete and the following valves are now being supplied with new ‘250’ series coils:

‘Apollo’ Series ISO Valves

‘LB53’ Series Spool Valves

Size 1	Size 2	3 Port	5 Port
19114*	29114*	LB53013*	LB53014*
19114M*	29114M*	LB53013M*	LB53014M*
19124*	29124*	LB53023*	LB53024*
19124M*	29124M*	LB53023M*	LB53024M*
19124X*	29124MX*	LB53033*	LB53024X*
19124MX*	29124MX	LB53033M*	LB53024MX*
19124Y*	29124Y*	LB53033J*	LB53024Y*
19124MY*	29124MY*		LB53024MY*
19124Z*	29124Z*		LB53024Z*
19124MZ*	29124MZ*		LB53024MZ*
19134*	29134*		LB53034*
19134M*	29134M*		LB53034M*
19134J*	29134J*		LB53034J*
19134MJ*	29134MJ*		LB53034MJ*
19134X*	29134X*		LB53034X*
19134MX*	29134MX*		LB53034MX*
19134Y*	29134Y*		LB53034Y*
19134MY*	29134MY*		LB53034MY*
19134Z*	29134Z*		LB53034Z*
19134MZ*	29134MZ*		LB53034M*

* Add voltage suffix letters, see note

Action Required

Distribution

Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

The 'Midget' Series spool valves and solenoid Gang Manifolds will change to the new solenoid over the next couple of months as stocks of '150' series solenoids are used.

The following valves will be effected by the change

Midget Spool Valves	Midget Gang Manifold
LB43313*	33202*
LB43313M*	33202M*
LB43314*	33203*
LB43314M*	33203M*
LB43323*	33204*
LB43323M*	33204M*
LB43324*	33205*
LB43324M*	33205M*
LB43333*	33206*
LB43333M*	33206M*
LB43334*	33207*
LB43334M*	33207M*
	33208*
	33208M*
	33209*
	33209M*
	33210*
	33210M*

* Add voltage suffix letters, see note

Action Required					Distribution		
Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

The single stand-alone 3/2 direct acting Midget Solenoid Valve, 154*, will be replaced by a new valve on the 1st August 2000, Part Number, 254*

* Add voltage suffix letters, see note.

Voltage Suffix Letters

Since the initial introduction of the '150' series solenoids, suffix letters have been used at the end of the Part Number to denote the required voltage range. The voltage ranges on the new '250' series can in some cases replace two or more of the previously used ranges, see comparison chart shown below.

'250' Series Suffix letters	Voltage			Replaces '150' Suffix letters
	50Hz.ac	60Hz.ac	DC	
Replace '*' with letters				
'S'	110	110		'S', 'SC', 'TP'
'T'	12	12		'T', 'TE'
'TA'	24	24		'TA', 'TM'
'TC'			48	'TC'
'TF'			24	'TF'
'TL'	230	230	90	'TL', 'SA', 'TK', 'TS', 'TT'

Replacement Solenoids

Action Required					Distribution		
Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	150 Series Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	ILB 10065					

We will continue to supply replacement solenoid assemblies, '150C*' and '150CM*', until stocks are exhausted, however, it will be possible to convert valves fitted with these assemblies to the new type solenoid by use of a conversion kit.

The '250' series solenoid uses a slipover coil, therefore once converted, the coil only will be available as a replacement kit.

'250' Solenoid conversion kit	'250' Replacement Coil kit
250C*	250R*
250CM* with locking type manual override	250R*

* Add voltage suffix letters from chart above.

Action Required					Distribution		
Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	3035 Series CNOMO Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	IBL10066					

‘3035’ Series ‘CNOMO’ Solenoids

Following the obsolescence of the ‘150’ series solenoid coil, it has become necessary to replace the ‘3035’ series CNOMO solenoid with a new ‘350’ Series.

As the ‘350’ series conform to the recognised ‘CNOMO’ standard they are directly interchangeable with the ‘3035’ series. The following valves will now be fitted with the new ‘350 series coils :

‘Apollo’ Series ISO Valves with CNOMO coils

Size 1	Size 2	Size 3
19414*	29414*	39414*
19414M*	29414M*	39414M*
19414N*	29414N*	39414N*
19424*	29424*	39424*
19424M*	29424M*	39424M*
19424N*	29424N*	39424N*
19424X*	29424X*	39424X*
19424MX*	29424MX*	39424MX*
19424NX*	29424NX*	39424NX*
19424Y*	29424Y*	39424Y*
19424MY*	29424MY*	39424MY*
19424NY*	29424NY*	39424NY*
19424Z*	29424Z*	39424Z
19424MZ*	29424MZ*	39424MZ*
19424NZ*	29424NZ*	39424NZ*
19434*	29434*	39434*
19434M*	29434M*	39434M*
19434N*	29434N*	39434N*
19434J*	29434J*	39434J*
19434MJ*	29434MJ*	39434MJ*
19434NJ*	29434NJ*	39434NJ*
19434X*	29434X*	39434X*

Action Required

Distribution

Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
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Issued from the Marketing Department, Parker Pneumatic, Cannock – UK

Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	3035 Series CNOMO Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	IBL10066					

19434MX*	29434MX*	39434MX*
19434NX*	29434NX*	39434NX*
19434Y*	29434Y*	39434Y*
19434MY*	29434MY*	39434MY*
19434NY*	29434NY*	39434NY*
19434Z*	29434Z*	39434Z*
19434MZ*	29434MZ*	39434MZ*
19434NZ*	29434NZ*	39434NZ*

* Add voltage suffix letters, see note
M = Solenoid with locking manual override
N = Solenoid with non locking manual override

Voltage Suffix Letters

Since the initial introduction of the '3035' series solenoids, suffix letters have been used at the end of the Part Number to denote the required voltage range. The voltage ranges on the new '350' series can in some cases replace two or more of the previously used ranges, see comparison chart shown below.

'350' Series Suffix letters	Voltage			Replaces '3035' Suffix letters
	50Hz.ac	60Hz.ac	DC	
Replace '**' with letters				
'S'	110	110	50	'S', 'SC', 'TP'
'T'	12	12	6	'T', 'TE'
'TA'	24	24	11	'TA', 'TM'
'TF'	48	48	24	'TF'
'TL'	230	230	120	'TL', 'SA', 'TK', 'TT'

Replacement Solenoids

Action Required					Distribution		
Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
Issued from the Marketing Department, Parker Pneumatic, Cannock – UK							

Information Bulletin

Product Group:	Actuators	Valves	Air Treatment	Factory Automation	Other Products	
Title:	3035 Series CNOMO Solenoids					
Catalogue:						
Date of Issue:	June 2000					
Bulletin No:	IBL10066					

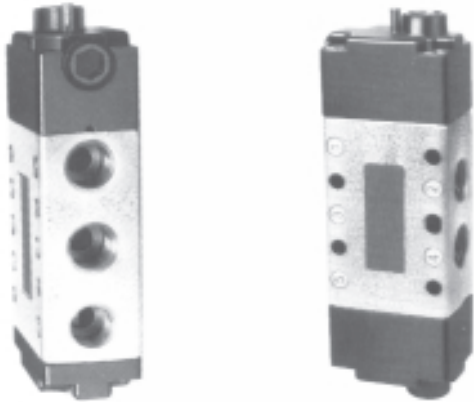
The complete 'CNOMO' solenoid assemblies can be supplied as replacements, order using the Part Numbers shown below :

Voltage	Without manual override	Non-locking manual override	Locking manual override	Valve suffix
12 v 50/60Hz / 6vdc	P2G-PV34B0	P2G-PV34B1	P2G-PV34B2	T
24 v 50/60Hz / 12vdc	P2G-PV34C0	P2G-PV34C1	P2G-PV34C2	TA
48 v 50/60Hz / 24vdc	P2G-PV32C0	P2G-PV32C1	P2G-PV32C2	TF
110 v 50/60Hz / 50vdc	P2G-PV34E0	P2G-PV34E1	P2G-PV34E2	S
230 v 50/60Hz / 120vdc	P2G-PV34J0	P2G-PV34J1	P2G-PV34J2	TL

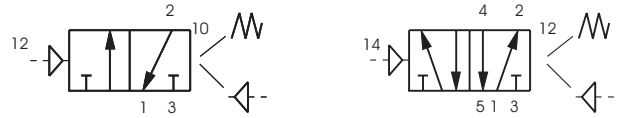
Action Required					Distribution		
Discard old Bulletin	Request new Catalogue	Add bulletin to Catalogue	Contact Factory	Check Stocks	1	2	3
Issued from the Marketing Department, Parker Pneumatic, Cannock – UK							

Directional control valves G^{1/4}, 3/2 - 5/2

Air pilot operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ^{1/4}
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Minimum pilot pressure	Spring return 2,7 bar Air pilot return 1,3 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

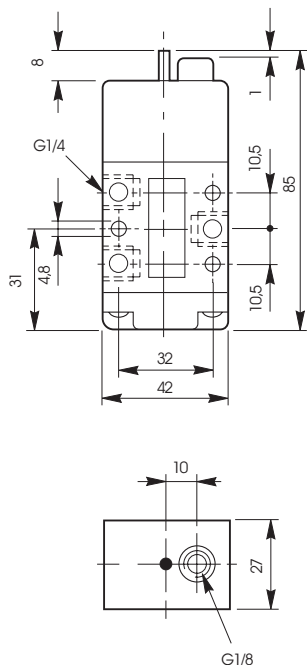
Ordering information

Part nos.	Type	Actuator	Return	Symbol
B53003PS	3/2	Air pilot	Spring	
B53004PS	5/2	Air pilot	Spring	
B53003PP	3/2	Air pilot	Air pilot	
B53004PP	5/2	Air pilot	Air pilot	
B53003J	3/2	Air pilot	Differential pilot	
B53004J	5/2	Air pilot	Differential pilot	

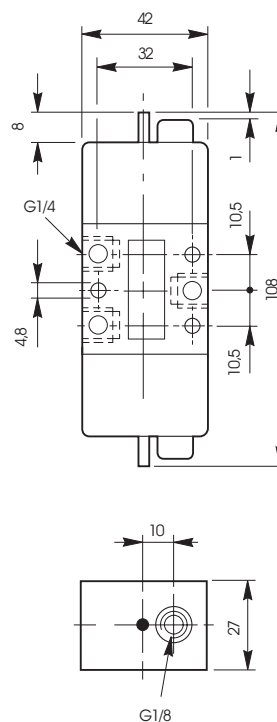
Directional control valves G¹/₄, 3/2 - 5/2

3/2 valve dimensions (mm)

Air pilot operated
spring return

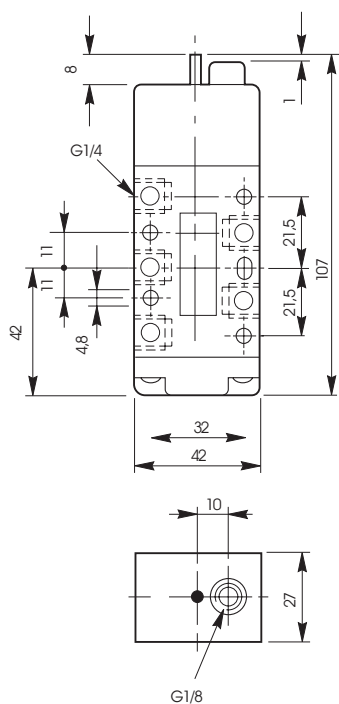


Double air pilot operated

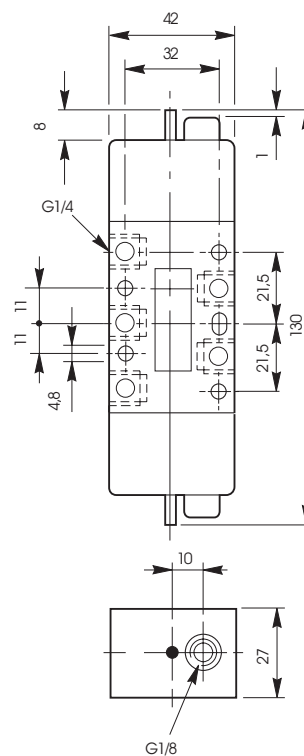


5/2 valve dimensions (mm)

Air pilot operated
spring return



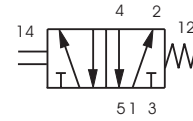
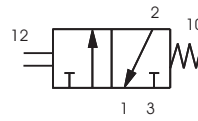
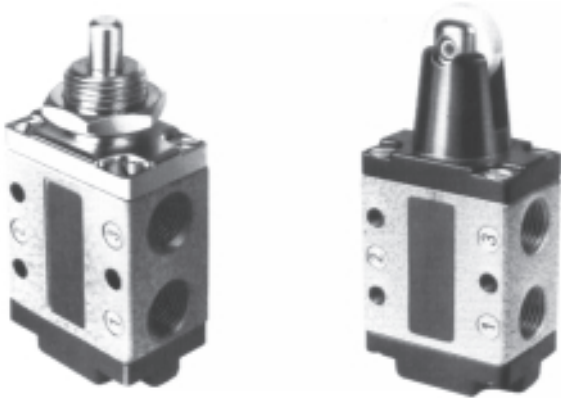
Double air pilot operated



Directional control valves G¹/₄, 3/2 - 5/2

Mechanically operated valves

Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B53003CS	3/2	Plunger	Spring		
B53004CS	5/2	Plunger	Spring		
B53003RS	3/2	Roller	Spring		
B53004RS	5/2	Roller	Spring		

Note: All valves featured on this page are available with air pilot return mechanisms. To order delete 'S' for spring and add 'P' e.g. **B53003CP**.

For dimensions of air pilot housing see page

Directional control valves G¹/₄, 3/2 - 5/2

Manually operated valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B53003HXS	3/2	Button	Spring		
B53004HXS	5/2	Button	Spring		
B53003HX	3/2	Button	Spring		
B53004HX	5/2	Button	Spring		
B53003LS	3/2	Lever	Spring		
B53004LS	5/2	Lever	Spring		
B53003LT	3/2	Lock down lever			
B53004LT	5/2	Lock down lever			
M53004L-10A	Panel mounting plate				

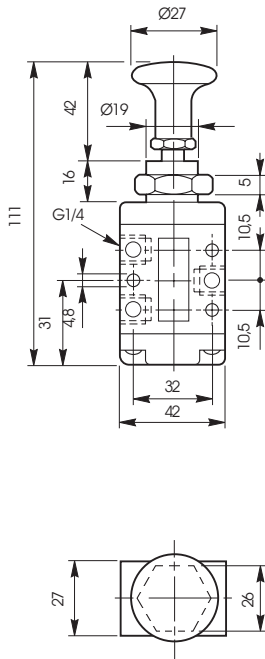
Note: All valves featured on this page are available with an air pilot return mechanism.

To order delete 'S' for spring and add 'P'. e.g. **B53003CP**
For dimensions of air pilot housing see page

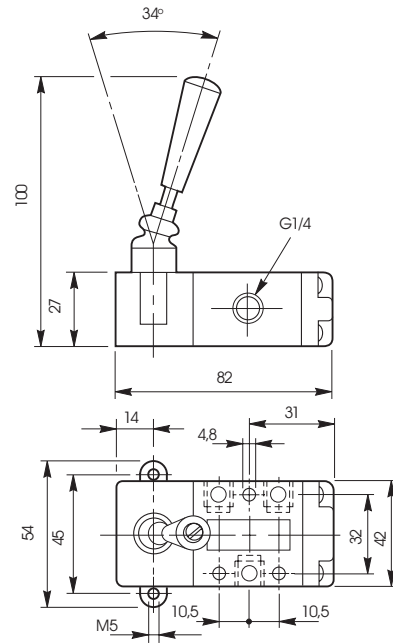
Directional control valves G¹/₄, 3/2 - 5/2

3/2 valve dimensions (mm)

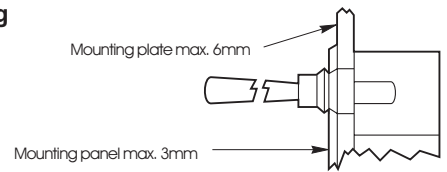
Button operated spring return



Lever operated spring return

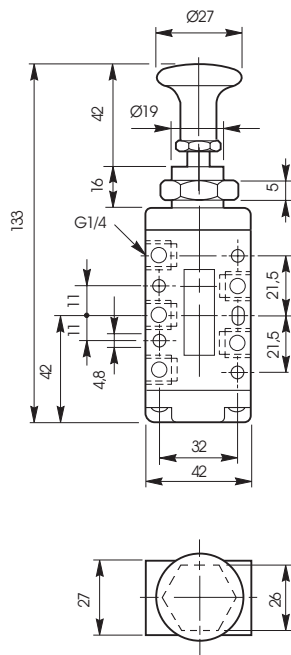


Panel mounting

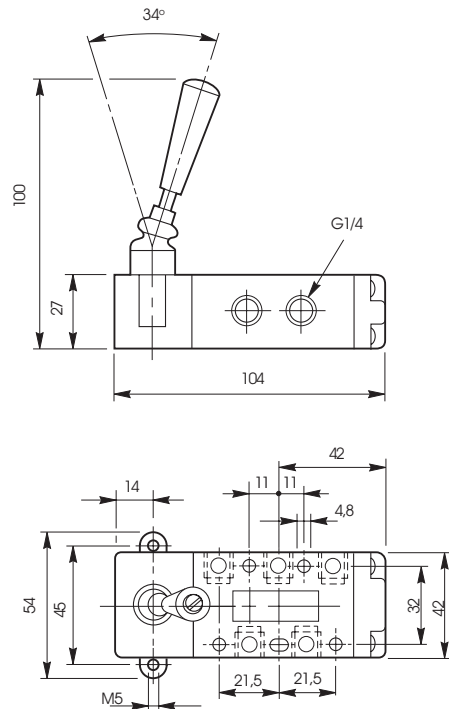


5/2 valve dimensions (mm)

Button operated spring return



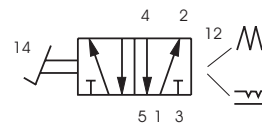
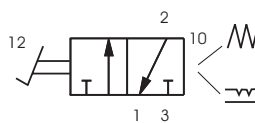
Lever operated spring return



Directional control valves G¹/₄, 3/2 - 5/2

Manually operated valves

Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Ordering information

Part nos.	Type	Actuator	Return	Symbol	Optional air pilot return
B53003FS	3/2	Foot pedal	Spring		
B53004FS	5/2	Foot pedal	Spring		
B53003G	3/2	Foot pedal	Foot pedal		
B53004G	5/2	Foot pedal	Foot pedal		

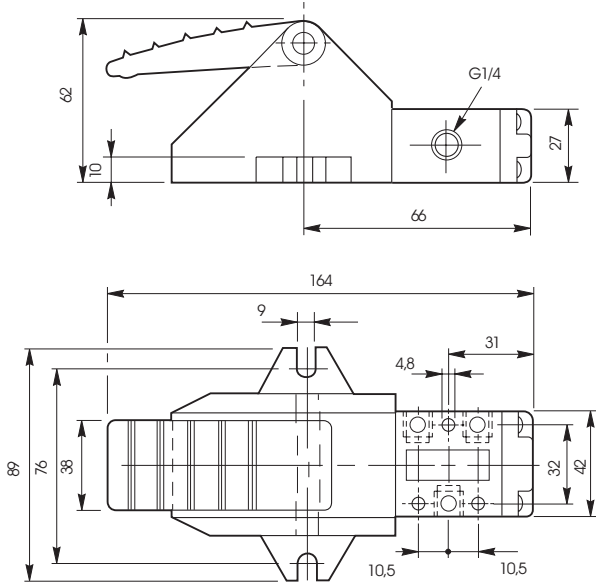
Note: For details of foot guard kits see page

Spring return valves are available with an air pilot return mechanism. To order delete 'S' for spring and add 'P'.
e.g. **B53003FP**

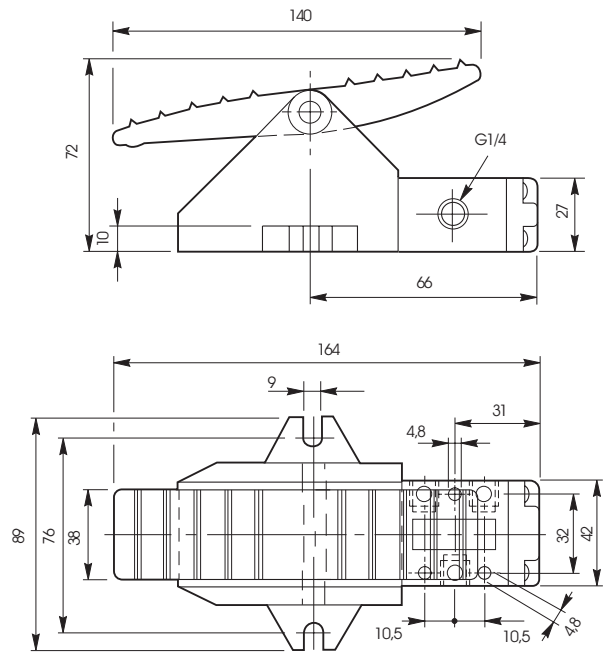
Directional control valves G¹/₄, 3/2 - 5/2

3/2 valve dimensions (mm)

Foot pedal operated
spring return

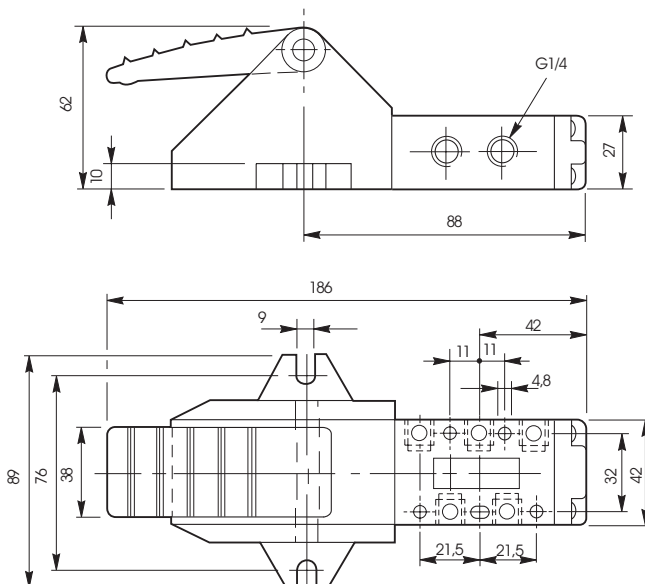


Foot pedal operated

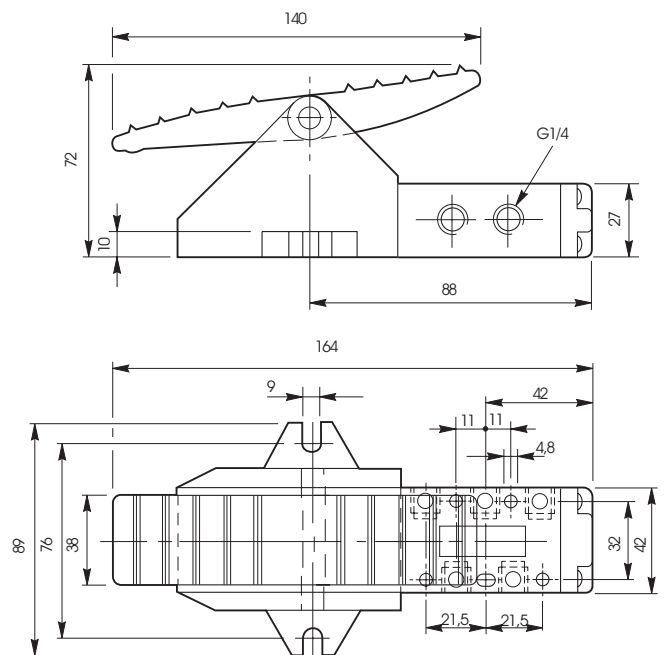


5/2 valve dimensions (mm)

Foot pedal operated
spring return

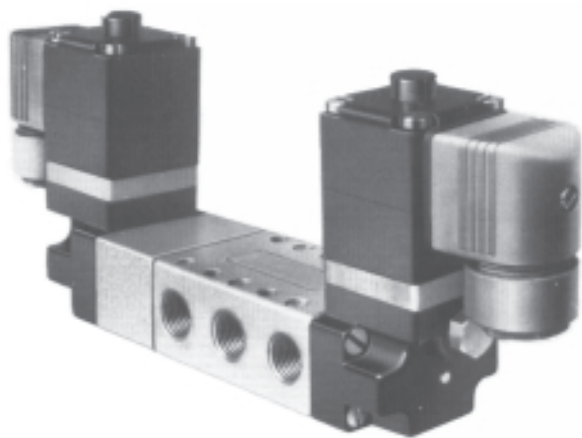


Foot pedal operated

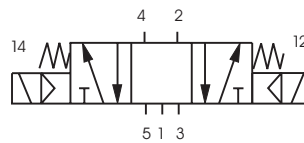


Directional control valves G¹/₄, - 5/3

**Double solenoid pilot operated
5 watt solenoid
Self centring valves**



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +55°C

Pneumatic information

Pressure range	0 to 10 bar
Minimum Spring return	1,7 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Electrical information

Power consumption	Inrush	Hold
AC	14VA	9VA
DC	5 Watt	
Rating	100% ED	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	DIN 43 650 Form B	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	2-26	10-13
T F	44-55	21-26
T C	85-110	43-55
S	94-121	54-69
T S	153-242	94-121
SA	204-264	102-132

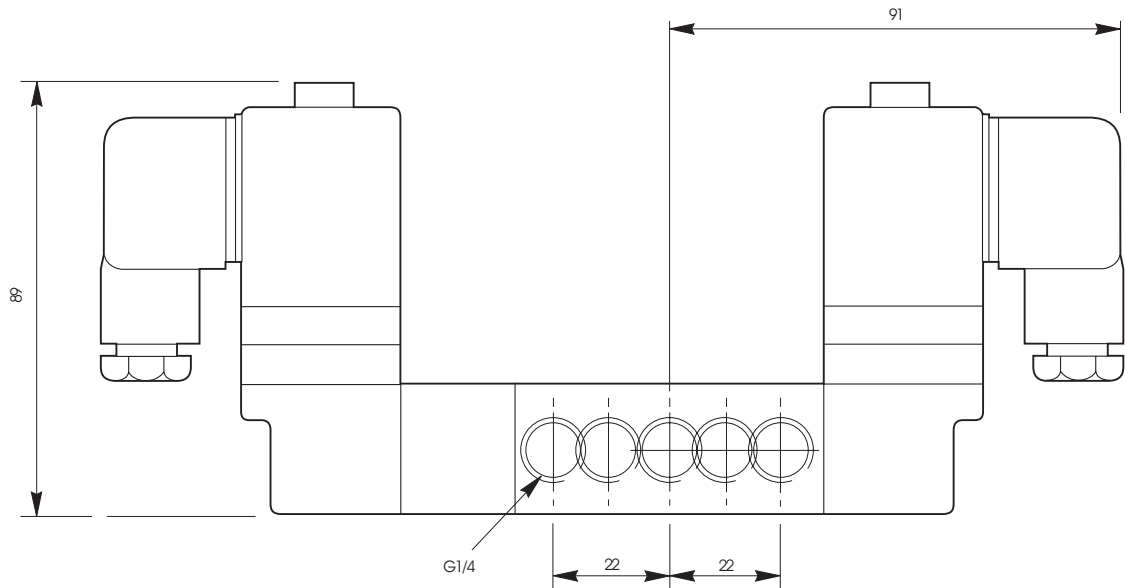
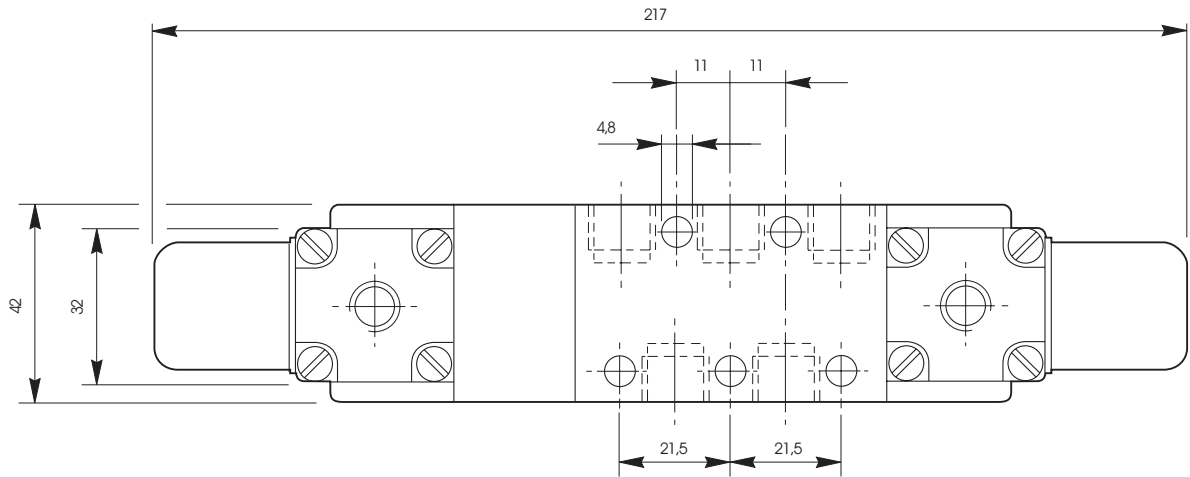
Ordering information

Part nos.	Type	Actuator	Return	Mid	Symbol
LB53024X*	5/3	Solenoid pilot	Solenoid pilot	Neutral	
LB53024Y*	5/3	Solenoid pilot	Solenoid pilot	Negative	
LB53024Z*	5/3	Solenoid pilot	Solenoid pilot	Positive	

*Specify voltage and add suffix letters
For manual override add suffix M.

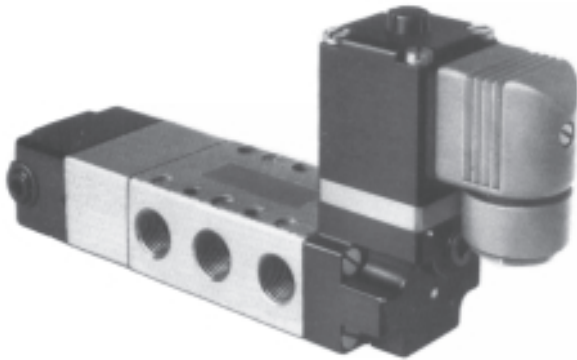
Directional control valves G¹/₄, - 5/3

5/3 valve dimensions (mm)

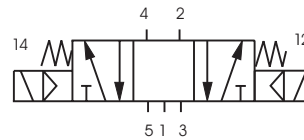


Directional control valves G¹/₄, - 5/3

Solenoid pilot operated 4 and 5 watt solenoids



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +55°C

Electrical information

Power consumption	Inrush	Hold
4 watt solenoid	AC 9VA	6VA
	DC 4 Watt	
Power consumption	Inrush	Hold
5 watt solenoid	AC 14VA	9VA
	DC 5 Watt	
Rating	100% ED	
Isolating class	F	
Protection class	IP 65 (P 54) DIN 40 050	
Connection	DIN 43 650 Form B	

Pneumatic information

Pressure range	0 to 10 bar	
Minimum Spring return	1,7 bar	
Nominal Ø	7mm	
Nominal flow at 7 bar	26 dm ³ /s	

Voltage selection

Suffix	50 Hz	D.C.
T	10-13	5-6.5
TA	2-26	10-13
T F	44-55	21-26
T C	85-110	43-55
S	94-121	54-69
T S	153-242	94-121
SA	204-264	102-132

For 4 watt coils see page

Ordering information

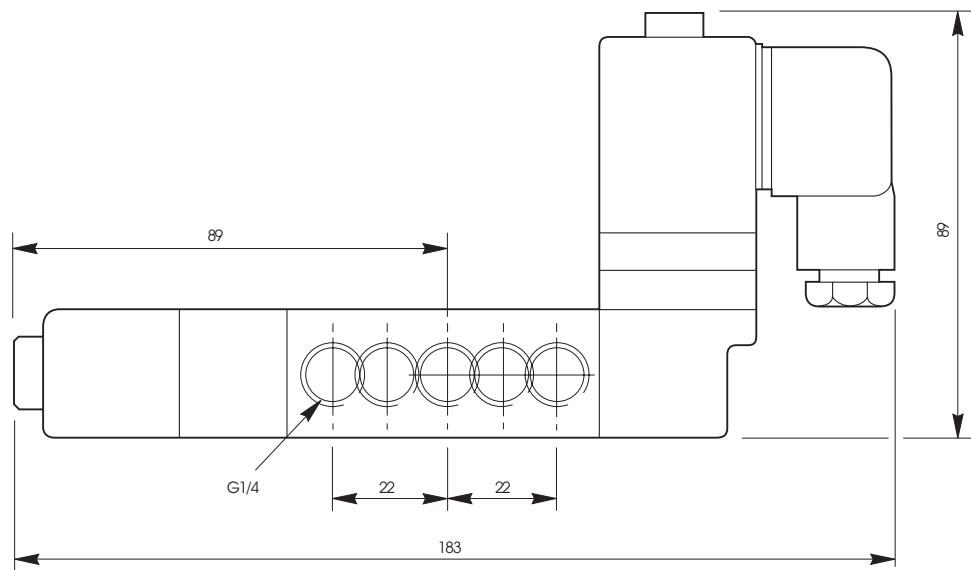
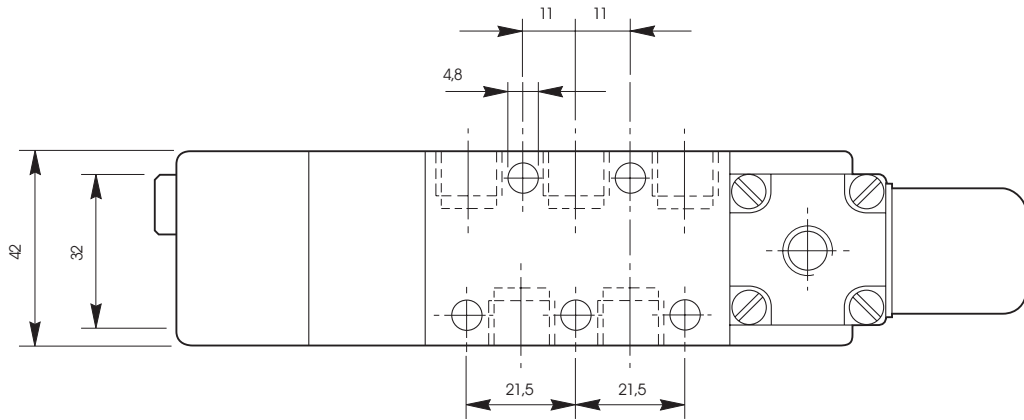
Part nos.	Type	Coil	Actuator	Return	Mid	Symbol
LB53434X*	5/3	4 watt	Solenoid pilot	Air pilot	Neutral	
LB53434Y*	5/3	4 watt	Solenoid pilot	Air pilot	Negative	
LB53434Z*	5/3	4 watt	Solenoid pilot	Air pilot	Positive	
LB53034X*	5/3	5 watt	Solenoid pilot	Air pilot	Neutral	
LB53034Y*	5/3	5 watt	Solenoid pilot	Air pilot	Negative	
LB53034Z*	5/3	5 watt	Solenoid pilot	Air pilot	Positive	

*Specify voltage and add suffix letters

For manual override add suffix M.

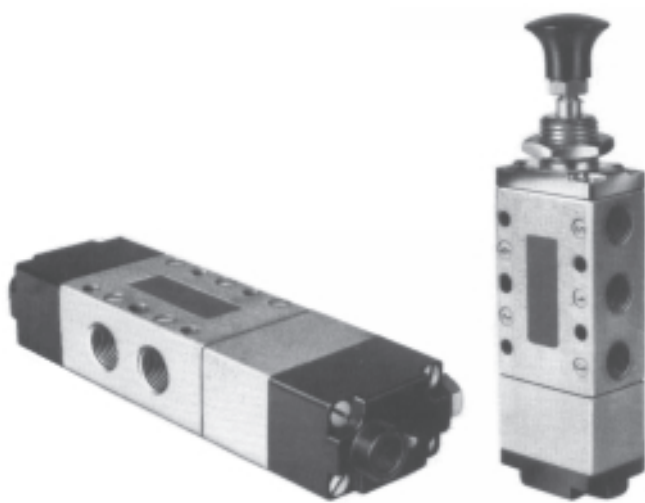
Directional control valves G¹/₄, - 5/3

5/3 valve dimensions (mm)

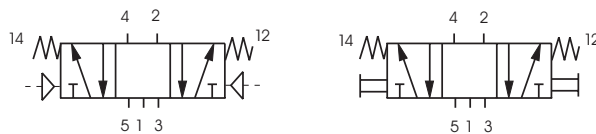


Directional control valves G¹/₄, - 5/3

Button and air pilot operated Self centring valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Minimum Spring return	2,7 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

Button colours

X = Black (standard)
Y = Red
Z = Green

Ordering information

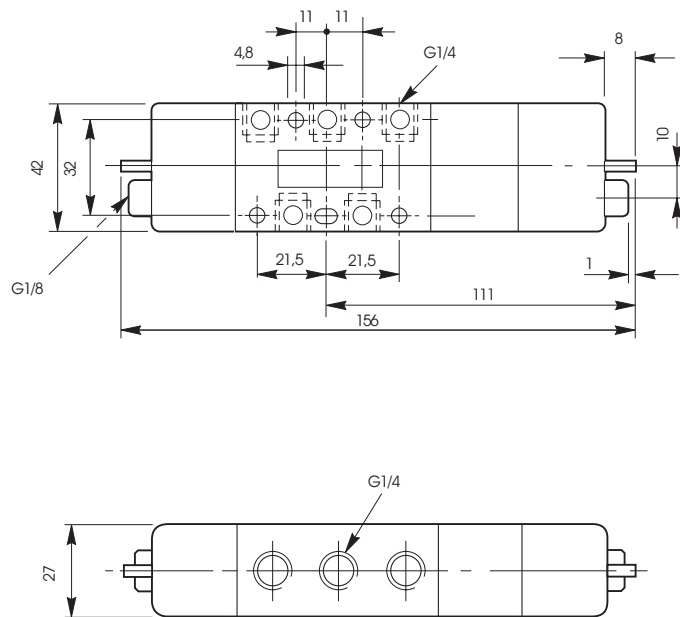
Part nos.	Type	Actuator	Return	Mid	Symbol	Optional pilot return
B53004PX	5/3	Air pilot	Spring	Neutral		
B53004PY	5/3	Air pilot	Spring	Negative		
B53004PZ	5/3	Air pilot	Spring	Positive		
B53004HXX	5/3	Button	Spring	Neutral		
B53004HXY	5/3	Button	Spring	Negative		
B53004HXZ	5/3	Button	Spring	Positive		

For dimension of air housing see page

Directional control valves G¹/₄, - 5/3

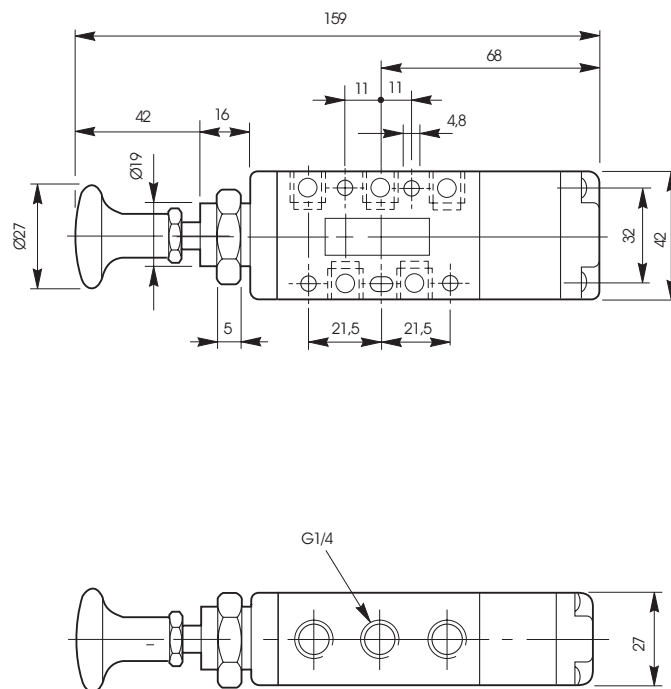
5/3 valve dimensions (mm)

Air pilot operated



5/3 valve dimensions (mm)

Button operated

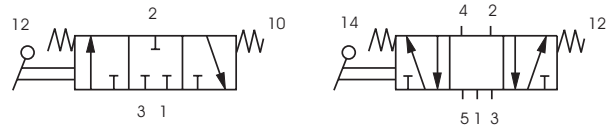


Directional control valves G¹/₄, 3/3 - 5/3

Lever operated Self centring valves



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-20°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

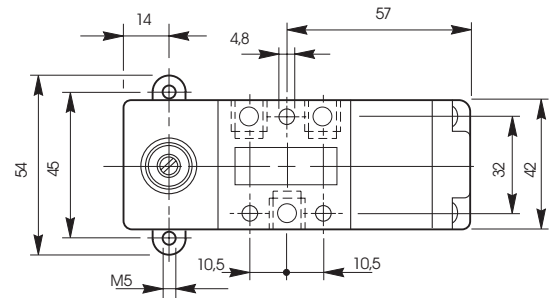
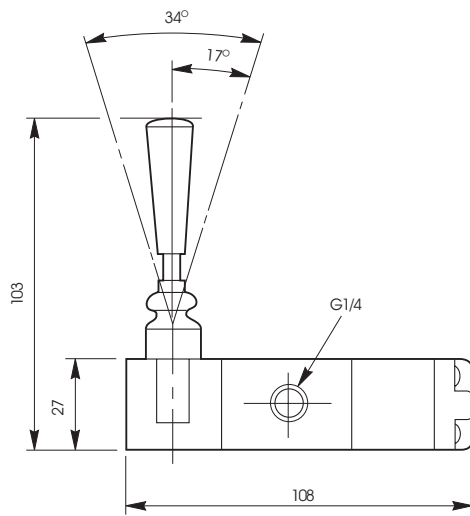
Ordering information

Part nos.	Type	Actuator	Return	Mid	Symbol	Optional air pilot return
B53003LX	3/3	Lever	Spring	Neutral		
B53004LX	5/3	Lever	Spring	Neutral		
B53003LY	5/3	Lever	Spring	Negative		
B53004LZ	5/3	Lever	Spring	Positive		
M53004L-10A	Panel mounting plate					

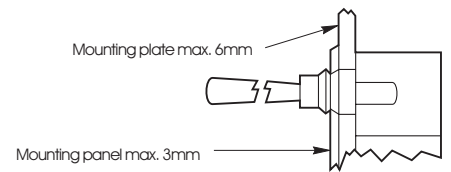
Directional control valves G¹/₄, 3/3 - 5/3

3/3 valve dimensions (mm)

Lever operated

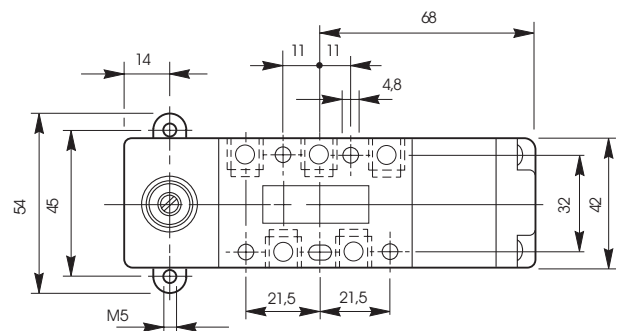
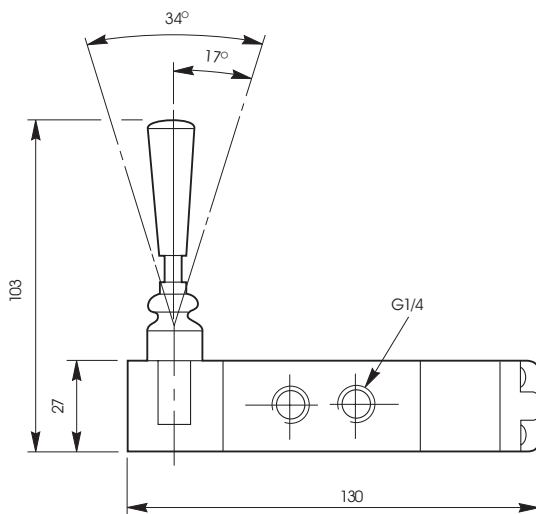


Panel mounting



5/3 valve dimensions (mm)

Lever operated

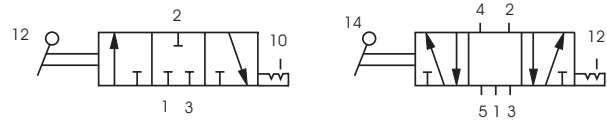


Directional control valves G¹/₄, 3/3 - 5/3

Lever operated 3 position



Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-20°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

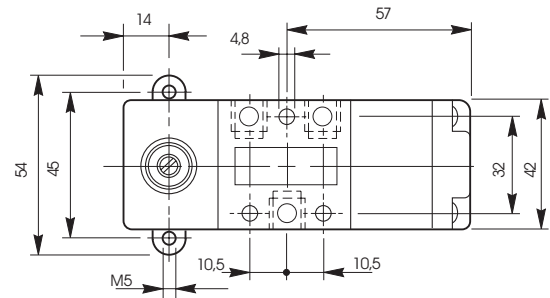
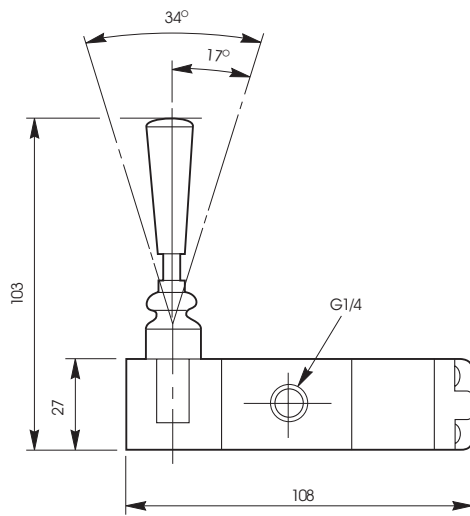
Ordering information

Part nos.	Type	Actuator	Return	Mid	Symbol	Optional air pilot return
B53003L	3/3	Lever	Lever	Neutral		
B53004L	5/3	Lever	Lever	Neutral		
B53003LW	5/3	Lever	Lever	Negative		
B53004LN	5/3	Lever	Lever	Positive		
M53004L-10A	Panel mounting plate					

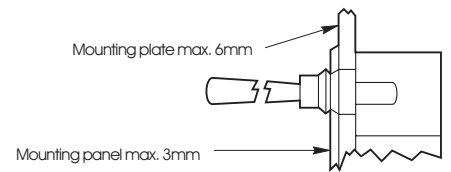
Directional control valves G¹/₄, 3/3 - 5/3

3/3 valve dimensions (mm)

Lever operated

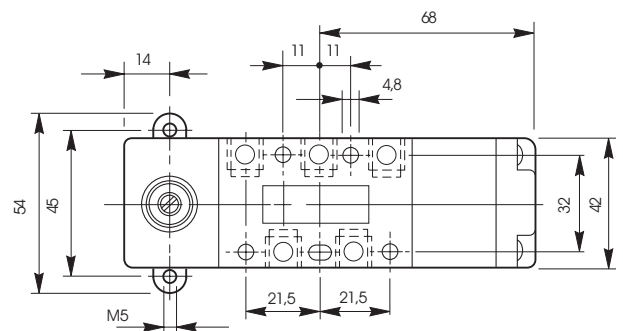
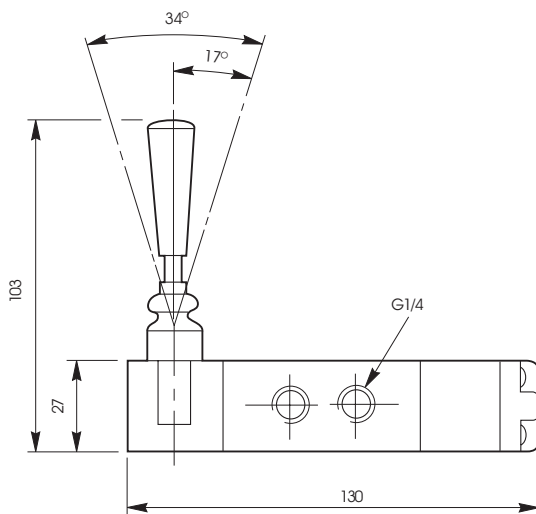


Panel mounting



5/3 valve dimensions (mm)

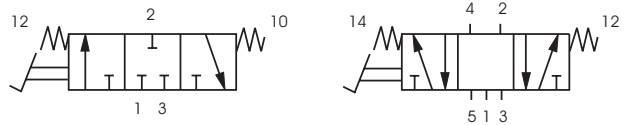
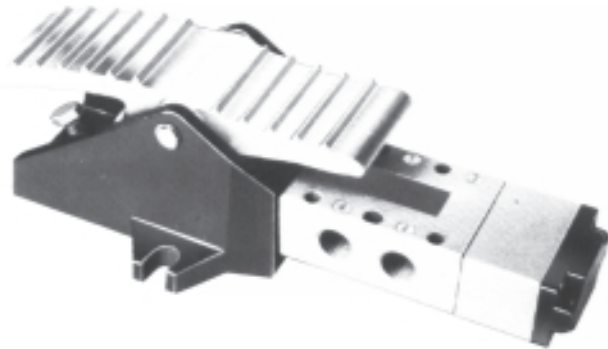
Lever operated



Directional control valves G¹/₄, 3/3 - 5/3

Manually operated valves

Symbol



Materials

Body	Zinc diecast
Actuator	Zinc diecast
Spool	Stainless steel
Bushes	Brass
Seals	Viton (valve body) Nitrile (actuators)
Spring housing	Nylon (acetal resin)

Technical information

Type	Spool valve
Style	Body ported
Port size	G ¹ / ₄
Mounting	Any plane
Temperature range	-10°C to +80°C

Pneumatic information

Pressure range	0 to 10 bar
Nominal Ø	7mm
Nominal flow at 7 bar	26 dm ³ /s

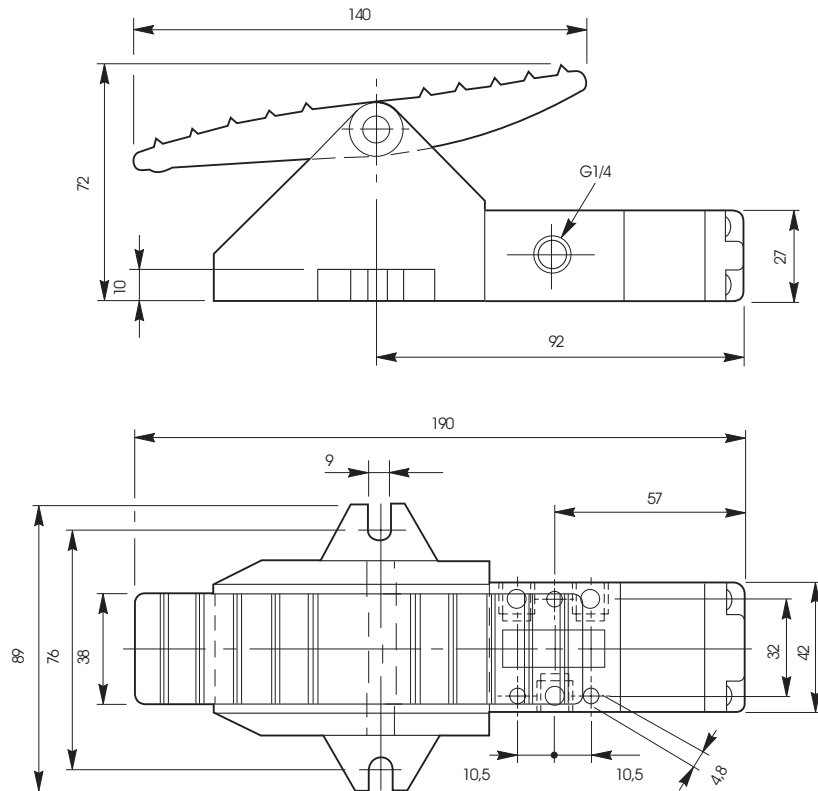
Ordering information

Part nos.	Type	Actuator	Return	Mid	Symbol	Optional air pilot return
B53003GX	3/3	Foot	Foot	Neutral		
B53004GX	5/3	Foot	Foot	Neutral		
B53004GY	5/3	Foot	Foot	Negative		
B53004GZ	5/3	Foot	Foot	Positive		

Directional control valves G¹/₄, 3/3 - 5/3

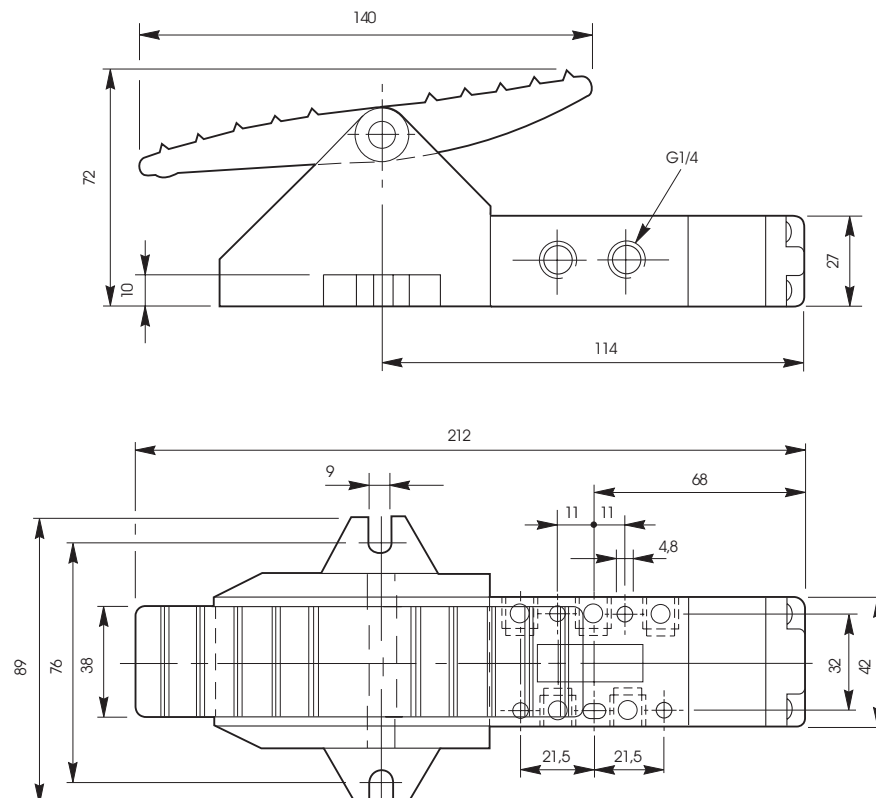
3/3 valve dimensions (mm)

Foot pedal operated
spring return



5/3 valve dimensions (mm)

Foot pedal operated
spring return

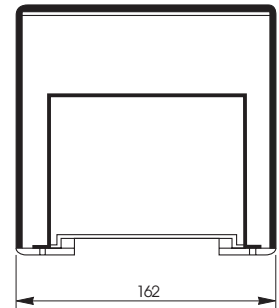
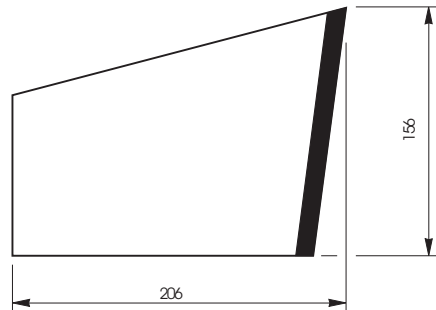
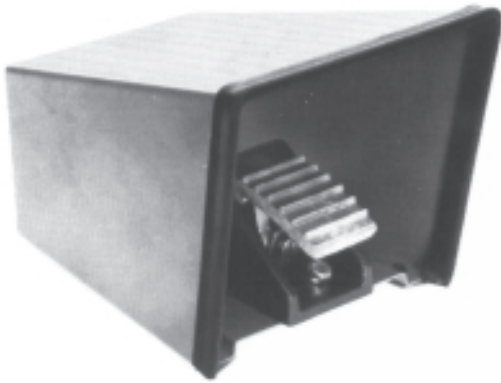


Directional control valves G¹/₄

Foot guard kit

To suit G¹/₄ foot operated spool valves:

B53003FS, B53004FS



The guard completely encloses the valve and is designed to prevent both accidental operation and protect the operators foot from small metal fragments, dirt and grease.

Manufactured in mild steel, the front edge is protected by a rubber strip.

All valve connections are made through the back of the guard, producing a clean design of modern appearance.

The guard kit is supplied complete with valve mounting bolts, nuts and washers.

Part no. **3117**

External air supplies

All solenoid-pilot operated valves have internal pilot air supply from a drilling within the valve, but are provided with an external port normally sealed by a blanking plug.

Internal pilot supply provides the same pressure for both main valve and pilot supply - with the use of external pilot supply variation of pressure on the solenoid operator is possible. When using solenoid valves with any medium other than air, then an external air supply must be made to the pilot to facilitate valve changeover.

If it is required to use external pilot supply, then the blanking plug should be removed from the port and the smaller plug contained underneath inserted into the internal counter bore drilling to seal off the internal air supply.

For applications using any medium other than air (i.e. vacuum or low pressure oil) we recommend you consult Technical Sales prior to operation.

Repair kits

Mechanically operated valves
Manually operated valves

Part no. **53007**

Air pilot operated valves
Differential pilot operated valves

Part no. **53007**

Part no. **53007JR**

Solenoid pilot operated valves

Part no. **53007S**

Lubricating oils

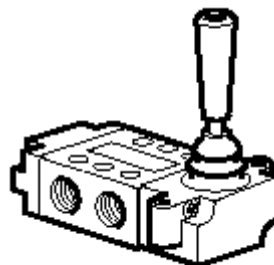
To ensure long life and trouble free service from valves, it is recommended the equipment should be adequately lubricated by means of lubricators which disperse oil into the system. Only paraffinic based oils can be used, and the following recommendations are given as a general guide to types of oil that are suitable for use with Parker Schrader Bellows airline equipment.

The list opposite does not preclude the use of oils manufactured by other companies but oils must be paraffinic based.

As a general guide, lubricator drip rates should be 1 drip/minute for every 5 litre/second (10 cubic feet per minute) passed through the equipment.

Oil company	Grade	Viscosity
Century oils	P.W.L.A.	32
Alexander Duckham	Zircon 4	32
Gulf oil (GB) Limited	Harmony 43 AW	32
Shell (UK) oil	Tellus 37	37
Burmah Castrol	Hyspin AWS 32	32
Edgar Vaughan	Y Hydrodrive HP 100	32
Esso Petroleum	Nuto H32	32
B.P.	HLP 32	32
Mobile Oil Company	DTE Oil - Light	32
Motul	VPI-A	32
Silkolene	Derwent 32	32

Service and Replacement Parts



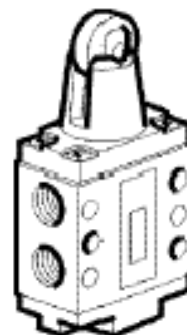
B43 Series Manually Operated Valves

Part Number	Actuator	Replacement Actuator	Repair Kit
B43003BXS	Button	43004BX-100	Body Seals, 43007A
B43004BXS	Button		
B43003HXS	Button, Push/Pull	43003H-100	
B43004HXS	Button, Push/Pull	43004H-100	
B43003LS	Lockdown Lever	43004L-200	
B43004LS	Lockdown Lever		

B53 Series Manually Operated Valves

Part Number	Actuator	Replacement Actuator	Repair Kit
B53003HXS	Button	53004HX-100	Body seals, 53007
B53004HXS	Button		
B53003HX	Button, Push/Pull		
B53004HX	Button, Push/Pull		
B53004HXX	Button, Self-centring		
B53004HXY	Button, Self-centring		
B53004HXZ	Button, Self-centring		
B53003FS	Foot	53004F-100	Body seals, 53007 Lever kit, 53004L-300R
B53004FS	Foot		
B53003LS	Lever	53004L-198	
B53004LS	Lever		
B53003LT	Lever, 2 position	53004L-196	
B53004LT	Lever, 2 position		
B53004L	Lever, 3 position	53004L-100	
B53004LW	Lever, 3 position		
B53004LX	Lever, Self-centring	53004L-198	
B53004LY	Lever, Self-centring		

Service and Replacement Parts



B43 Series Mechanically operated valves

Part Number	Actuator	Replacement Actuator	Repair Kit
B43003CS	Plunger	43004C-100	Body seals, 43007A
B43004CS			
B43003RS	Roller Lever	43004R-200	
B43004RS			

B53 Series Mechanically operated valves

Part Number	Actuator	Replacement Actuator	Repair Kit
B53003CS	Plunger	53004C-100	Body seals, 53007
B53004CS			
B53003RS	Roller	53004R-100	
B53004RS			