



- > Port size: G1/8 & G1/4
- > Low and high power solenoid coil options
- > End, side or face mounting solenoids
- > Wide range of low power solenoids
- > Light weight corrosion resistant materials
- > Option for manual override acting directly on spool



### Technical features

**Medium:**

Compressed air, filtered, lubricated or non-lubricated

**Operation:**

Spool Valve, indirectly actuated

**Mounting:**

Through-holes in valve body  
It is recommend that valves should be mounted with the axis of the spool horizontal.

**Port sizes:**

G1/8 & G1/4

**Operating Pressure:**

Maximum 10 bar.  
For details see overleaf.

**Ambient/Media temperature:**

Solenoid pilot actuated valves  
+5 ... +50°C (+41 ... +122°F)  
Air pilot actuated valves  
0 ... +80°C (+32 ... +176°F)  
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

**Materials:**

Body: Die cast aluminium alloy  
End cover: Aluminium or glass filled nylon  
Seals: NBR

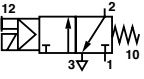
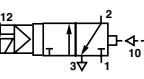
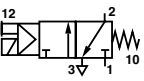
### Flow Characteristics

Size	Function	l/min	Cv	Kv
G1/8	3/2,5/2	335	0,34	0,295
G1/4	3/2,5/2	965	0,98	0,853

### Electrical details for solenoid operators

<b>Voltage tolerance</b>	± 10%
<b>Rating</b>	100% continuous duty
<b>Inlet orifice</b>	1,0 mm (low power) 1,6 mm (high power)
<b>Electrical connection (corresponding to choosen coil)</b>	Industrial Standard, 22 mm
<b>Solenoid coil mounting</b>	Four positions x 90°
<b>Manual override</b>	Push and turn to lock (plastic)
<b>Protection class</b>	IP 65 (with sealed plug)

### 3/2 solenoid operated valves

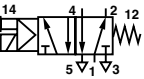
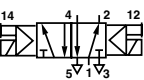
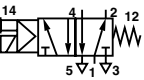
Symbol	Port size	Function	Actuation	Operating pressure (bar)	Solenoid pilot	Solenoid mounting position	Voltage	Power (Watts)	Manual override	Weight (Kg)	Drawing No.	Model *1)
	G1/8	3/2 NC	Solenoid - Spring	2 ... 10	Internal	Side	Without coil	High	Without M/O	0.42	1	14123500000
	G1/8	3/2 NC	Solenoid - Spring	2 ... 10	Internal	End	Without coil	Low	With M/O	0.36	2	1418350G000
	G1/8	3/2 NC	Solenoid - Spring	2 ... 10	Internal	End	24 V DC	2 W	With M/O	0.36	2	<b>1418350G024</b>
	G1/8	3/2 NC	Solenoid - Spring	2 ... 10	Internal	End	Without coil	High	With M/O	0.36	2	1418350M000
	G1/8	3/2 NC	Solenoid Priority - Pilot	2 ... 10	Internal	End	Without coil	Low	Without M/O	0.39	3	1418340L000
	G1/4	3/2 NC	Solenoid - Spring	2 ... 10	Internal	Side	Without coil	High	Without M/O	0.56	4	14223500000
	G1/4	3/2 NC	Solenoid - Spring	2 ... 10	Internal	Side	Without coil	Low	With M/O	0.56	4	1422350G000
	G1/4	3/2 NC	Solenoid - Spring	2 ... 10	Internal	Side	Without coil	Low	Without M/O	0.56	4	1422350L000
	G1/4	3/2 NC	Solenoid - Spring	2 ... 10	Internal	Side	24 V DC	2 W	Without M/O	0.56	4	1422350L024
	G1/4	3/2 NC	Solenoid - Spring	2 ... 10	Internal	End	Without coil	High	With M/O	0.51	5	1428350M000
	G1/4	3/2 NC	Solenoid - Spring	2 ... 10	Internal	End	24 V DC	2 W	With M/O	0.51	5	<b>1428350G024</b>

\*1) Standard model numbers in **Bold**

### Seal Kit

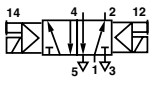
3/2 solenoid operated valves	Port Size	Seal Kit
141.....	G1/8	X4100050
142.....	G1/4	X4200050

### 5/2 solenoid operated valves

Symbol	Port size	Function	Actuation	Operating pressure (bar)	Solenoid pilot	Solenoid mounting position	Voltage	Power (Watts)	Manual override	Weight (Kg)	Drawing No.	Model *1)
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	Side	Without coil	High	Without M/O	0.50	6	X4125500000
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	Side	Without coil	Low	With M/O	0.50	6	X412550G000
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	Side	24 V DC	2 W	With M/O	0.50	6	X412550G024
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	Side	Without coil	Low	Without M/O	0.50	6	X412550L000
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	Side	110 V AC	4/2.5 VA	With M/O	0.50	6	X412555G110
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	Side	240 V AC	12/8 VA	With M/O	0.50	6	X412555M240
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	End	Without coil	High	Without M/O	0.69	7	X4185500000
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	End	Without coil	Low	With M/O	0.69	7	X418550G000
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	End	24 V DC	2 W	With M/O	0.69	7	<b>X418550G024</b>
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	End	Without coil	High	With M/O	0.69	7	X418550M000
	G1/8	5/2	Solenoid - Spring	2 - 10	Internal	End	240 V AC	12/8 VA	With M/O	0.69	7	X418555M240
		G1/8	5/2	Solenoid - Solenoid	2 - 10	Internal	Side	Without coil	High	Without M/O	0.61	8
G1/8		5/2	Solenoid - Solenoid	2 - 10	Internal	Side	24 V DC	6 W	Without M/O	0.61	8	X4125200024
G1/8		5/2	Solenoid - Solenoid	2 - 10	Internal	Side	Without coil	Low	Without M/O	0.61	8	X412520L000
G1/8		5/2	Solenoid - Solenoid	2 - 10	Internal	End	Without coil	High	Without M/O	0.56	9	X4185800000
	G1/8	5/2	Solenoid - Solenoid	2 - 10	Internal	End	24 V DC	2 W	With M/O	0.56	9	<b>X418580G024</b>
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Face	Without coil	High	Without M/O	0.67	10	X4215500000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Face	Without coil	Low	With M/O	0.67	10	X421550G000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Face	110 V AC	12/8 VA	Without M/O	0.67	10	X4215550110
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Side	Without coil	High	Without M/O	0.67	11	X4225500000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Side	24 V DC	6 W	Without M/O	0.67	11	X4225500024
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Side	Without coil	Low	With M/O	0.67	11	X422550G000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Side	Without coil	Low	Without M/O	0.67	11	X422550L000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	Side	24 V DC	2 W	Without M/O	0.67	11	X422550L024
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	End	Without coil	High	Without M/O	0.67	12	X4285500000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	End	Without coil	Low	With M/O	0.67	12	X428550G000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	End	24 V DC	2 W	With M/O	0.67	12	<b>X428550G024</b>
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	End	Without coil	High	With M/O	0.67	12	X428550M000
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	End	24 V DC	6 W	With M/O	0.67	12	X428550M024
	G1/4	5/2	Solenoid - Spring	2 - 10	Internal	End	110 V AC	12/8 VA	With M/O	0.67	12	X428555M110

\*1) Standard model numbers in **Bold**

**5/2 solenoid operated valves**

Symbol	Port size	Function	Actuation	Operating pressure (bar)	Solenoid pilot	Solenoid mounting position	Voltage	Power (Watts)	Manual override	Weight (Kg)	Drawing No.	Model *1)
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	Side	24 V DC	6 W	With M/O	0.67	13	X422520M024
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	Side	Without coil	Low	Without M/O	0.67	13	X422520L000
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	Side	Without coil	Low	With M/O	0.67	13	X422520G000
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	Side	Without coil	High	Without M/O	0.67	13	X4225200000
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	End	24 V DC	6 W	With M/O	0.69	14	X428580M024
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	End	24 V DC	2 W	With M/O	0.67	14	<b>X428580G024</b>
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	End	Without coil	High	With M/O	0.69	14	X428580M000
	G1/4	5/2	Solenoid - Solenoid	2 - 10	Internal	End	Without coil	High	Without M/O	0.69	14	X4285800000


\*1) Standard model numbers in **Bold**

**Seal Kit**


5/2 solenoid operated valves	Port Size	Seal Kit
X41.....	G1/8	X4100050
X42.....	G1/4	X4200050

**Spare coils and alternative voltages**

**22 mm coil - 1,0 mm orifice (low power)**  
for connector interface acc. to industrial standard

	Voltage	Power Inrush/Hold	Model
	12 V d.c	2 W	QM/48/12J/21
	24 V d.c	2 W	QM/48/13J/21
	24 V a.c.	4/2,5 VA	QM/48/14J/21
	110/120 V 50/60 Hz	4/2,5 VA	QM/48/18J/21
	220/240 V 50/60 Hz	6/5 VA	QM/48/19J/21

**22 mm coil - 1,6 mm orifice (high power)**  
for connector interface acc. to industrial standard

	Voltage	Power Inrush/Hold	Model
	12 V d.c	7,5 W	QM/48/82J/21
	24 V d.c	6 W	QM/48/83J/21
	24 V a.c.	12/8 VA	QM/48/84J/21
	110/120 V 50/60 Hz	12/8 VA	QM/48/88J/21
	220/240 V 50/60 Hz	12/8 VA	QM/48/89J/21

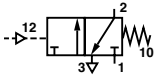
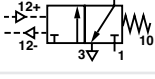
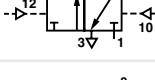
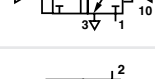

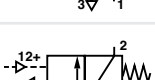
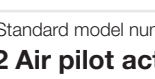
**Connector plugs - ordered separately**

**Industrial standard 22 mm**  
**2-pole + PE**



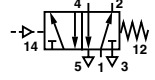
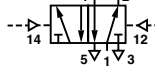

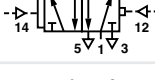
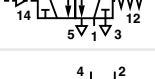

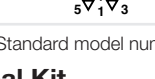
0657868000000000

**3/2 Air pilot actuated valves**

Symbol	Port size	Function	Actuation	Operating pressure (bar)	Pilot pressure	Weight (Kg)	Drawing No.	Model *1)
	G1/8	3/2 NC	Pilot - Spring	-0.93 ... 10	2 ... 10 bar	0.21	15	<b>03041302</b>
	G1/8	3/2 NC	Pilot - Spring	-0.93 ... 10	4 ... 10 bar	0.19	16	<b>03040102</b>
	G1/8	3/2 NC	Pressure or Vacuum - Spring	-0.93 ... 10	0.3 ... 2 or 0.4 Vac (min)	0.33	17	03037002
	G1/8	3/2 NC	Pilot - Pilot	-0.93 ... 10	2 ... 10 bar	0.22	18	03040702
	G1/8	3/2 NC	Pressure Priority - Pilot	-0.93 ... 10	2 ... 10 bar	0.25	19	03041202
	G1/4	3/2 NC	Pilot - Spring	-0.93 ... 10	2 ... 10 bar	0.42	20	<b>03060102</b>
	G1/4	3/2 NC	Pilot - Spring	-0.93 ... 10	4 ... 10 bar	0.42	20	<b>03061302</b>
	M14 x 1.5	3/2 NC	Pilot - Spring	-0.93 ... 10	2 ... 10 bar	0.42	21	030601M2
	G1/4	3/2 NC	Pilot - Spring	-0.93 ... 10	2 ... 10 bar	0.42	22	03060702
	G1/4	3/2 NC	Pilot - Pilot	-0.93 ... 10	2 ... 10 bar	0.42	22	03060702
	G1/4	3/2 NC	Pilot Priority - Pilot	-0.93 ... 10	2 ... 10 bar	0.42	23	03061202

\*1) Standard model numbers in **Bold**

**5/2 Air pilot actuated valves**

Symbol	Port size	Function	Actuation	Operating pressure (bar)	Pilot pressure	Weight (Kg)	Drawing No.	Model *1)
	G1/8	5/2	Pilot - Spring	-0.93 ... 10	3 ... 10	0.30	24	<b>X3044102</b>
	G1/8	5/2	Pilot - Pilot	-0.93 ... 10	2 ... 10 bar	0.35	25	X3044702
	G1/8	5/2	Pressure or Vacuum - Spring	-0.93 ... 10	0.3 ... 2 or 0.4 Vac (min)	0.55	26	X3039002
	G1/8	5/2	Pressure Priority - Pilot	-0.93 ... 10	3 ... 10	0.33	27	X3045202
	G1/4	5/2	Pilot - Spring	-0.93 ... 10	3 ... 10	0.50	29	<b>X3064102</b>
	G1/4	5/2	Pilot - Pilot	-0.93 ... 10	3 ... 10	0.57	29	X3064702
	G1/4	5/2	Pilot Priority - Pilot	-0.93 ... 10	3 ... 10	0.57	30	X3065202

\*1) Standard model numbers in **Bold**

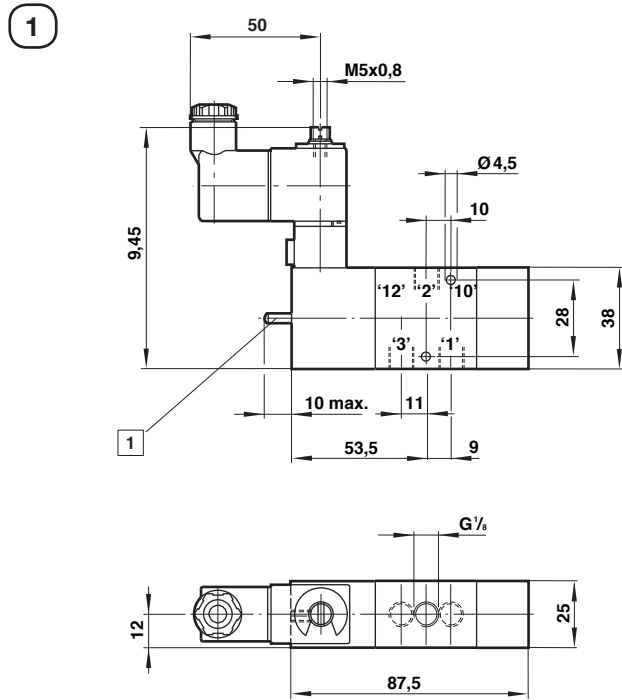
**Seal Kit**

3/2 air pilot actuated valves	Port Size	Seal Kit
0304....	G1/8	03844702
03037002	G1/8	03837002
0306....	G1/4	03861202

**Seal Kit**

5/2 air pilot actuated valves	Port Size	Seal Kit
X304....	G1/8	03844702
X3039002	G1/8	03837002
0306....	G1/4	03861202

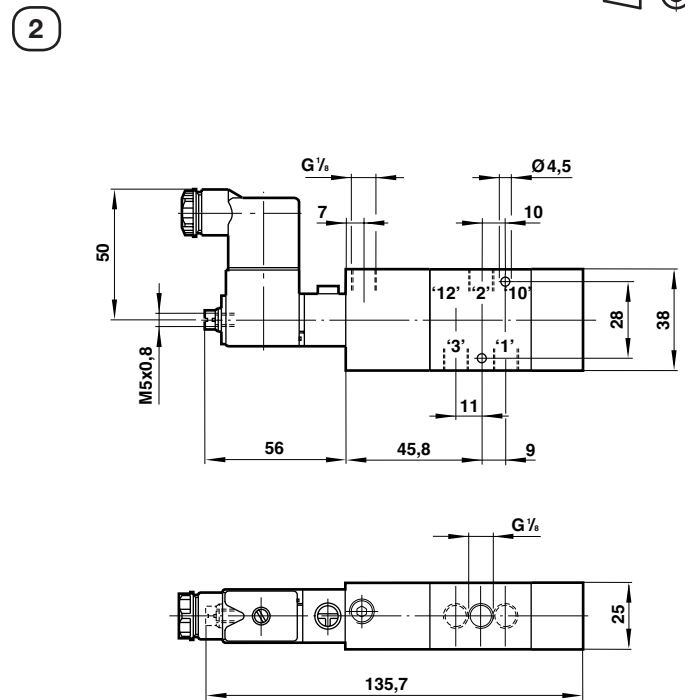
**G1/8 141235 Models**  
 3/2 Single Solenoid Valves



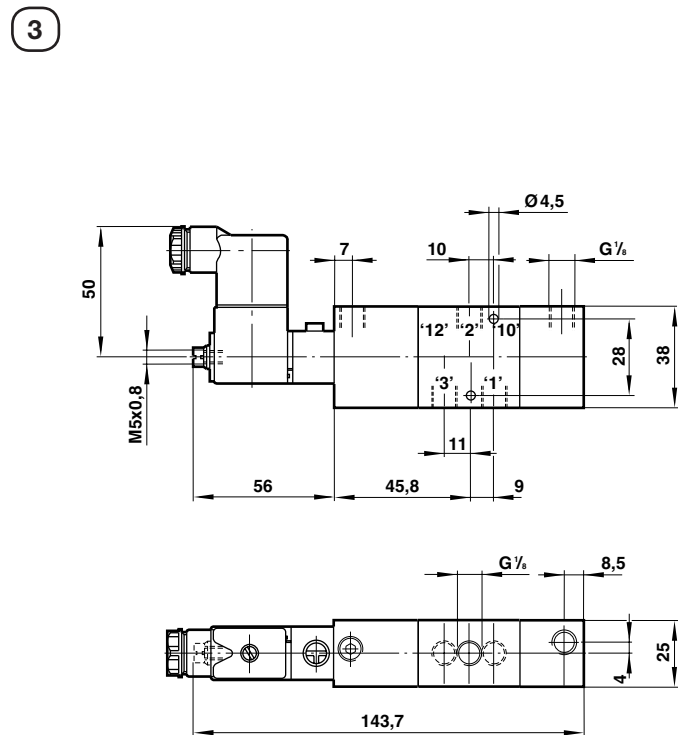
① Spool manual override only available on models with "M" or "G"

**G1/8 141835 Models**  
 3/2 Single Solenoid Valve

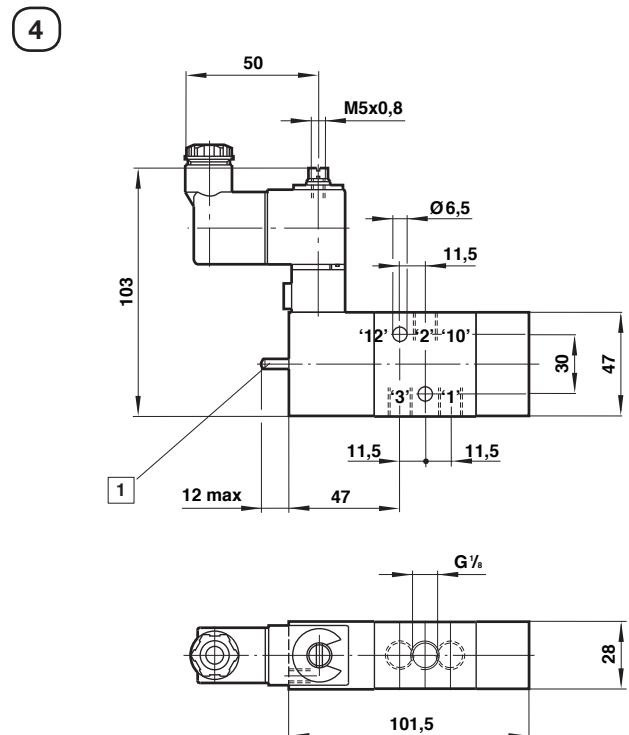
Dimensions in mm  
 Projection/First angle



**G1/8 141834 Models**  
 3/2 Solenoid Priority Set, Pilot Reset Valves



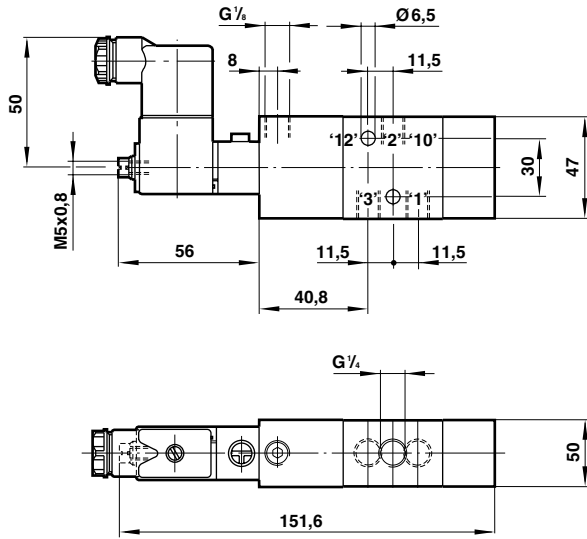
**G1/4 142235 Models**  
 3/2 Single Solenoid Valves



① Spool manual override only available on models with "M" or "G"

**G1/4 142835 Models**  
**3/2 Single Solenoid Valve**

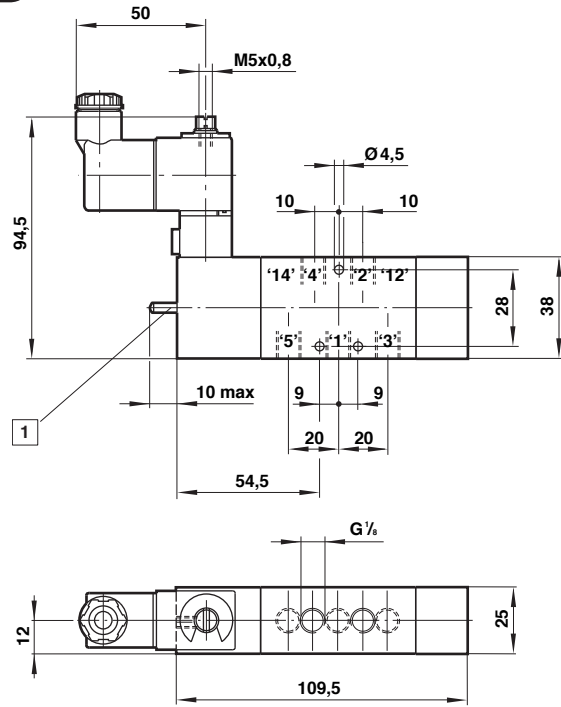
5



**G1/8 X41225 Models**  
**5/2 Single Solenoid Valves**

6

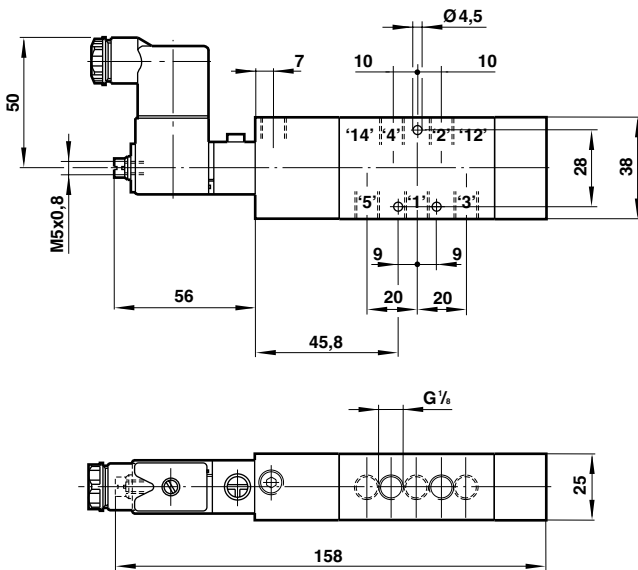
Dimensions in mm  
 Projection/First angle



1 Spool manual override only available on models with "M" or "G"

**G1/8 X41855 Models**  
**5/2 Single Solenoid Valve**

7

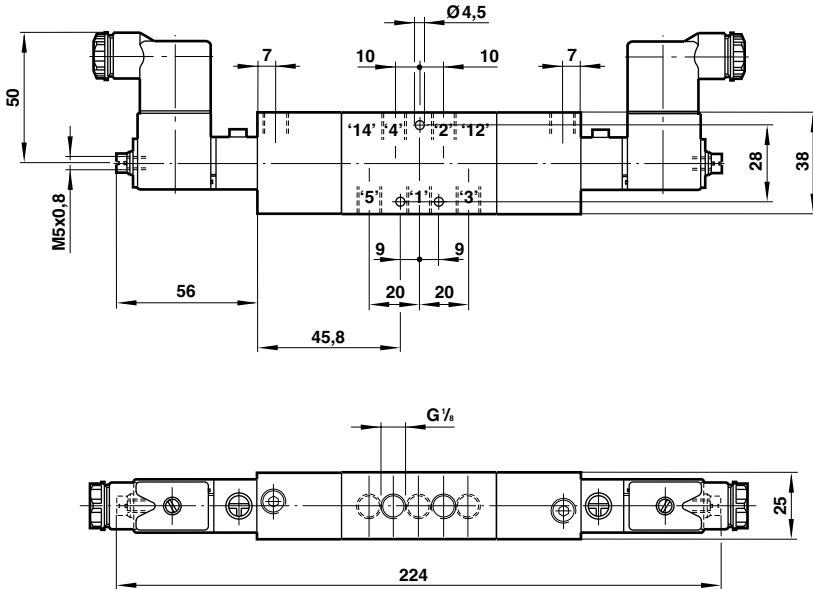


**G1/8 X41252 Models**  
**5/2 Double Solenoid Valves**

Dimensions in mm  
 Projection/First angle



8

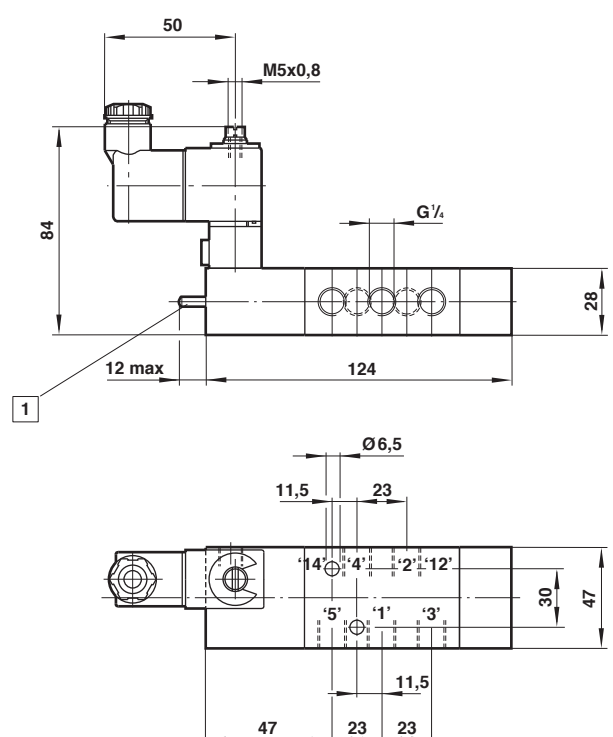
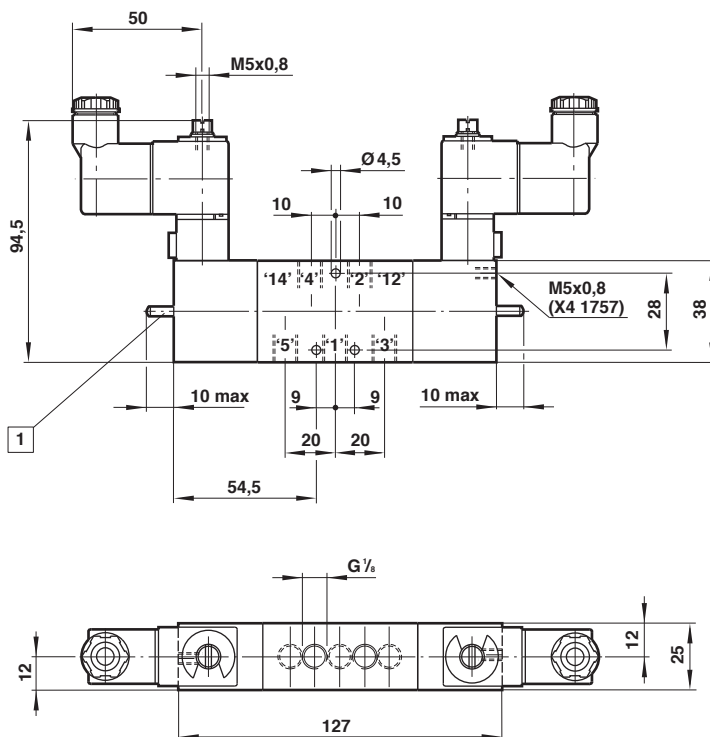


**G1/8 X41858 Model**  
**5/2 Double Solenoid Valve**

**G1/4 X42155 Models**  
**5/2 Single Solenoid Valves**

9

10

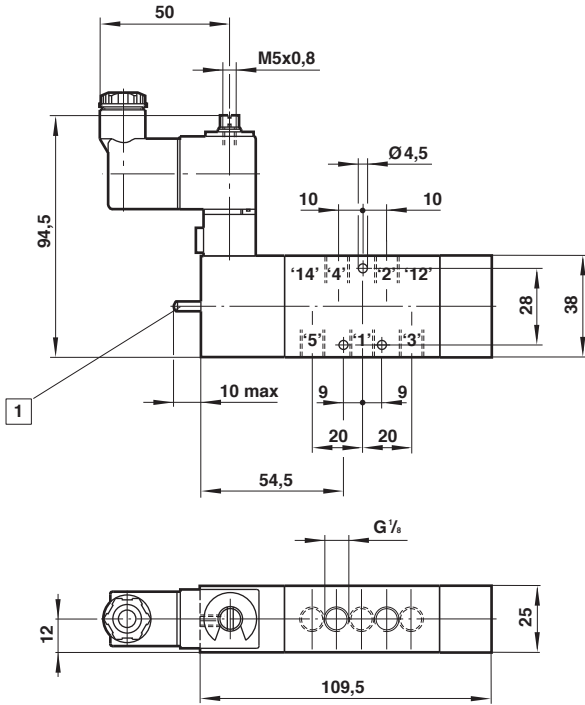


1 Spool manual override only available on models with "M" or "G"

1 Spool manual override only available on models with "M" or "G"

**G1/4 X4225 Models**  
**5/2 Single Solenoid Valves**

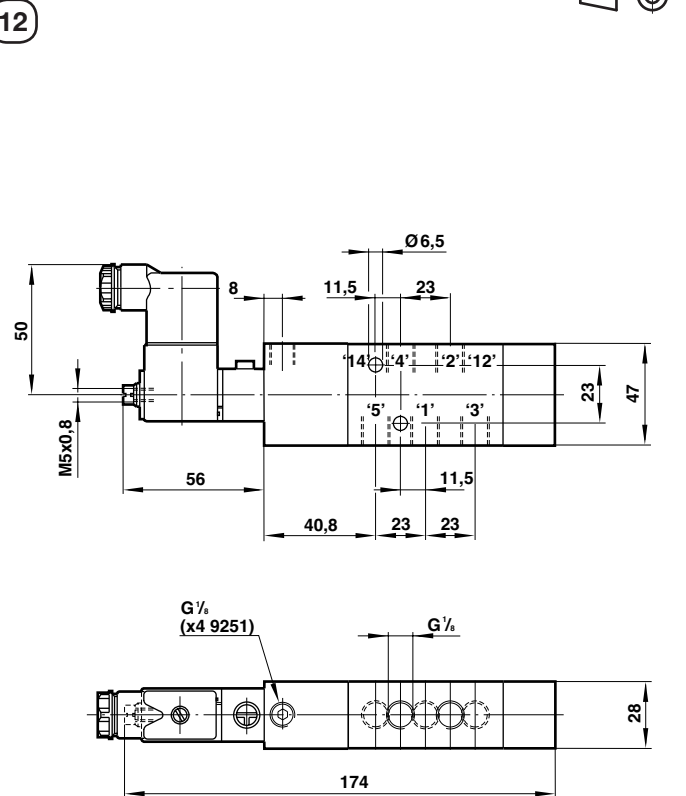
11



1 Spool manual override only available on models with "M" or "G"

**G1/4 X42855 & X49251 Models**  
**5/2 Single Solenoid Valve**

12

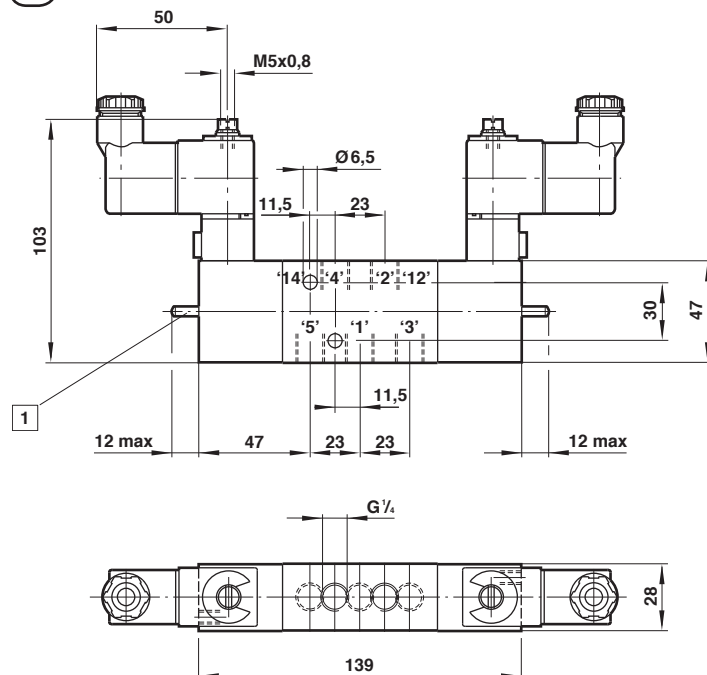


Dimensions in mm  
 Projection/First angle



**G1/4 X42252 Models**  
**5/2 Double Solenoid Valves**

13



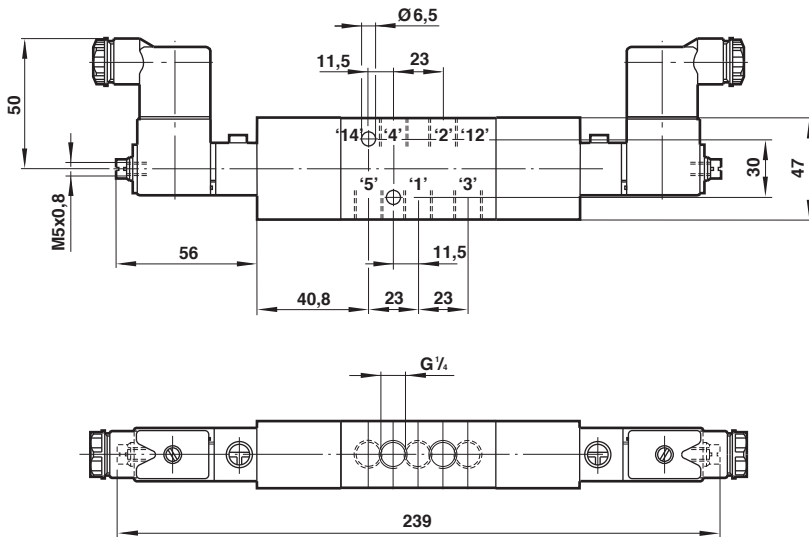
1 Spool manual override only available on models with "M" or "G"



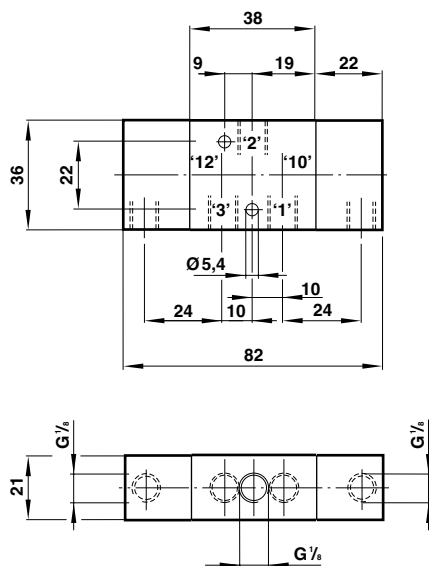
**G1/4 X42858 Models**  
**5/2 Double Solenoid Valves**

 Dimensions in mm  
 Projection/First angle

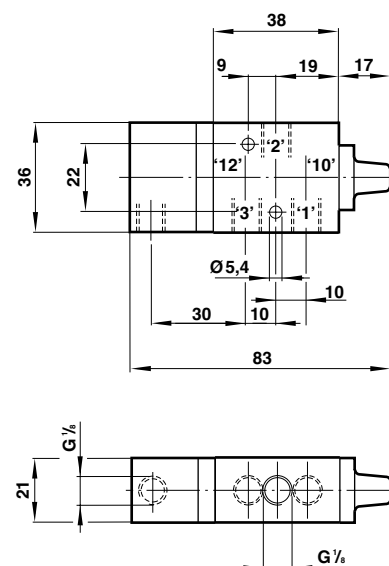

14


**G1/8 03041302 Model**  
**3/2 Single Pilot Valve**

15

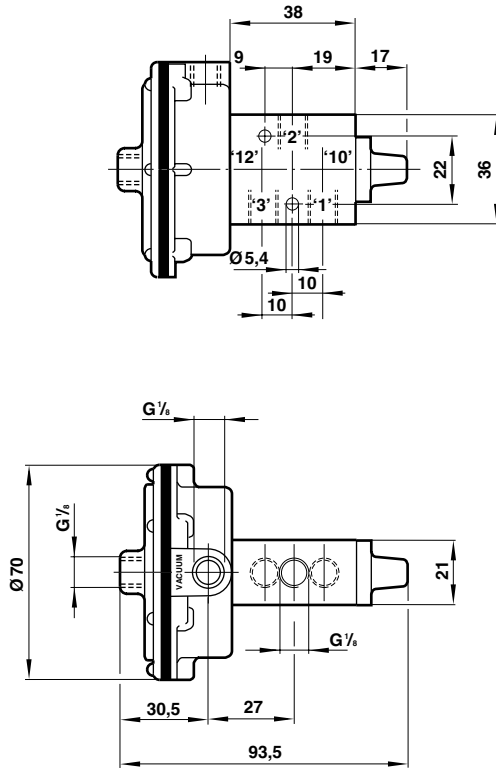

**G1/8 03040102 Model**  
**3/2 Single Pilot Valve**

16



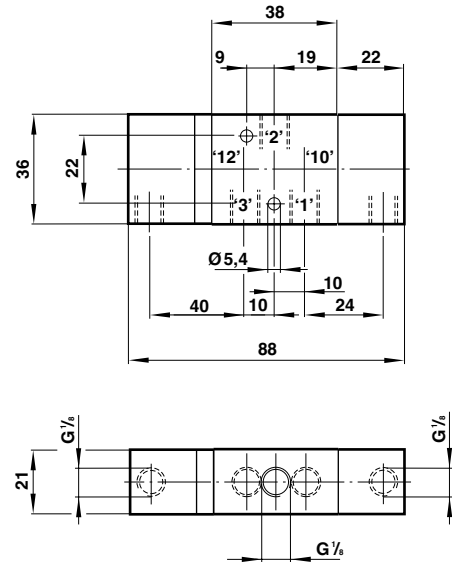
**G1/8 03037002 Model**  
 3/2 Single Diaphragm Pilot Valve

17



**G1/8 03040702 Model**  
 3/2 Double Pilot Valve

18

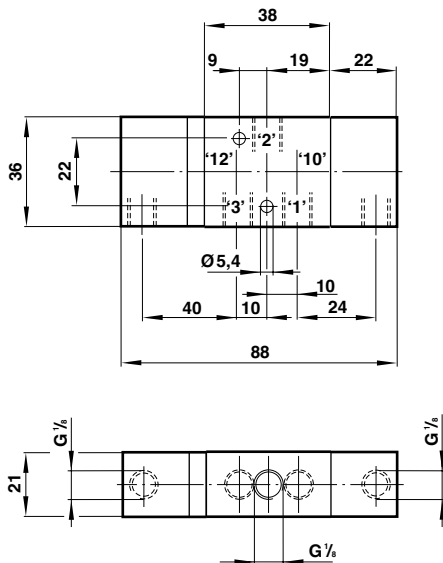


Dimensions in mm  
 Projection/First angle



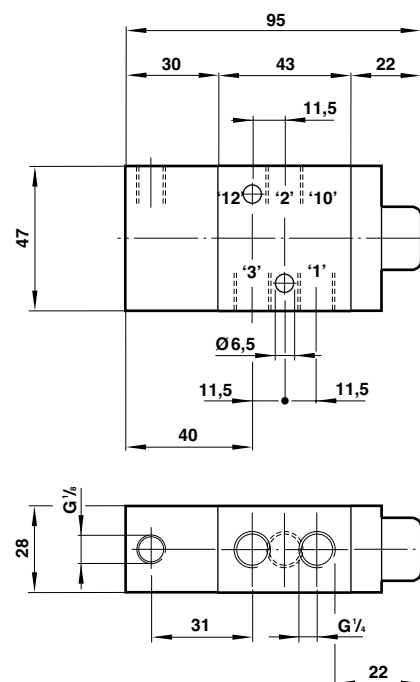
**G1/8 03041202 Model**  
 3/2 Pilot Priority Valve

19



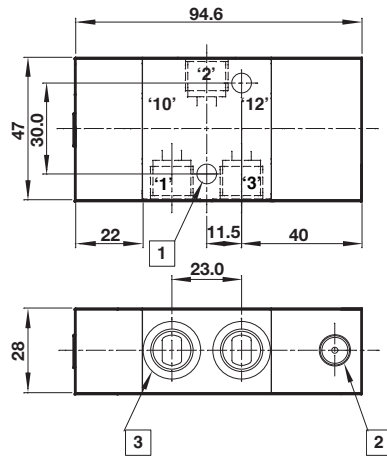
**G1/4 03060102 & 03061302 Models**  
 3/2 Single Pilot Valves

20



**M14 x 1.5 030601M2 Model**  
**3/2 Pilot**

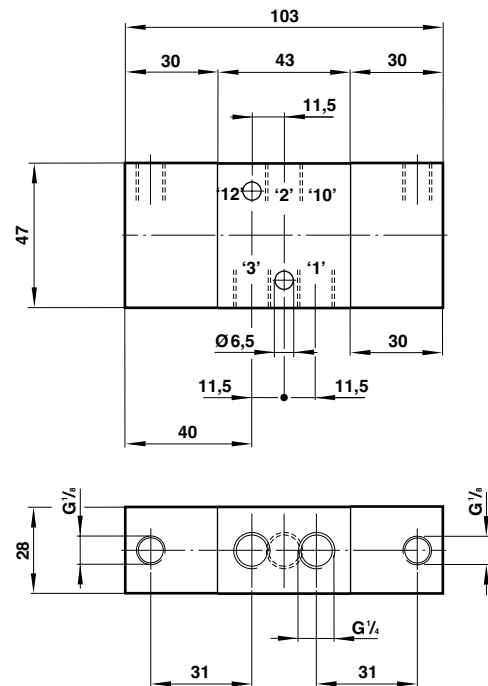
(21)



- 1 2 holes  $\varnothing$  6.5
- 2 1 - port M10 x 1.0
- 3 3 - ports M14 x 1.5 (parallel)

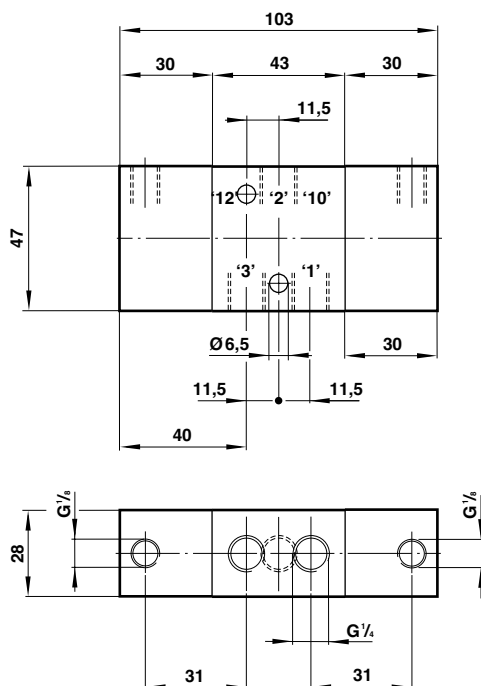
**G1/4 03060702 Model**  
**3/2 Pilot Priority Valve**

(22)

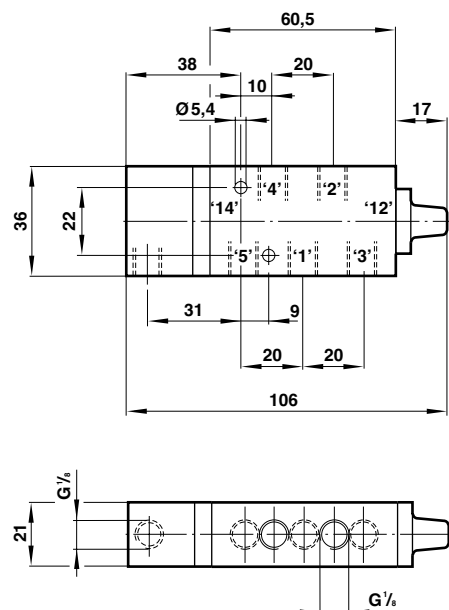

 Dimensions in mm  
 Projection/First angle

**G1/4 03061202 Model**  
**3/2 Double Pilot Valve**

(23)


**G1/8 X3044102 Model**  
**5/2 Single Pilot Valve**

(24)



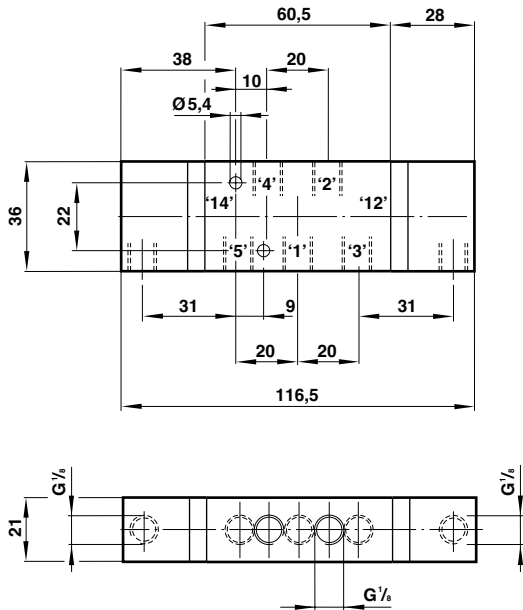
**G1/8 X3044702 Model**  
**5/2 Double Pilot Valve**

**G1/8 X3039002 Model**  
**5/2 Single Diaphragm Pilot Valve**

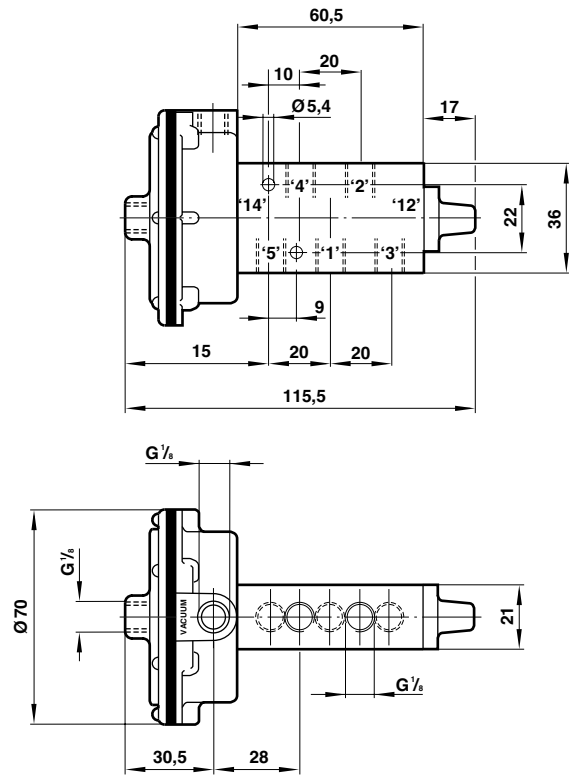
Dimensions in mm  
 Projection/First angle



25



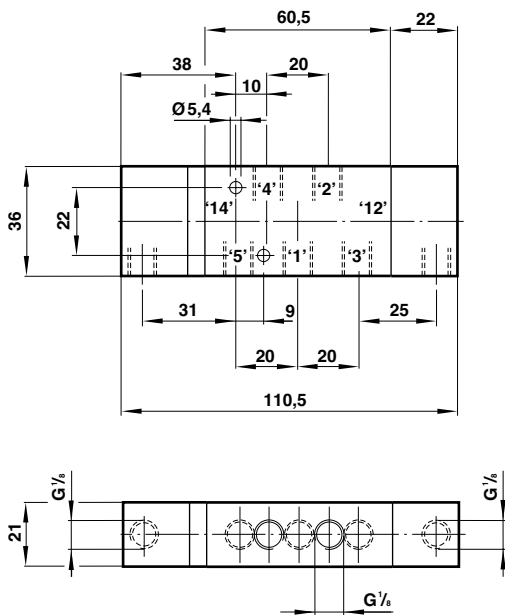
26



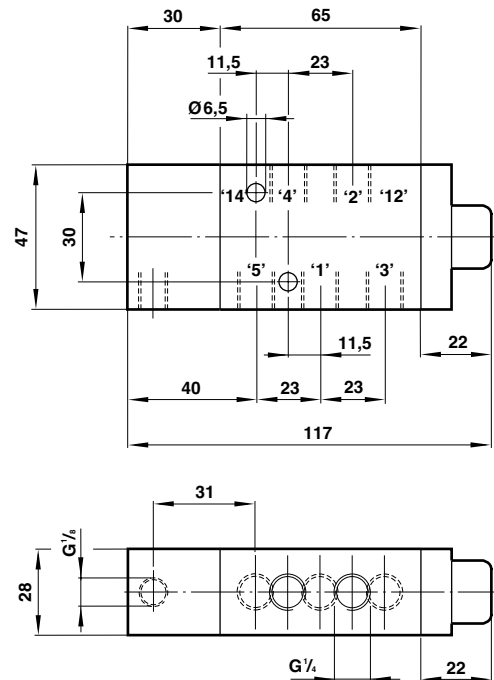
**G1/8 X3045202 Model**  
**5/2 Pilot Priority Valve**

**G1/4 X3064102 Model**  
**5/2 Single Pilot Valve**

27



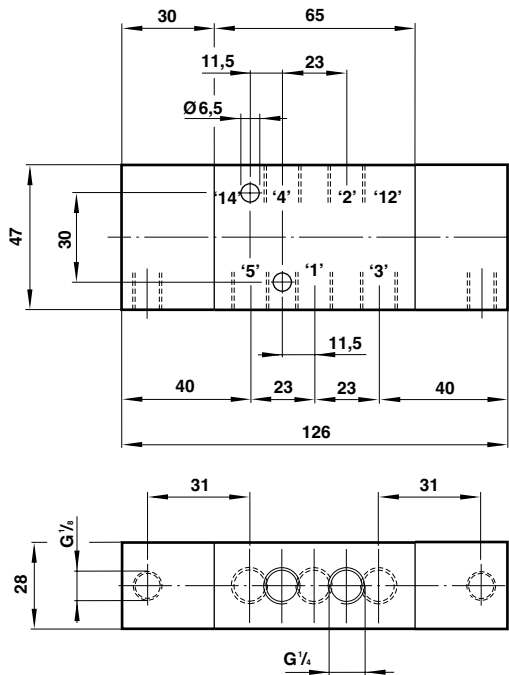
28



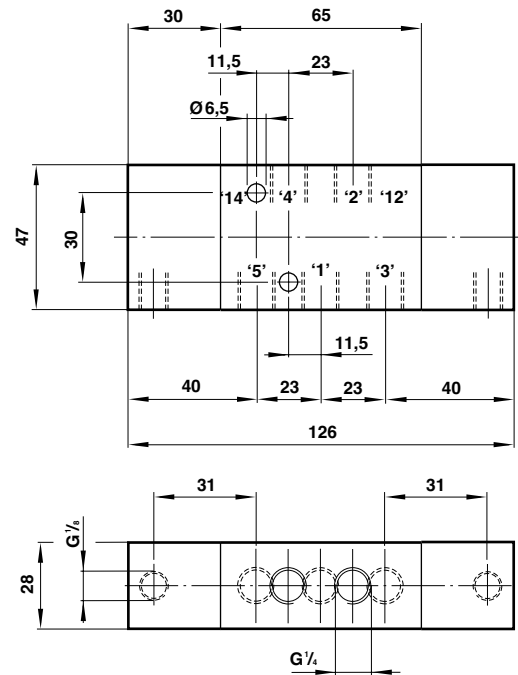
**G1/4 X3064702 Model**  
**5/2 Double Pilot Valve**
**G1/4 X3065202 Model**  
**5/2 Pilot Priority Valve**

 Dimensions in mm  
 Projection/First angle


29



30


**Warning**

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Norgren GmbH.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.