

## Material specification

### P2LAX

#### Valve

Valve body	Anodised aluminium
End covers	Anodised aluminium
Lever housing	Acetal plastic
Spool	Aluminium + nitrile rubber
Piston	Acetal plastic/ Anodised aluminium
End cover sealings	Nitrile rubber
End cover screws	Stainless steel
Springs	Dacromet® - processed steel, Stainless steel
Lever	Reinforced polyamid plastic
Panel mounting nut	Polycarbonate plastic
Gaiter	Chloroprene rubber
Mounting screws for solenoid	Stainless steel

#### Accessories

Manifold bar	Anodised aluminium
Pressure bar	Anodised aluminium
Multiple manifolds	Anodised aluminium
End and intermediate blocks	Anodised aluminium

### P2LBX

#### Valve

Valve body	Anodised aluminium
End covers	Anodised aluminium
Lever housing	Anodised aluminium
Spool	Aluminium + nitrile rubber
Piston	Acetal plastic/ Anodised aluminium
End cover sealings	Nitrile rubber
End cover screws	Stainless steel
Springs	Dacromet® - processed steel, Stainless steel
Lever	Steel Zinc Plated
Gaiter	Chloroprene rubber
Mounting screws for solenoid	Stainless steel
Panel Washer	Nitrile
Twist Bush	Acetal
Helix Bush	Brass
Pin	Plated Steel
Twist Housing	Anodised Aluminium
Twist Knob	Polyamide 6
Panel mounting ring	Acetal
Lever Housings	Anodised Aluminium
Lever selector	Zinc Diecast

#### Accessories

Manifold bar	Anodised aluminium
Pressure bar	Anodised aluminium

### P2LCX

#### Valve

Valve body	Anodised aluminium
End covers	Anodised aluminium
Spool	Aluminium + nitrile rubber
Piston	Acetal plastic/ Anodised aluminium
End cover sealings	Nitrile rubber
End cover screws	Stainless steel
Springs	Dacromet® - processed steel, Stainless steel
Lever	Steel Zinc Plated
Gaiter	Chloroprene rubber
Mounting screws for solenoid	Stainless steel

### P2LDX

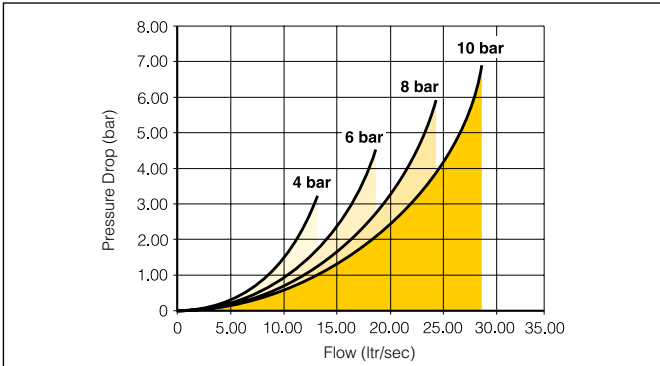
#### Valve

Valve body	Anodised aluminium
End covers	Anodised aluminium
Spool	Aluminium + nitrile rubber
Piston	Acetal plastic/ Anodised aluminium
End cover sealings	Nitrile rubber
End cover screws	Stainless steel
Springs	Dacromet® - processed steel, Stainless steel
Lever	Steel Zinc Plated
Gaiter	Chloroprene rubber
Mounting screws for solenoid	Stainless steel

**Flow characteristics**

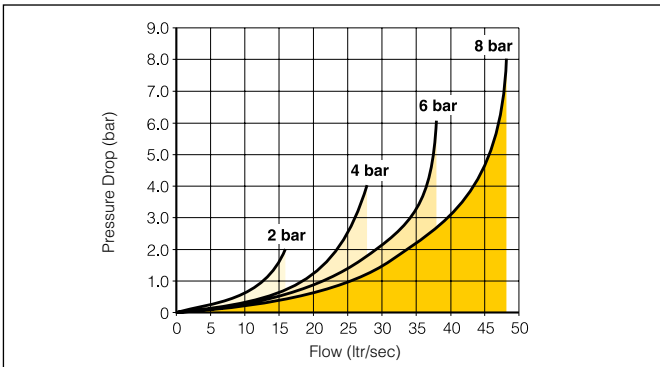
Flow capacities in accordance with ISO6358  
 All pressures = effective pressure  
 The curves in the diagram below are typical only

**Technical Data P2LAX**



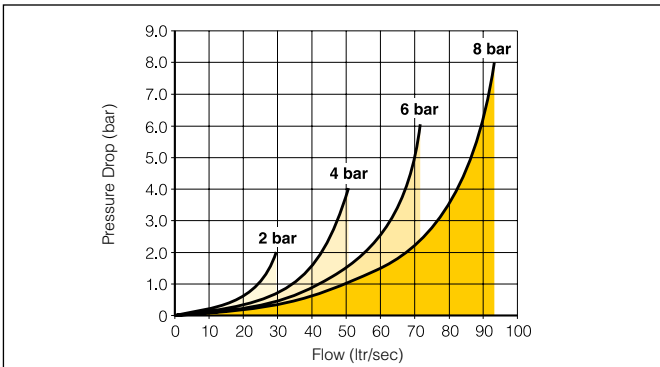
Port size	G1/8
Max operating pressure.	16 bar
Working temperature.	
Air pilot lever solenoid.	-40°C to + 60°C
Air pilot solenoid.	-10°C to + 50°C
Standard and food version.	-40°C to + 60°C
Mobile version.	-40°C to + 60°C
Flow (acc. to ISO 6358)	c = 3,0 NI/s x bar b = 0,2 Qn = 11,0 l/s Qmax = 19,0 l/s Cv = 0,65

**Technical Data P2LBX**



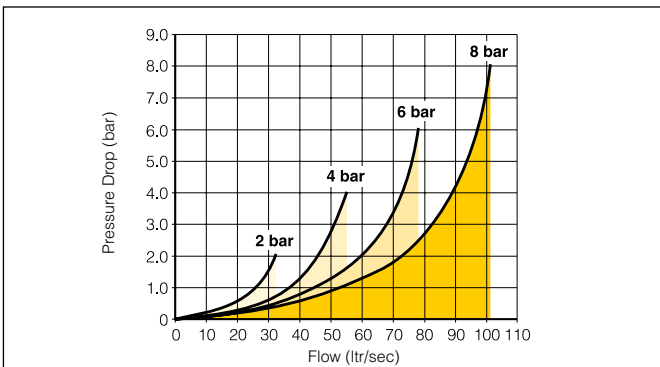
Port size	G1/4
Max operating pressure.	16 bar
Working temperature.	
Air pilot lever solenoid.	-40°C to + 60°C
Air pilot solenoid.	-10°C to + 50°C
Standard and food version.	-40°C to + 60°C
Mobile version.	-40°C to + 60°C
Flow (acc. to ISO 6358)	c = 5,4 NI/s x bar b = 0,2 Qn = 21,5 l/s Qmax = 38,0 l/s Cv = 1,33

**Technical Data P2LCX**



Port size	G3/8
Max operating pressure.	12 bar
Working temperature.	
Air pilot lever solenoid.	-40°C to + 60°C
Air pilot solenoid.	-10°C to + 50°C
Standard and food version.	-40°C to + 60°C
Mobile version.	-40°C to + 60°C
Flow (acc. to ISO 6358)	c = 10,3 NI/s x bar b = 0,22 Qn = 41,0 l/s Qmax = 72,0 l/s Cv = 2,5

**Technical Data P2LDX**



Port size	G1/2
Max operating pressure.	12 bar
Working temperature.	
Air pilot lever solenoid.	-40°C to + 60°C
Air pilot solenoid.	-10°C to + 50°C
Standard and food version.	-40°C to + 60°C
Mobile version.	-40°C to + 60°C
Flow (acc. to ISO 6358)	c = 11,3 NI/s x bar b = 0,3 Qn = 44,3 l/s Qmax = 78 l/s Cv = 2,71

Order chart - Viking Xtreme Normal Operating Pressure / Temperature

<b>P</b>	<b>2</b>	<b>L</b>	<b>A</b>	<b>X</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>E</b>	<b>S</b>	<b>N</b>	<b>D</b>	<b>D</b>	<b>B</b>	<b>4</b>	<b>9</b>
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<b>Valve family</b>	
<b>P2L</b>	Viking inline valve

<b>Size</b>	
<b>A</b>	1/8
<b>B</b>	1/4
<b>C</b>	3/8
<b>D</b>	1/2

<b>Version</b>	
<b>X</b>	Xtreme duty spool

<b>Port thread</b>	
<b>11</b>	G1/8
<b>12</b>	G1/4
<b>13</b>	G3/8
<b>14</b>	G1/2
<b>91</b>	1/8 NPT
<b>92</b>	1/4 NPT
<b>93</b>	3/8 NPT
<b>94</b>	1/2 NPT
<b>1N *</b>	Namur G1/4
<b>9N *</b>	Namur 1/4 NPT

\* Namur version not available in 3/2 function











  

<b>Solenoid pilot type</b>	
<b>N</b>	10 bar / -10°C to 50°C
<b>L**</b>	10 bar / -10°C to 50°C

<b>Solenoid exhaust</b>	
<b>D</b>	Vented
<b>N</b>	Captured/tapped M5
<b>X</b>	15mm solenoid vented

<b>Valve type function</b>		
<b>Solenoid operated with internal supply to solenoid</b>		
<b>3</b>		3/2 valve
<b>5</b>		5/2 valve
<b>6</b>		5/3 valve closed centre position
<b>7</b>		5/3 valve pressurised centre
<b>8</b>		5/3 valve vented centre
<b>Solenoid operated with external pilot supply to solenoids through ports 10 &amp; 12 for 3/2 version and through ports 12 &amp; 14 for 5/2 &amp; 5/3 version</b>		
<b>L</b>		3/2 valve
<b>N</b>		5/2 valve
<b>P</b>		5/3 valve closed centre position
<b>Q</b>		5/3 valve pressurised centre
<b>R</b>		5/3 valve vented centre

<b>Overrides</b>	
<b>A*</b>	None
<b>B*</b>	Flush - non locking
<b>C</b>	Flush - locking
<b>D<sup>1</sup></b>	Extended non-locking
<b>E*</b>	Extended - locking
<b>X</b>	Less 15mm solenoid

\* Only available with enclosure 5  
<sup>1</sup> 22mm solenoid option

<b>Voltage <sup>2</sup></b>			
	<b>AC</b>		<b>DC</b>
	<b>60Hz</b>	<b>50Hz</b>	
<b>40</b>	12		
<b>42</b>	24	22	
<b>45</b>			12
<b>47*</b>			12
<b>48*</b>			24
<b>49</b>			24
<b>53</b>	120	110	
<b>57</b>	240	230	
<b>XX</b>	valve less solenoid/coil		

<sup>2</sup> Shaded part numbers are available from stock  
Unshaded part numbers are available on request but will be subject to minimum order quantities  
Otherwise order coil/solenoid and valve separately.

<b>Pilot main actuator / Return</b>	
<b>E</b>	Solenoid operated valve
<b>S</b>	Spring (return only)
<b>P</b>	Press (return only)

<b>Solenoid enclosure / Lead length</b>	
<b>5</b>	15mm, 3 pin Form C/ISO15217 in line with body
<b>B</b>	22mm 3-pin Industrial Form B with coil
<b>N</b>	22mm solenoid pilot less coil
<b>X</b>	Valve less 15mm solenoid
<b>L**</b>	Low power 22mm solenoid (only available with 24V DC)

Shaded part numbers are standard

Order chart - Viking Xtreme Valves - Xtreme operating pressure / temperature

<b>P</b>	<b>2</b>	<b>L</b>	<b>A</b>	<b>X</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>E</b>	<b>S</b>	<b>H</b>	<b>D</b>	<b>D</b>	<b>B</b>	<b>4</b>	<b>9</b>
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Valve family	
<b>P2L</b>	Viking inline valve

Size	
<b>A</b>	1/8
<b>B</b>	1/4
<b>C</b>	3/8
<b>D</b>	1/2

Version	
<b>X</b>	Xtreme duty spool

Port thread	
<b>11</b>	G1/8
<b>12</b>	G1/4
<b>13</b>	G3/8
<b>14</b>	G1/2
<b>91</b>	1/8 NPT
<b>92</b>	1/4 NPT
<b>93</b>	3/8 NPT
<b>94</b>	1/2 NPT

Solenoid pilot type	
<b>H<sup>1</sup></b>	16 bar / -40°C to 60°C

<sup>1</sup> Solenoid operated 'H' version supplied with B type enclosure 16 bar solenoid

Solenoid exhaust	
<b>D</b>	Vented
<b>N</b>	Capture/tapped M5

Overrides	
<b>D</b>	Extended non-locking

Voltage <sup>3</sup>		
	AC	DC
	60Hz	50Hz
<b>40</b>	12	
<b>42</b>	24	22
<b>45</b>		12
<b>47*</b>		12
<b>48*</b>		24
<b>49</b>		24
<b>53</b>	120	110
<b>57</b>	240	230
<b>72</b>		110
<b>XX</b>	valve less solenoid/coil	

\* Mobile voltage see page 51 operating parameters

<sup>3</sup> Shaded part numbers are available from stock  
 Unshaded part numbers are available on request but will be subject to minimum order quantities  
 Otherwise order coil and valve separately.

Valve type function	
Solenoid operated with internal supply to solenoid	
<b>3</b>	3/2 valve
<b>5</b>	5/2 valve
<b>6</b>	5/3 valve closed centre position
<b>7</b>	5/3 valve pressurised centre
<b>8</b>	5/3 valve vented centre
Solenoid operated with external pilot supply to solenoids through ports 10 & 12 for 3/2 version and through ports 12 & 14 for 5/2 & 5/3 version	
<b>L</b>	3/2 valve
<b>N</b>	5/2 valve
<b>P</b>	5/3 valve closed centre position
<b>Q</b>	5/3 valve pressurised centre
<b>R</b>	5/3 valve vented centre

Pilot main actuator / Return	
<b>E</b>	Solenoid operated valve
<b>S</b>	Spring (return only)
<b>P</b>	Press (return only)

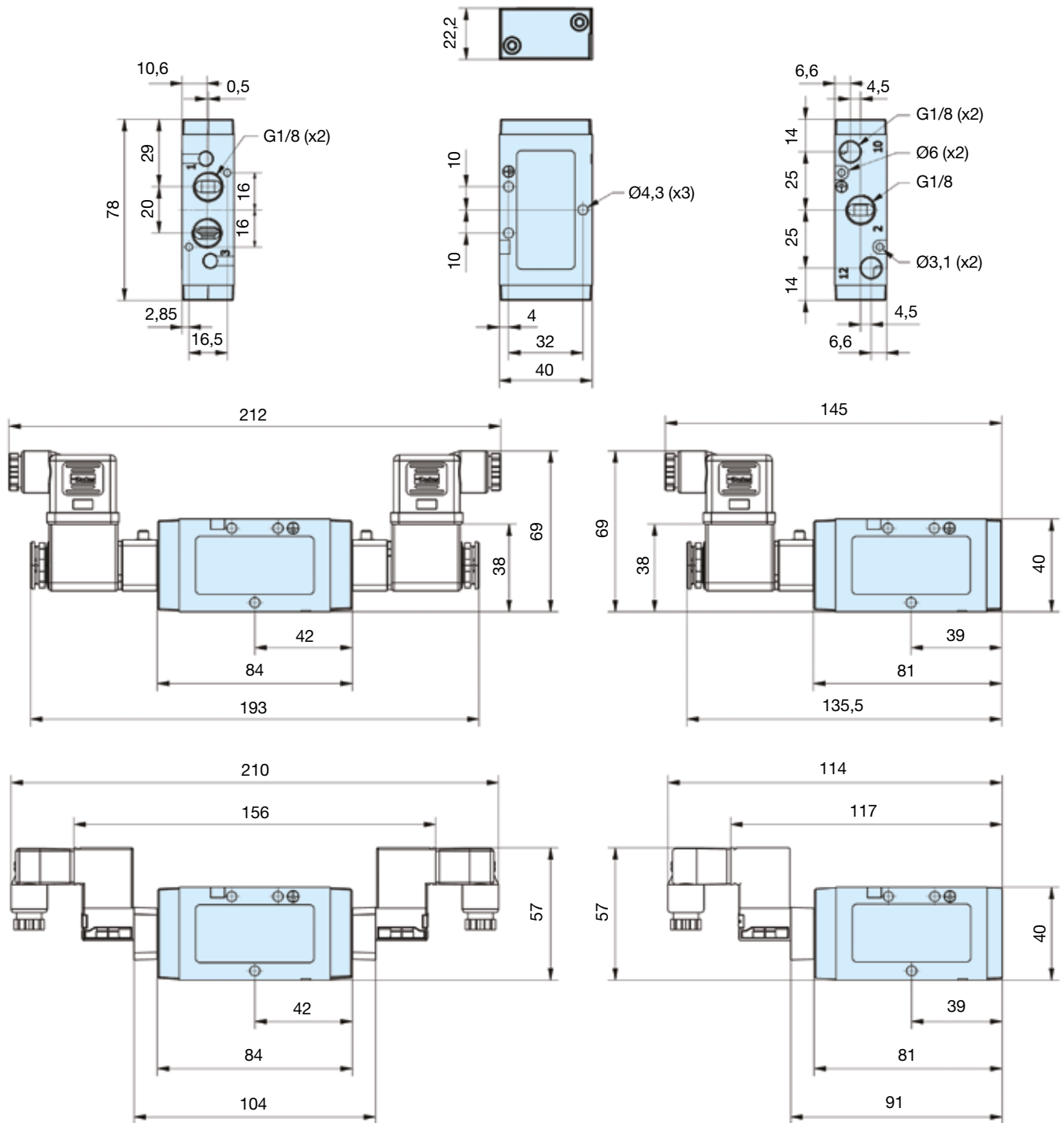
Solenoid enclosure / Lead length	
<b>A</b>	22mm Solenoid pilot & 30mm coil Form A
<b>B</b>	22mm Solenoid pilot & 22mm coil Industrial Form B
<b>N</b>	22mm Solenoid pilot less coil

Shaded part numbers are standard

**Dimensions**

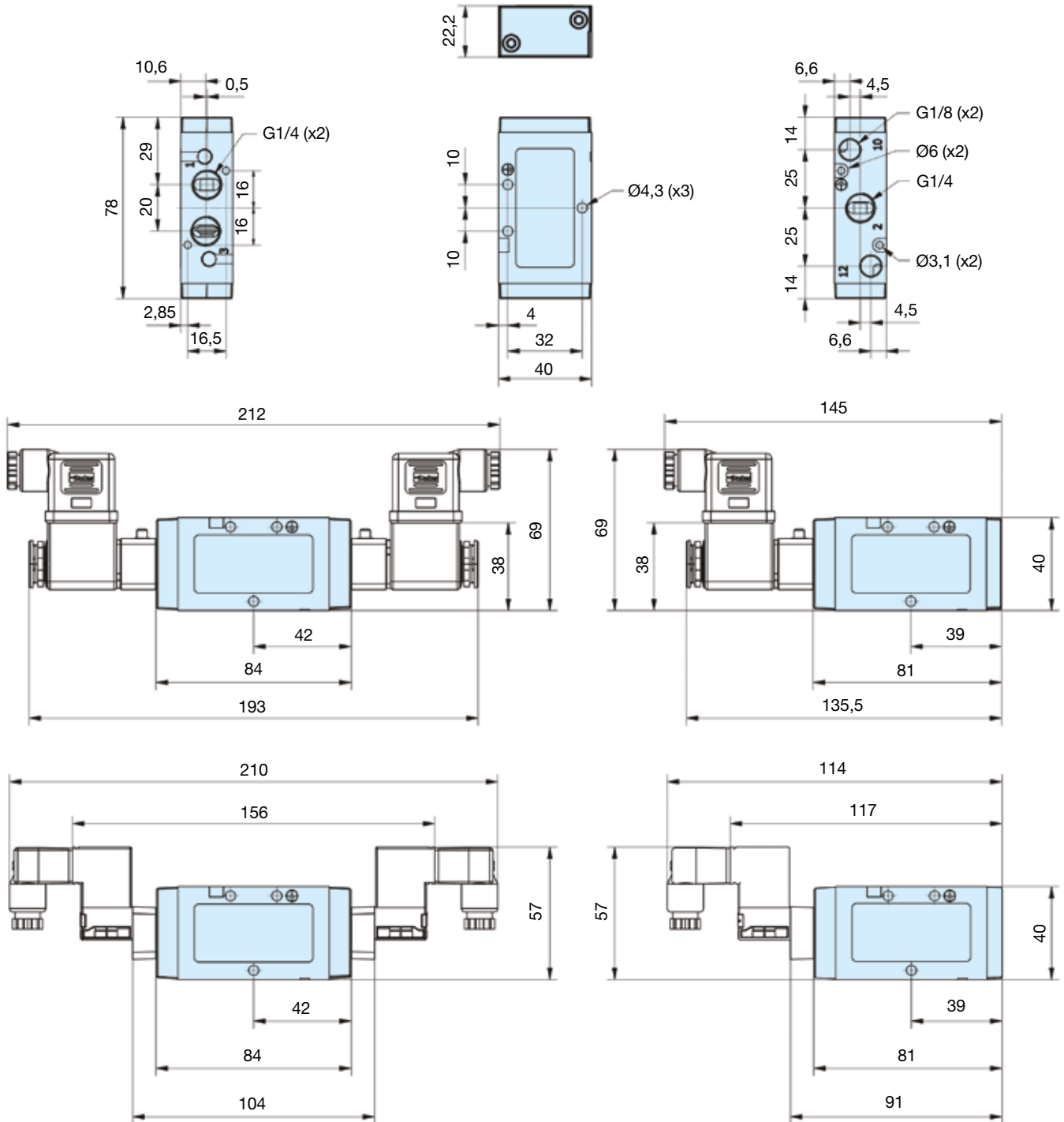
**P2LAX... all  
 3/2 valves**



**Solenoid valves**  
 Cable plugs must be ordered separately.  
 One pilot valve is required for each E in the valve order code.

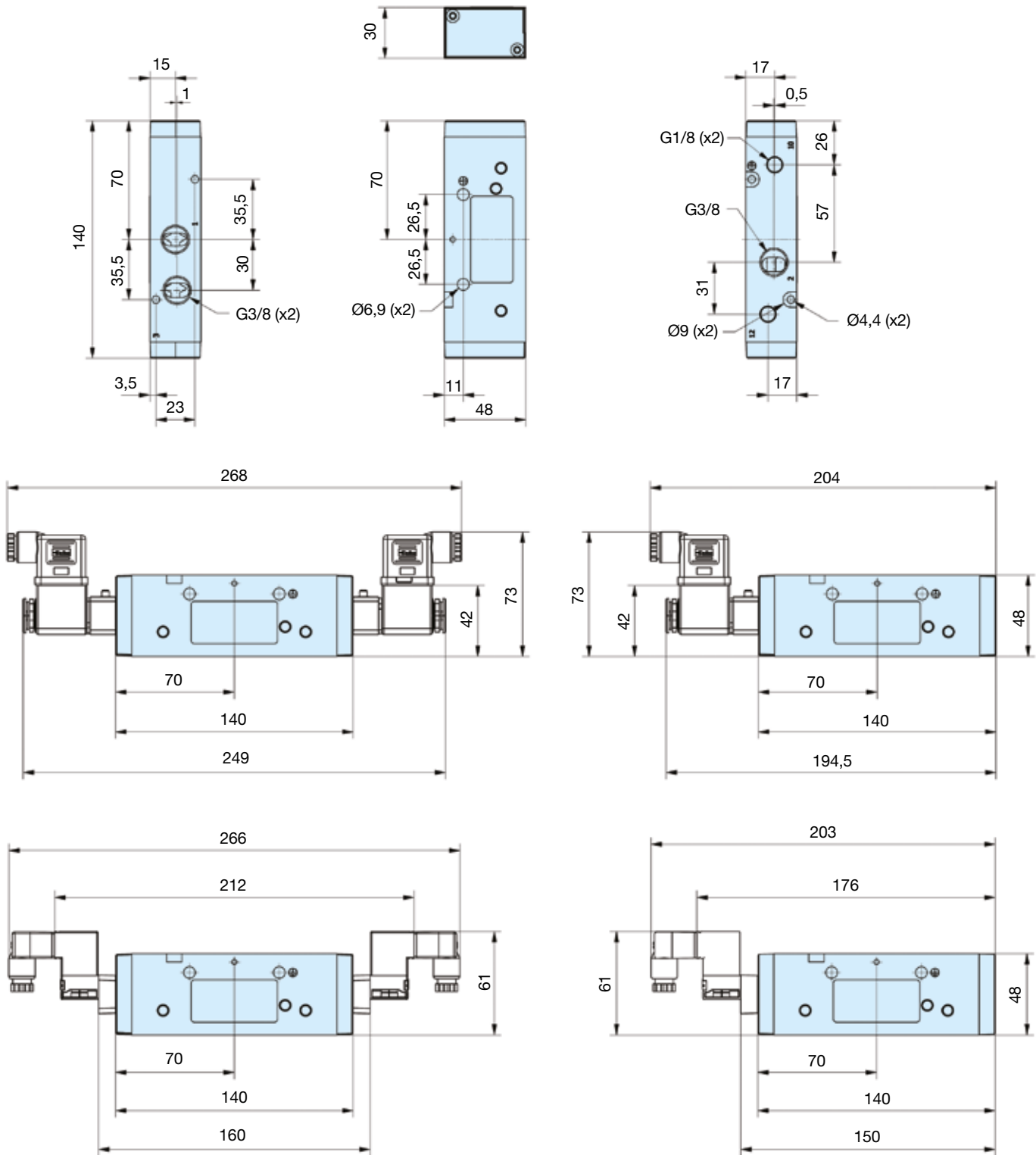
**Dimensions**

P2LBX... all  
 3/2 valves



Dimensions

P2LCX... all  
3/2 valves



Dimensions

P2LDX... all  
3/2 valves

