

Valves series AX1 - Intrinsic safety Ex ia 1/4", 3/2 - 5/2 - 5/3, IN LINE and NAMUR interface, electrically operated Ex ia



Standard executions		
Version	Symbol	Code
3/2 NC		For code key see the table below
3/2 NO		
3/2 solenoid/solenoid		
5/2 solenoid/spring		
5/2 solenoid/solenoid		
5/2 solenoid/solenoid differential		
5/3 closed centres		
5/3 open centres		
5/3 pressurised centres		



New series of "AX" valves with functions 3/2 - 5/2 - 5/3 connection in line on the body or NAMUR. Electric and electric servo pilot. They are manufactured in AISI 316L stainless steel, especially suitable in the food, chemical, pharmaceutical, Oil & gas and mining industry. AX valves are manufactured according to 2014/34/EU Directive to be used in potentially explosive environment.

Conforming to 2014/34/EU Directive, certified:

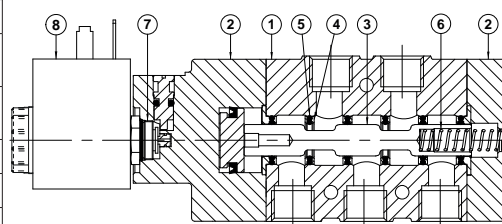
- II 2G Ex ia IIC T6 Gb
- II 2D Ex tb IIIC T80°C Db X IP65
- II 2G Ex ia IIC T4 Gb
- II 2D Ex tb IIIC T80°C Db X IP65

Connectors have to be ordered separately:
For connector type A18209N/ATEX

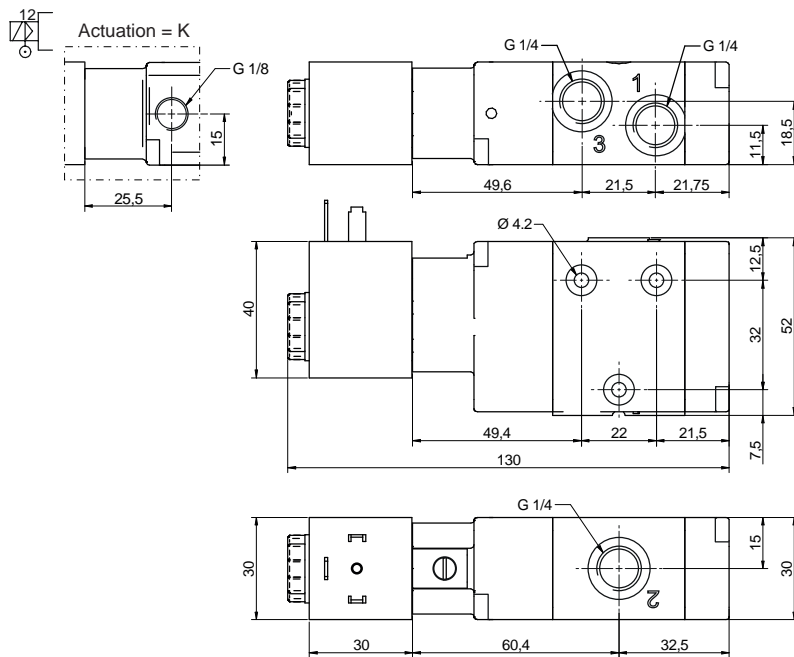
see page 2.210.50

Code key					
Series	Actuation	Size	Function	Hazardous areas	Voltages
AX1 = Standard AXX1* = Completely in stainless steel AX1N = NAMUR AXX1N* = NAMUR Completely in stainless steel	E = electrical Ø9 K = electrical Ø9 external air pilot	2 = 1/4 Gas 2N = 1/4 NPT	30 = 3/2 NC 31 = 3/2 NO 32 = 3/2 solenoid/solenoid 50 = 5/2 solenoid/spring 51 = 5/2 solenoid/solenoid 52 = 5/2 solenoid/solenoid differential 70 = 5/3 CC 71 = 5/3 OC 72 = 5/3 PC	XA = II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db X IP65 XA1 = II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T80°C Db X IP65	C = 24 VDC
* On request					

Technical data			
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.		
Threaded connection	1/4 Gas - 1/4 NPT		
Pressure range	Spring return: 2,5 ÷ 8 bar	Bistable: 1 ÷ 8 bar	3 positions: 2,5 ÷ 8 bar
Minimum external air pressure	2 bar		
Temperature range	-25°C ÷ +50°C		
Protection grade	-		
Ø Orifice	8 mm		
Flow	1.100 NI/min at 6 bar with ΔP 1 bar		
Mounting	In any position (vertical assembly is not recommended for bistable valves subjected to vibration)		
Manual override	Bistable		
Electrical characteristic	Nominal voltage	21.6 ÷ 28 VDC	21.6 ÷ 28 VDC
	Max voltage	28 VDC	28 VDC
	Nominal current	0.115 A (at 28 VDC)	0.115 A (at 28 VDC)
	Nominal power	1.6 W (at 28 VDC)	1.6 W (at 28 VDC)
	Duty cycle	100% ED	100% ED
	Temp. class	T6	T4
Response time (at 6 bar)	Energising: - ms	Energising: - ms	Energising: - ms
	De-energising: - ms	De-energising: - ms	De-energising: - ms
Materials	(1) Body:	Stainless steel AISI 316L	
	(2) Cover:	Stainless steel AISI 316L	
	(3) Spool:	Hard aluminium anodized (AX series) Stainless steel AISI 316 (AXX series)	
	(4) Distancers:	Ixef 1022 (AX series) Stainless steel AISI 316 (AXX series)	
	(5) Seals:	Hydrogenate Nitrile Butadine Rubber (HNBR)	
	(6) Spring:	Stainless steel	
	(7) Operator:	Brass	
	(8) Coil:	Thermoset resin	

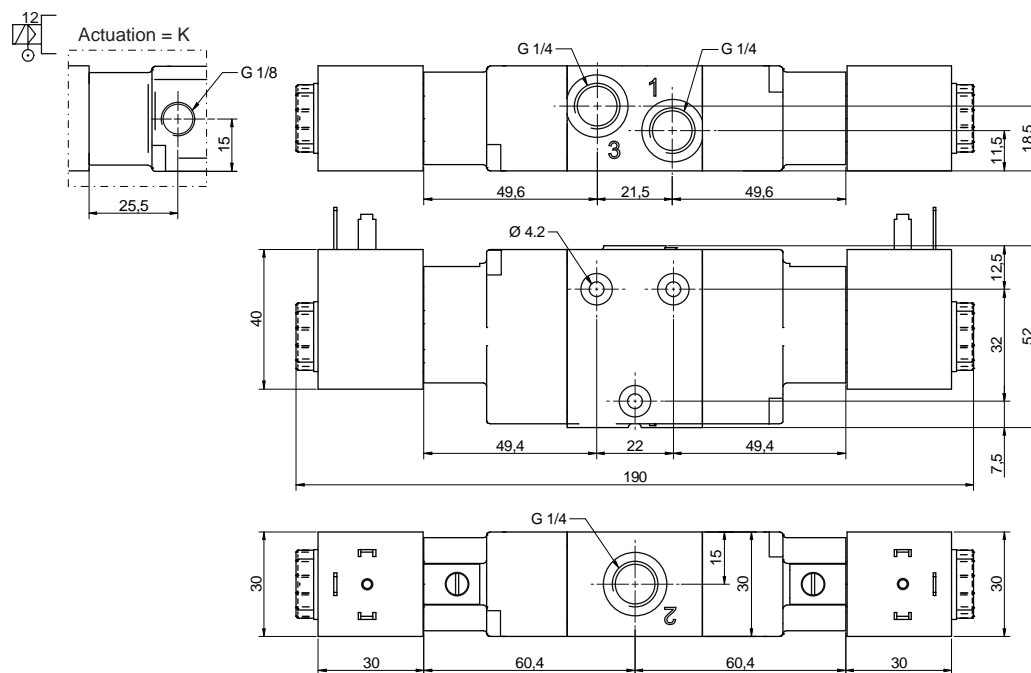


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Version	Symbol	Code	Item
3/2 NC			AX1E230XAC
3/2 NO			AX1E231XAC
3/2 NC external air pilot			AX1K230XAC

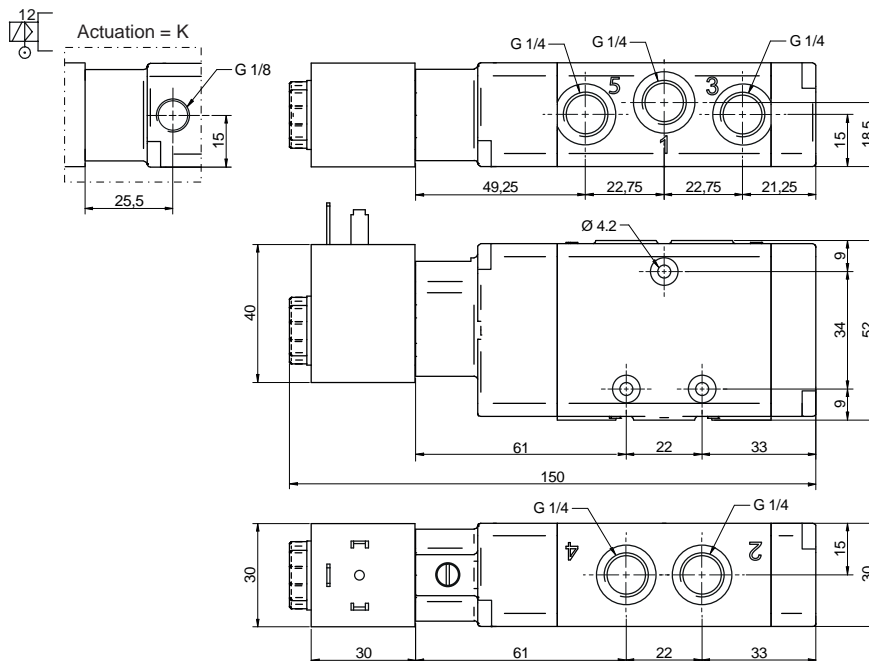
* For coil voltage: see code key at page 5.82.1



Version	Symbol	Code	Item
3/2 solenoid/solenoid			AX1E232XAC
3/2 solenoid/solenoid external air pilot			AX1K232XAC

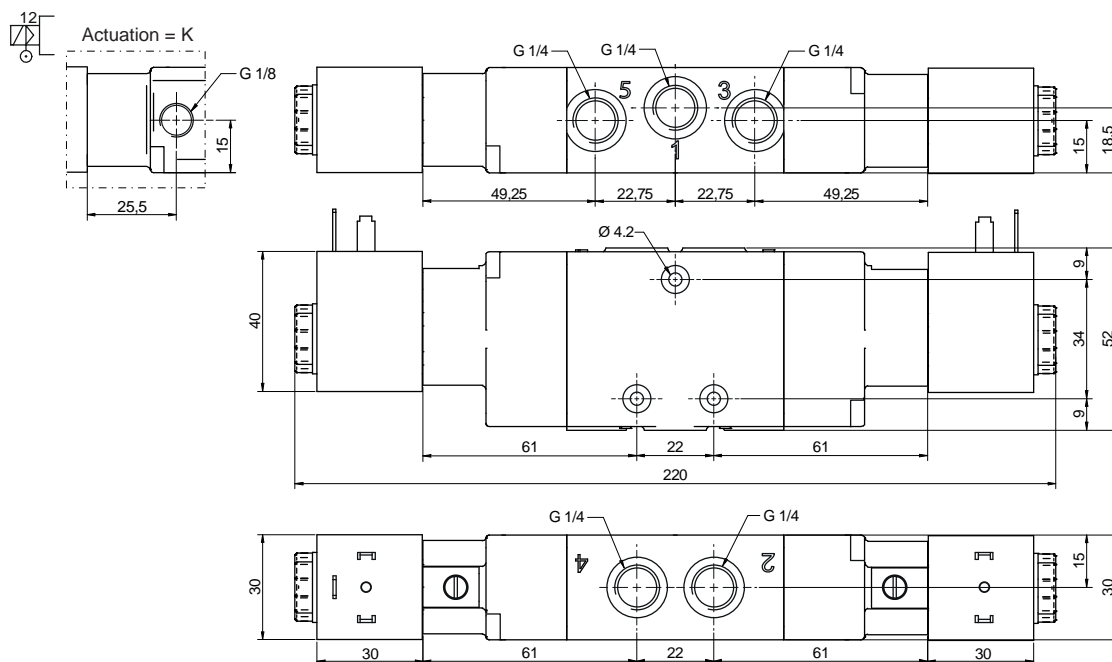
* For coil voltage: see code key at page 5.82.1

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Version	Symbol	Code	Item
5/2 solenoid/spring			AX1E250XAC

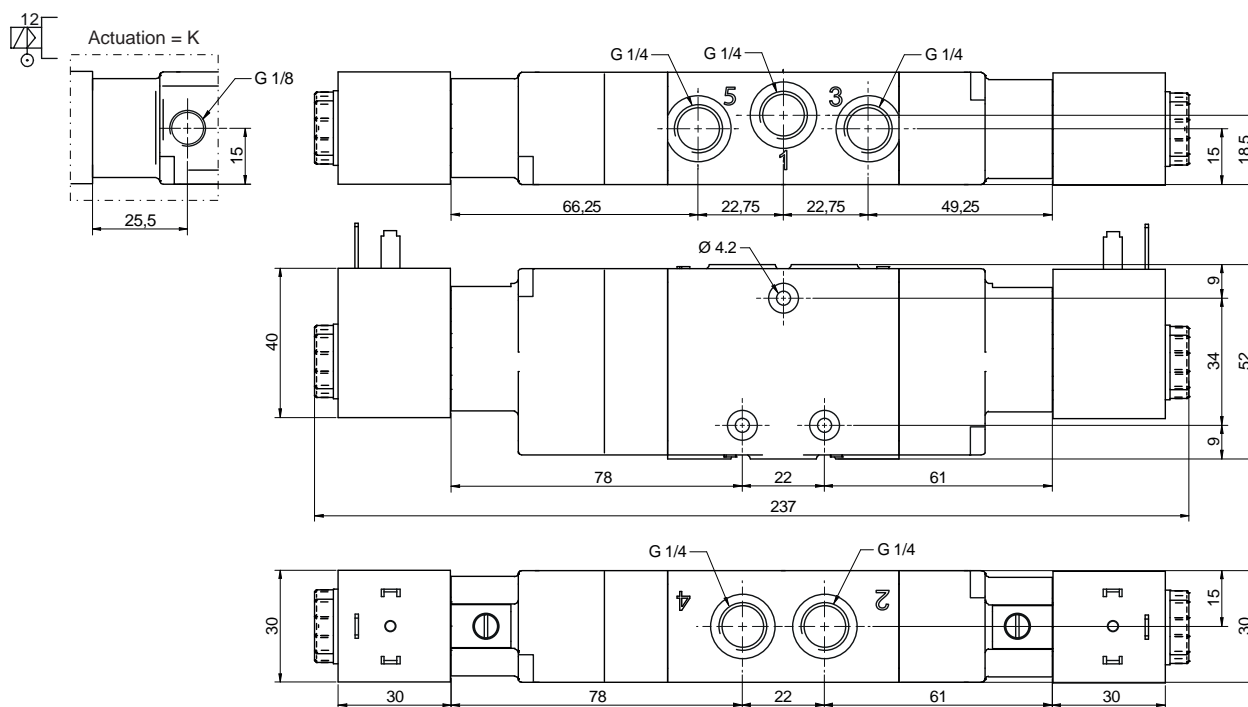
* For coil voltage: see code key at page 5.82.1



Version	Symbol	Code	Item
5/2 solenoid/solenoid			AX1E251XAC
5/2 solenoid/solenoid differential			AX1E252XAC

* For coil voltage: see code key at page 5.82.1

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Version	Symbol	Code	Item
5/3 closed centres			AX1E270XAC
5/3 open centres			AX1E271XAC
5/3 pressurised centres			AX1E272XAC

Version	Symbol	Code	Item
5/3 closed centres, external air pilot			AX1K270XAC
5/3 open centres, external air pilot			AX1K271XAC
5/3 pressurised centres external air pilot			AX1K272XAC

* For coil voltage: see code key at page 5.82.1

Valves series AX1 - Intrinsic safety Ex ia
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Technical drawing of a single valve showing front, side, and top views. Dimensions include: Ø 5.3, M5, 8.5, 42, 24, 32, 40, 60, 150, 12, 12, 32, 11.5, 52, 30, 18.5, 15, 49.25, 22.75, 22.75, 21.25, 84, 32.

Functions 3/2

Version	Symbol	Code	Item
3/2 NC			AX1NE230XAC
5/2 solenoid/spring			AX1NE250XAC

* For coil voltage: see code key at page 5.82.1

Technical drawing of a double valve showing front, side, and top views. Dimensions include: Ø 5.3, M5, 8.5, 60, 24, 60, 40, 60, 220, 12, 12, 60, 11.5, 52, 30, 18.5, 15, 49.25, 22.75, 22.75, 49.25, 30, 84, 60.

Functions 3/2

Version	Symbol	Code	Item
3/2 solenoid/solenoid			AX1NE232XAC
5/2 solenoid/solenoid			AX1NE251XAC

* For coil voltage: see code key at page 5.82.1