

Valves series AX1 - Non-sparking coil Ex nA

1/4", 3/2 - 5/2 - 5/3, IN LINE and NAMUR interface, electrically operated Ex nA



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.

Solenoid operator with a special coil for pneumatic application in potentially explosive environment (group II).

Solenoid system is conforming to 2014/34/EU Directive, certified:

II 3G Ex nA IIC T5 Gc X
II 3D Ex tc IIIC T95°C Dc X IP65

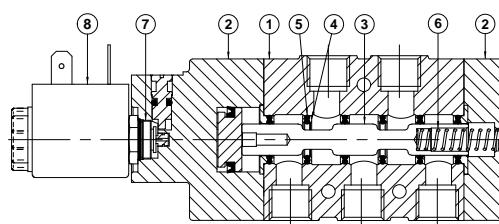
Connectors have to be ordered separately:

For connector type A12209N/ATEX

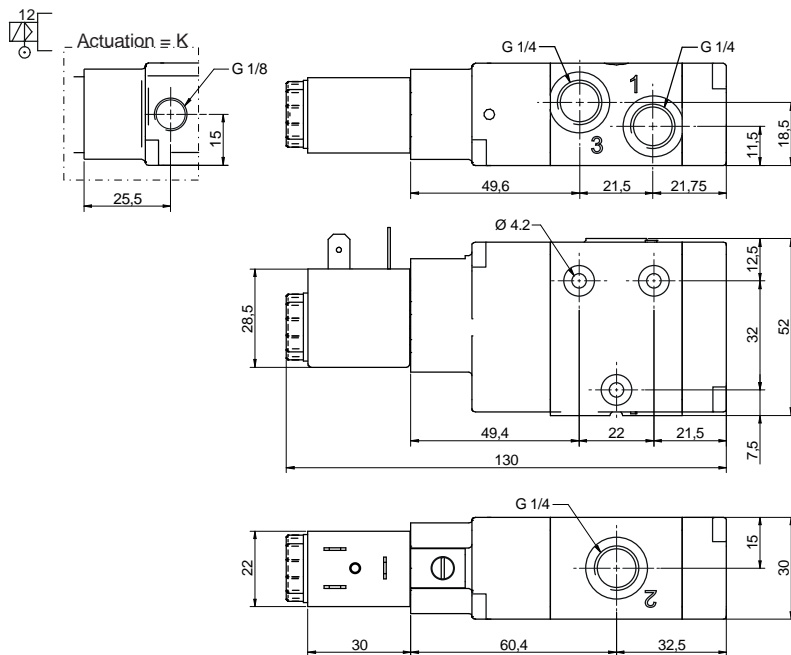
see page 2.210.50

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	XX = II 3G Ex nA IIC T5 Gc X II 3D Ex tc IIIC T95°C Dc X IP65	B = 12 VDC C = 24 VDC * F = 24 VAC * I = 110 VAC * O = 220 VAC *
* On request					* = Standard voltages

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 ÷ 10 bar	Bistable: 1 ÷ 10 bar	3 positions: 2.5 ÷ 10 bar				
Temperature range	-15°C ÷ +50°C						
Protection grade	-						
Ø Orifice	8 mm						
Flow	1.100 Nl/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	12 VDC	24 VDC	24 VAC	110 VAC	220 VAC	
	Frequency	-	-	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
	Nominal current	0.250 A	0.120 A	0.208 A	0.045 A	-0.023 A	
	Nominal power	3 W	3 W	5 VA	5 VA	5 VA	
	Duty cycle	100% ED					
	Temp. class	T5					
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 anodized aluminium (AX series) Stainless steel AISI 316 (AXX series)					
	(4) Distancers:	Ixef 1022 (AX series) Stainless steel AISI 316 (AXX series)					
	(5) Seals:	Hydrogenate Nitrile Butadiene Rubber (HNBR)					
	(6) Spring	Stainless steel					
	(7) Operator:	Stainless steel					
	(8) Coil:	Thermoset resin					

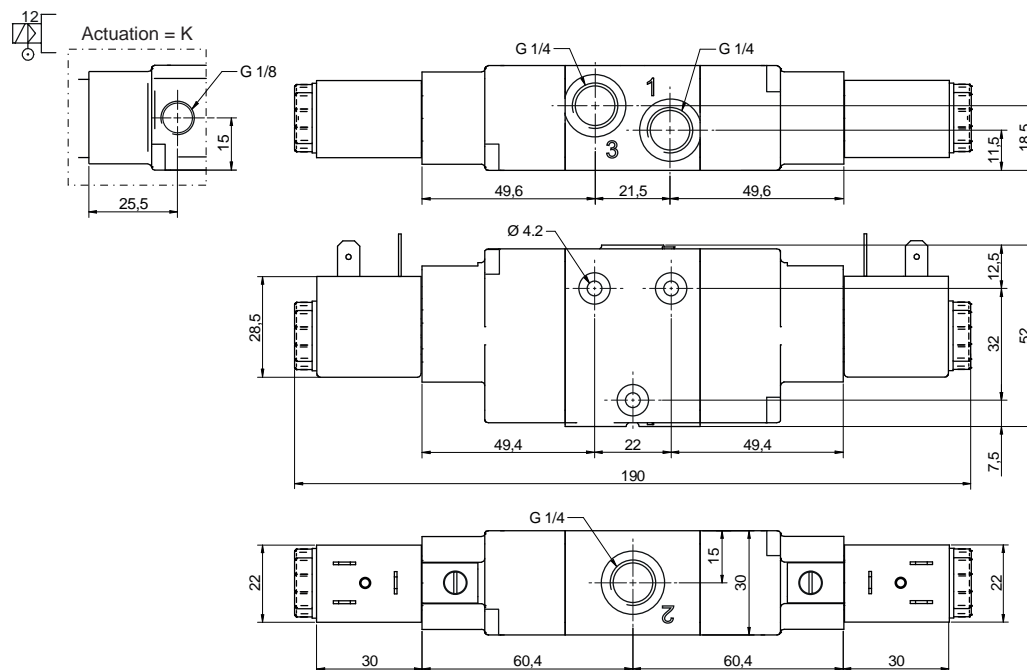


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 1/4", 3/2 - 5/2 - 5/3, IN LINE interface, electrically operated Ex nA



Version	Symbol	Code	Item
3/2 NC			AX1E230XX*
3/2 NO			AX1E231XX*
3/2 NC external air pilot			AX1K230XX*

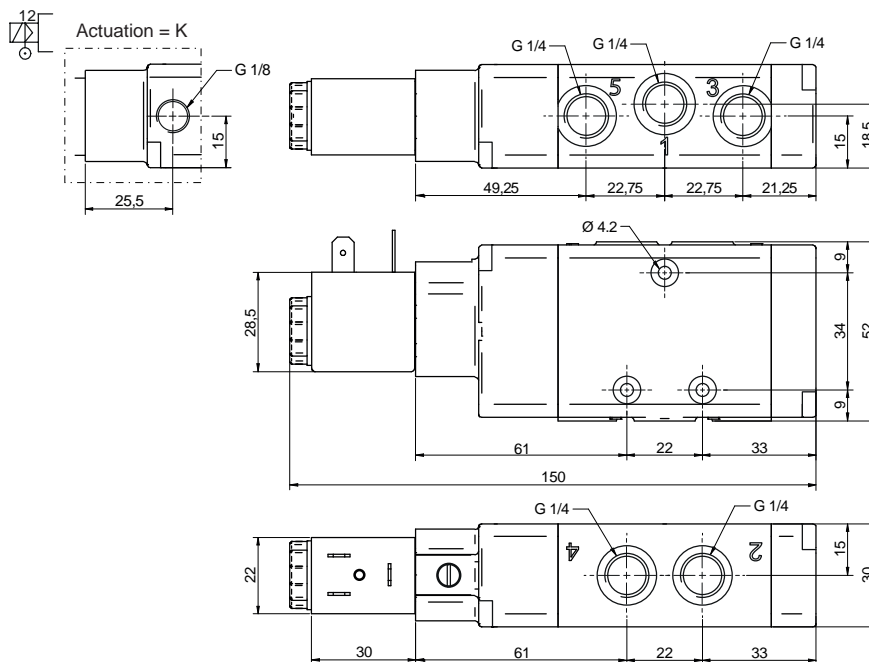
* For coil voltage: see code key at page 5.81.1



Version	Symbol	Code	Item
3/2 solenoid/solenoid			AX1E232XX*
3/2 solenoid/solenoid external air pilot			AX1K232XX*

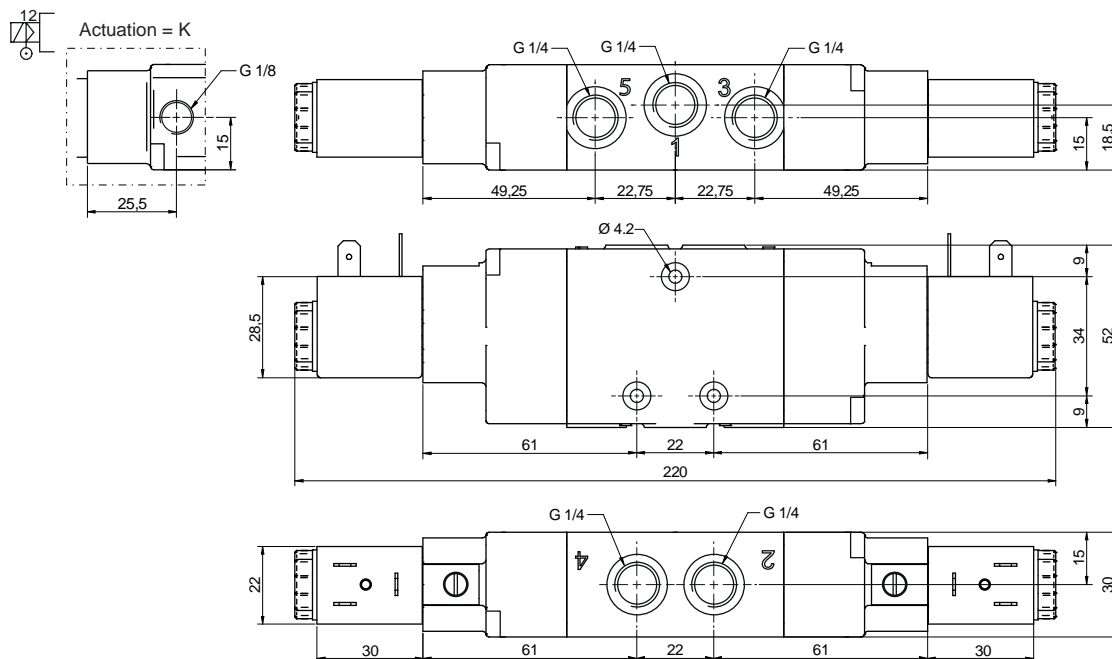
* For coil voltage: see code key at page 5.81.1

Valves series AX1 - Non sparking coil Ex nA
 1/4", 3/2 - 5/2 - 5/3, IN LINE interface, electrically operated Ex nA



Version	Symbol	Code	Item
5/2 solenoid/spring			AX1E250XX*

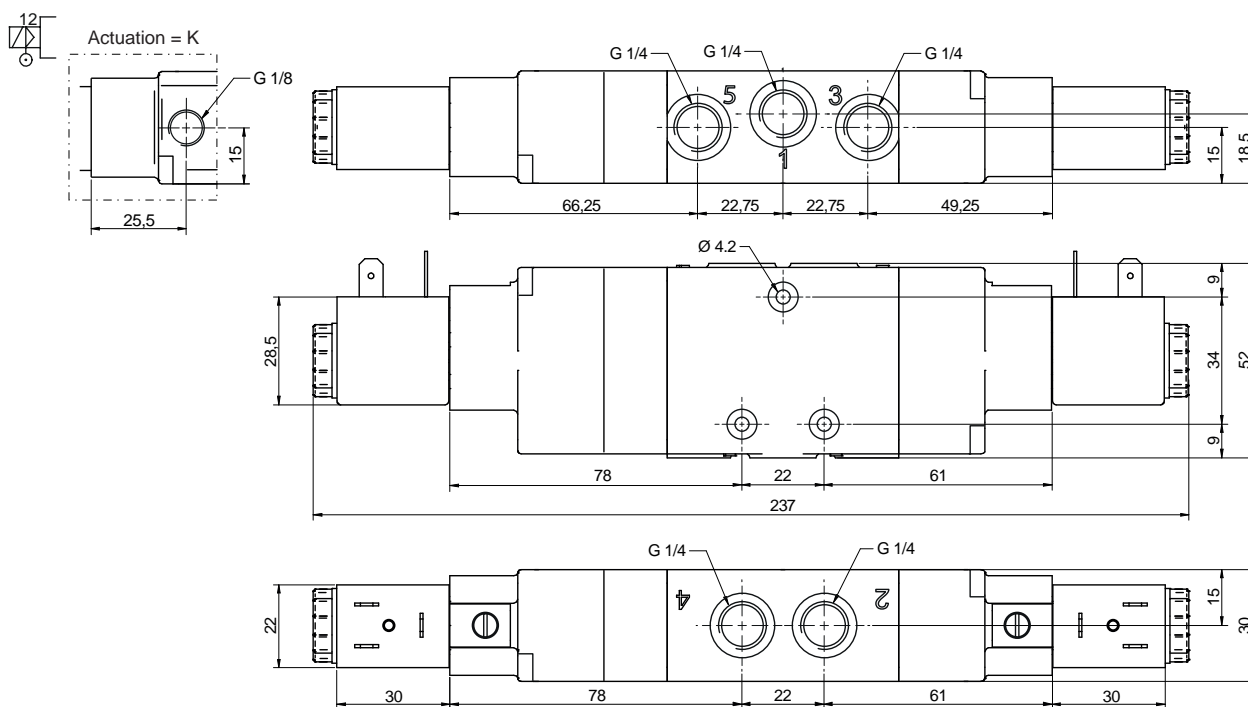
* For coil voltage: see code key at page 5.81.1



Version	Symbol	Code	Item
5/2 solenoid/solenoid			AX1E251XX*
5/2 solenoid/solenoid differential			AX1E252XX*

* For coil voltage: see code key at page 5.81.1

Valves series AX1 - Non sparking coil Ex nA
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Version	Symbol	Code	Item
5/3 closed centres			AX1E270XX*
5/3 open centres			AX1E271XX*
5/3 pressurised centres			AX1E272XX*

Version	Symbol	Code	Item
5/3 closed centres, external air pilot			AX1K270XX*
5/3 open centres, external air pilot			AX1K271XX*
5/3 pressurised centres, external air pilot			AX1K272XX*

* For coil voltage: see code key at page 5.81.1

Valves series AX1 - Non sparking coil Ex nA
 1/4", 3/2 - 5/2, NAMUR interface, electrically operated Ex nA



Technical drawings of a 3/2 valve. The top drawing shows a side view with dimensions: $\varnothing 5,3$, M5, 8,5, 42, 24, 32, 28,5, 150, 60, 12, 12, 32, 11,5, 52, 8,5. The middle drawing shows a front view with dimensions: 22, 30, 49,25, 22,75, 22,75, 21,25, 15, 18,5, and three G 1/4 ports labeled 5, 3, and 3. The bottom drawing shows a side view with dimensions: 84, 32, and is labeled "Functions 3/2".

Version	Symbol	Code	Item
3/2 NC			AX1NE230XX*
5/2 solenoid/spring			AX1NE250XX*

* For coil voltage: see code key at page 5.81.1

Technical drawings of a 3/2 valve. The top drawing shows a side view with dimensions: $\varnothing 5,3$, M5, 8,5, 60, 24, 60, 28,5, 220, 60, 12, 12, 60, 8,5, 52, 11,5. The middle drawing shows a front view with dimensions: 22, 30, 49,25, 22,75, 22,75, 49,25, 30, 15, 18,5, and three G 1/4 ports labeled 5, 3, and 3. The bottom drawing shows a side view with dimensions: 84, 60, and is labeled "Functions 3/2".

Version	Symbol	Code	Item
3/2 solenoid/solenoid			AX1NE232XX*
5/2 solenoid/solenoid			AX1NE251XX*

* For coil voltage: see code key at page 5.81.1