

# Valves series AX1 - Encapsulated coil Ex dm

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



**New**



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		
<b>Note</b>		<b>Code</b>
Distancer for NAMUR body (see page 2.88.10)		034203
		034166
		<b>Item</b>
		PSN 3/2
		PSN 5/2

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). The protection is assured by a thermal fuse that, in case of damage, disconnects the coil from power.

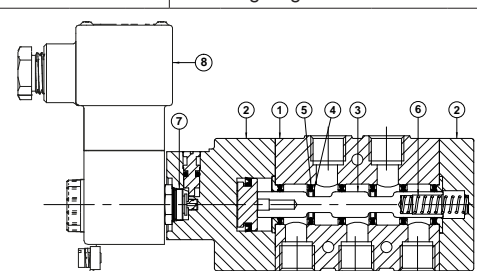
Solenoid system is conforming to 2014/34/EU Directive, certified:



II 2G Ex db mb IIC T5 Gb  
II 2D Ex tb IIIC T95°C IP66 Db

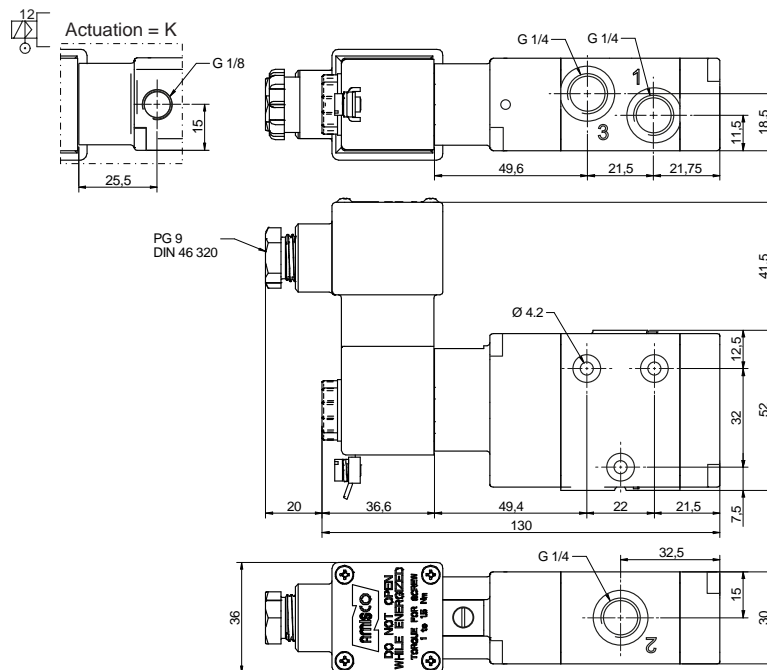
Series	Actuation	Size	Function	Hazardous areas	Voltages
AX1 = Standard AXX1 = Completely in stainless steel AX1N = NAMUR AXX1N = NAMUR Completely in stainless steel	E = electrical Ø9 K = electrical Ø9 external air pilot	2 = 1/4 Gas 2N = 1/4 NPT	30 = 3/2 NC 31 = 3/2 NO 32 = 3/2 solenoid/solenoid 50 = 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	XB = II 2G Ex db mb IIC T5 Gb II 2D Ex tb IIIC T95°C IP66 Db	A = 6 VDC B = 12 VDC C = 24 VDC * D = 48 VDC  E = 12 VAC F = 24 VAC G = 48 VAC H = 100 VAC I = 110 VAC L = 115 VAC M = 120 VAC O = 220 VAC P = 230 VAC Q = 240 VAC  * = 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: 1.5 ÷ 10 bar      Bistable: 1 ÷ 10 bar      3 positions: 2.5 ÷ 10 bar	
Minimum external air pressure	1.5 bar	
Temperature range	-25°C ÷ +50°C	
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	6 VDC   12 VDC   24 VDC   48 VDC   12 VAC   24VAC   48 VAC   100 VAC   110 VAC   115 VAC   120 VAC   220 VAC   230 VAC   240 VAC
	Frequency	-   -   -   -   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz
	Nominal current	0.510 A   0.250 A   0.125 A   0.063 A   0.270 A   0.133 A   0.067 A   0.032 A   0.029 A   0.028 A   0.027 A   0.014 A   0.014 A   0.013 A
	Nominal power	3 W   3 W   3 W   3 W   3.2 VA   3.2 VA   3.2 VA   3.2 VA   3.2 VA   3.2 VA   3.2 VA   3.2 VA   3.2 VA   3.2 VA
	Duty cycle	100% ED
	Temp. class	T5
Response time (at 6 bar)	Energising: - ms	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:	Fortron 1140L4 (AX series) Stainless steel AISI 316 (AXX series)
	(5) Seals:	Hydrogenate Nitrile Butadine Rubber (HNBR)
	(6) Spring:	Stainless steel
	(7) Operator:	Stainless steel
	(8) Coil:	Thermoset resin



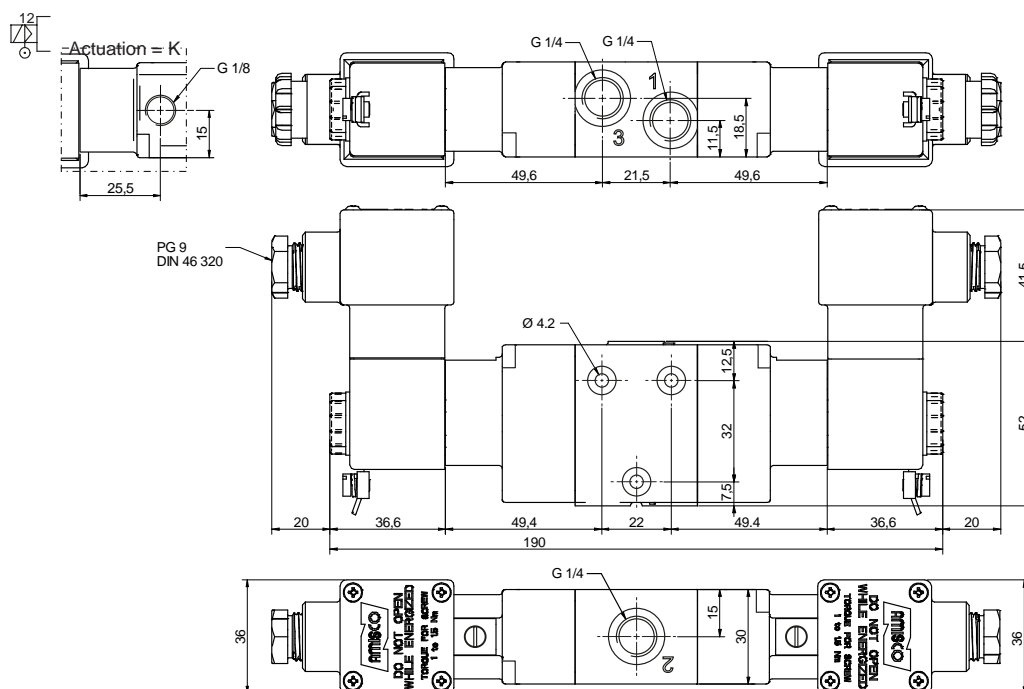
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Version	Symbol	Code	Item
3/2 NC			AX1E230XB*
3/2 NO			AX1E231XB*
3/2 NC external air pilot			AX1K230XB*

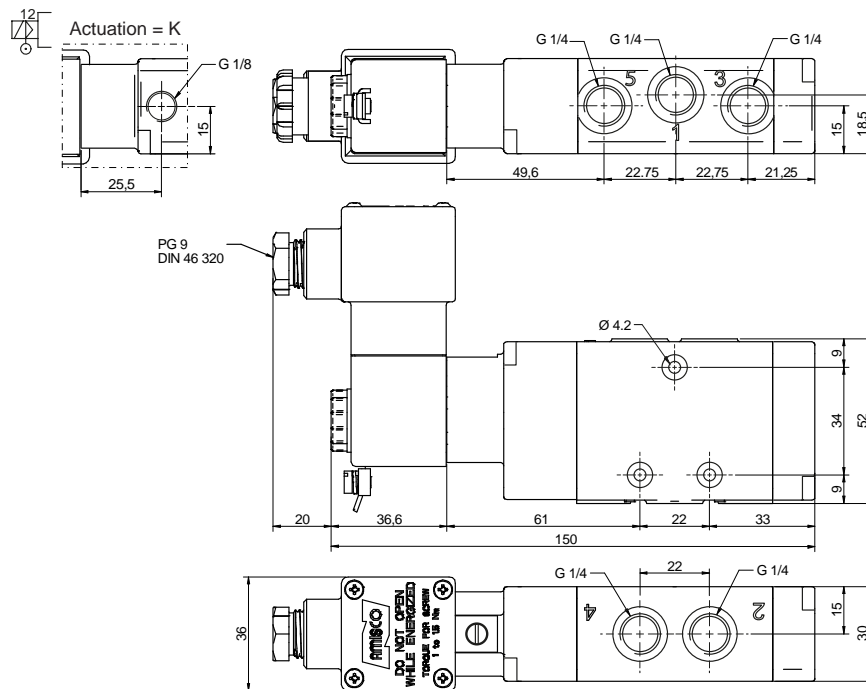
\* For coil voltage: see code key at page 5.83.1



Version	Symbol	Code	Item
3/2 solenoid/solenoid			AX1E232XB*
3/2 solenoid/solenoid external air pilot			AX1K232XB*

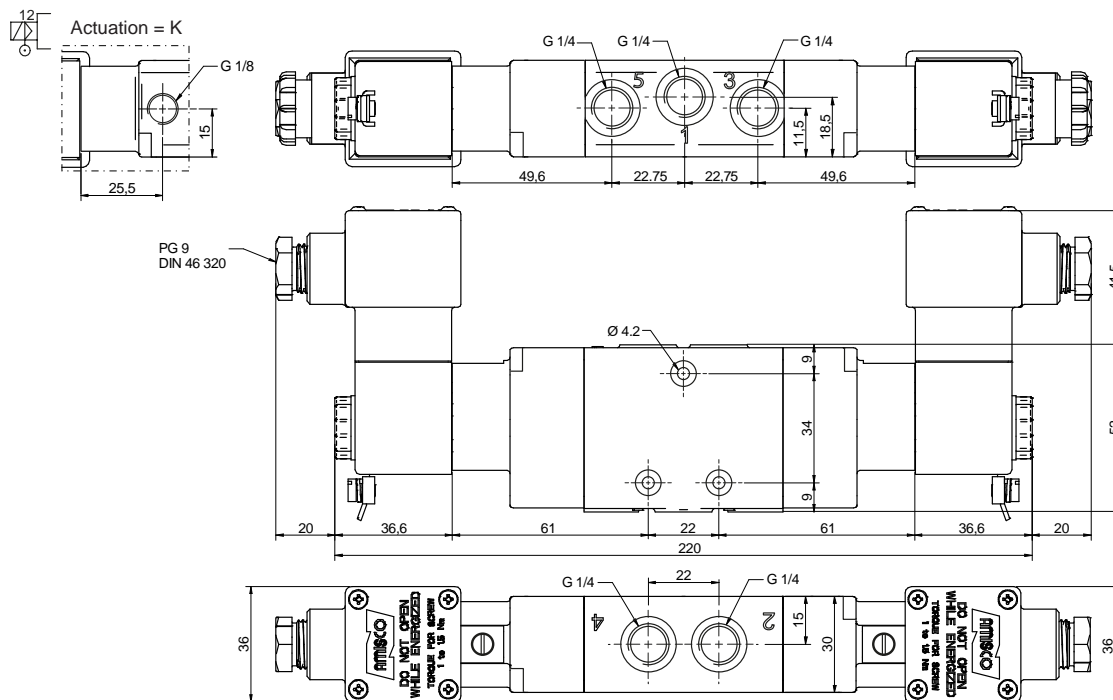
\* For coil voltage: see code key at page 5.83.1

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Version	Symbol	Code	Item
5/2 solenoid/spring			AX1E250XB*

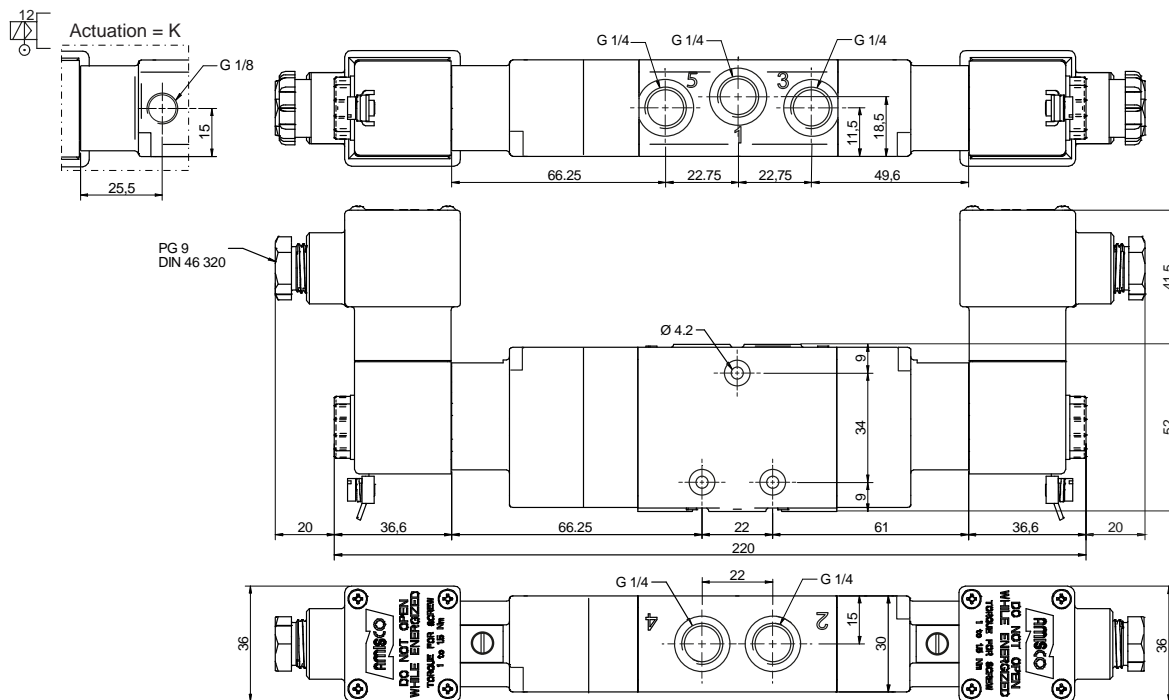
\* For coil voltage: see code key at page 5.83.1



Version	Symbol	Code	Item
5/2 solenoid/solenoid			AX1E251XB*
5/2 solenoid/solenoid differential			AX1E252XB*

\* For coil voltage: see code key at page 5.83.1

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Version	Symbol	Code	Item	Version	Symbol	Code	Item
5/3 closed centres			AX1E270XB*	5/3 closed centres, external air pilot			AX1K270XB*
5/3 open centres			AX1E271XB*	5/3 open centres, external air pilot			AX1K271XB*
5/3 pressurised centres			AX1E272XB*	5/3 pressurised centres external air pilot			AX1K272XB*

\* For coil voltage: see code key at page 5.83.1

