

series UDS ISO

Valves to ISO 5599/1 standard
pilot and solenoid actuated
sizes 1 - 2 - 3

DESCRIPTION

Valves series "UDS ISO" are produced in the 5/2 and 5/3 pneumatic functions according to the interface to ISO 5599/1 standard and they are mounted onto single or manifold bases, bottom or side ported. The ex CNOMO solenoid valve, with manual override (screwdriver type C/UECSVB or button type C/UECSPB), in the solenoid actuated version is mounted with coil type USBG side 30 mm (that allows a greater yield) or type USB side 22 mm and can be supplied in compliance with ATEX directive, category 2GD.



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TECHNICAL DATA

Operating pressure	Monostable 2 ÷ 10 bar (2,5 ÷ 10 bar for ISO 2) Bistable 1,5 ÷ 10 bar
Working temperature	0 ÷ +50 °C (-20 °C with dry air)
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated
Port size	Interface to ISO 5599/1
Pneumatic piloting port size	Interface to ISO 5599/1
Piloting solenoid valves	C/UECSVB - C/UECSPB - see chapter direct acting solenoid valves series ex CNOMO on page 2.15
Coils	USBG - see chapter coils on page 2.17 USBG2 - see chapter coils on page 2.17 USB - see chapter coils on page 2.17
Electric connectors	ULR1B - see chapter connectors on page 2.18 USR102/N9 - see chapter connectors on page 2.18

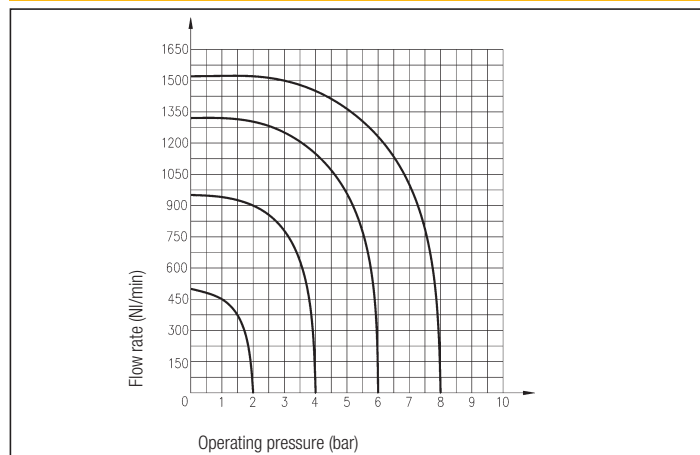
MATERIALS

Bottoms	Size 1 - 2: Techno-polymer Size 3: Aluminium alloy
Body	Size 1 -2: Techno-polymer Size 3: Aluminium alloy
Distance rings	Acetal resin
Springs	Galvanized steel
Seals	NBR rubber + steel insert
Spool	Aluminium alloy
Piston	Aluminium alloy

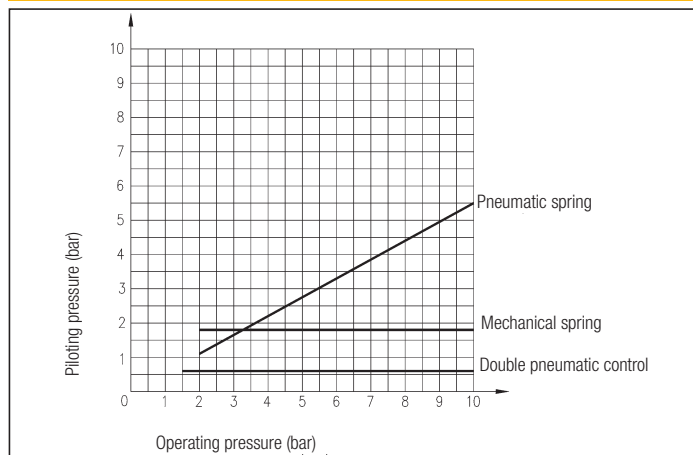
SPARE PARTS

SEALS KIT	
Size 1	UDS/SG/105
Size 2	UDS/SG/212
Size 3	UDSI/SG/3

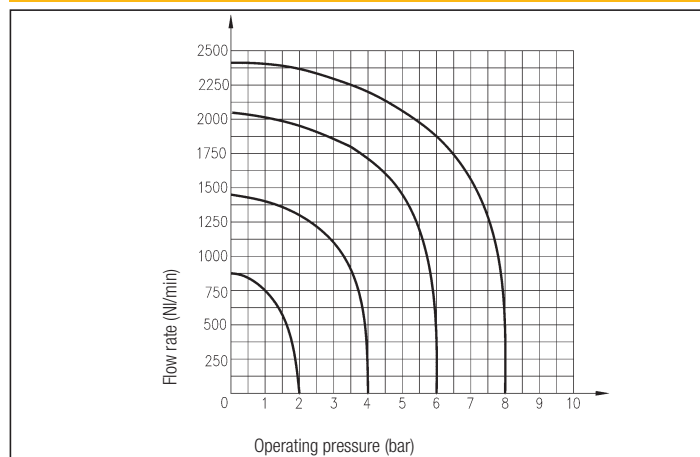
FLOW CHART SIZE 1



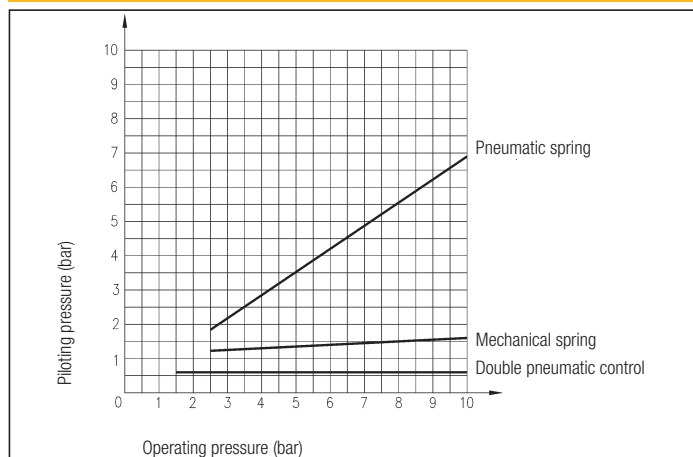
PILOTING CHART SIZE 1



FLOW CHART SIZE 2



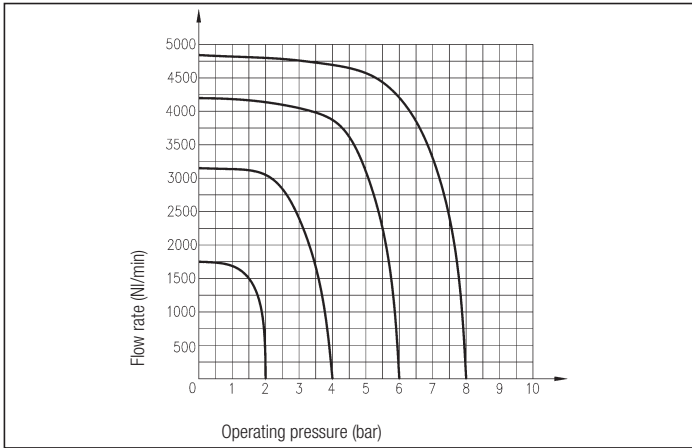
PILOTING CHART SIZE 2



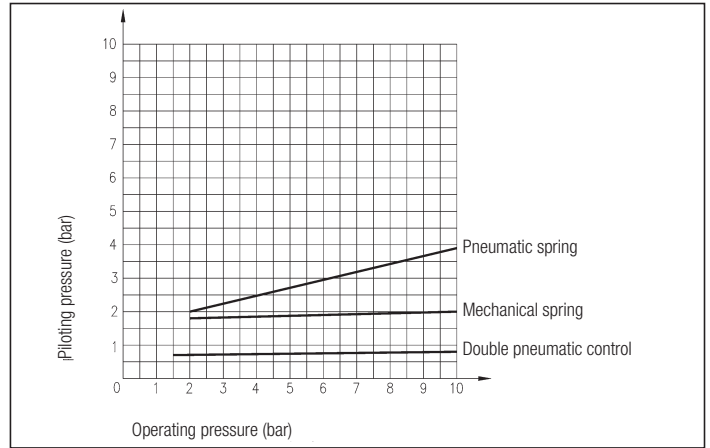
Size 1

series UDS ISO

FLOW CHART SIZE 3



PILOTING CHART SIZE 3



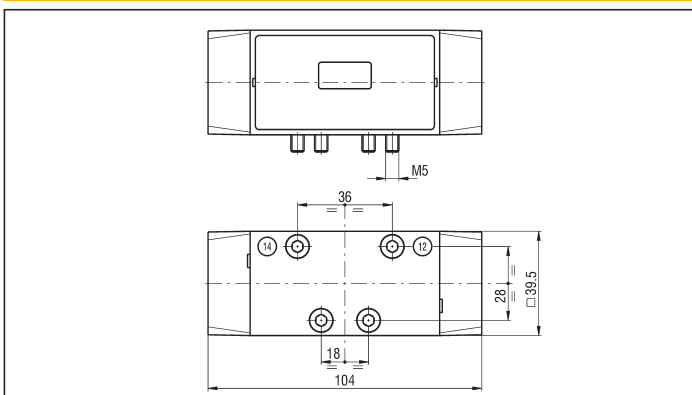
PILOT ACTUATED VALVES SIZE 1

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	20	30	960	230	UDS 105 KR/ZR
		Pneumatic	Pneumatic spring	20	14	960	230	UDS 105 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	15	15	960	230	UDS 105 KR/KR
	5/2 bistable with override on body valve	Pneumatic	Pneumatic	15	15	960	250	UDS 105 KRP/KRP
	5/2 bistable	Big pneumatic	Small pneumatic	15	20	960	230	UDS 105 KR/TR
	5/3 closed centre	Pneumatic	Mechanical spring	20	25	580	275	UDS 105 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	20	25	800	275	UDS 105 AR/AR
	5/3 pressure centre	Pneumatic	Mechanical spring	20	25	1100	275	UDS 105 PR/PR

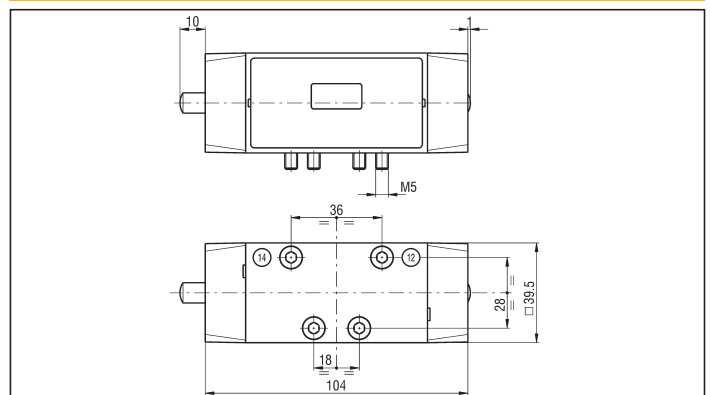
*EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C

ES.: UDS 105 KR/ZR/EX

5 PORT SIZE 1



5 PORT SIZE 1 WITH MANUAL OVERRIDE ON BODY VALVE



series UDS ISO

Size 1

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SOLENOID ACTUATED VALVES SIZE 1

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1 \text{ bar (l/min)}$	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	20	30	960	305	UDS 105 KUEC/ZR
		Solenoid	Pneumatic spring	20	30	960	305	UDS 105 KUEC/TQ
		Solenoid pilot assisted	Mechanical spring	20	30	960	305	UDS 105 KUER/ZR
	5/2 bistable	Solenoid	Small pneumatic	20	25	960	310	UDS 105 KUEC/TR
		Solenoid pilot assisted	Small pneumatic	20	25	960	310	UDS 105 KUER/TR
		Solenoid	Solenoid	15	15	960	375	UDS 105 KUEC/KUEC
		Solenoid pilot assisted	Solenoid pilot assisted	15	15	960	375	UDS 105 KUER/KUER
	5/3 closed centre	Solenoid	Mechanical spring	20	25	580	425	UDS 105 SUEC/SUEC
		Solenoid pilot assisted	Mechanical spring	20	25	580	425	UDS 105 SUER/SUER
	5/3 open centre	Solenoid	Mechanical spring	20	25	800	425	UDS 105 AUEC/AUEC
		Solenoid pilot assisted	Mechanical spring	20	25	800	425	UDS 105 AUER/AUER
	5/3 pressure centre	Solenoid	Mechanical spring	20	25	1100	425	UDS 105 PUEC/PUEC
		Solenoid pilot assisted	Mechanical spring	20	25	1100	425	UDS 105 PUER/PUER

*/EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C E.G.: UDS 105 KUEC/TQ/EX

THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS

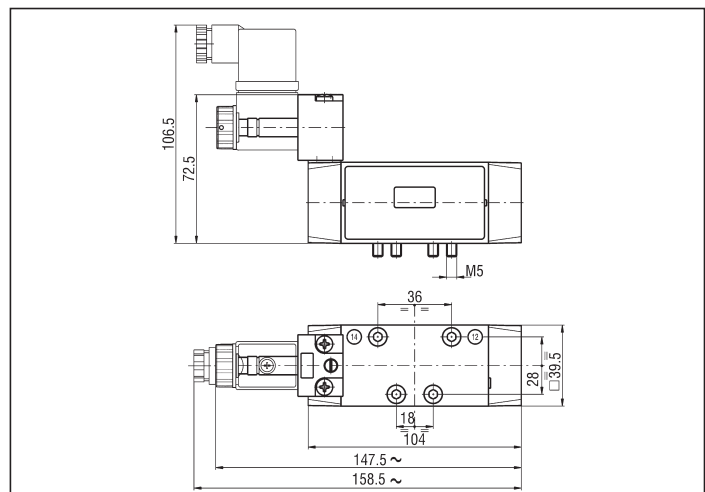
P.S.: SUBSTITUTE THE LETTER "E" WITH THE LETTER "P" IN EACH SOLENOID CONTROL TYPE TO ORDER THE SOLENOID ACTUATED VALVES TO ISO STANDARD WITH MANUAL OVERRIDE (MONOSTABLE BUTTON) ON THE PILOTING SOLENOID VALVES, E.G.: UDS 105 KUEC/TR BECOMES UDS 105 KUPC/TR - UDS 105 KUEC/KUEC BECOMES UDS 105 KUPC/KUPC

Size 2

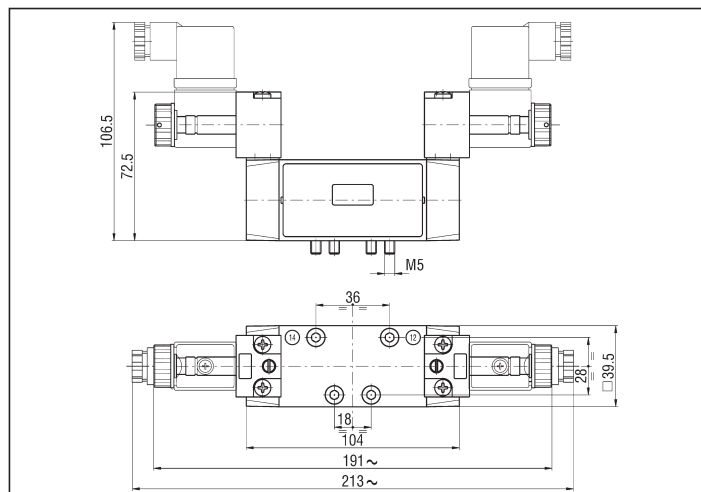
series UDS ISO

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5 PORT SIZE 1 MONOSTABLE



5 PORT SIZE 1 BISTABLE AND 3 POSITIONS

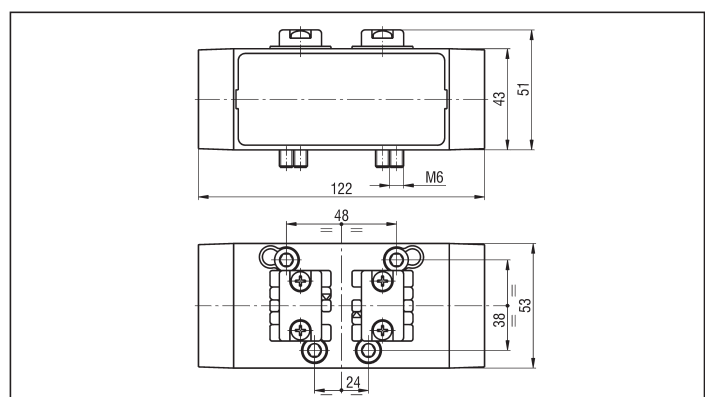


PILOT ACTUATED VALVES SIZE 2

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	47	50	1500	515	UDS 212 KR/ZR
		Pneumatic	Pneumatic spring	47	50	1500	510	UDS 212 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	23	23	1500	515	UDS 212 KR/KR
		Big pneumatic	Small pneumatic	20	40	1500	515	UDS 212 KR/TR
	5/3 closed centre	Pneumatic	Mechanical spring	30	35	1000	580	UDS 212 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	30	35	1200	580	UDS 212 AR/AR
	5/3 pressure centre	Pneumatic	Mechanical spring	30	35	1300	580	UDS 212 PR/PR

*EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C E.G.: UDS 212 KR/ZR/EX

5 PORT SIZE 2



series UDS ISO

Size 2

SOLENOID ACTUATED VALVES SIZE 2

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	40	45	1500	580	UDS 212 KU EC/ZR
		Solenoid	Pneumatic spring	47	50	1500	580	UDS 212 KU EC/TQ
		Solenoid pilot assisted	Mechanical spring	40	45	1500	580	UDS 212 KU ER/ZR
	5/2 bistable	Solenoid	Small pneumatic	40	45	1500	580	UDS 212 KU EC/TR
		Solenoid pilot assisted	Small pneumatic	40	45	1500	580	UDS 212 KU ER/TR
		Solenoid	Solenoid	20	20	1500	635	UDS 212 KU EC/KU EC
		Solenoid pilot assisted	Solenoid pilot assisted	20	20	1500	635	UDS 212 KU ER/KU ER
	5/3 closed centre	Solenoid	Mechanical spring	30	35	1000	720	UDS 212 SU EC/SU EC
		Solenoid pilot assisted	Mechanical spring	30	35	1000	720	UDS 212 SU ER/SU ER
	5/3 open centre	Solenoid	Mechanical spring	30	35	1200	720	UDS 212 AU EC/AU EC
		Solenoid pilot assisted	Mechanical spring	30	35	1200	720	UDS 212 AU ER/AU ER
	5/3 pressure centre	Solenoid	Mechanical spring	30	35	1300	720	UDS 212 PU EC/PU EC
		Solenoid pilot assisted	Mechanical spring	30	35	1300	720	UDS 212 PU ER/PU ER

*EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ T_{amb} ≤ 50°C E.G.: UDS 212 KU EC/TQ/EX

THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS

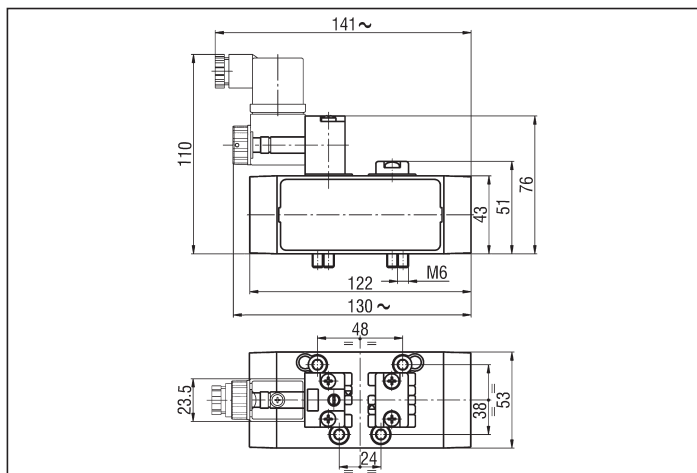
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UDS 212 KUPC/TR - UDS 212 KU EC/KU EC BECOMES UDS 212 KUPC/KUPC

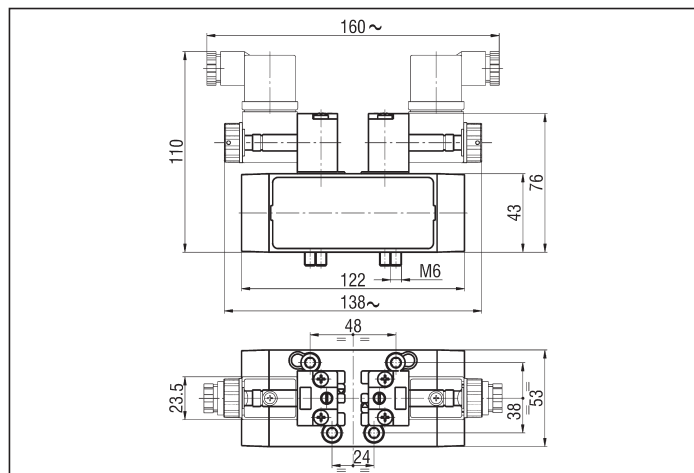
Size 3

series UDS ISO

5 PORT SIZE 2 MONOSTABLE



5 PORT SIZE 2 BISTABLE AND 3 POSITIONS



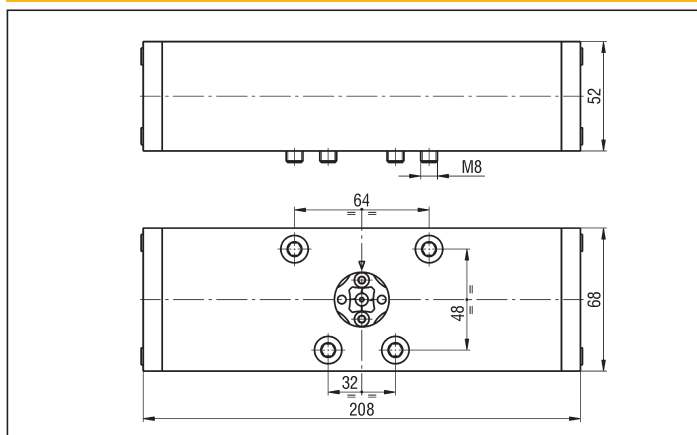
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PILOT ACTUATED VALVES SIZE 3

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	38	42	3000	1995	UDSI 3 KR/ZR
		Pneumatic	Pneumatic spring	38	42	3000	1985	UDSI 3 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	28	28	3000	1965	UDSI 3 KR/KR
		Big pneumatic	Small pneumatic	28	35	3000	1965	UDSI 3 KR/TR
	5/3 closed centre	Pneumatic	Mechanical spring	27	32	2900	2020	UDSI 3 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	27	32	3000	2020	UDSI 3 AR/AR

*EX Consistent with the ATEX directive (Ex) II 2GD c T5 T100°C -20°C ≤ Tas ≤ 50°C E.G.: UDSI 3 KR/ZR/EX

5 PORT SIZE 3



series UDS ISO

Size 3

SOLENOID ACTUATED VALVES SIZE 3

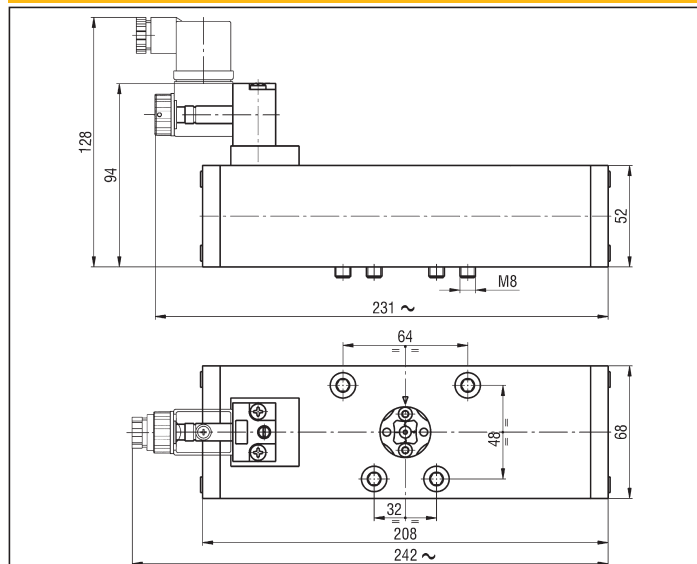
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	40	42	3100	2120	UDSI 3 KUEC/ZR
		Solenoid	Pneumatic spring	40	42	3100	2120	UDSI 3 KUEC/TQ
		Solenoid pilot assisted	Mechanical spring	40	42	3100	2120	UDSI 3 KUER/ZR
	5/2 bistable	Solenoid	Small pneumatic	40	45	3100	2120	UDSI 3 KUEC/TR
		Solenoid pilot assisted	Small pneumatic	40	45	3100	2120	UDSI 3 KUER/TR
		Solenoid	Solenoid	28	28	3100	2180	UDSI 3 KUEC/KUEC
		Solenoid pilot assisted	Solenoid pilot assisted	28	28	3100	2180	UDSI 3 KUER/KUER
	5/3 closed centre	Solenoid	Mechanical spring	27	32	2900	2180	UDSI 3 SUEC/SUEC
		Solenoid pilot assisted	Mechanical spring	27	32	2900	2180	UDSI 3 SUER/SUER
	5/3 open centre	Solenoid	Mechanical spring	27	32	3000	2180	UDSI 3 AUEC/AUEC
		Solenoid pilot assisted	Mechanical spring	27	32	3000	2180	UDSI 3 AUER/AUER

*EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C E.G.: UDSI 3 KUEC/TQ/EX

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5 PORT SIZE 3 MONOSTABLE



5 PORT SIZE 3 BISTABLE AND 3 POSITIONS

