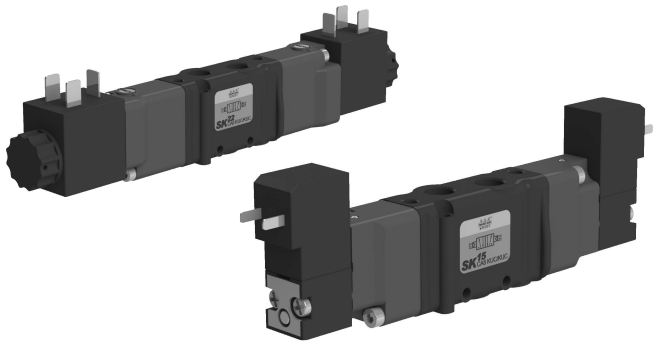


Spool valves pilot and solenoid actuated G1/8

series **SK**

DESCRIPTION

Valves series “SK” are produced the size G1/8 in the following pneumatic functions: 3/2, 5/2, 5/3 and “3/2+3/2”. The electrical version can mount two kinds of piloting solenoid valves: the 15 mm one (type “SK815”) or the 22 mm integrated one (type “SK822”). Valves series “SK” can be used single or in manifold mounting, regardless the pneumatic functions: 5/3, 5/2 and 3/2, the last one using the adapter type “KIT/A/SK8”. The version “3/2+3/2” includes No. 2-3/2 valves in a single body, so with a very compact overall dimensions compared to the No. 2 valves it’s replacing in terms of pneumatic function, as well as compared to the pressure or open center versions. Upon request, they can be supplied in compliance with ATEX directive, category 3GD for electrical version with 15mm piloting solenoid valve and category 2GD for other versions.



2

TECHNICAL DATA

Operating pressure	Monostable: 2,5 ÷ 8 bar Bistable: 1,5 ÷ 8 bar
Working temperature	0 ÷ +60 °C (-10 °C with dry air)
Fluid	Filtered, unlubricated, continuous lubricated or dry compressed air
Port size	G 1/8
Pneumatic piloting port size	M5
Nominal diameter	G 1/8 = 6 mm
Piloting solenoid valve	15 mm: UMCSV - see on page 2.5 22 mm integrated in the bottom
Coils	USB - see chapter Coils on page 2.17 USBG - see chapter Coils on page 2.17* USBG2 - see chapter Coils on page 2.17*
Electric connectors	MEK192/N with UMCSV USR102/N9 with C/USCSV ULR1B with C/USCSV* see chapter Connectors on page 2.18

* Just for the valve single used (coil and connector protrude from the dimension of the valves).

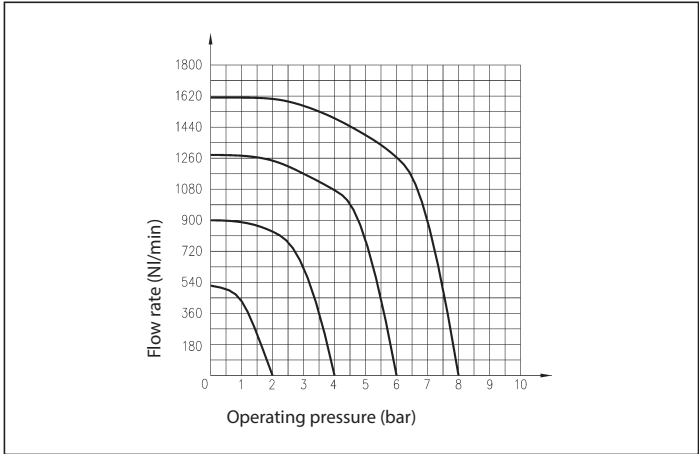
MATERIALS

Bottoms	Technopolymer
Body	Cast painted aluminium alloy
Distance ring	Acetal resin-brass
Springs	Stainless steel
Seals	NBR rubber
Spools	Nickel-plated steel
Piston	Anodized alluminium alloy

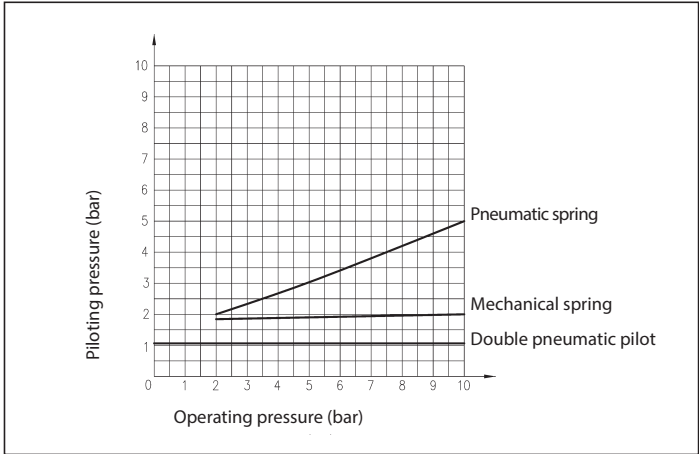
SPARE PARTS

SEALS KIT	
3/2 - G 1/8	SK/SG/8
5/2 - G 1/8	SKCA/SG/8
5/3 - G 1/8	SKCA/SG/8 - 5/3
3/2 + 3/2 - G 1/8	SK/SG/8 - 2 x 3/2

FLOW CHART SK G 1/8



PILOTING CHART SK G 1/8



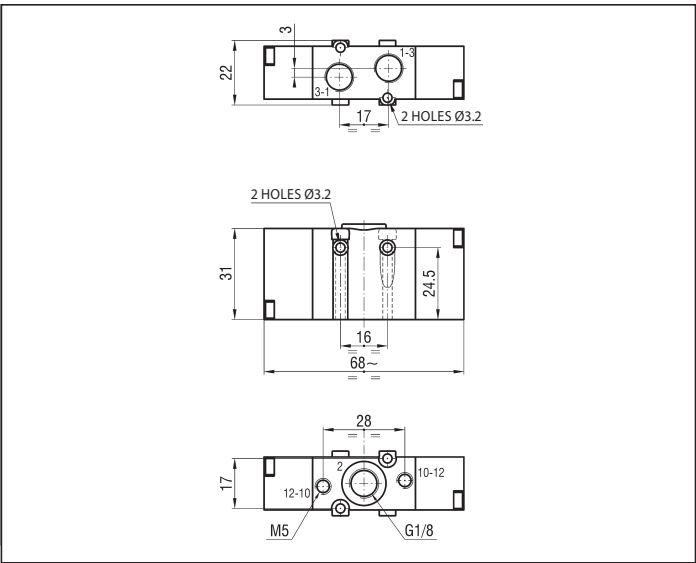
PILOT ACTUATED VALVE G 1/8 - 3 and 5 PORT

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			
	3/2 N.O. monostable	Pneumatic	Pneumomechanical spring	11	35	650	80	SKA8 KR/ZQ
		Pneumatic	Pneumatic spring	11	35	650	80	SKA8 KR/TQ
	3/2 N.C. monostable	Pneumatic	Pneumomechanical spring	11	35	650	80	SKC8 KR/ZQ
		Pneumatic	Pneumatic spring	11	35	650	80	SKC8 KR/TQ
	3/2 bistable	Pneumatic	Pneumatic	12	12	650	80	SK8 KR/KR
		Big pneumatic	Small pneumatic	12	14	650	80	SK8 KR/TR
	5/2 monostable	Pneumatic	Pneumomechanical spring	13	38	750	100	SKCA8 KR/ZQ
		Pneumatic	Pneumatic spring	13	38	750	100	SKCA8 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	11	11	750	100	SKCA8 KR/KR
		Big pneumatic	Small pneumatic	11	15	750	100	SKCA8 KR/TR
	5/3 closed centre	Pneumatic	Pneumatic spring	15	17	600	105	SKCA8 SR/SR
	3/2 N.O. + 3/2 N.O. monostable	Pneumatic	Pneumatic spring	15	17	600	105	SKA+A8 KR/ZR
	3/2 N.O. + 3/2 N.C. monostable	Pneumatic	Pneumatic spring	15	17	600	105	SKA+C8 KR/ZR
	3/2 N.C. + 3/2 N.O. monostable	Pneumatic	Pneumatic spring	15	17	600	105	SKC+A8 KR/ZR
	3/2 N.C. + 3/2 N.C. monostable	Pneumatic	Pneumatic spring	15	17	600	105	SKC+C8 KR/ZR

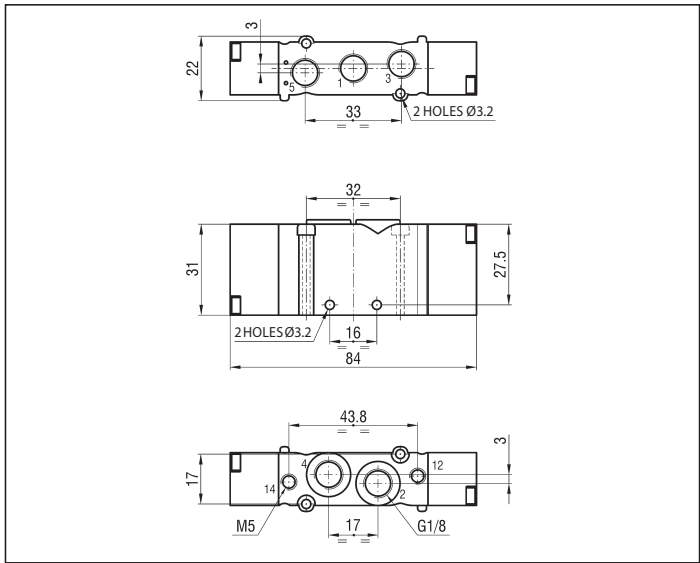
* /EX Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -10°C ≤ T_{as} ≤ 60°C
II 2D Ex h IIC T100°C Db X

E.G.: SKA8 KR/ZQ/EX

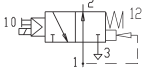
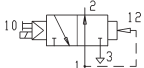
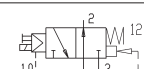
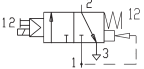
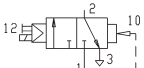
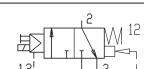
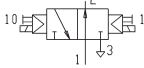
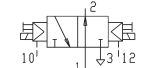
3 PORT MONOSTABLE AND BISTABLE



3/2+3/2 MONOSTABLE, 5 PORT MONOSTABLE AND BISTABLE



SOLENOID ACTUATED VALVES WITH 15 mm COIL G 1/8 - 3 PORT

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			
	3/2 N.O. monostable	Solenoid	Pneumomechanical spring	11	35	650	116	SKA815 KUC/ZQ
		Solenoid	Pneumatic spring	11	35	650	116	SKA815 KUC/TQ
		Solenoid pilot assisted	Pneumomechanical spring	11	35	650	116	SKA815 KUR/ZQ
	3/2 N.C. monostable	Solenoid	Pneumomechanical spring	11	35	650	116	SKC815 KUC/ZQ
		Solenoid	Pneumatic spring	11	35	650	116	SKC815 KUC/TQ
		Solenoid pilot assisted	Pneumomechanical spring	11	35	650	116	SKC815 KUR/ZQ
	3/2 bistable	Solenoid	Solenoid	12	12	650	150	SK815 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted	11	11	650	150	SK815 KUR/KUR

* SPECIFY THE VOLTAGE IN THE ORDER - E.G.: **SKA815 KUC/ZQ 02450-60**

02400 = 24 V DC

11050-60 = 110 V AC

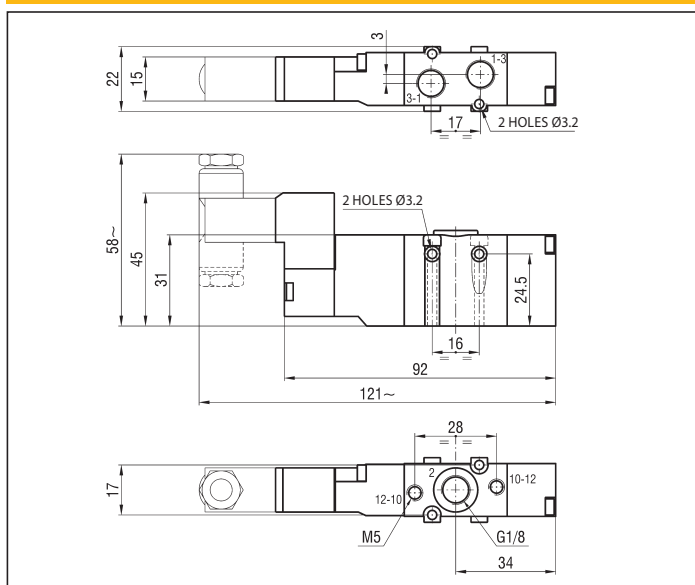
02450-60 = 24 V AC

22050-60 = 220 V AC

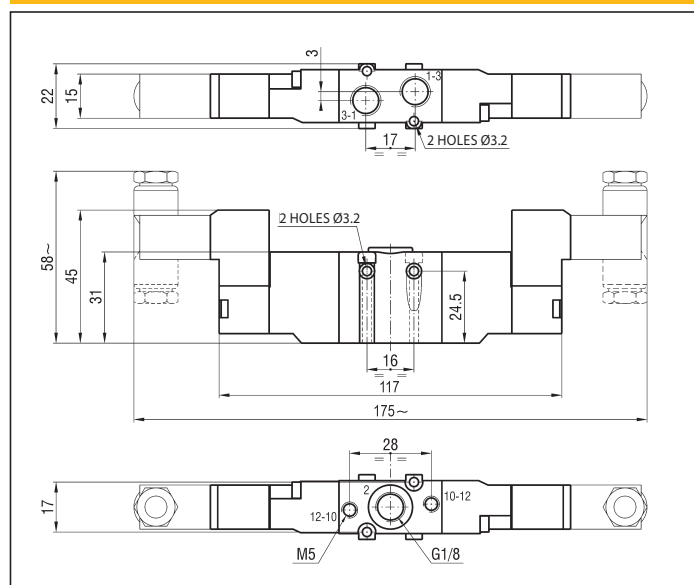
/EX Consistent with the ATEX directive  II 3G h Ex nA IIC T5 Gc -5°C≤T_a≤50°C
II 3D h Ex tc IIIC T100°C IP65 Dc

E.G.: **SKA815 KUC/ZQ 02450-60/EX**

3 PORT MONOSTABLE



3 PORT BISTABLE



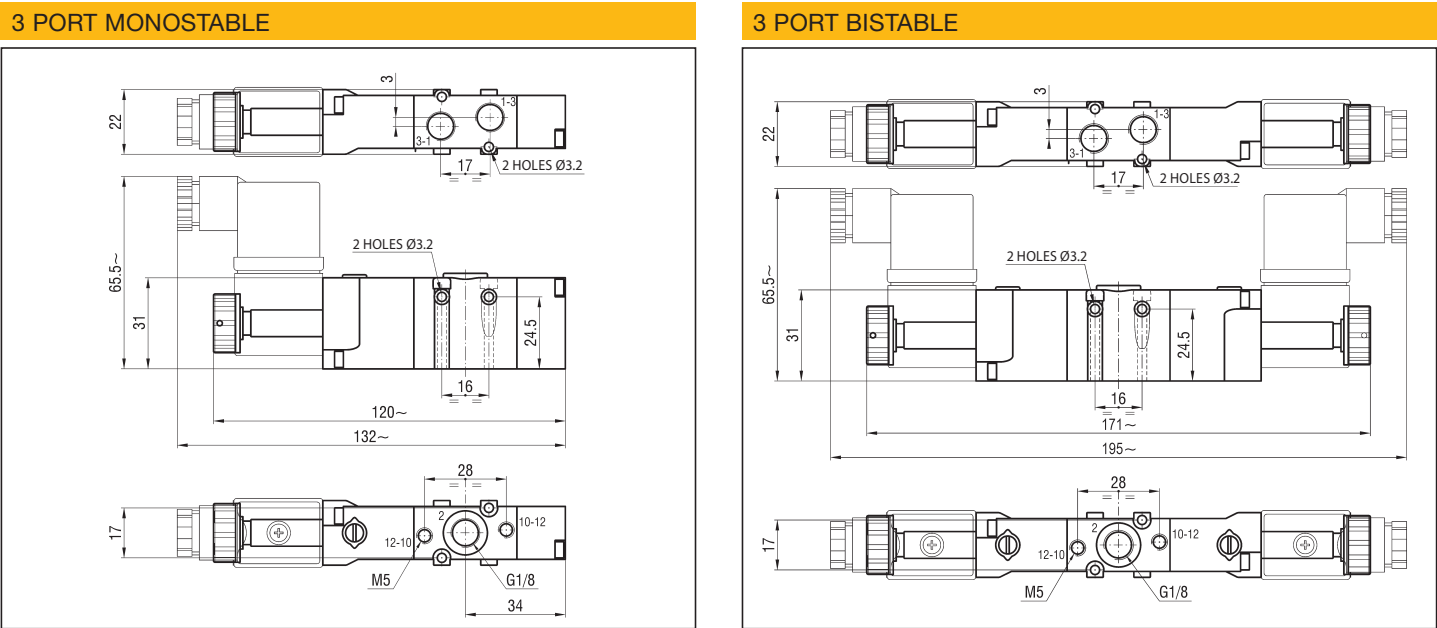
SOLENOID ACTUATED VALVES WITH Ø 9 mm SLEEVE G 1/8 - 3 PORT

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (l/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	3/2 N.O. monostable	Solenoid	Pneumomechanical spring	11	35	650	110	SKA822 KUC/ZQ
		Solenoid	Pneumatic spring	11	35	650	110	SKA822 KUC/TQ
		Solenoid pilot assisted	Pneumomechanical spring	11	35	650	110	SKA822 KUR/ZQ
	3/2 N.C. monostable	Solenoid	Pneumomechanical spring	11	35	650	110	SKC822 KUC/ZQ
		Solenoid	Pneumatic spring	11	35	650	110	SKC822 KUC/TQ
		Solenoid pilot assisted	Pneumomechanical spring	11	35	650	110	SKC822 KUR/ZQ
	3/2 bistable	Solenoid	Solenoid	12	12	650	140	SK822 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted	12	12	650	140	SK822 KUR/KUR

*THE TYPES OF THE SOLENOID VALVE DO NOT INCLUDE COILS

/EX Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -10°C≤Tas≤60°C
II 2D Ex h IIC T100°C Db X

E.G.: SKA822 KUC/ZQ/EX



SOLENOID ACTUATED VALVES WITH 15 mm COIL G 1/8 - 5 PORT

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	Returns	Energized	De-energized			
	5/2 monostable	Solenoid	Pneumomechanical spring	13	38	750	140	SKCA815 KUC/ZQ
		Solenoid	Pneumatic spring					SKCA815 KUC/TQ
		Solenoid pilot assisted	Pneumomechanical spring					SKCA815 KUR/ZQ
	5/2 bistable	Solenoid	Solenoid	11	11	750	170	SKCA815 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted					SKCA815 KUR/KUR
	5/3 closed centre	Solenoid	Mechanical spring	15	17	600	184	SKCA815 SUC/SUC
		Solenoid pilot assisted	Mechanical spring					SKCA815 SUR/SUR
	3/2 N.O. + 3/2 N.O. monostable	Solenoid	Mechanical spring	15	17	600	184	SKA+A815 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKA+A815 KUR/ZR
	3/2 N.O. + 3/2 N.C. monostable	Solenoid	Mechanical spring	15	17	600	184	SKA+C815 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKA+C815 KUR/ZR
	3/2 N.C. + 3/2 N.O. monostable	Solenoid	Mechanical spring	15	17	600	184	SKC+A815 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKC+A815 KUR/ZR
	3/2 N.C. + 3/2 N.C. monostable	Solenoid	Mechanical spring	15	17	600	184	SKC+C815 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKC+C815 KUR/ZR

* SPECIFY THE VOLTAGE IN THE ORDER - E.G.: **SKCA815 KUC/ZQ 02450-60**

02400 = 24 V DC

11050-60 = 110 V AC

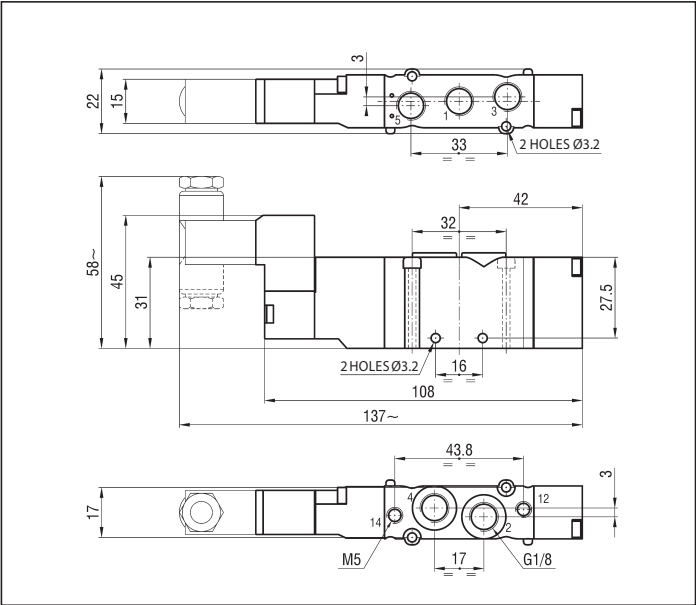
/EX Consistent with the ATEX directive  II 3G h Ex nA IIC T5 Gc -5°C ≤ T_{as} ≤ 50°C
II 3D h Ex tc IIIC T100°C IP65 Dc

02450-60 = 24 V AC

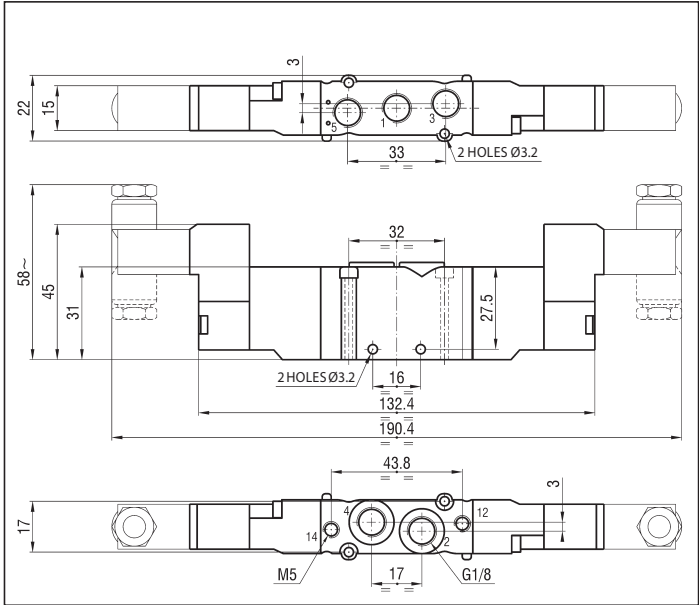
22050-60 = 220 V AC

E.G.: **SKCA815 KUC/ZQ 02450-60/EX**

5 PORT MONOSTABLE



3/2+3/2 MONOSTABLE, 5 PORT MONOSTABLE AND BISTABLE



2

SOLENOID ACTUATED VALVES WITH Ø 9 mm SLEEVE G 1/8 - 5 PORT

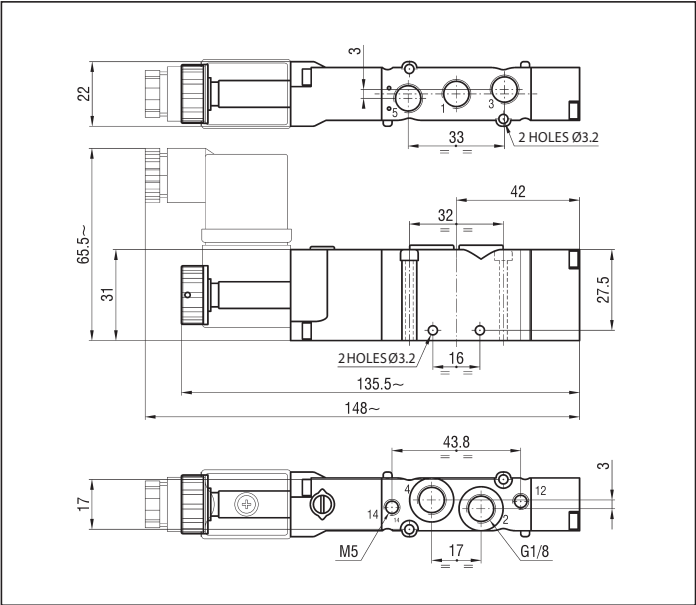
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Returns	Energized	De-energized			
	5/2 monostable	Solenoid	Pneumomechanical spring	13	38	750	130	SKCA822 KUC/ZQ
		Solenoid	Pneumatic spring					SKCA822 KUC/TQ
		Solenoid pilot assisted	Pneumomechanical spring					SKCA822 KUR/ZQ
	5/2 bistable	Solenoid	Solenoid	11	11	750	160	SKCA822 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted					SKCA822 KUR/KUR
	5/3 closed centre	Solenoid	Mechanical spring	15	17	600	170	SKCA822 SUC/SUC
		Solenoid pilot assisted	Mechanical spring					SKCA822 SUR/SUR
	3/2 N.O. + 3/2 N.O. monostable	Solenoid	Mechanical spring	15	17	600	170	SKA+A822 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKA+A822 KUR/ZR
	3/2 N.O. + 3/2 N.C. monostable	Solenoid	Mechanical spring	15	17	600	170	SKA+C822 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKA+C822 KUR/ZR
	3/2 N.C. + 3/2 N.O. monostable	Solenoid	Mechanical spring	15	17	600	170	SKC+A822 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKC+A822 KUR/ZR
	3/2 N.C. + 3/2 N.C. monostable	Solenoid	Mechanical spring	15	17	600	170	SKC+C822 KUC/ZR
		Solenoid pilot assisted	Mechanical spring					SKC+C822 KUR/ZR

* THE TYPES OF THE SOLENOID VALVE DO NOT INCLUDE COILS

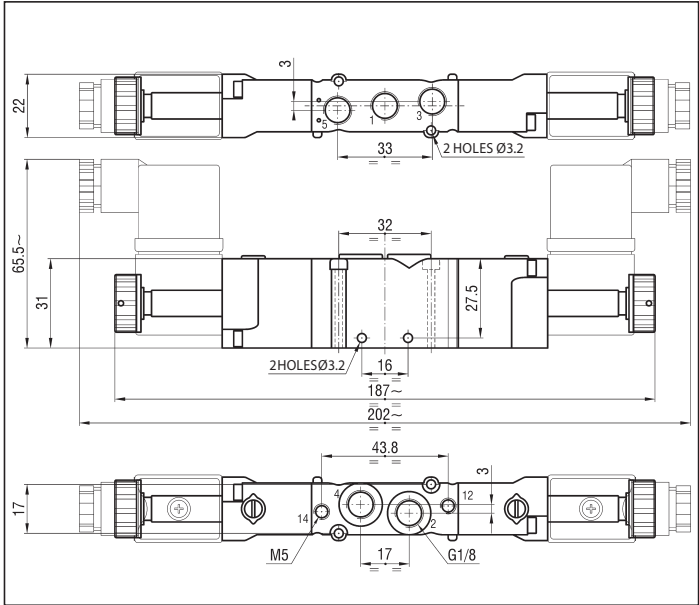
/EX Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -10°C ≤ T_{amb} ≤ 60°C
II 2D Ex h IIC T100°C Db X

E.G.: **SKCA822 KUC/ZQ/EX**

5 PORT MONOSTABLE

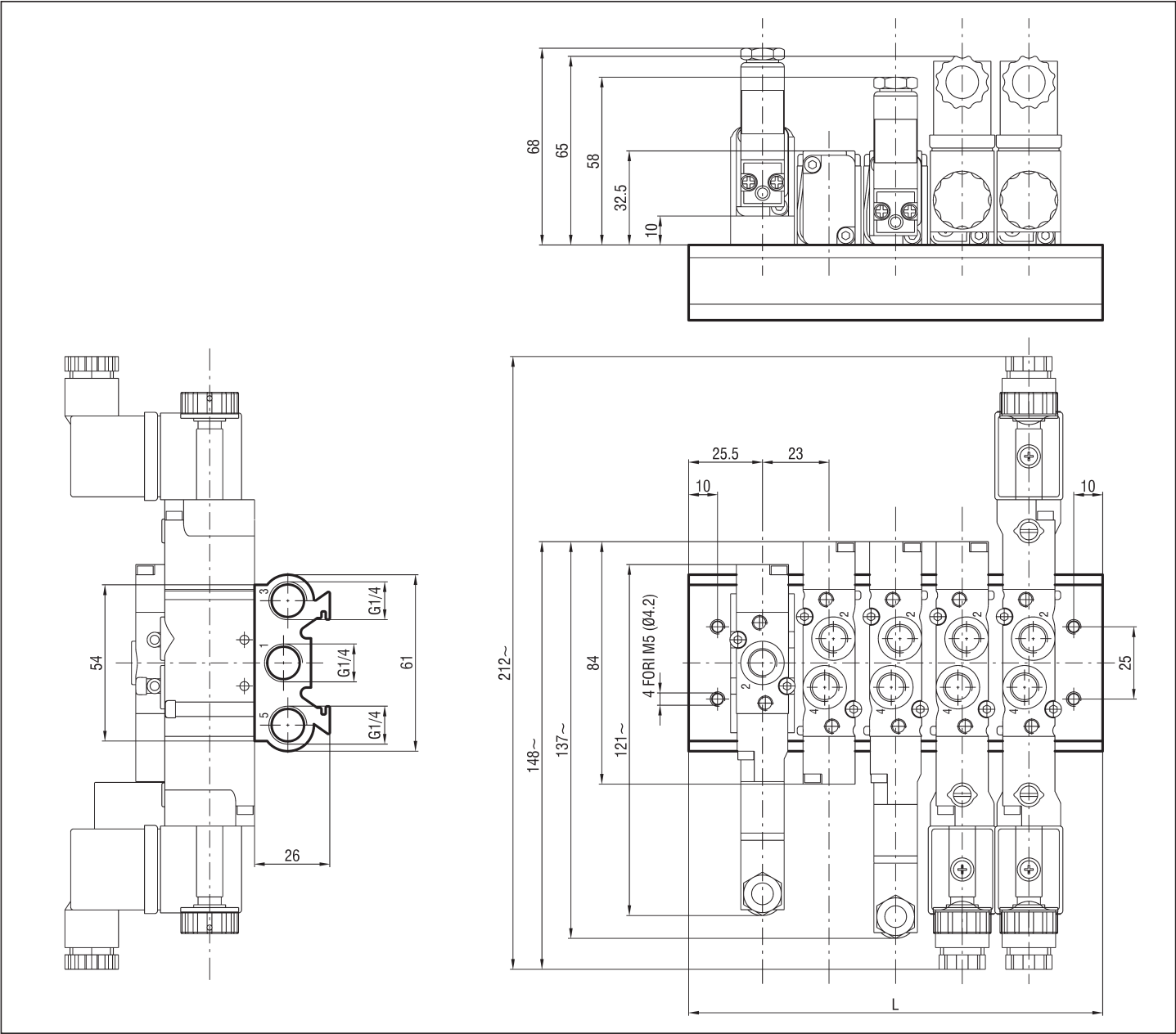


3/2+3/2 MONOSTABLE, 5 PORT MONOSTABLE AND BISTABLE



2

BASE FOR MANIFOLD MOUNTING OF VALVES WITH Ø9 mm SLEEVE AND/OR 15 mm COIL G 1/8 - KB/SK8

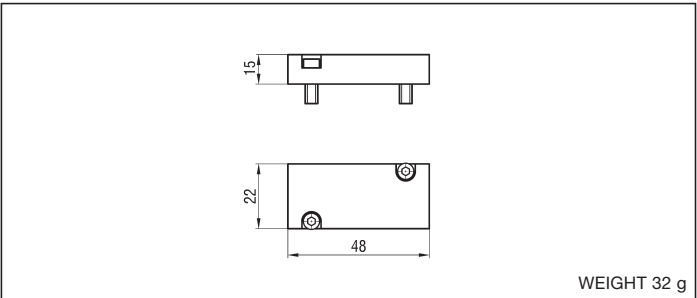


No of stations	2	3	4	5	6	8	10
L	74	97	120	143	166	212	258
Weight (g)	170	221	272	323	374	476	578
TYPE*	KB/SK8/2	KB/SK8/3	KB/SK8/4	KB/SK8/5	KB/SK8/6	KB/SK8/8	KB/SK8/10

P.S.: ALSO 3 PORT VALVES ON THIS BASE CAN BE MOUNTED USING THE ADAPTER "KIT/A/SK8"

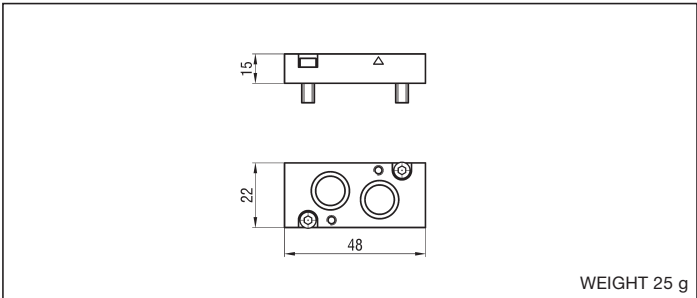
*BASES ARE SUPPLIED COMPLETE WITH SCREWS AND SEALS

BLANKING PLATE - KIT/PC/SK8



BLANKING PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

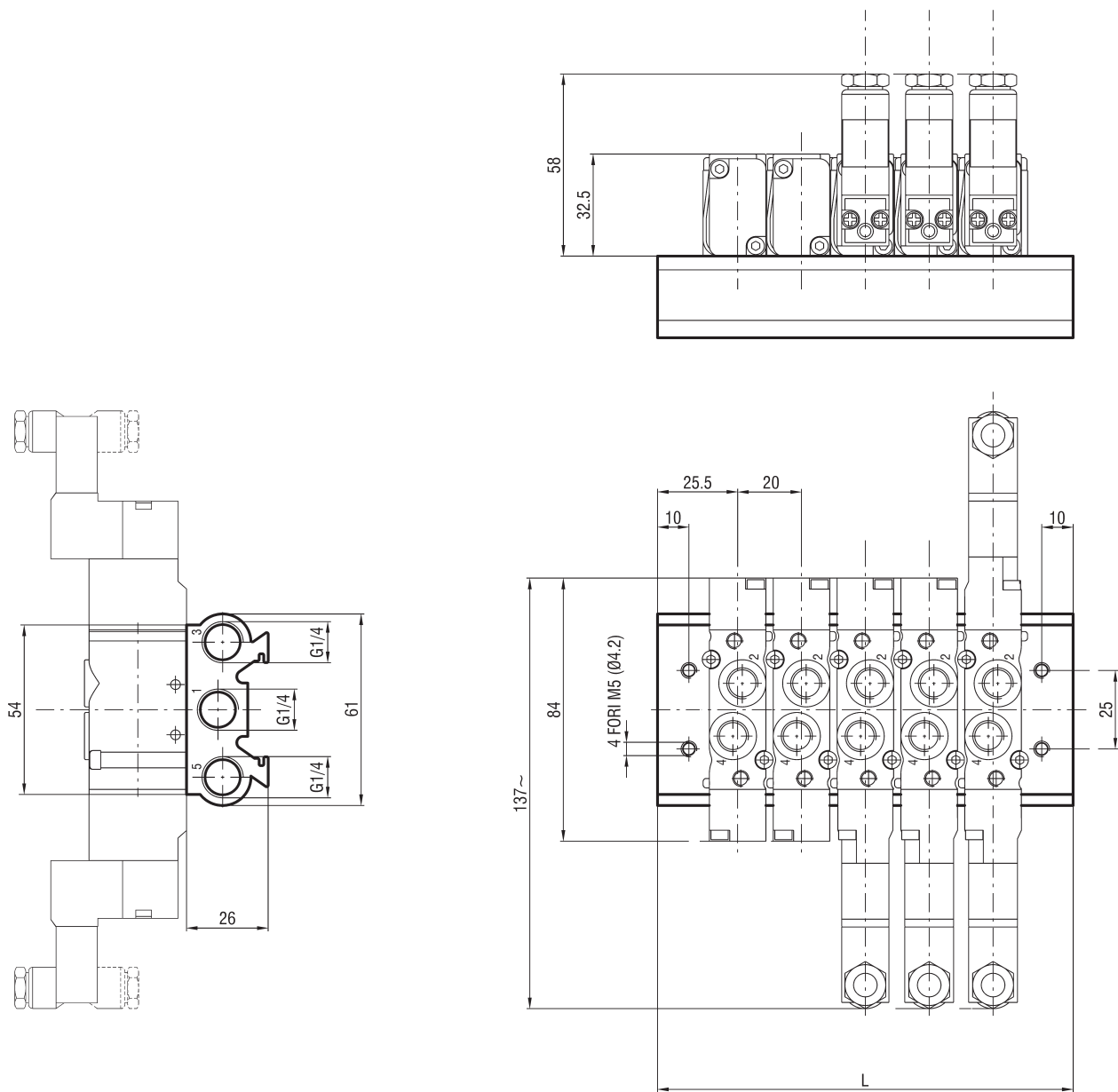
ADAPTER FOR MOUNTING SK 3 PORT - KIT/A/SK8



ADAPTER IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

BASE FOR MANIFOLD MOUNTING OF VALVES WITH 15 mm COIL G 1/8 - KB/SK815

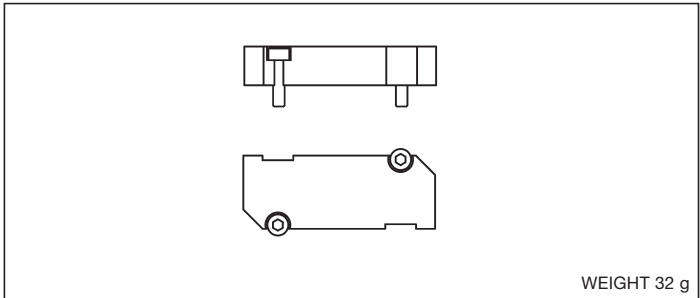
2



No of stations	2	3	4	5	6	8	10	12
L	67	87	107	127	147	187	227	267
Weight (g)	147	192	236	280	324	411	499	587
TYPE*	KB/SK815/2	KB/SK815/3	KB/SK815/4	KB/SK815/5	KB/SK815/6	KB/SK158/8	KB/SK815/10	KB/SK815/12

*BASES ARE SUPPLIED COMPLETE WITH SCREWS AND SEALS
P.S.: IT IS POSSIBLE TO MOUNT ONLY 5-WAY VALVES AND SOLENOID VALVES WITH 15 MM COIL

BLANKING PLATE - KIT/PC/S8



BLANKING PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS