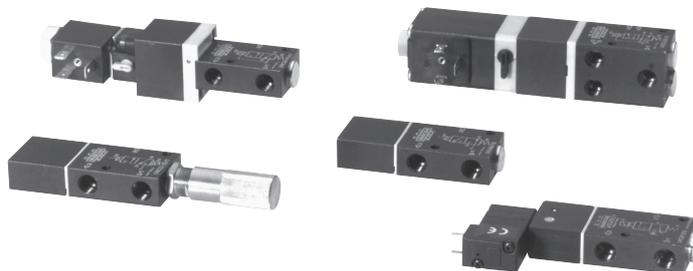


DESCRIPTION

Valves series "UK" are produced in the 2/2, 3/2 and 5/2 monostable pneumatic functions. In the 3 port solenoid control version with small pilot system, sizes G 1/8 and G 1/4, support the 15 mm direct acting solenoid valve (type UMCSV with fixed position). All the other electric versions can support the 32 mm direct acting solenoid valve, type ULCSV/R (with fixed position), type C/USCSVG with sleeve Ø 9 mm (with fixed position and rotatable coils series USB and USBG) or the amplifier valve XVF4 for a sensible pneumatic piloting (see page 3.37). The 3/2 N.C. pilot actuated valves can also be used to switch vacuum thanks to a suitably reinforced spring.

The poppet design assures high flow and high life. This series of valves, in the sizes G 1/8, G 1/4 and G 1/2, is prearranged for base mounting with conveyed inlet by means of rear notch screws.

Upon request they comply with ATEX directive: 2GD category for pilot and solenoid actuated valves with coil type "USBG2" and 3GD category for the solenoid actuated valves with other coils type.



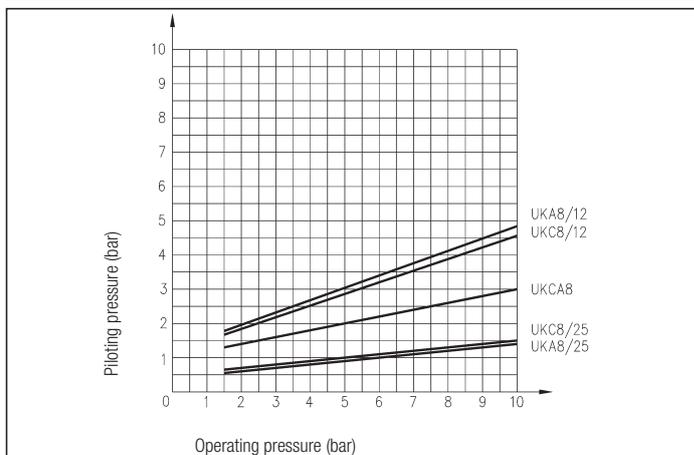
TECHNICAL DATA

Operating pressure	Solenoid actuated: 1,5 ÷ 10 bar Pilot actuated: 1,5 ÷ 12 bar
Working temperature	0 ÷ +70 °C (-20 °C with dry air)
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated - vacuum
Port size	G 1/8 - G 1/4 - G 1/2 - G 1
Pneumatic piloting port size	G 1/8
Nominal diameter	G 1/8 = 6 mm; G 1/4 = 8,5 mm G 1/2 = 12 mm; G 1 = 23 mm
Piloting solenoid valves	UMCSV - see chapter direct acting solenoid valves on page 2.5 ULCSV/R - see chapter direct acting solenoid valves on page 2.8 C/USCSVG - see chapter direct acting solenoid valves on page 2.16
Pneumatic piloting valve	XVF4 - see chapter complementary valves on page 3.37
Coils (only for C/USCSVG)	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	USR102/N9 - see chapter connectors on page 2.18 ULR1B - see chapter connectors on page 2.18 MEK192/N - see chapter connectors on page 2.18

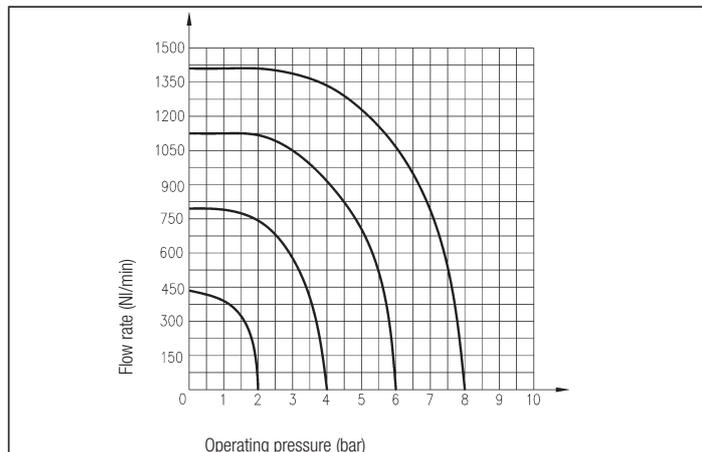
MATERIALS

Control rod	Hardened and nickel-plated steel
Body	Anodized aluminium alloy
Molle	Acciaio INOX
Seals	NBR rubber
Bush rod	Brass
Piston	Acetal resin
Terminal strip	Acetal resin
Washer	Brass
End plug	Nickel-plated brass
Clamping screws	Steel

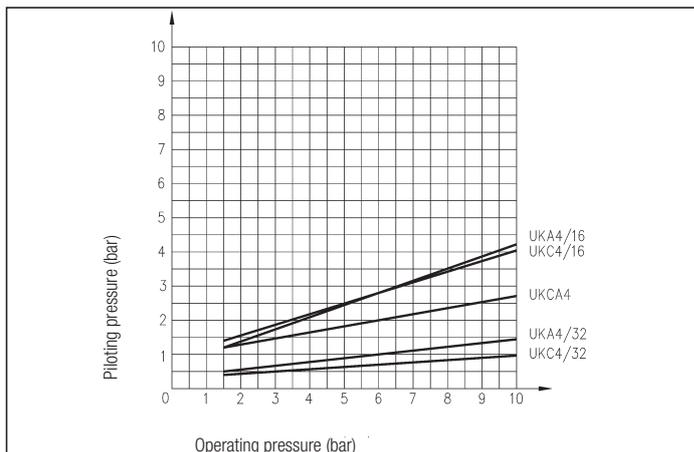
PILOTING CHART - UK G 1/8



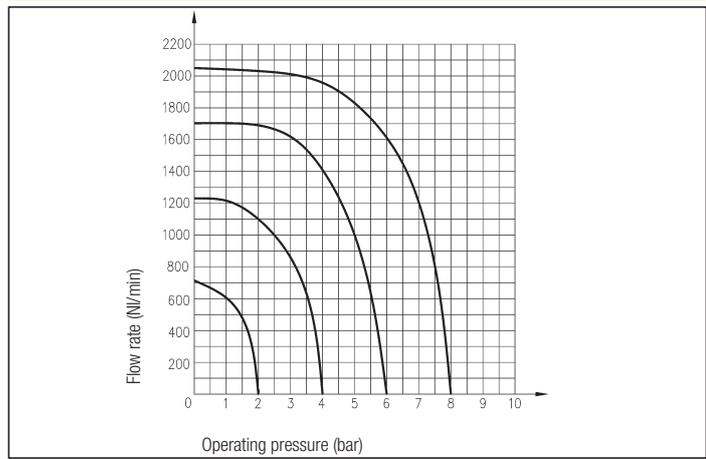
FLOW CHART - UK G 1/8 - 5/2



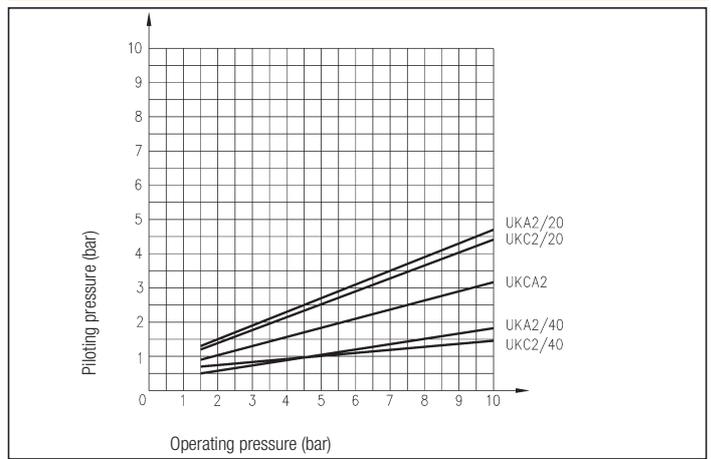
PILOTING CHART - UK G1/4



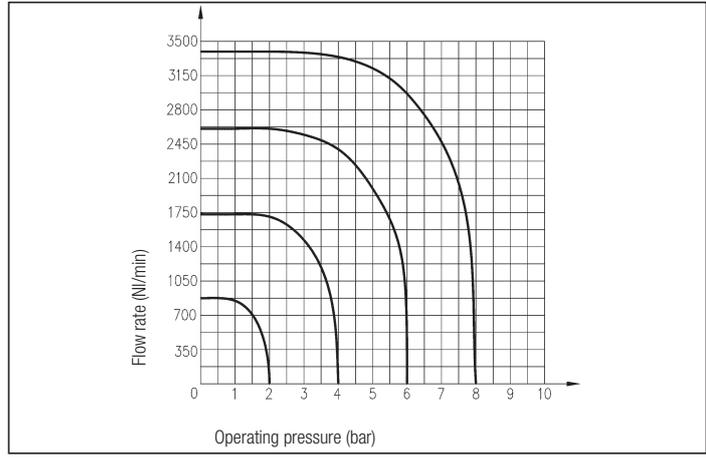
FLOW CHART - UK G 1/4 - 5/2



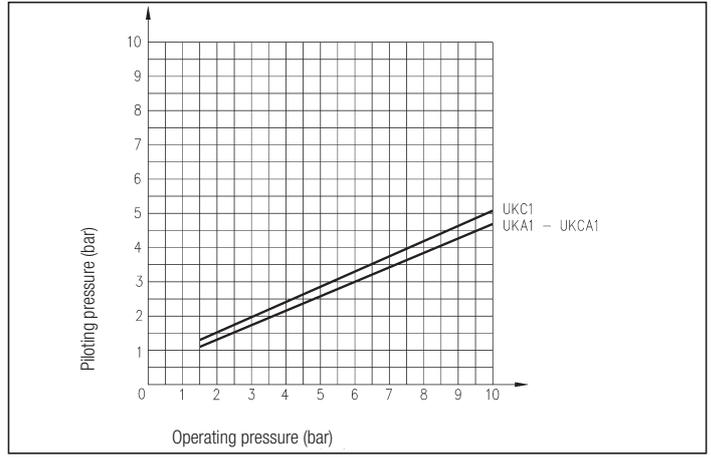
PILOTING CHART - UK G 1/2



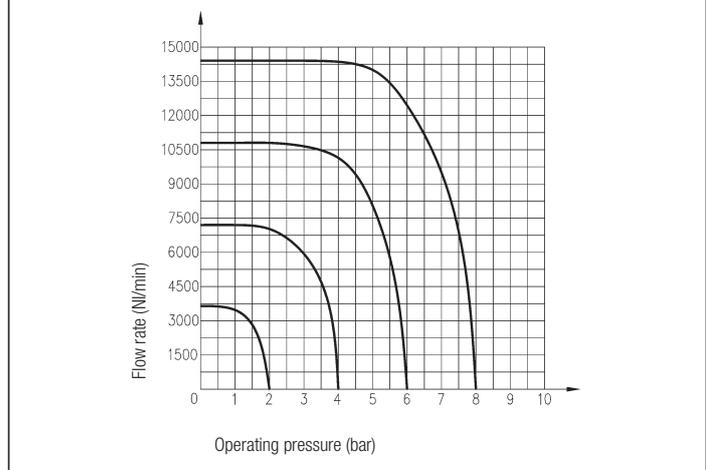
FLOW CHART - UK G 1/2 - 5/2



PILOTING CHART - UK G 1



FLOW CHART - UK G 1 - 5/2



SPARE PARTS

SEALS KIT	
3/2 N.O. G 1/8 small pilot system	UKA/12/SG/8
3/2 N.C. G 1/8 small pilot system	UKC/12/SG/8
3/2 N.O. G 1/8 big pilot system	UKA/25/SG/8
3/2 N.C. G 1/8 big pilot system	UKC/25/SG/8
5/2 G 1/8	UKCA/SG/8
3/2 N.O. G 1/4 small pilot system	UKA/16/SG/4
3/2 N.C. G 1/4 small pilot system	UKC/16/SG/4
3/2 N.O. G 1/4 big pilot system	UKA/32/SG/4
3/2 N.C. G 1/4 big pilot system	UKC/32/SG/4
5/2 G 1/4	UKCA/SG/4
3/2 N.O. G 1/2 small pilot system	UKA/20/SG/2
3/2 N.C. G 1/2 small pilot system	UKC/20/SG/2
3/2 N.O. G 1/2 big pilot system	UKA/40/SG/2
3/2 N.C. G 1/2 big pilot system	UKC/40/SG/2
5/2 G 1/2	UKCA/SG/2
3/2 N.O. G 1	UKA/SG/1
3/2 N.C. G 1	UKC/SG/1

2

PILOT ACTUATED VALVES G 1/8 - 2, 3 and 5 PORT

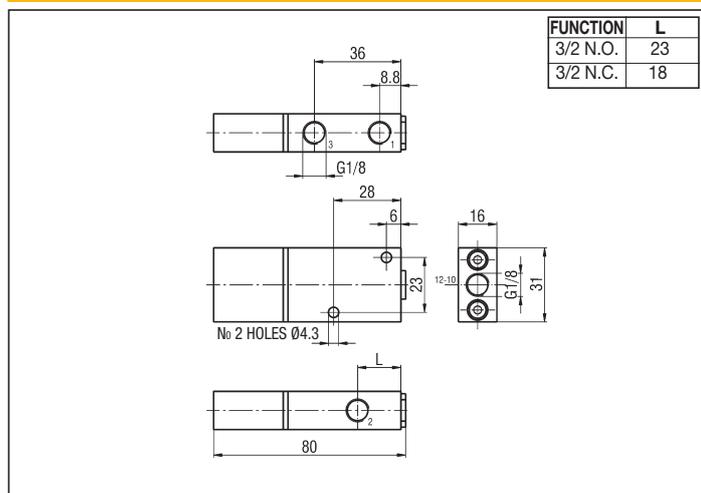
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	3/2 N.O. monostable	Small pneumatic	Mechanical spring	18	34	700	115	UKA 8/12
	3/2 N.C. monostable	Small pneumatic	Mechanical spring	20	29	700	115	UKC 8/12
		Servo fed small pneumatic	Mechanical spring	20	29	700	115	UKC 8/12/SA
		Adjustable small pneumatic	Mechanical spring	-	-	700	180	UKC 8/12/T
	3/2 N.O. monostable	Big pneumatic	Mechanical spring	18	38	700	135	UKA 8/25
	3/2 N.C. monostable	Big pneumatic	Mechanical spring	18	38	700	135	UKC 8/25
		Servo fed big pneumatic	Mechanical spring	18	38	700	135	UKC 8/25/SA
		Adjustable big pneumatic	Mechanical spring	-	-	700	200	UKC 8/25/T
	5/2 monostable	Pneumatic	Mechanical spring	19	40	650	195	UKCA8
		Servo fed pneumatic	Mechanical spring	19	40	650	195	UKCA8/SA

*EX Consistent with the ATEX directive Ex II 2GD c T5 T100°C -20°C ≤ T_a ≤ 60°C E.G.: **UKCA8/EX**

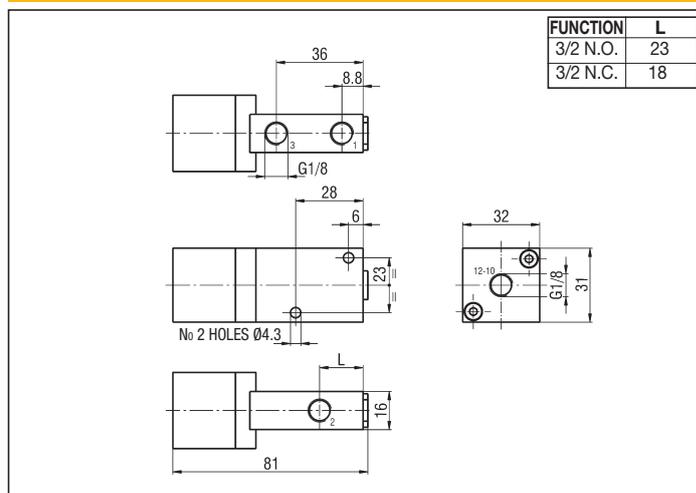
PS.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES.

E.G.: **UKHA 8/12; UKHC 8/25**

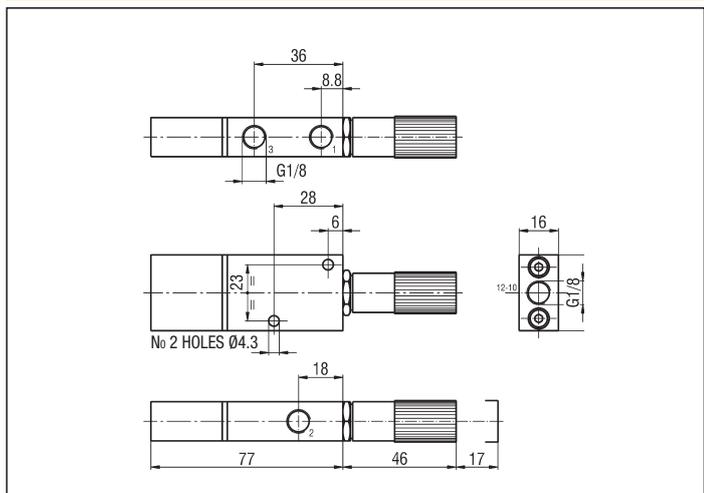
3 PORT SMALL PNEUMATIC



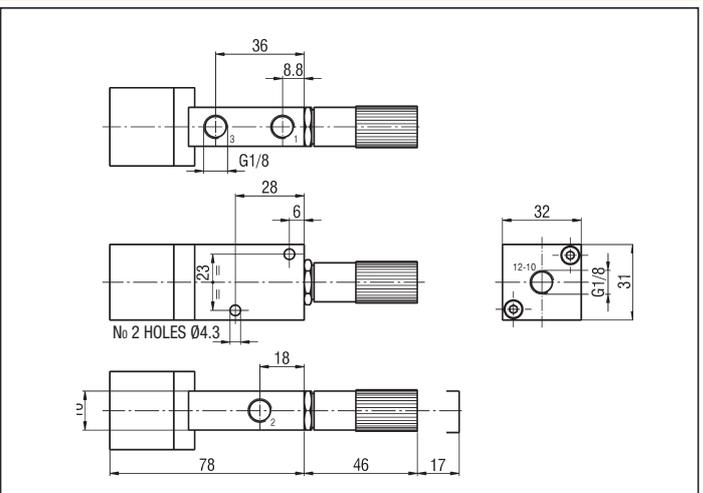
3 PORT BIG PNEUMATIC



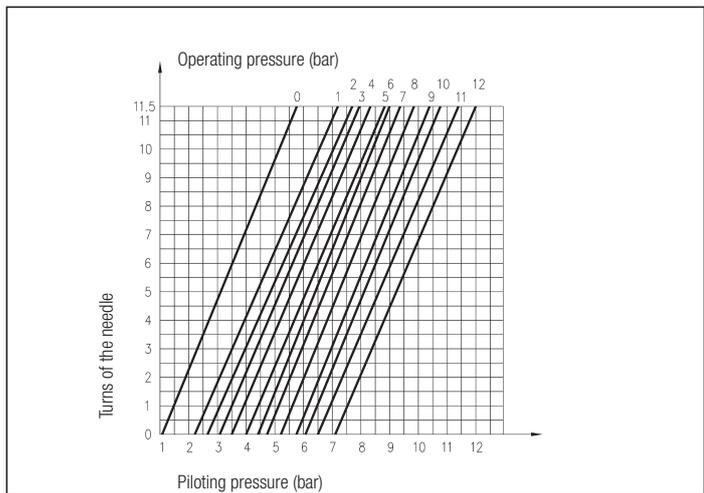
UKC 8/12/T



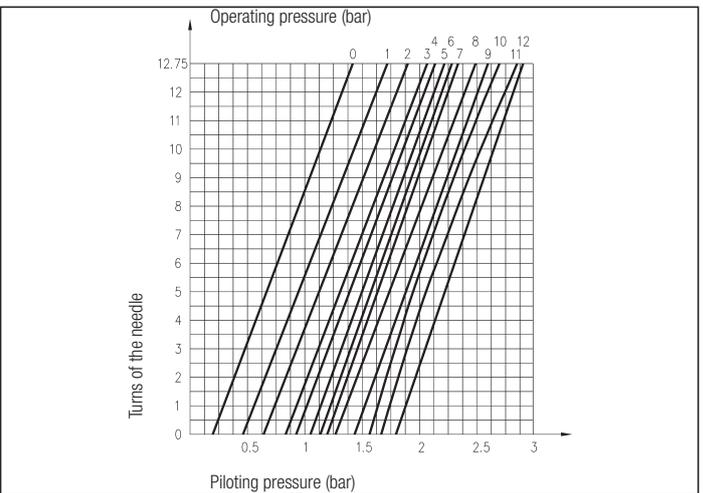
UKC 8/25/T



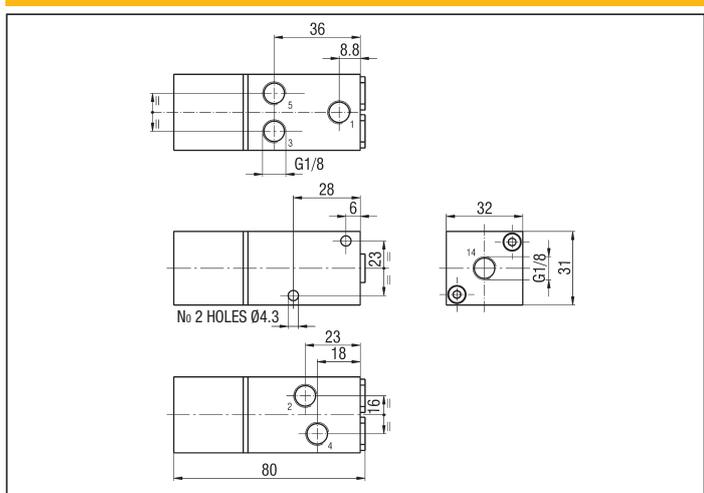
SPRING CALIBRATION UKC 8/12/T



SPRING CALIBRATION UKC 8/25/T



5 PORT



2

SOLENOID ACTUATED VALVES G 1/8 - 2, 3 and 5 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	Small solenoid	Mechanical spring	10	28	700	108	UKA 8/12/U**
	3/2 N.C. monostable	Small solenoid	Mechanical spring	10	28	700	108	UKC 8/12/U**
	3/2 N.O. monostable	Big solenoid	Mechanical spring	18	38	700	135	UKA 8/25/U***
	3/2 N.C. monostable	Big solenoid	Mechanical spring	18	38	700	135	UKC 8/25/U***
	5/2 monostable	Solenoid	Mechanical spring	19	40	650	203	UKCA 8/U***

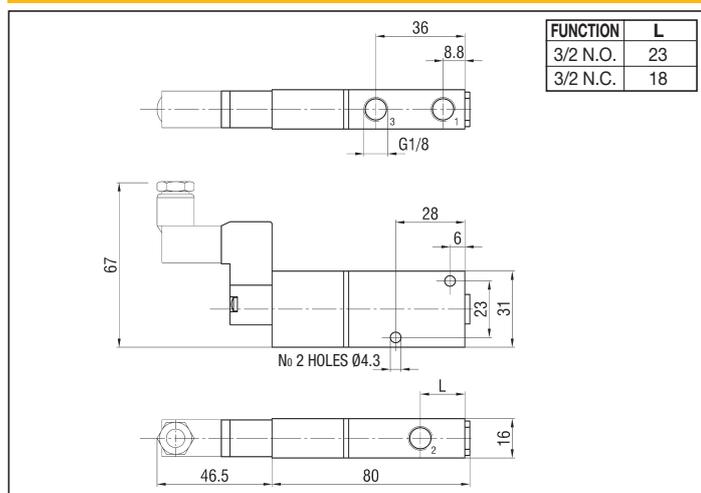
* /EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ T_{as} ≤ 60°C E.G.: UKCA8/U/EX /EX Consistent with the ATEX directive II 3G c Ex nA IIC T5 Gc -5°C ≤ T_{as} ≤ 50°C E.G.: UKA8/12/U2400/EX II 3D c Ex tc IIIC T100°C IP65 Dc

** TYPES OF THESE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.5 (SPECIFY THE VOLTAGE IN THE ORDER)

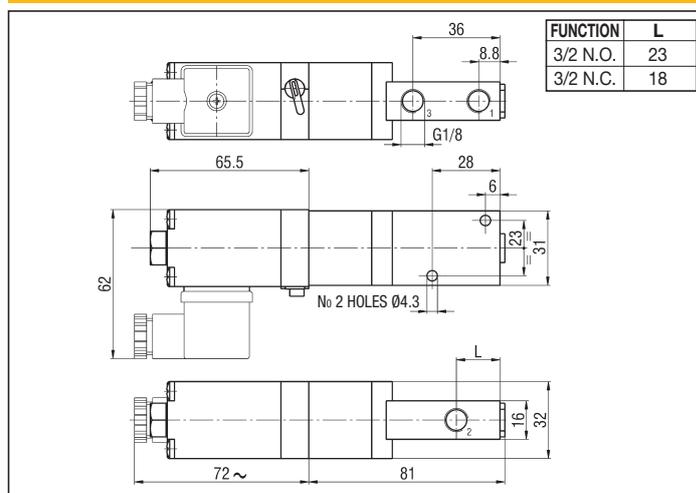
*** TYPES OF THESE SOLENOID VALVES DO NOT INCLUDE THE PILOTING SOLENOID VALVES (SEE ON PAGE 2.9 FOR "ULCSV/R" AND ON PAGE 2.16 FOR "C/USCSVG") WHEREAS USING AS PILOT THE VALVE "XVF4" THE RESULT IS A LOW PRESSURE PILOT ACTUATED VALVE (FOR "XVF4" - SEE ON PAGE 3.37)

P.S.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES. E.G.: UKHA 8/12/U; UKHC 8/25/U

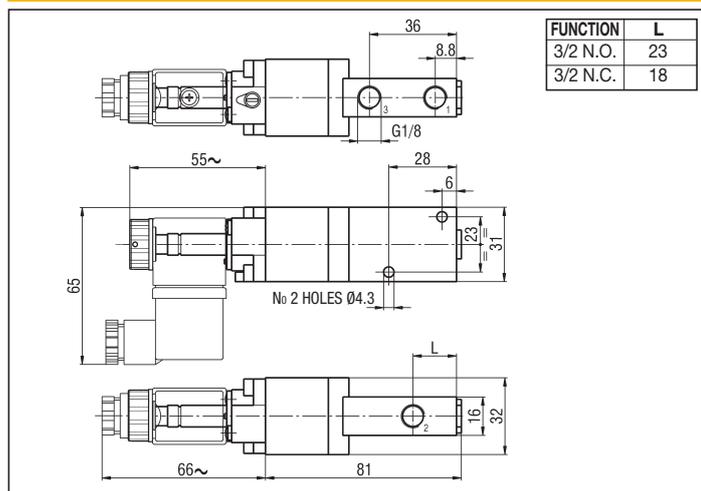
3 PORT SMALL SOLENOID



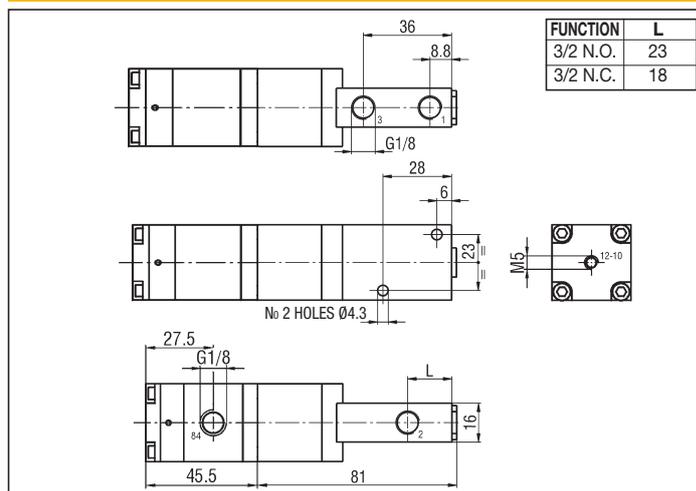
3 PORT BIG SOLENOID WITH ULCSV/R



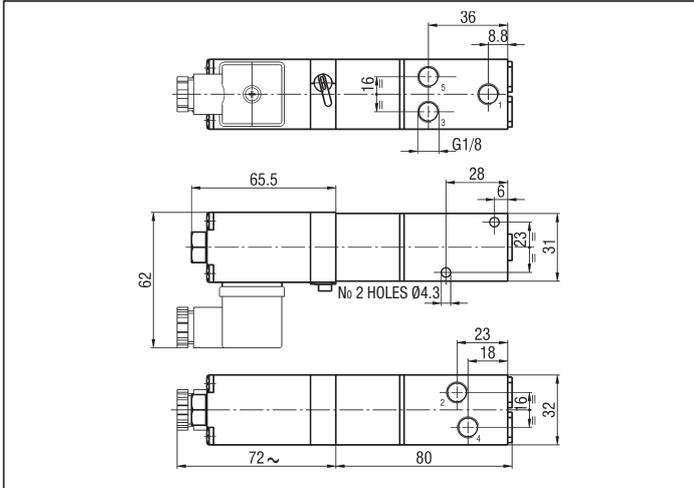
3 PORT BIG SOLENOID WITH C/USCSVG



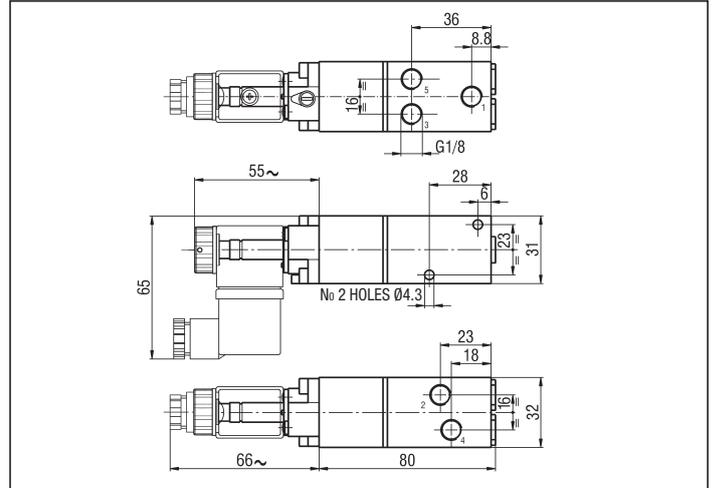
3 PORT WITH XVF4



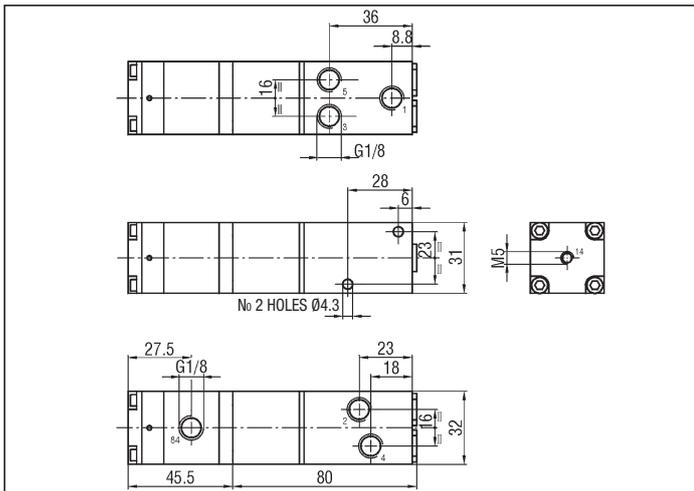
5 PORT WITH ULCSV/R



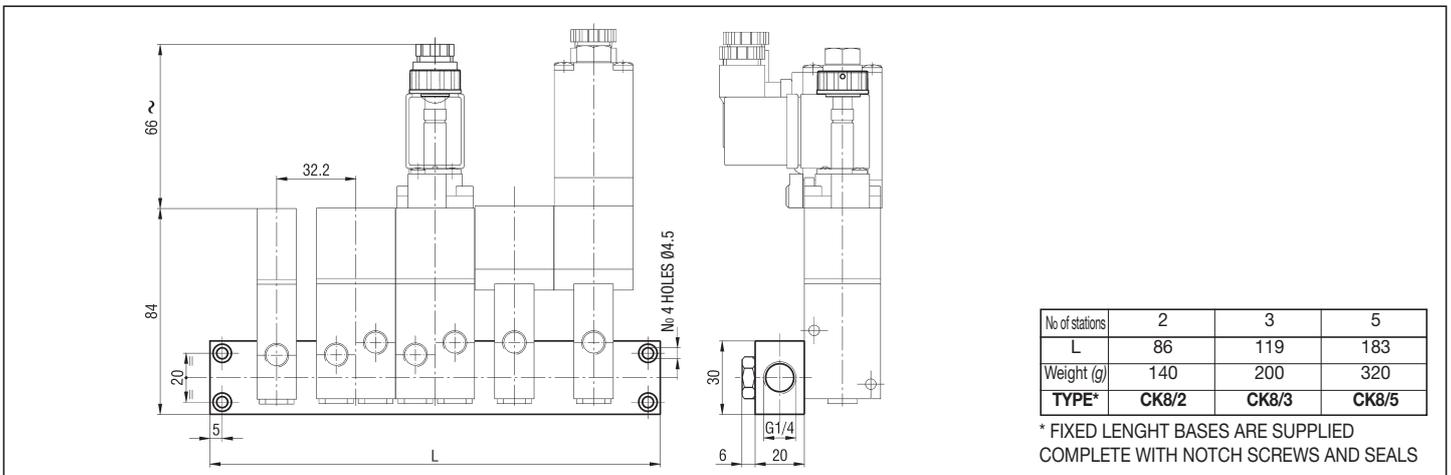
5 PORT WITH C/USCSVG



5 PORT WITH XVF4



FIXED LENGTH BASE FOR MANIFOLD MOUNTING OF VALVES G 1/8 - CK8



No of stations	2	3	5
L	86	119	183
Weight (g)	140	200	320
TYPE*	CK8/2	CK8/3	CK8/5

* FIXED LENGTH BASES ARE SUPPLIED COMPLETE WITH NOTCH SCREWS AND SEALS

2

PILOT ACTUATED VALVES G 1/4 - 2, 3 and 5 PORT

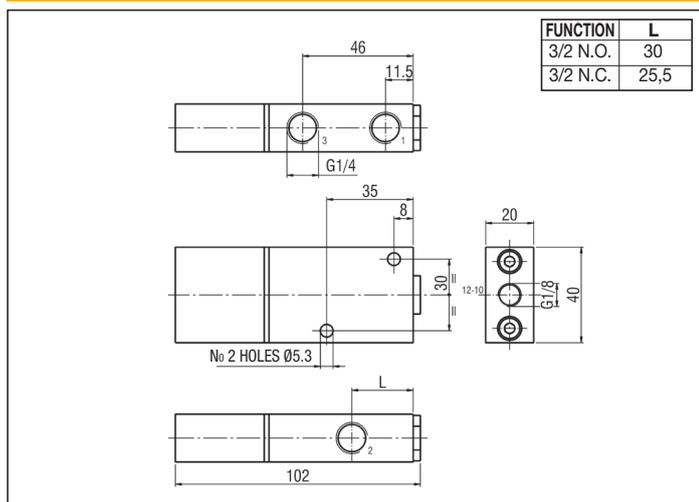
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	3/2 N.O. monostable	Small pneumatic	Mechanical spring	20	30	950	225	UKA 4/16
	3/2 N.C. monostable	Small pneumatic	Mechanical spring	20	30	1100	225	UKC 4/16
		Servo fed small pneumatic	Mechanical spring	16	30	1100	225	UKC 4/16/SA
	3/2 N.O. monostable	Big pneumatic	Mechanical spring	20	30	950	280	UKA 4/32
	3/2 N.C. monostable	Big pneumatic	Mechanical spring	20	30	1100	280	UKC 4/32
		Servo fed big pneumatic	Mechanical spring	20	28	1100	280	UKC 4/32/SA
	5/2 monostable	Pneumatic	Mechanical spring	24	45	1000	415	UKCA 4
		Servo fed pneumatic	Mechanical spring	24	45	1000	415	UKCA 4/SA

***EX** Consistent with the ATEX directive **Ex** II 2GD c T5 T100°C -20°C ≤ Ta ≤ 60°C E.G.: **UKCA4/EX**

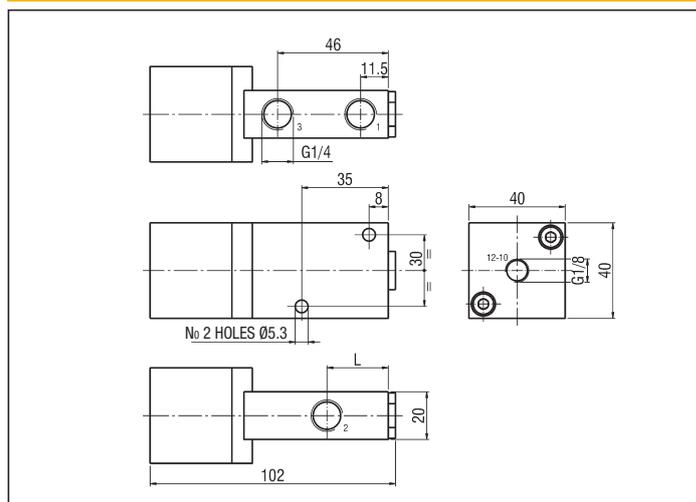
PS.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES.

E.G.: **UKHA 4/16; UKHC 4/32**

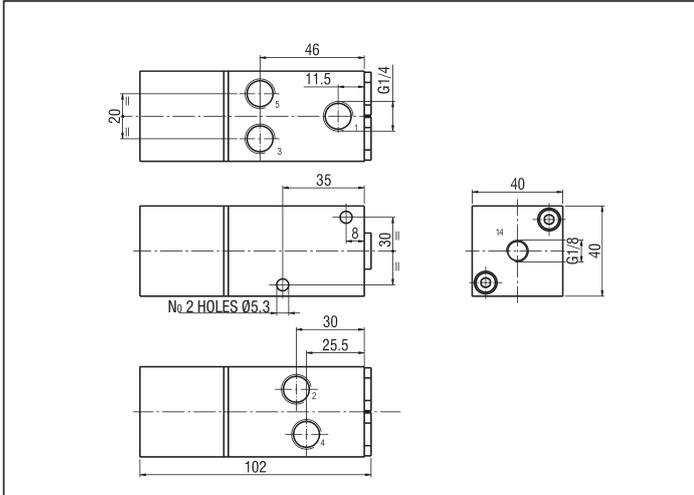
3 PORT SMALL PNEUMATIC



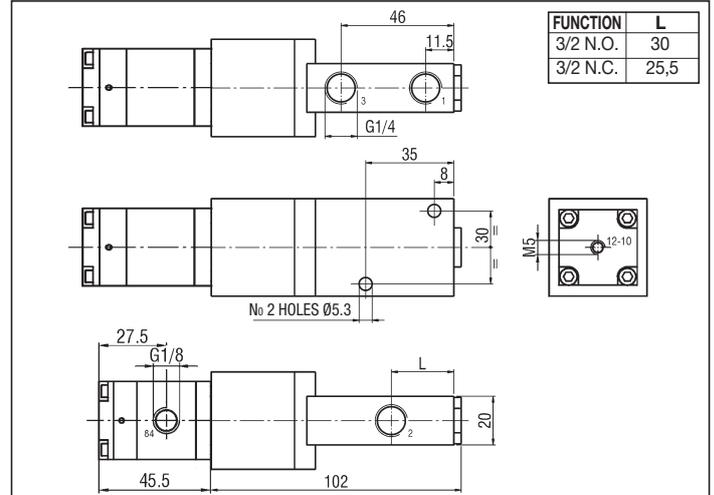
3 PORT BIG PNEUMATIC



5 PORT



3 PORT WITH XVF4



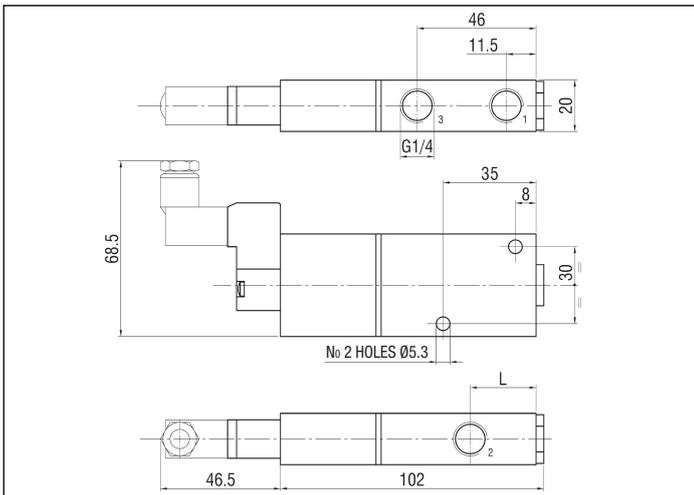
SOLENOID ACTUATED VALVES G 1/4 - 2, 3 and 5 PORT

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	Small solenoid	Mechanical spring	10	28	950	225	UKA 4/16/U**
	3/2 N.C. monostable	Small solenoid	Mechanical spring	10	28	1100	230	UKC 4/16/U**
	3/2 N.O. monostable	Big solenoid	Mechanical spring	20	30	950	280	UKA 4/32/U***
	3/2 N.C. monostable	Big solenoid	Mechanical spring	20	30	1100	280	UKC 4/32/U***
	5/2 monostable	Solenoid	Mechanical spring	24	45	1000	415	UKCA 4/U***

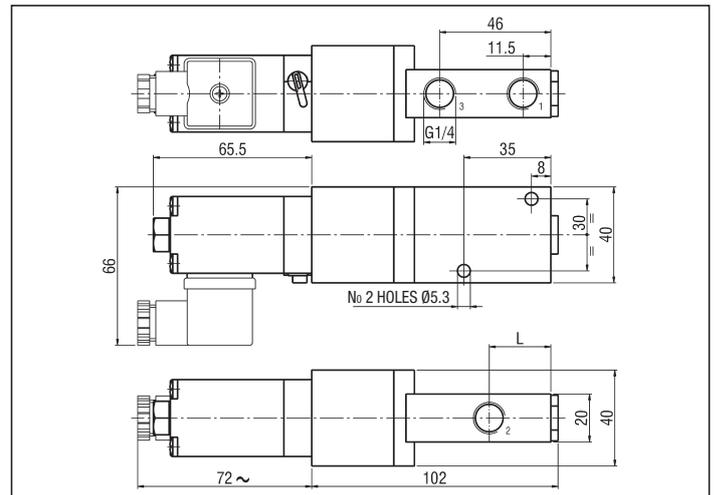
*EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 60°C ES.: UKCA4/U/EX /EX Consistent with the ATEX directive II 3G c Ex nA IIC T5 Gc -5°C ≤ Ta ≤ 50°C ES.: UKA4/16/U2400/EX II 3D c Ex tc IIIC T100°C IP65 Dc

** TYPES OF THESE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.5 (SPECIFY THE VOLTAGE IN THE ORDER)
 *** TYPES OF THESE SOLENOID VALVES DO NOT INCLUDE THE PILOTING SOLENOID VALVES (SEE ON PAGE 2.9 FOR "ULCSV/R" AND ON PAGE 2.16 FOR "C/USCSVG") WHEREAS USING AS PILOT THE VALVE "XVF4" THE RESULT IS A LOW PRESSURE PILOT ACTUATED VALVE (FOR "XVF4" - SEE ON PAGE 3.37)
 P.S.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES. E.G.: UKHA 4/16/U; UKHC 4/32/U

3 PORT SMALL SOLENOID

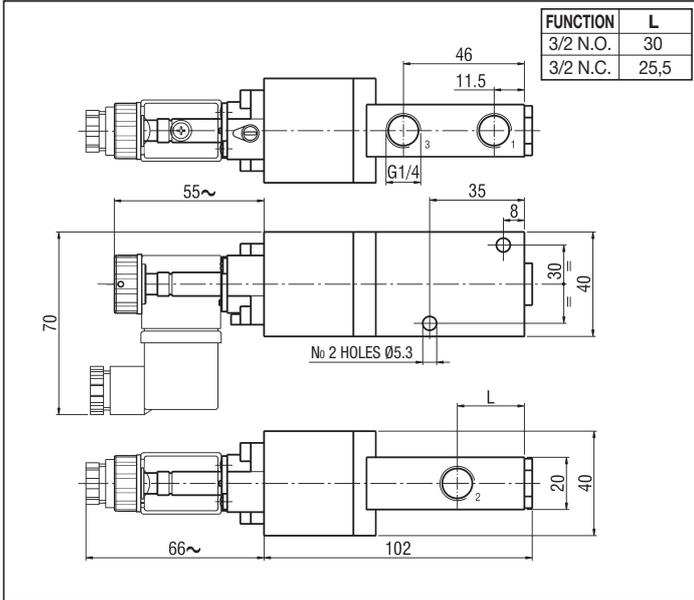


3 PORT BIG SOLENOID WITH ULCSV/R

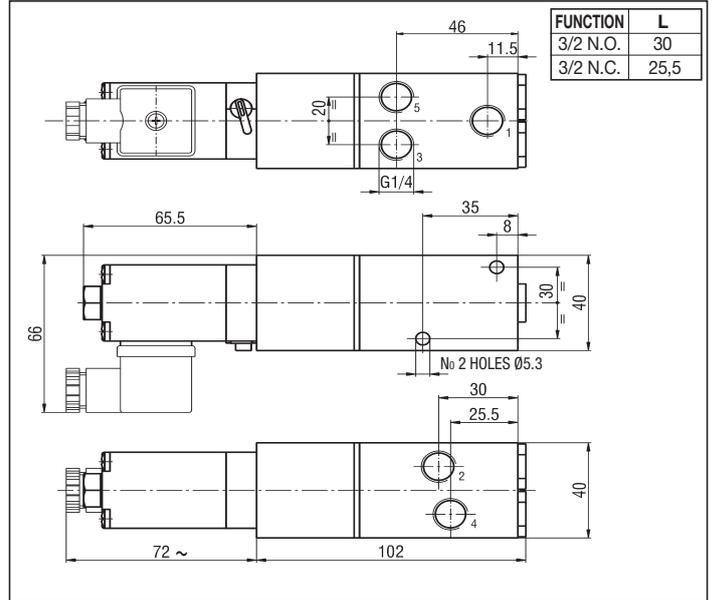


2

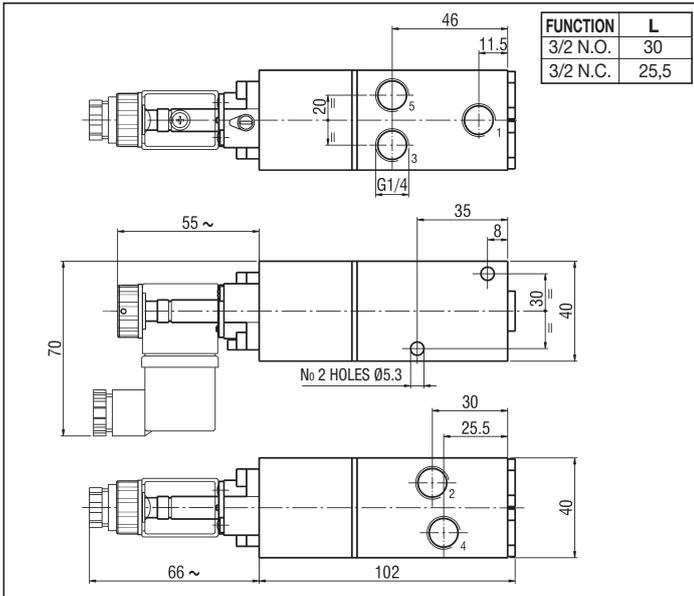
3 PORT BIG SOLENOID WITH C/USCSVG



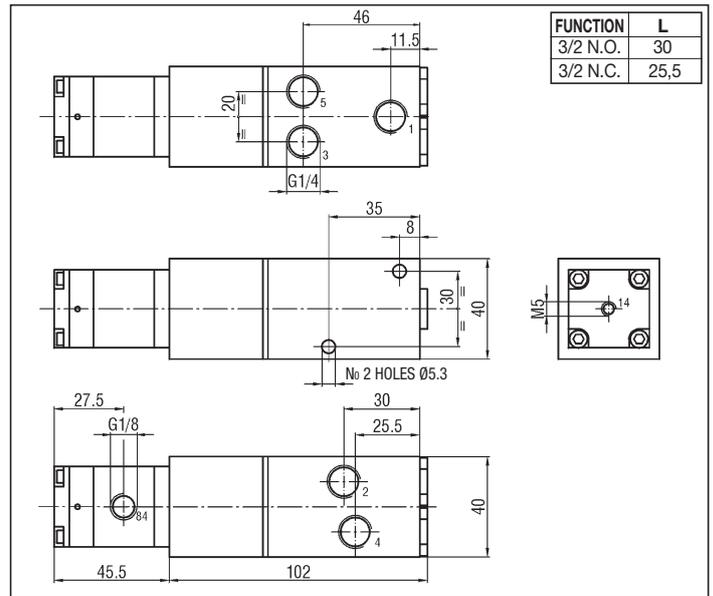
5 PORT WITH ULCSV/R



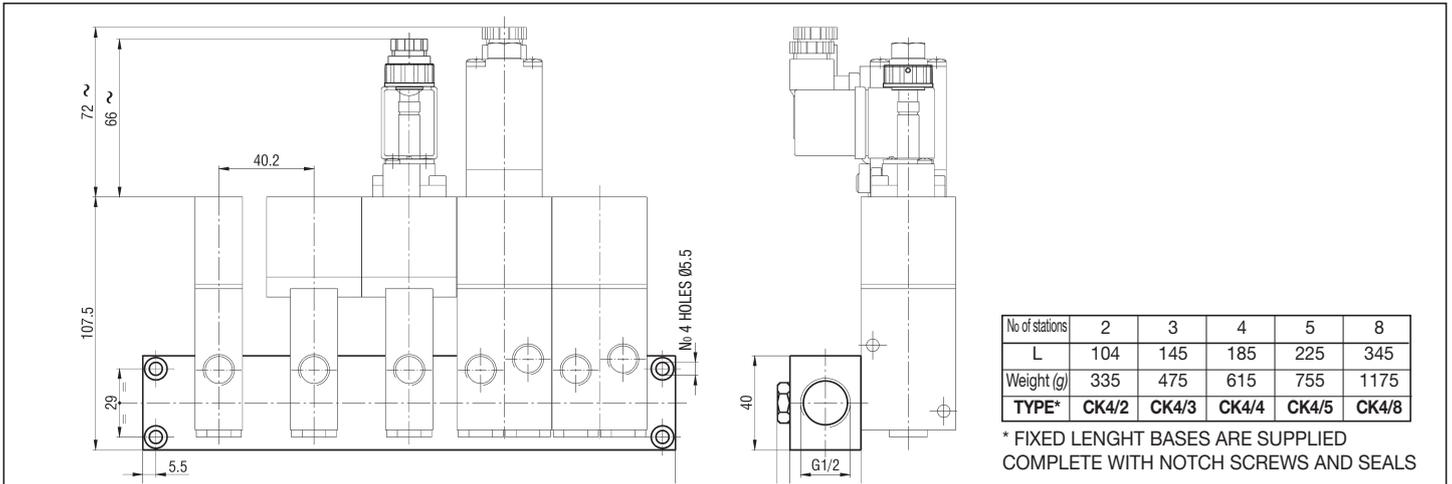
5 PORT WITH C/USCSVG



5 PORT WITH XVF4



FIXED LENGTH BASE FOR MANIFOLD MOUNTING OF VALVES G 1/4 - CK4



PILOT ACTUATED VALVES G 1/2 - 2, 3 and 5 PORT

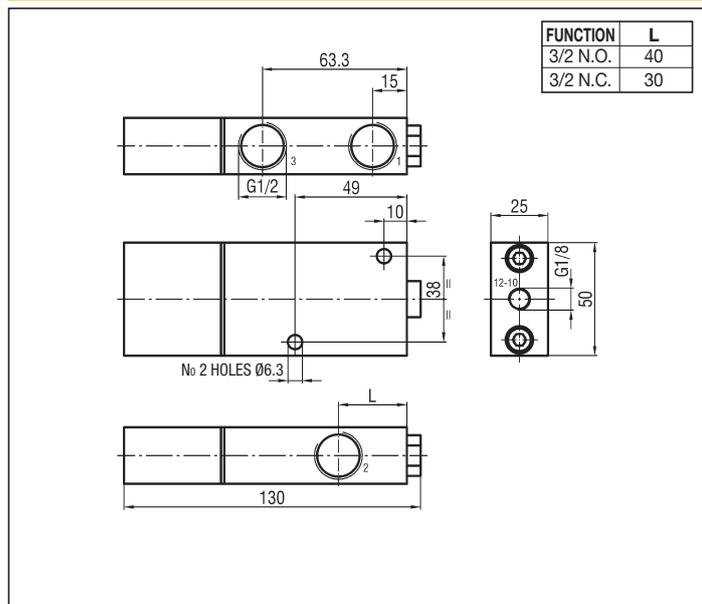
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	3/2 N.O. monostable	Small pneumatic	Mechanical spring	24	32	1900	420	UKA 2/20
	3/2 N.C. monostable	Small pneumatic	Mechanical spring	24	32	2100	420	UKC 2/20
		Servo fed small pneumatic	Mechanical spring	25	32	2100	520	UKC 2/20/SA
	3/2 N.O. monostable	Big pneumatic	Mechanical spring	24	32	1900	520	UKA 2/40
	3/2 N.C. monostable	Big pneumatic	Mechanical spring	24	32	2100	520	UKC 2/40
		Servo fed big pneumatic	Mechanical spring	20	30	2100	520	UKC 2/40/SA
	5/2 monostable	Pneumatic	Mechanical spring	24	40	2000	800	UKCA 2
		Servo fed pneumatic	Mechanical spring	24	40	2000	800	UKCA 2/SA

*/EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 60°C E.G.: UKCA2/EX

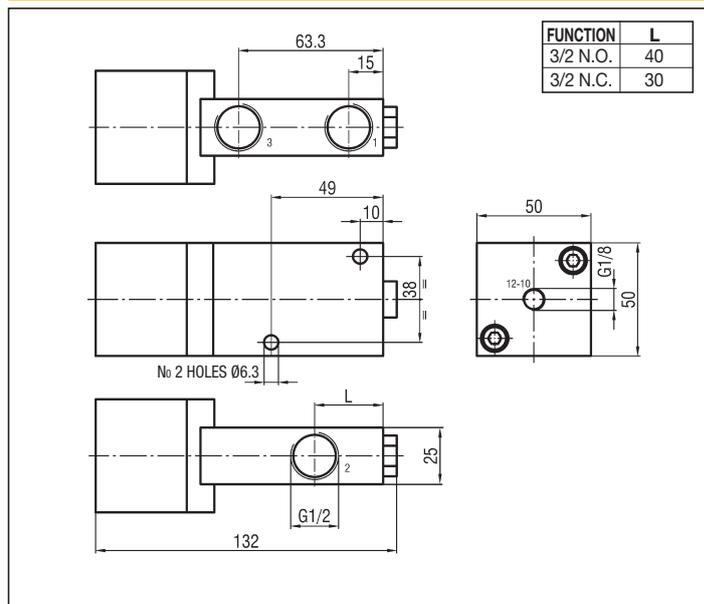
PS.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES.

E.G.: UKHA 2/20; UKHC 2/20

3 PORT SMALL PNEUMATIC

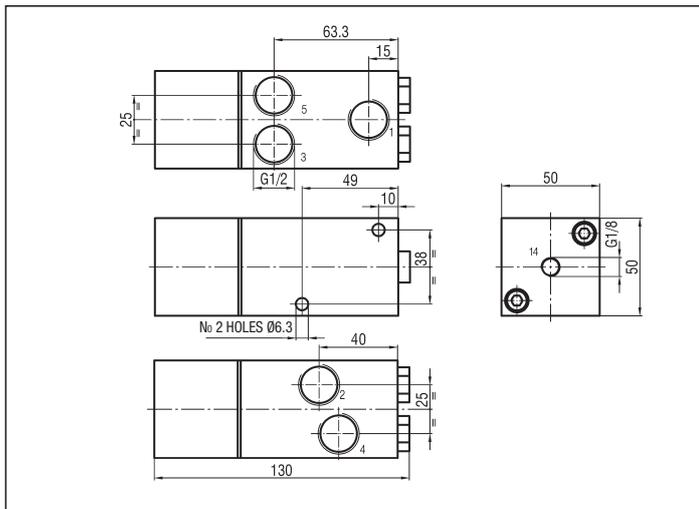


3 PORT BIG PNEUMATIC

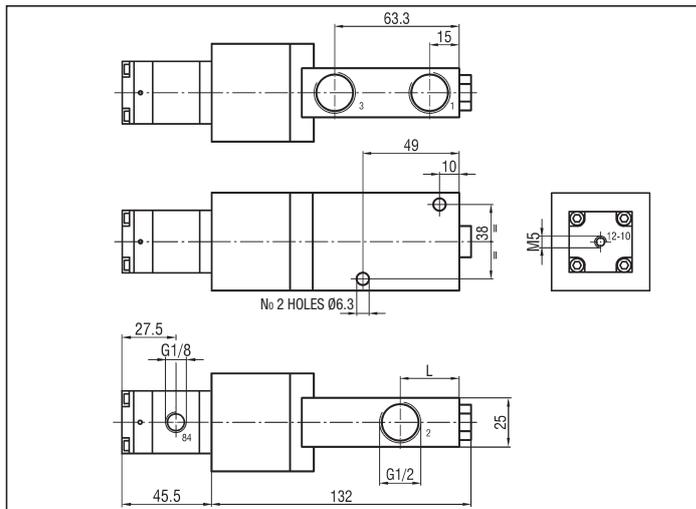


2

5 PORT



3 PORT WITH XVF4



SOLENOID ACTUATED VALVES G 1/2 - 2, 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	Small solenoid	Mechanical spring	24	32	1900	430	UKA 2/20/U**
	3/2 N.C. monostable	Small solenoid	Mechanical spring	24	32	2100	440	UKC 2/20/U**
	3/2 N.O. monostable	Big solenoid	Mechanical spring	24	32	1900	530	UKA 2/40/U***
	3/2 N.C. monostable	Big solenoid	Mechanical spring	24	32	2100	540	UKC 2/40/U***
	5/2 monostable	Solenoid	Mechanical spring	24	32	2000	810	UKCA 2/U***

*EX Consistent with the ATEX directive Ex II 2GD c T5 T100°C -20°C ≤ Ta ≤ 60°C ES.: UKCA2/U/EX *EX Consistent with the ATEX directive Ex II 3G c Ex nA IIC T5 Gc -5°C ≤ Ta ≤ 50°C E.G.: UKA2/20/U2400/EX II 3D c Ex tc IIC T100°C IP65 Dc

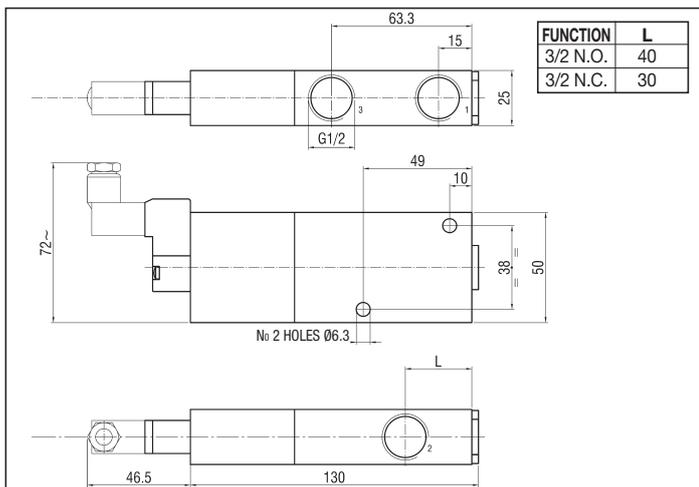
** TYPES OF THESE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.5 (SPECIFY THE VOLTAGE IN THE ORDER)

*** TYPES OF THESE SOLENOID VALVES DO NOT INCLUDE THE PILOTING SOLENOID VALVES (SEE ON PAGE 2.9 FOR "ULCSV/R" AND ON PAGE 2.13 FOR "C/USCSVG") WHEREAS USING AS PILOT THE VALVE "XVF4" THE RESULT IS A LOW PRESSURE PILOT ACTUATED VALVE (FOR "XVF4" - SEE ON PAGE 3.37)

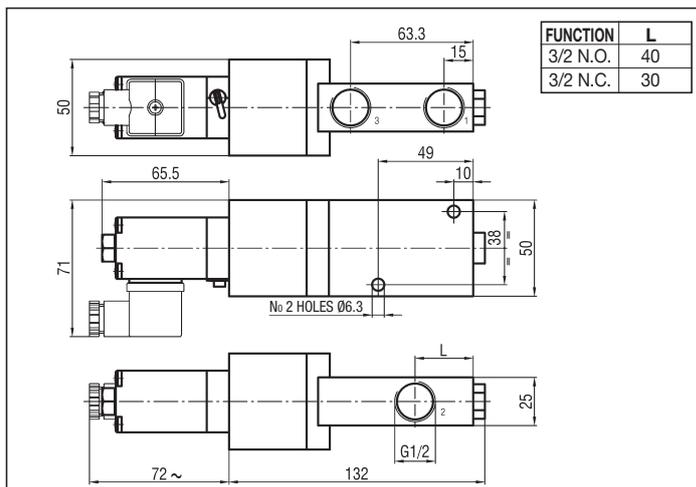
P.S.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES.

E.G.: UKHA 2/20; UKHC 2/20

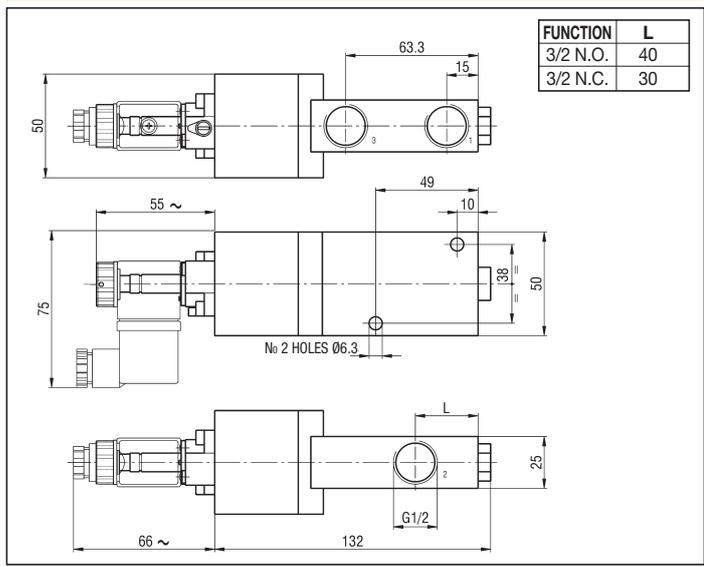
3 PORT SMALL SOLENOID WITH UMCSV



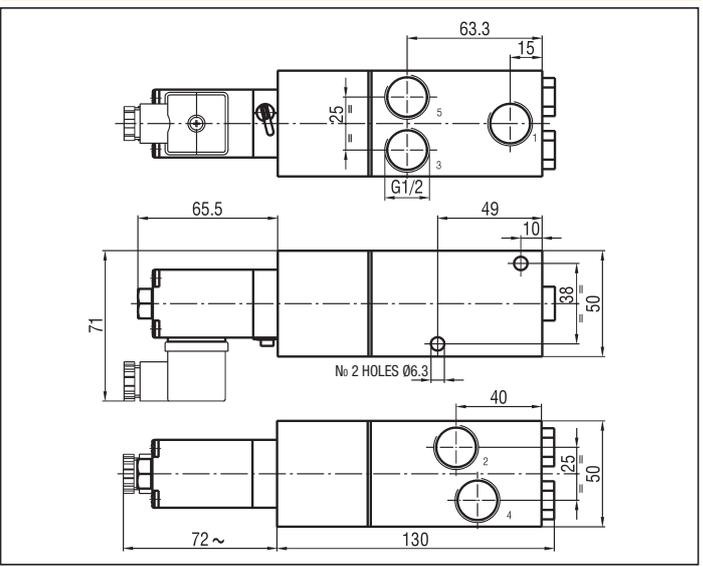
3 PORT BIG SOLENOID WITH ULCSV/R



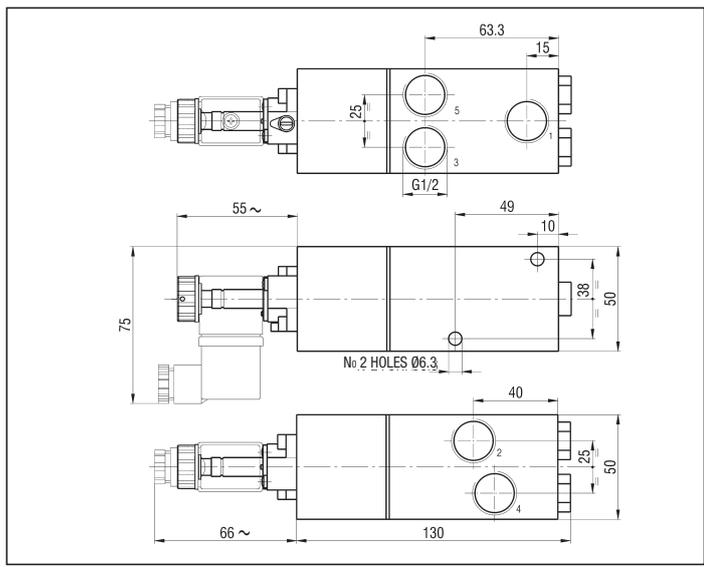
3 PORT BIG SOLENOID WITH C/USCSVG



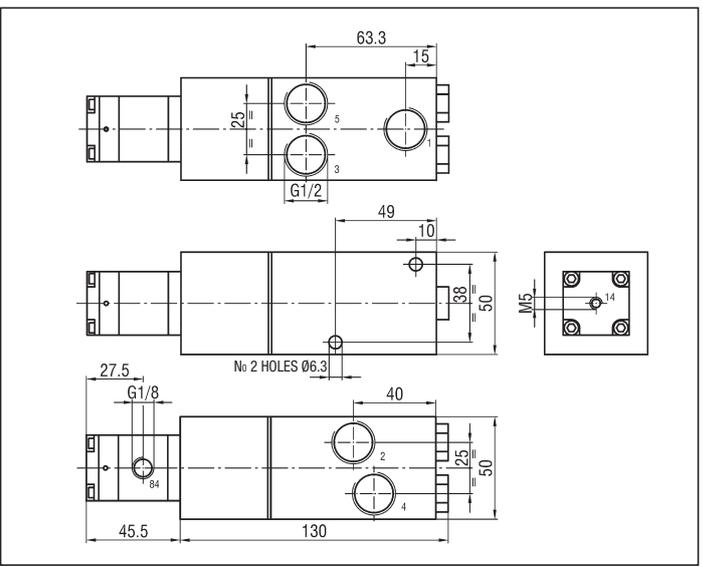
5 PORT WITH ULCSV/R



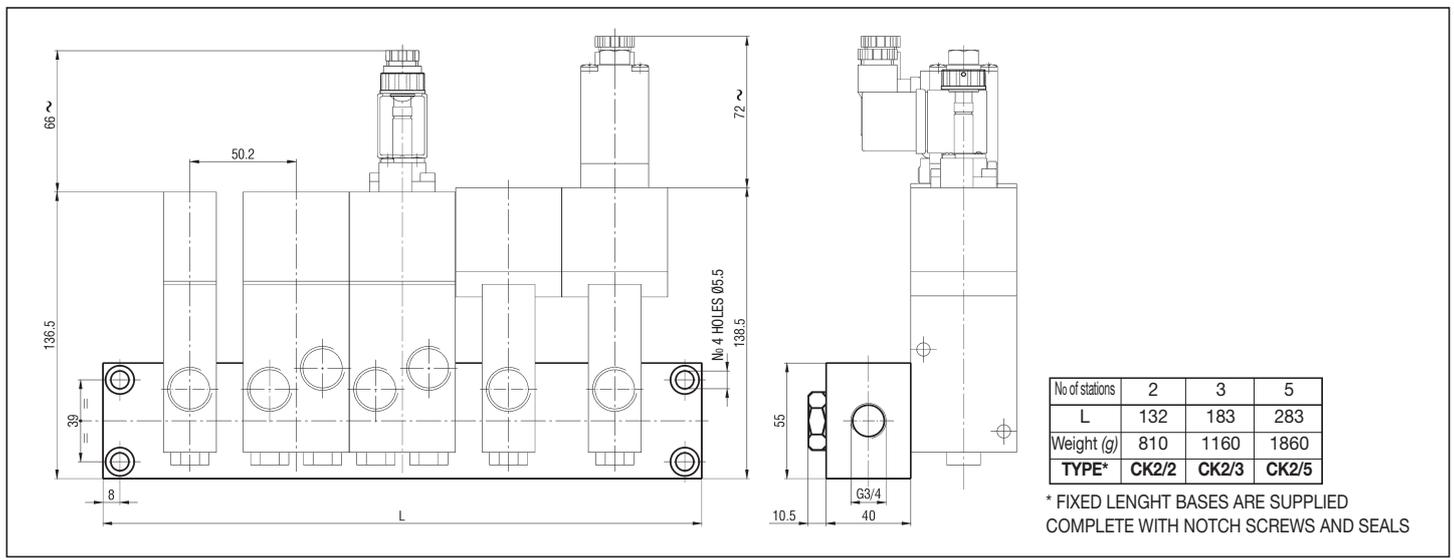
5 PORT WITH C/USCSVG



5 PORT WITH XVF4



FIXED LENGTH BASE FOR MANIFOLD MOUNTING OF VALVES G 1/2 - CK2



2

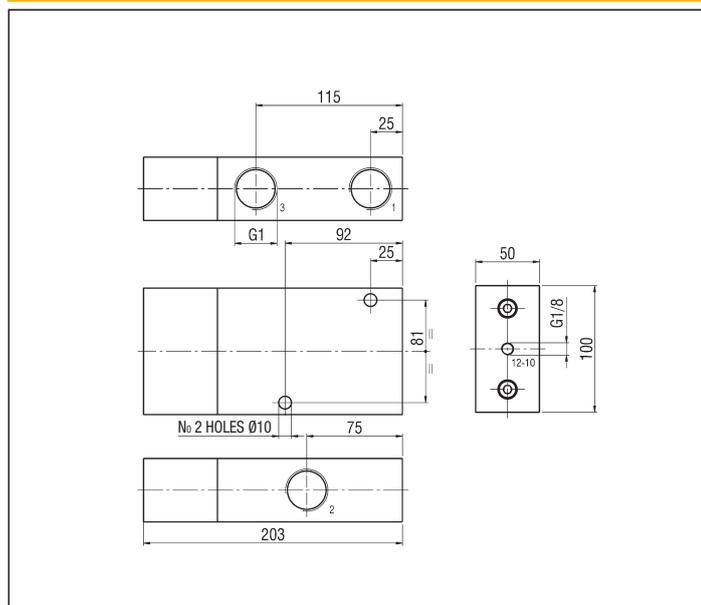
PILOT ACTUATED VALVES G 1 - 2, 3 and 5 PORT

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	Small pneumatic	Mechanical spring	40	65	11300	2550	UKA 1
	3/2 N.C. monostable	Small pneumatic	Mechanical spring	40	65	7800	2550	UKC 1
	5/2 monostable	Pneumatic	Mechanical spring	40	70	8050	5160	UKCA 1

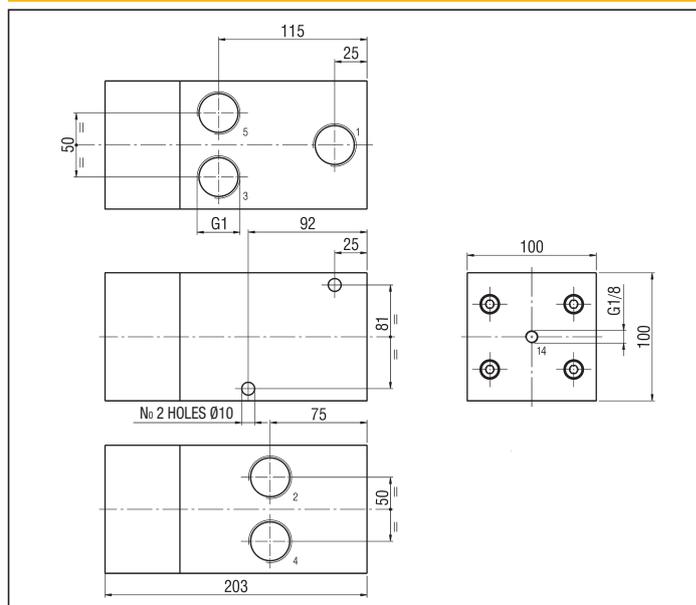
***EX** Consistent with the ATEX directive Ex II 2GD c T5 T100°C -20°C ≤ Ta ≤ 60°C E.G.: **UKCA1/EX**

PS.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES.
E.G.: **UKHA 1; UKHC 1**

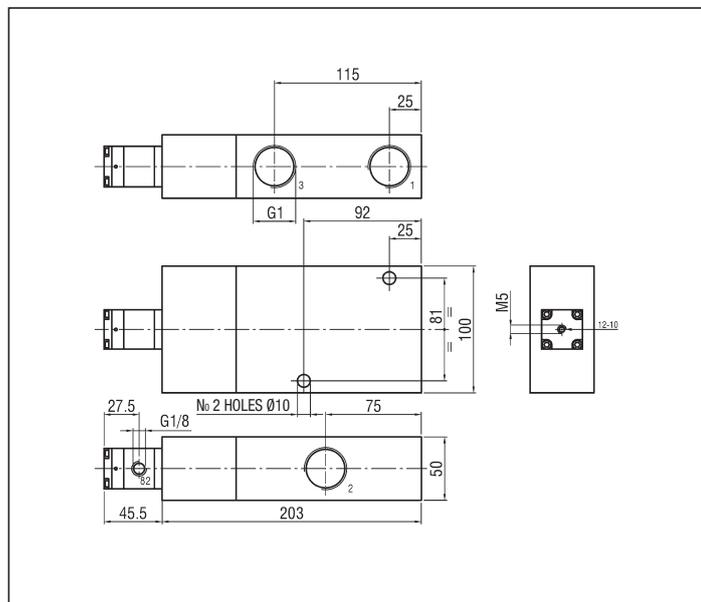
UKA 1 - UKC 1



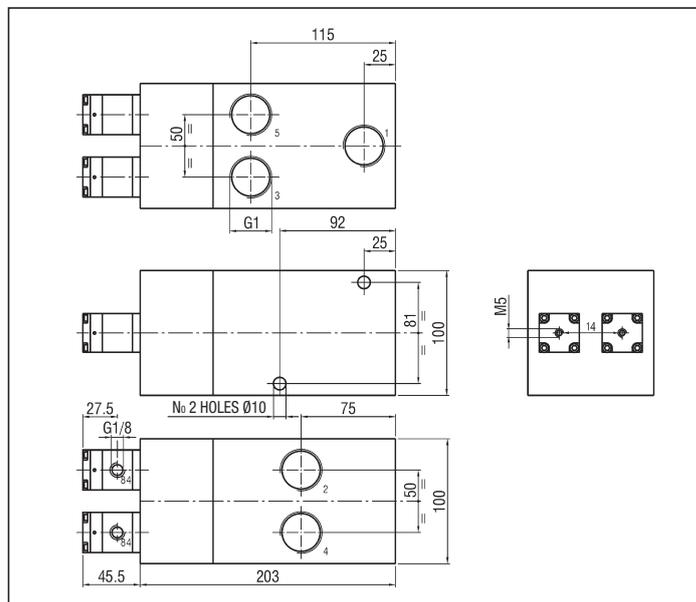
UKCA 1



3 PORT WITH XVF4



5 PORT WITH XVF4



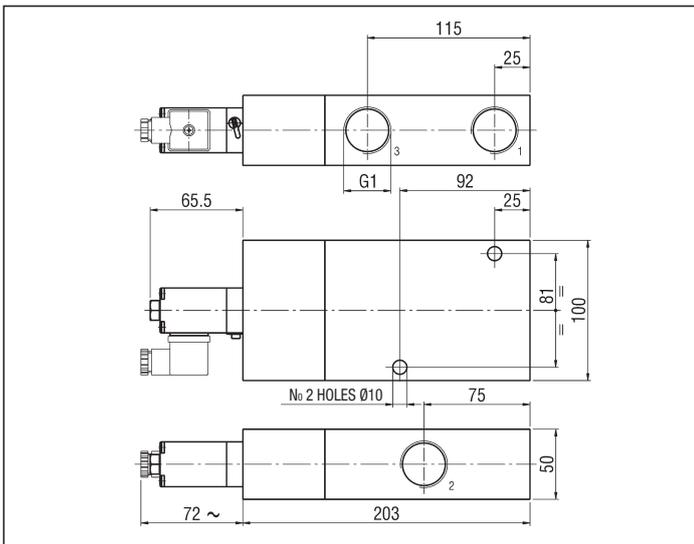
SOLENOID ACTUATED VALVES G 1 - 2, 3 and 5 PORT

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (l/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	3/2 N.O. monostable	Small solenoid	Mechanical spring	40	65	11300	2600	UKA 1/U**
	3/2 N.C. monostable	Small solenoid	Mechanical spring	40	65	7800	2550	UKC 1/U**
	5/2 monostable	Solenoid	Mechanical spring	40	70	8050	5100	UKCA 1/U**

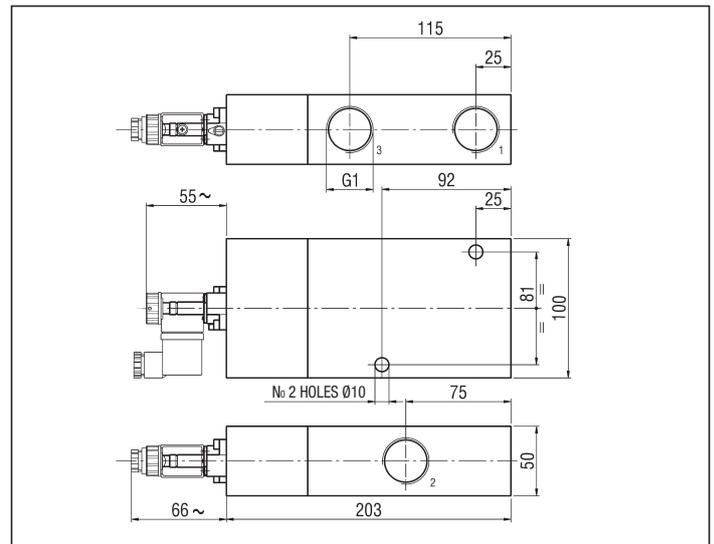
***/EX** Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ T_a ≤ 60°C E.G.: **UKCA1/U/EX**

** THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE THE PILOTING SOLENOID VALVES (SEE ON PAGE 2.6 FOR "ULCSV/R" AND ON PAGE 2.16 FOR "C/USCSVG") WHEREAS USING AS PILOT THE VALVE "XVF4" THE RESULT IS A LOW PRESSURE PILOT ACTUATED VALVE (FOR "XVF4" - SEE ON PAGE 3.37) P.S.: ADD AT THE TYPE OF THE VALVES 3/2 THE LETTER "H" BETWEEN THE LETTERS "K" AND "A" (OR "C") TO ORDER 2/2 N.O. (OR 2/2 N.C.) VALVES. E.G.: **UKHA 1/U; UKHC 1/U**

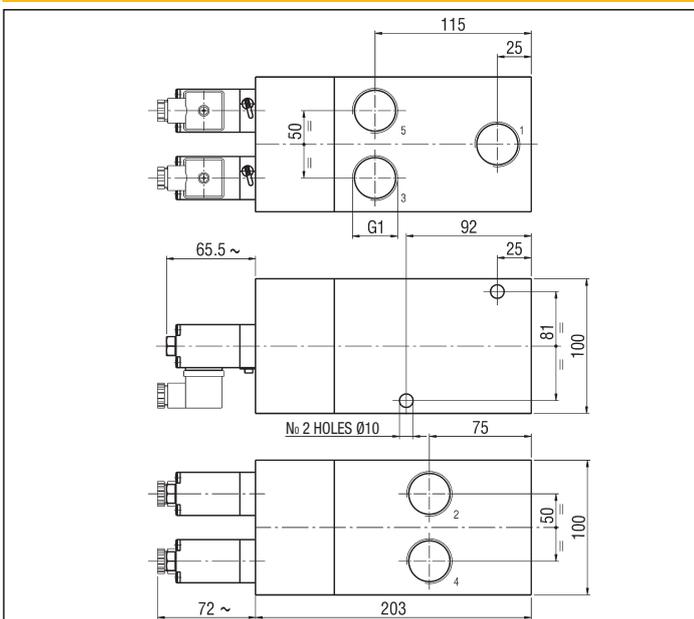
3 PORT WITH ULCSV/R



3 PORT WITH C/USCSVG



5 PORT WITH ULCSV/R



5 PORT WITH C/USCSVG

