Poppet valves
manually and mechanically actuated
G 1/8 - G 1/4 - G 1/2

series CA

DESCRIPTION

Valves series “CA” are produced in the 2/2, 3/2, 3/3, 5/2 and 5/3 pneumatic functions. The poppet kind of construction and the very rugged control allow the valve to stand high stress.
The push-button and mushroom controls are available only in the 3/2 monostable pneumatic functions for the size G 1/8.
They are in compliance with ATEX directive, 2GD category, upon request.



TECHNICAL DATA

Operating pressure	0 ÷ 12 bar
Working temperature	0 ÷ +70 °C (–20° C with dry air)
Fluid	Filtered air, without lubrication. If lubricated air is used, lubrication should never be interrupted
Port size	G 1/8 - G 1/4 - G 1/2
Nominal diameter	G 1/8 = 6 mm G 1/4 = 8 mm G 1/2 = 12 mm
Controls	
Mechanical:	Plunger; roller lever; short roller lever; unidirectional roller lever
Manual:	Tapper; push-button; mushroom; vertical knob; lateral knob; lateral hand-wheel

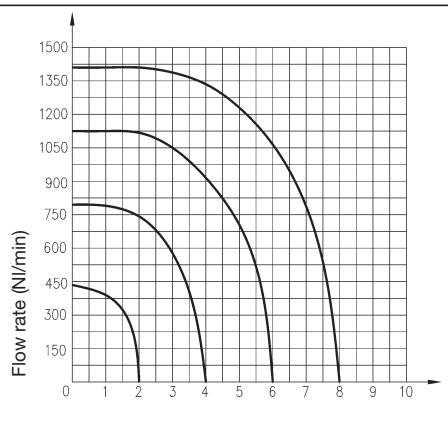
MATERIALS

Control rod	Hardened and nickel - plated steel
Body	Anodized aluminium alloy
Springs	Stainless steel
Seals	NBR rubber
Piston	Acetal resin
Guide bushing	Brass
Bottom plug	Nickel - plated brass
Controls	
Lever	Steel
Plunger	Nickel - plated brass
Knobs; handgrips; push-buttons	Plastic material
Roller	Ball bearing (plastic material upon request)

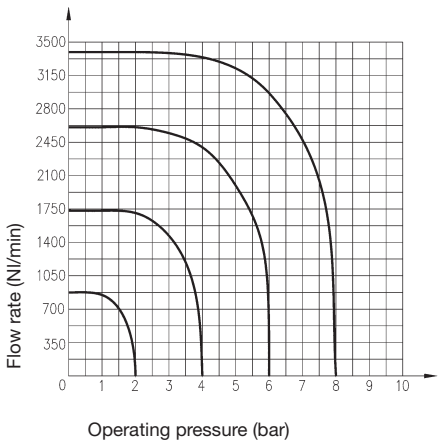
SPARE PARTS

SEALS KIT	
3/2 N.O. G 1/8	**A/SG/8**
3/2 N.C. G 1/8	**C/SG/8**
5/2 G 1/8	**CA/SG/8**
3/2 N.O. G 1/4	**A/SG/4**
3/2 N.C. G 1/4	**C/SG/4**
5/2 G 1/4	**CA/SG/4**
3/2 N.O. G 1/2	**A/SG/2**
3/2 N.C. G 1/2	**C/SG/2**
5/2 G 1/2	**CA/SG/2**

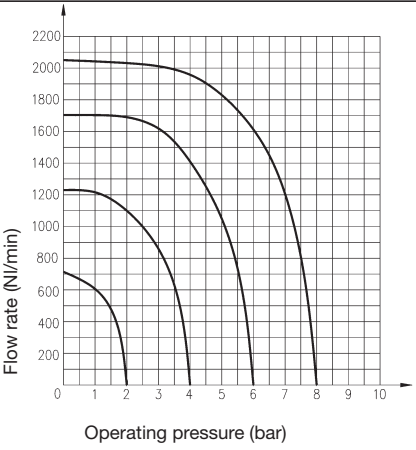
FLOW CHART - CA G 1/8 - 5/2



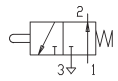
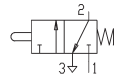
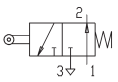
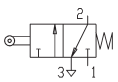
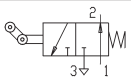
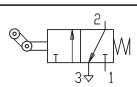
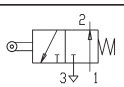
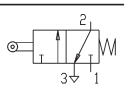
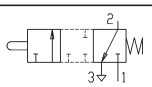
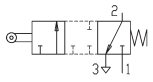
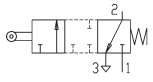
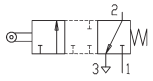
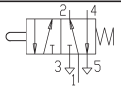
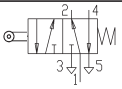
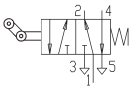
FLOW CHART - CA G 1/2 - 5/2



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



MECHANICALLY ACTUATED VALVES G 1/8 - G 1/4 - G 1/2

Symbol	Function	Controls		Actuation force at 6 bar (N)	Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	Port size	TYPE*
		Pilot	Return					
	3/2 N.O. monostable	Plunger	Mechanical spring	38	740	70	G 1/8	AS 8
				60	950	150	G 1/4	AS4
				88	2200	300	G 1/2	AS2
	3/2 N.C. monostable	Plunger	Mechanical spring	36	815	70	G 1/8	CS8
				64	950	150	G 1/4	CS4
				85	2250	300	G 1/2	CS2
	3/2 N.O. monostable	Roller lever	Mechanical spring	23	740	95	G 1/8	ALR8
				35	950	215	G 1/4	ALR4
				53	2200	415	G 1/2	ALR2
	3/2 N.C. monostable	Roller lever	Mechanical spring	24	815	95	G 1/8	CLR8
				34	950	215	G 1/4	CLR4
				52	2250	415	G 1/2	CLR2
	3/2 N.O. monostable	Unidirectional roller lever	Mechanical spring	30	740	100	G 1/8	ALRU8
				53	950	200	G 1/4	ALRU4
				64	2200	405	G 1/2	ALRU2
	3/2 N.C. monostable	Unidirectional roller lever	Mechanical spring	26	815	100	G 1/8	CLRU8
				50	950	200	G 1/4	CLRU4
				63	2250	405	G 1/2	CLRU2
	3/2 N.O. monostable	Short roller lever	Mechanical spring	35	740	110	G 1/8	AR8
	3/2 N.C. monostable	Short roller lever	Mechanical spring	33	815	110	G 1/8	CR8
	3/2 N.C. monostable	Plunger	Mechanical spring	48	815	70	G 1/8	FCS8**
				162	950	150	G 1/4	FCS4**
	3/2 N.C. monostable	Roller lever	Mechanical spring	25	815	95	G 1/8	FCLR8**
				70	950	215	G 1/4	FCLR4**
	3/2 N.C. monostable	Unidirectional roller lever	Mechanical spring	27	815	95	G 1/8	FCLRU8**
				80	950	215	G 1/4	FCLRU4**
	3/2 N.C. monostable	Short roller lever	Mechanical spring	69	815	110	G 1/8	FCR8**
	5/2 monostable	Plunger	Mechanical spring	62	650	140	G 1/8	CASS8
				103	1040	305	G 1/4	CASS4
				120	2050	600	G 1/2	CASS2
	5/2 monostable	Roller lever	Mechanical spring	38	650	190	G 1/8	CALR8
				64	1040	405	G 1/4	CALR4
				45	2050	765	G 1/2	CALR2
	5/2 monostable	Unidirectional roller lever	Mechanical spring	43	650	190	G 1/8	CALRU8
				68	1040	405	G 1/4	CALRU4
				94	2050	775	G 1/2	CALRU2

P.S.: ADD THE LETTER “N” AFTER THE LETTER “R” IN THE TYPE TO ORDER THE VALVES WITH PLASTIC ROLLER (AVAILABLE ONLY FOR THE SIZES G 1/8 AND G 1/4). E.G.:**CLRN8**

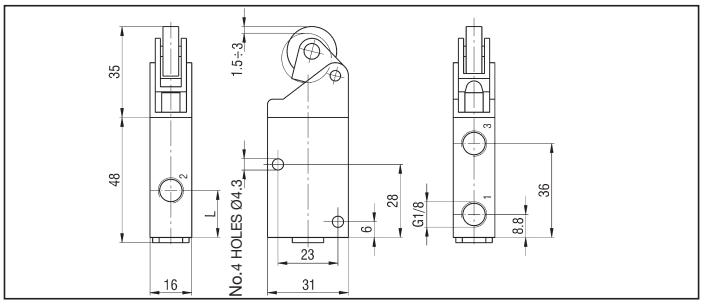
PUT THE LETTER “H” BEFORE THE TYPE OF 3/2 VALVES TO ORDER THE 2/2 N.O. AND 2/2 N.C. VALVES. E.G.: **HCS8; HAR8**

***/EX** Consistent with the ATEX directive
E.G.: **CS4/EX**

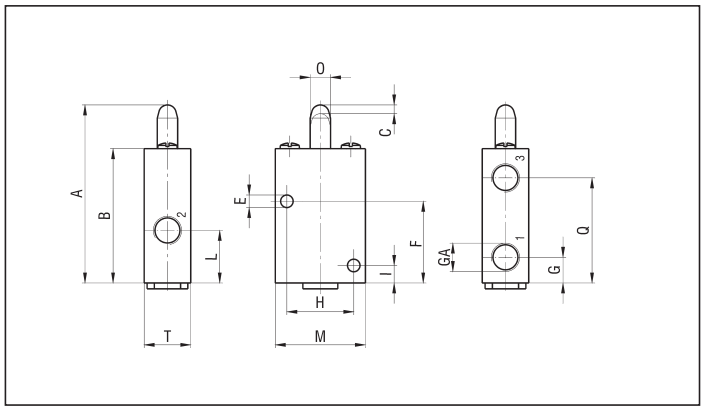
II 2G Ex h IIC T5 Gb -20°C<Ta<60°C
II 2D Ex h IIIC T100°C Db

** THE WAYS AREN’T COMUNICATING IN THE INTERMEDIATE PHASE OF ACTUATION

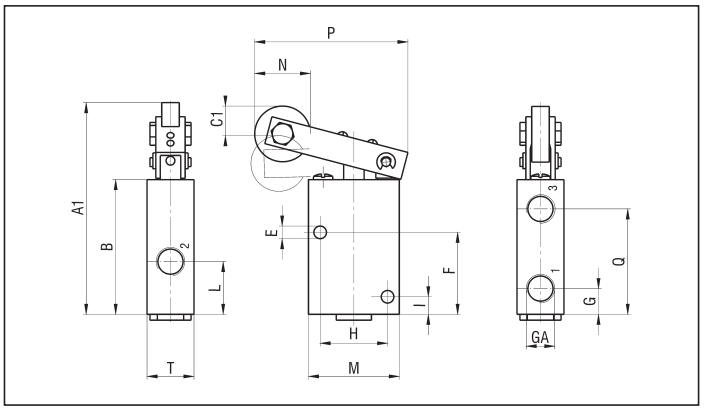
3/2 SHORT ROLLER LEVER



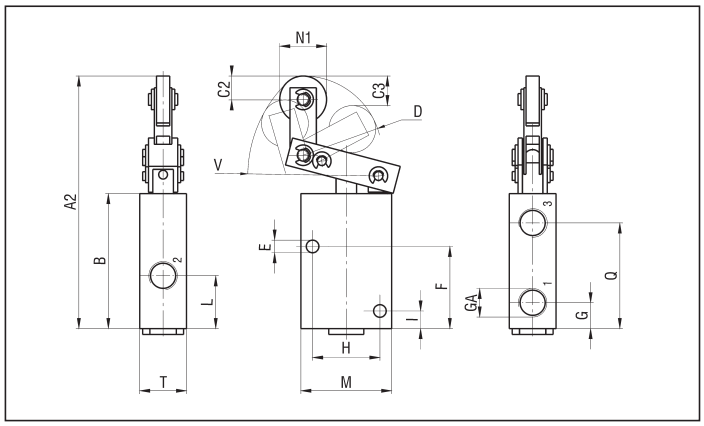
3/2 PLUNGER



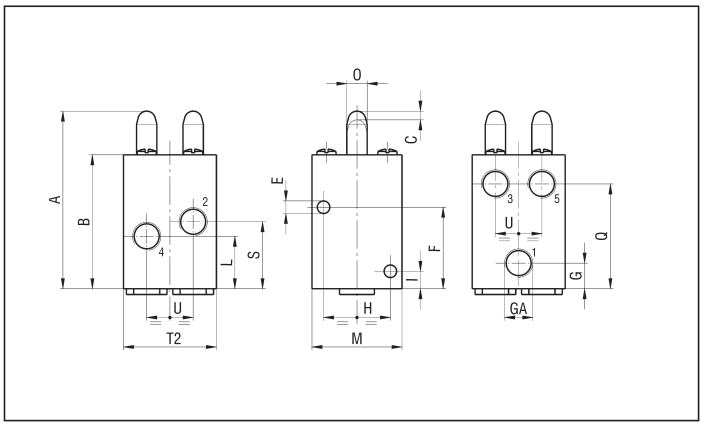
3/2 ROLLER LEVER



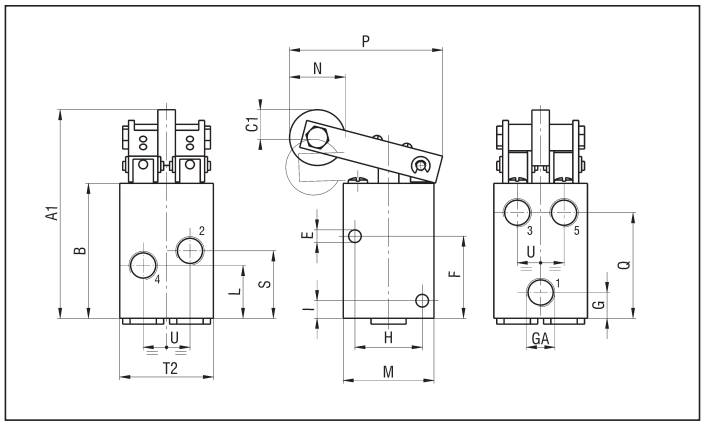
3/2 UNIDIRECTIONAL ROLLER LEVER



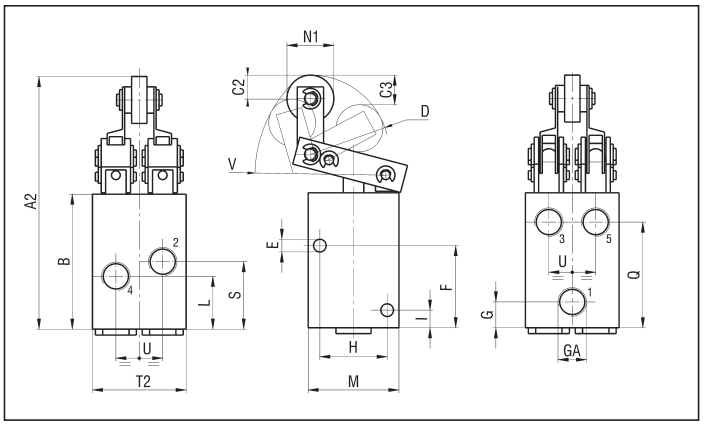
5/2 PLUNGER



5/2 ROLLER LEVER



5/2 UNIDIRECTIONAL ROLLER LEVER

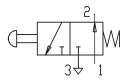
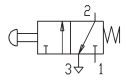
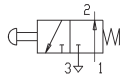
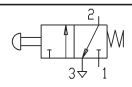
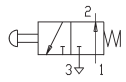
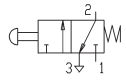
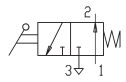
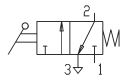
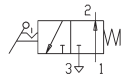
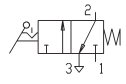
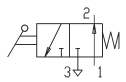
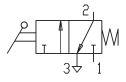
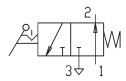
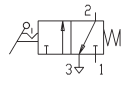
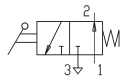
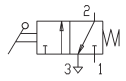
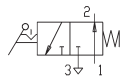
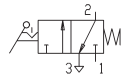


GA	A	A1	A2	B	C		C1		C2		C3	D	E	F
					min	max	min	max	min	max				
G 1/8	59	74	88	46	1,5	3	5,5	10	5	8	10	27	4,3	28
G 1/4	75	95	111	60	2	4	7,5	13,5	5	8	12	35	5,3	35
G 1/2	100	123	142	80	3	5,5	10,5	15,5	7	10	14	42,5	6,4	49

GA	G	H	I	L		M	N	N1	O	P	Q	S	T	T2
				N.O.	N.C.									
G 1/8	8,8	23	6	23	18	31	19	16	6,9	53	36	23	16	32
G 1/4	11,5	30	8	30	25,5	40	26	19	9	69	46	30	20	40
G 1/2	15	38	10	40	30	50	32	24	12	80,5	63,3	40	25	50

GA	U	V
G 1/8	16	46
G 1/4	20	54
G 1/2	25	70

2 AND 3 PORT MANUALLY ACTUATED G 1/8 - G 1/4 - G 1/2

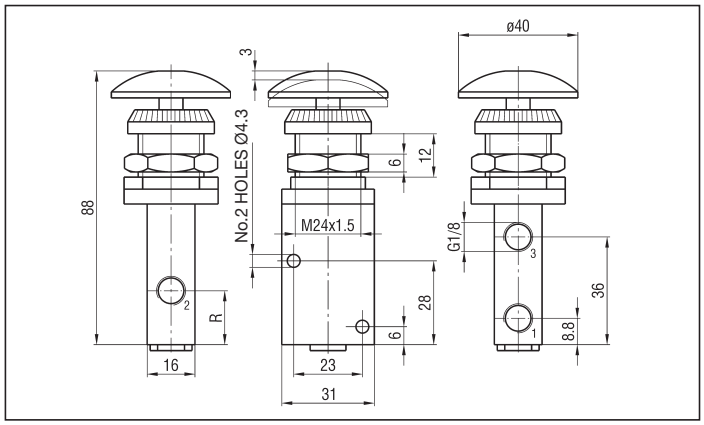
Symbol	Function	Controls		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	Port size	TYPE*
		Pilot	Return				
	3/2 N.O. monostable	Tapper	Mechanical spring	740	90	G 1/8	AT8
				950	195	G 1/4	AT4
				2200	415	G 1/2	AT2
	3/2 N.C. monostable	Tapper	Mechanical spring	815	90	G 1/8	CT8
				950	205	G 1/4	CT4
				2250	425	G 1/2	CT2
	3/2 N.O. monostable	Push-button	Mechanical spring	740	125	G 1/8	AQB8**
	3/2 N.C. monostable	Push-button	Mechanical spring	815	125	G 1/8	CQB8**
	3/2 N.O. monostable	Mushroom	Mechanical spring	740	125	G 1/8	AQF8**
	3/2 N.C. monostable	Mushroom	Mechanical spring	815	125	G 1/8	CQF8**
	3/2 N.O. monostable	Vertical knob	Mechanical spring	740	185	G 1/8	AM8
				950	355	G 1/4	AM4
				2200	655	G 1/2	AM2
	3/2 N.C. monostable	Vertical knob	Mechanical spring	815	185	G 1/8	CM8
				950	355	G 1/4	CM4
				2250	655	G 1/2	CM2
	3/2 N.O. bistable	Vertical knob	Vertical knob	740	180	G 1/8	AM8F
				950	345	G 1/4	AM4F
				2200	645	G 1/2	AM2F
	3/2 N.C. bistable	Vertical knob	Vertical knob	815	180	G 1/8	CM8F
				950	345	G 1/4	CM4F
				2250	645	G 1/2	CM2F
	3/2 N.O. monostable	Lateral knob	Mechanical spring	740	240	G 1/8	AML8
				950	400	G 1/4	AML4
	3/2 N.C. monostable	Lateral knob	Mechanical spring	815	240	G 1/8	CML8
				950	400	G 1/4	CML4
	3/2 N.O. bistable	Lateral knob	Lateral knob	740	245	G 1/8	AML8F
				950	390	G 1/4	AML4F
	3/2 N.C. bistable	Lateral knob	Lateral knob	815	245	G 1/8	CML8F
				950	390	G 1/4	CML4F
	3/2 N.O. monostable	Lateral hand-wheel	Mechanical spring	740	270	G 1/8	AVL8
				950	415	G 1/4	AVL4
	3/2 N.C. monostable	Lateral hand-wheel	Mechanical spring	815	270	G 1/8	CVL8
				950	415	G 1/4	CVL4
	3/2 N.O. bistable	Lateral hand-wheel	Lateral hand-wheel	740	265	G 1/8	AVL8F
				950	405	G 1/4	AVL4F
	3/2 N.C. bistable	Lateral hand-wheel	Lateral hand-wheel	815	265	G 1/8	CVL8F
				950	405	G 1/4	CVL4F

***/EX** Consistent with the ATEX directive ⟨Ex⟩ II 2G Ex h IIC T5 Gb -20°C<Ta<60°C
II 2D Ex h IIIC T100°C Db E.G.: **AVL8/EX**

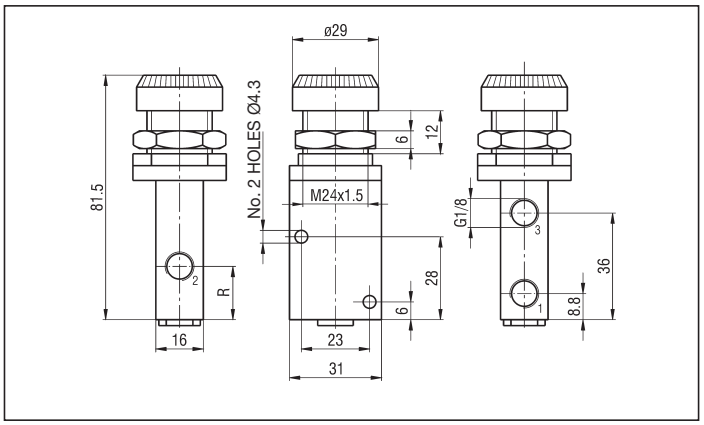
** PUSH-BUTTON COLOUR: N = BLACK; R = RED; V = GREEN - P.S.: THE VERSION WITH BLACK VERTICAL KNOB IS AVAILABLE ONLY IN THE SIZES G 1/8 AND G 1/4; TO ORDER THIS VERSION ADD THE SUFFIX "/E" TO THE TYPE. E.G.: **CM8/E; AM8/E**

PUT THE LETTER "H" BEFORE THE TYPE OF 3/2 VA LVES TO ORDER THE 2/2 N.O. AND 2/2 N.C. VALVES. E.G.: **HCM4; HAT2**

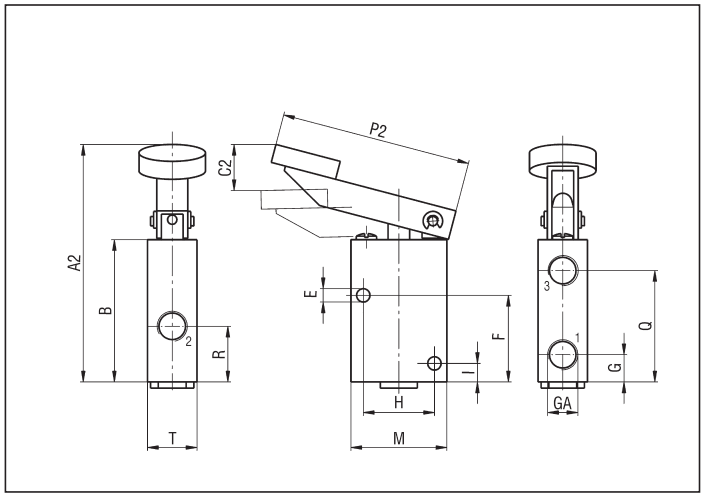
3/2 MUSHROOM



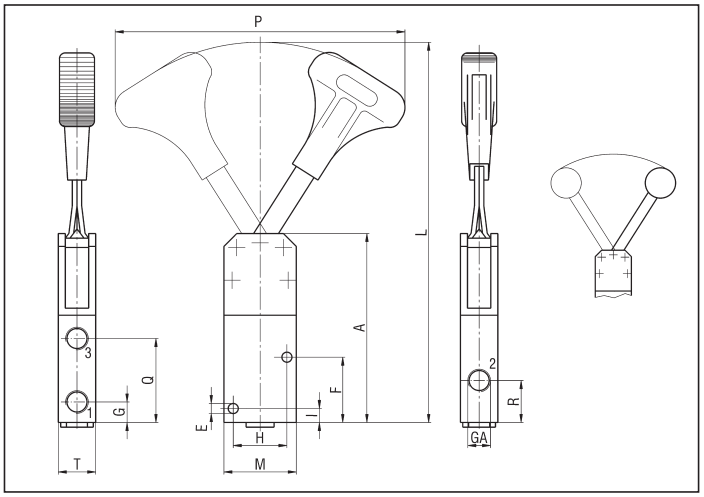
3/2 PUSH-BUTTON



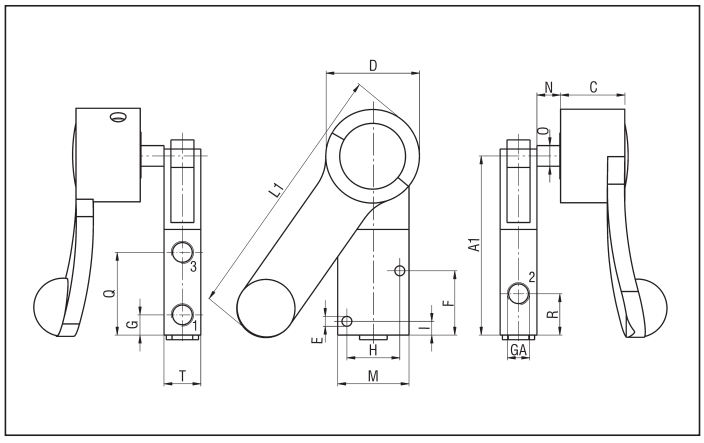
3/2 TAPPER



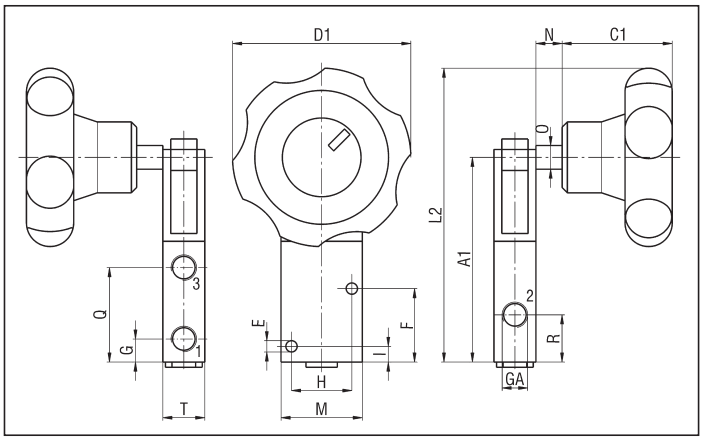
3/2 VERTICAL KNOB



3/2 LATERAL KNOB



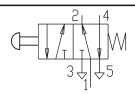
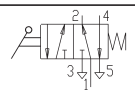
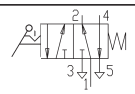
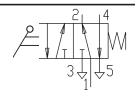
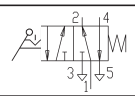
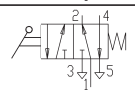
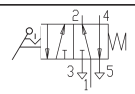
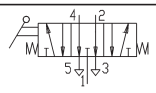
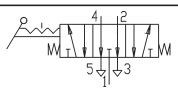
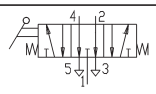
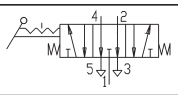
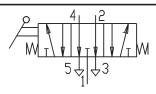
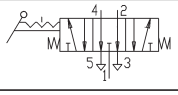
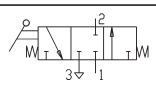
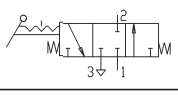
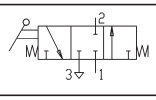
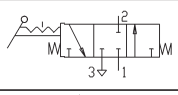
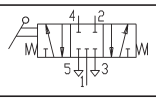
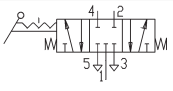
3/2 LATERAL HAND-WHEEL



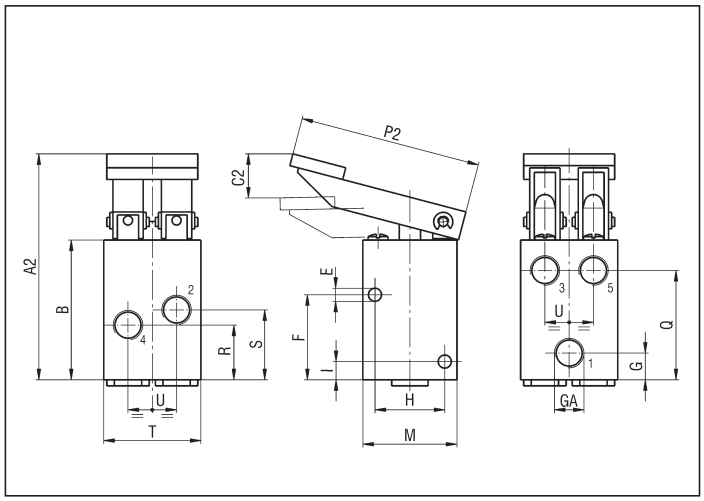
GA	A	A1	A2	B	C	C1	C2		D	D1	E	F	G	H
							min	max						
G 1/8	80	77	78	46	20	42	8	15,5	36	70	4,3	28	8,8	23
G 1/4	100	95	98	60	20	42	11	22,5	36	70	5,3	35	11,5	30
G 1/2	130	124	100	80	-	-	28	35	-	-	6,4	49	15	38

GA	I	L	L1	L2	M	N	O	P	P2	Q	R		T
											N.O.	N.C.	
G 1/8	6	162	100	112	31	10	9	124	60	36	23	18	16
G 1/4	8	188	100	130	40	10	9	152	83	46	30	25,5	20
G 1/2	10	238	-	-	50	-	-	180	145	63,3	40	30	25

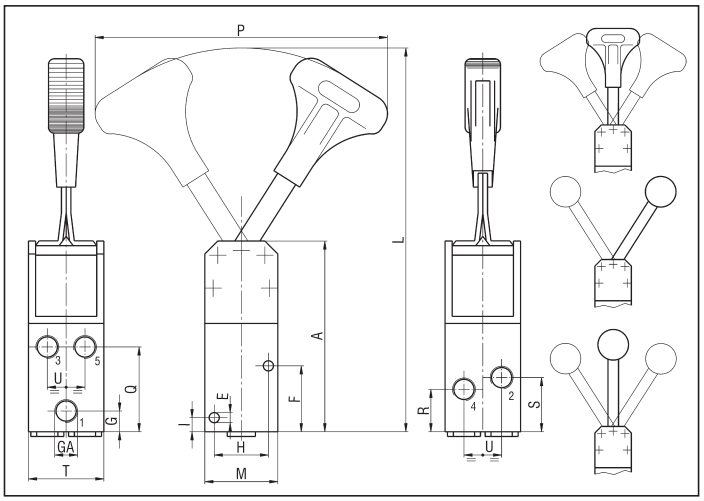
3 PORT, 3 POSITIONS AND 5 PORT MANUALLY ACTUATED VALVES - G 1/8 - G 1/4 - G 1/2

Symbol	Function	Controls		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	Port size	TYPE*
		Pilot	Return				
	5/2 monostable	Tapper	Mechanical spring	650	180	G 1/8	CAT8
				1040	405	G 1/4	CAT4
				2050	790	G 1/2	CAT2
	5/2 monostable	Vertical knob	Mechanical spring	650	315	G 1/8	CAM8
				1040	600	G 1/4	CAM4
				2050	1160	G 1/2	CAM2
	5/2 bistable	Vertical knob	Vertical knob	650	290	G 1/8	CAM8F
				1040	570	G 1/4	CAM4F
				2050	1065	G 1/2	CAM2F
	5/2 monostable	Lateral knob	Mechanical spring	650	375	G 1/8	CAML8
				1040	650	G 1/4	CAML4
	5/2 bistable	Lateral knob	Lateral knob	650	365	G 1/8	CAML8F
				1040	635	G 1/4	CAML4F
	5/2 monostable	Hand-wheel	Mechanical spring	650	395	G 1/8	CAVL8
				1040	665	G 1/4	CAVL4
	5/2 bistable	Lateral hand-wheel	Lateral hand-wheel	650	380	G 1/8	CAVL8F
				1040	650	G 1/4	CAVL4F
	5/3 monostable open centre	Vertical knob	Mechanical spring	815	315	G 1/8	CCM8
				950	605	G 1/4	CCM4
				2250	1165	G 1/2	CCM2
	5/3 stable open centre	Vertical knob	Vertical knob	815	290	G 1/8	CCM8F
				950	575	G 1/4	CCM4F
				2250	1095	G 1/2	CCM2F
	5/3 monostable open centre	Lateral knob	Mechanical spring	815	385	G 1/8	CCML8
				950	675	G 1/4	CCML4
	5/3 stable open centre	Lateral knob	Lateral knob	815	370	G 1/8	CCML8F
				950	650	G 1/4	CCML4F
	5/3 monostable open centre	Lateral hand-wheel	Mechanical spring	815	405	G 1/8	CCVL8
				950	690	G 1/4	CCVL4
	5/3 stable open centre	Lateral hand-wheel	Lateral hand-wheel	815	385	G 1/8	CCVL8F
				950	660	G 1/4	CCVL4F
	3/3 monostable closed centre	Vertical knob	Mechanical spring	815	310	G 1/8	HCCM8
				950	600	G 1/4	HCCM4
	3/3 stable closed centre	Vertical knob	Mechanical spring	815	310	G 1/8	HCCM8F
				950	600	G 1/4	HCCM4F
	3/3 monostable closed centre	Vertical knob	Mechanical spring	815	310	G 1/8	HCCML8
				950	600	G 1/4	HCCML4
	3/3 stable closed centre	Vertical knob	Mechanical spring	815	310	G 1/8	HCCML8F
				950	600	G 1/4	HCCML4F
	5/3 monostable closed centre	Vertical knob	Mechanical spring	815	740	G 1/8	XH4CM8
				950	1605	G 1/4	XH4CM4
				2250	3185	G 1/2	XH4CM2
	5/3 stable closed centre	Vertical knob	Vertical knob	815	680	G 1/8	XH4CM8F
				1400	1555	G 1/4	XH4CM4F
				2250	3080	G 1/2	XH4CM2F

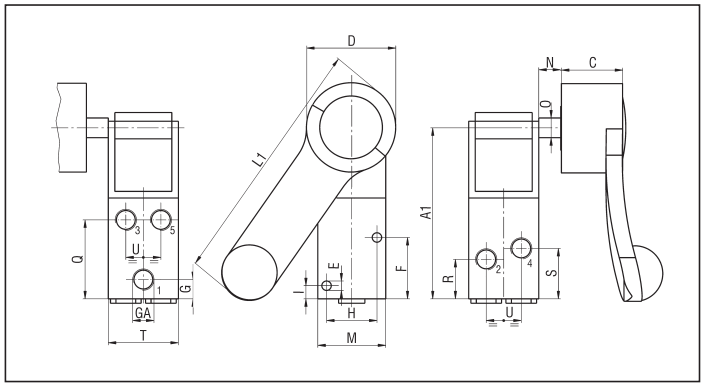
5/2 TAPPER



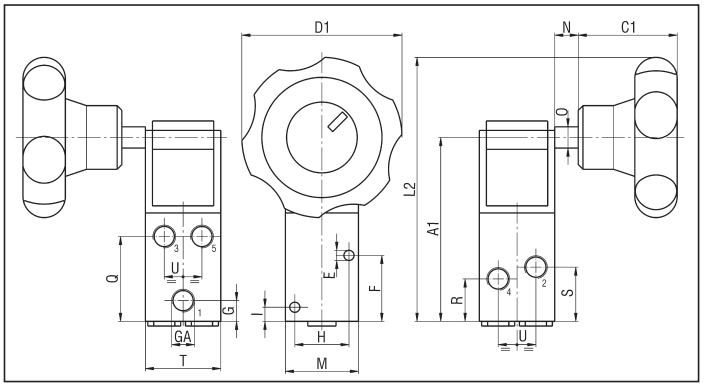
5/2 - 5/3 O.C. - 3/3 C.C. VERTICAL KNOB



5/2 - 5/3 O.C. - 3/3 C.C. LATERAL KNOB



5/2 LATERAL HAND-WHEEL



GA	A	A1	A2	B	C	C1	C2		D	D1	E	F	G	H
							min	max						
G 1/8	80	77	75,5	46	20	42	8	15,5	36	70	4,3	28	8,8	23
G 1/4	100	95	95	60	20	42	11	22,5	36	70	5,3	35	11,5	30
G 1/2	130	124	83	80	-	-	28	35	-	-	6,4	49	15	38

GA	I	L	L1	L2	M	N	O	P	P2	Q	R		S	T
											N.O.	N.C.		
G 1/8	6	162	100	112	31	10	9	124	60	36	23	18	23	32
G 1/4	8	188	100	130	40	10	9	152	83	46	30	25,5	30	40
G 1/2	10	238	-	-	50	-	-	180	145	63,3	40	30	40	50

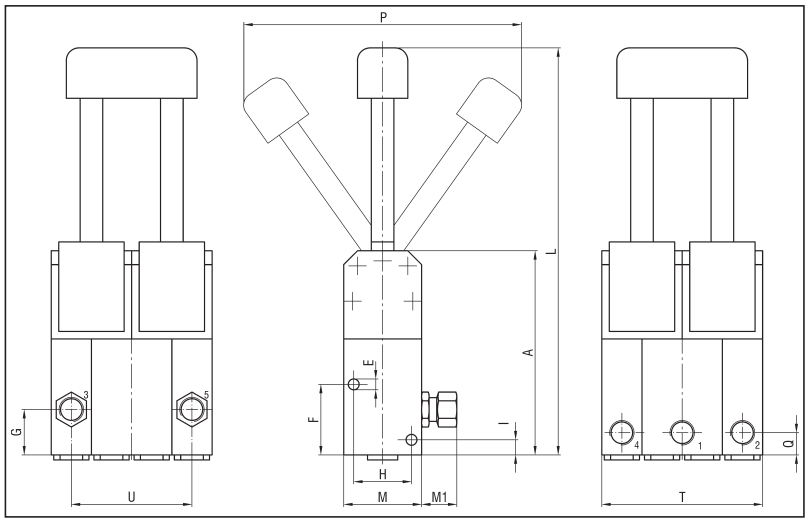
GA	U
G 1/8	16
G 1/4	20
G 1/2	25

P.S.: THE VERSION WITH BLACK VERTICAL KNOB IS AVAILABLE ONLY IN THE SIZES G 1/8 AND G 1/4; TO ORDER THIS VERSION ADD THE SUFFIX "/E" TO THE TYPE. E.G.: **CAM8/E; CCM8/E**

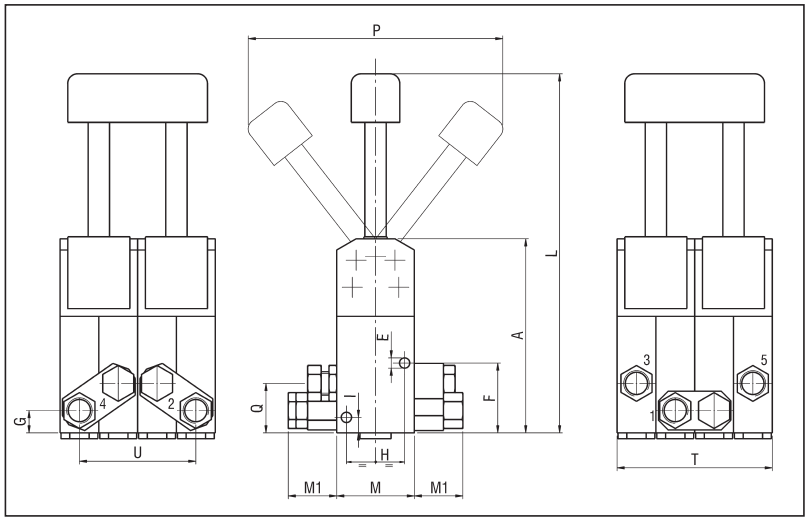
***/EX** Consistent with the ATEX directive Ⓔx II 2G Ex h IIC T5 Gb -20°C<Ta<60°C
II 2D Ex h IIIC T100°C Db E.G.: **CS4/EX**

3

5/3 C.C. VERTICAL KNOB G 1/8



5/3 C.C. VERTICAL KNOB G 1/4 - G 1/2



GA	A	E	F	G	H	I	L	M	M1	P		Q	T	U
										with catch	without catch			
G 1/8	81	4,3	28	8,8	23	6	157,5	31	15	111	70	18	64	48
G 1/4	100	5,3	35	11,5	30	8	185	40	24	132	84	25,5	80	60
G 1/2	130	6,4	49	15	38	10	235	50	29	162	60	30	100	75