

DESCRIPTION

Valves series "EK" are produced in the 3/2, 5/2 and 5/3 pneumatic functions; the kind of construction is based on a balanced spool. In the mechanically actuated version these valves are available only for the size G 1/8 and G 1/4, while the manually actuated versions are available in the different sizes and they are suitable for panel mounting (except for size G 1/2). They are in compliance with ATEX directive, 2GD category, upon request.

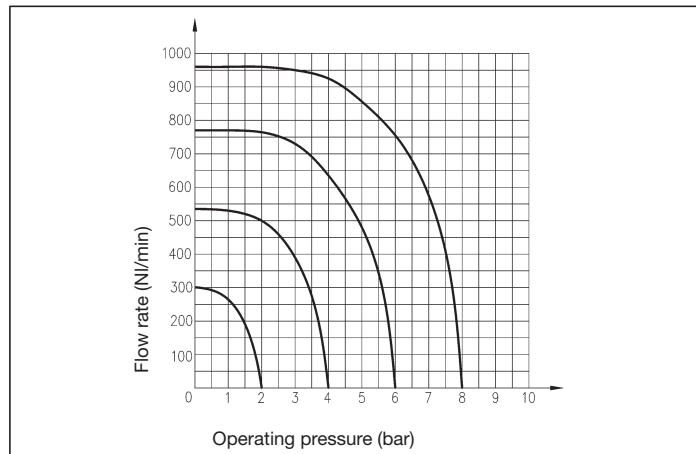
TECHNICAL DATA

Operating pressure	0 ÷ 10 bar direct actuation 3 ÷ 10 bar assisted actuation
Working temperature	0 ÷ +60 °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 = 5 mm G 1/4 = 8 mm G 1/2 = 12 mm
Controls	
Mechanical	Plunger; roller lever; whisker; released pressure key
Manual	Drawer; front lever; lateral knob; actuators for panel mounting (see on page 3.5)

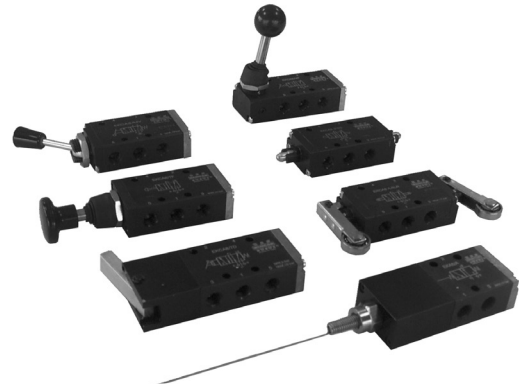
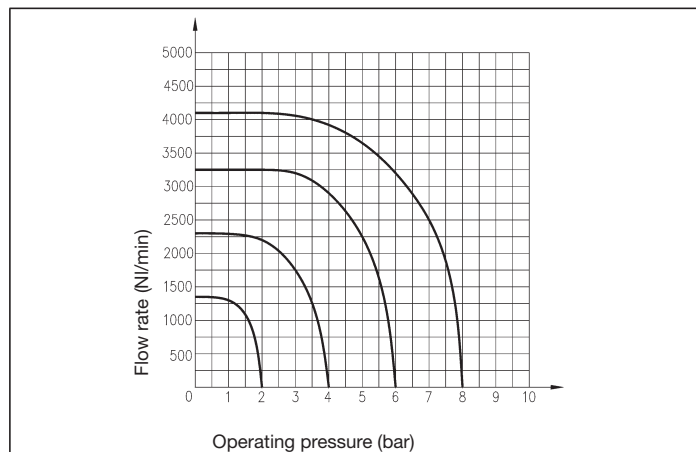
SPARE PARTS

SEALS KIT	
3 port G 1/8	EK/M/SG/8
5 port G 1/8	EKCA/M/SG/8
3 port G 1/4	EK/M/SG/4
5 port G 1/4	EKCA/M/SG/4
5 port G 1/2	EKCA/M/SG/2

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



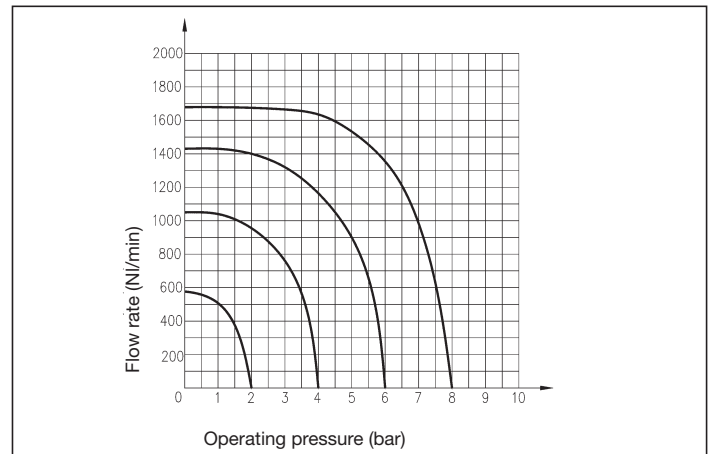
FLOW CHART - EK G 1/2 - 5/2



MATERIALS

Bottoms	Front: aluminium alloy or plastic - Rear: aluminium alloy
Body	Anodized aluminium alloy
Distance rings	Acetal resin
Springs	Galvanized steel
Seals	NBR rubber
Spool	Anodized aluminium alloy
Controls	
Lever; Ball	Steel
Plunger	Brass
Whisker	Stainless steel
Released pressure key	Anodized aluminium alloy
Bellows	Elastomer
Knobs; Handgrips	Plastic material
Roller	Ball bearing (plastic material upon request)

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



MECHANICALLY ACTUATED VALVES G 1/8

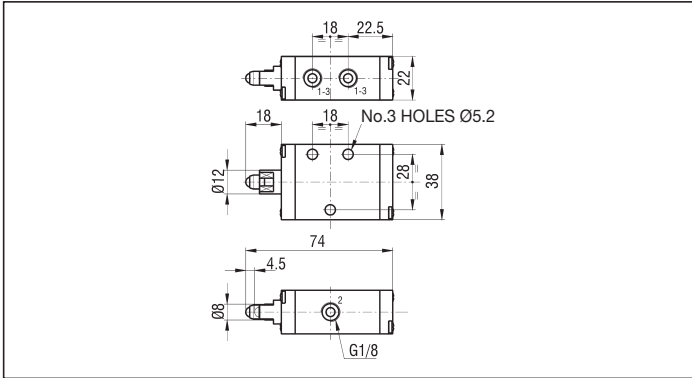
Symbol	Function	Controls		Actuation force at 6 bar (N)	Flow rate at 6 bar $\Delta P = 1$ bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return				
	3/2 N.O. monostable	Plunger	Mechanical spring	75	390	135	EK8/PS
	3/2 N.C. monostable						
	3/2 bistable	Plunger	Plunger	6	390	140	EK8/PSS
	5/2 monostable	Plunger	Mechanical spring	75	490	165	EKCA8/PS
	5/2 bistable	Plunger	Plunger	6	490	170	EKCA8/PSS
	3/2 N.O. monostable	Roller lever	Mechanical spring	15	390	160	EK8/LR
	3/2 N.C. monostable						
	3/2 bistable	Roller lever	Roller lever	15	390	200	EK8/LRLR
	5/2 monostable	Roller lever	Mechanical spring	15	490	190	EKCA8/LR
	5/2 bistable	Roller lever	Roller lever	15	490	225	EKCA8/LRLR
	3/2 N.O. monostable	Piloted whisker (sensitive)	Mechanical spring	1,5	420	230	EKA8/A
	3/2 N.C. monostable						EKC8/A
	5/2 monostable	Piloted whisker (sensitive)	Mechanical spring	1,5	490	260	EKCA8/A
	3/2 N.O. monostable	Piloted released pressure key (sensitive)	Mechanical spring	1,5	420	210	EKA8/TD
	3/2 N.C. monostable						EKC8/TD
	5/2 monostable	Piloted released pressure key (sensitive)	Mechanical spring	1,5	490	230	EKCA8/TD
	3/2 N.O. monostable	Piloted plunger for panel mounting (sensitive)	Mechanical spring	1,5	420	230	EKA8/Q
	3/2 N.C. monostable						EKC8/Q
	5/2 monostable	Piloted plunger for panel mounting (sensitive)	Mechanical spring	1,5	490	260	EKCA8/Q

P.S.: ADD THE LETTER "U" TO THE TYPE TO ORDER THE UNIDIRECTIONAL ROLLER VALVES - E.G.: **EKCA8/LRLRU**
 ADD THE LETTER "N" TO THE TYPE TO ORDER THE VALVES WITH PLASTIC ROLLER - E.G.: **EK8/LRN**

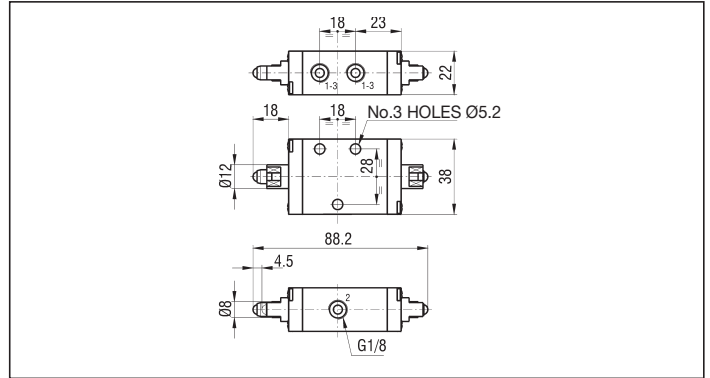
*EX Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -20°C<Ta<60°C E.G.: **EK8/PSS/EX**
 II 2D Ex h IIC T100°C Db

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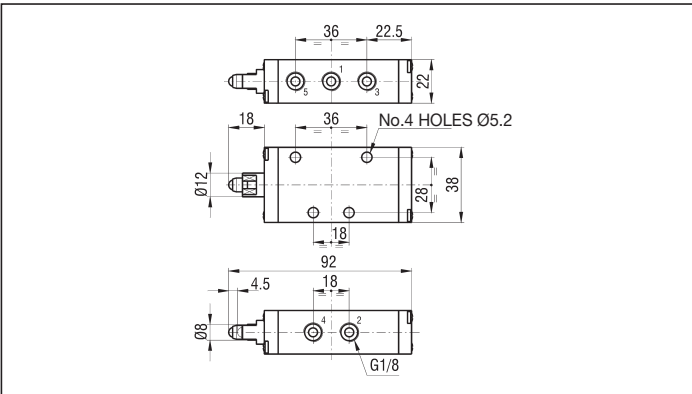
EK8/PS



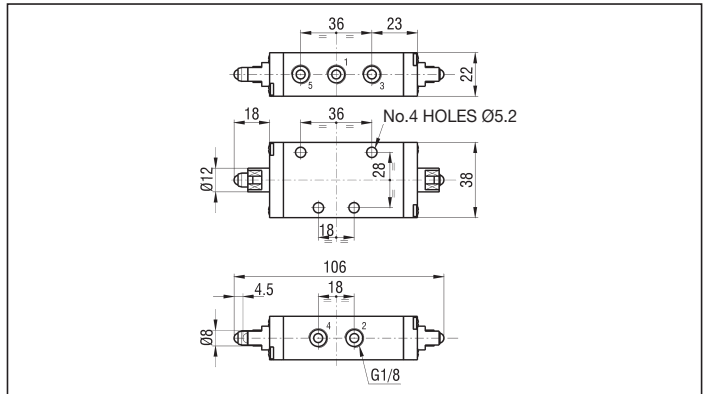
EK8/PSS



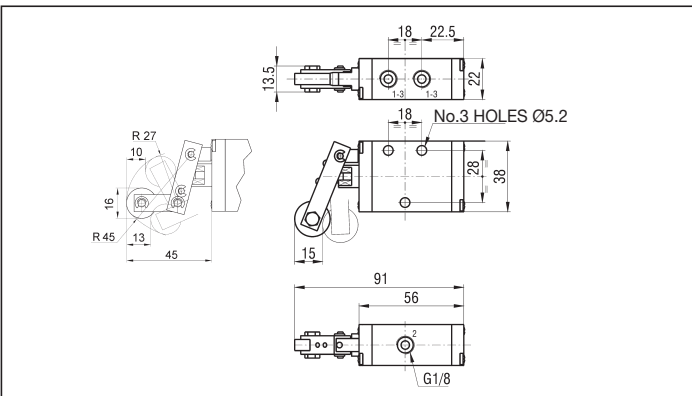
EKCA8/PS



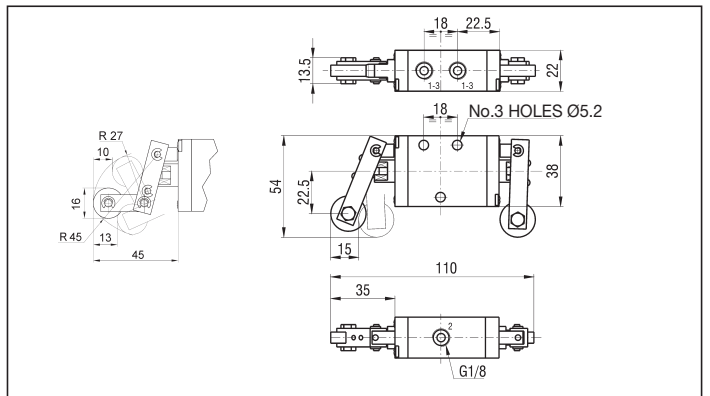
EKCA8/PSS



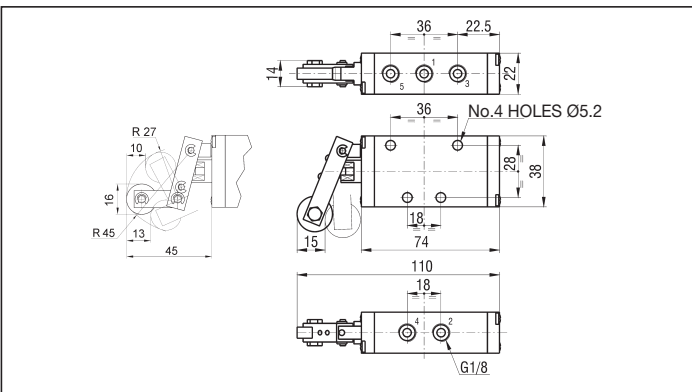
EK8/LR*



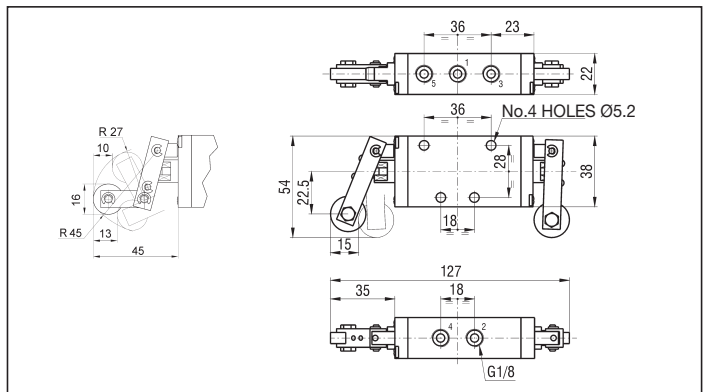
EK8/LRLR*



EKCA8/LR*

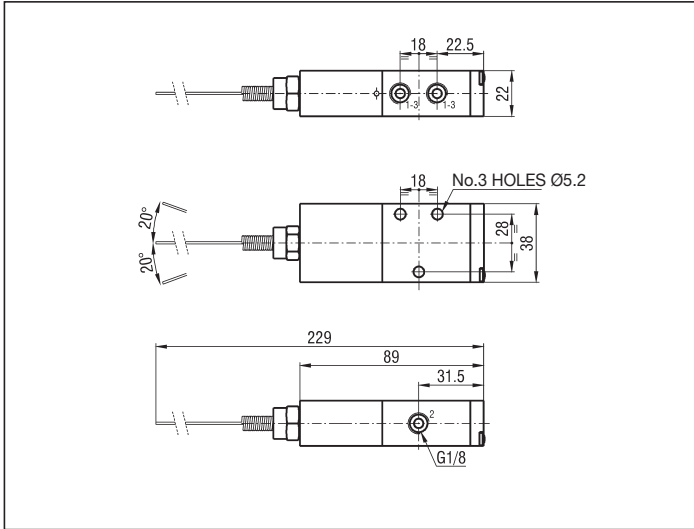


EKCA8/LRLR*

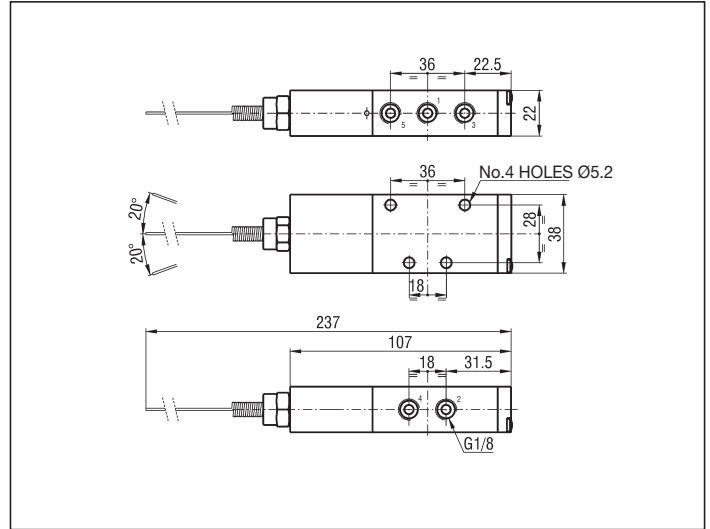


* - ADD THE LETTER "U" TO THE TYPE TO ORDER THE UNIDIRECTIONAL ROLLER VALVES - E.G.: **EKCA8/LRLRU**
 - ADD THE LETTER "N" TO THE TYPE TO ORDER THE VALVES WITH PLASTIC ROLLER - E.G.: **EK8/LRN**

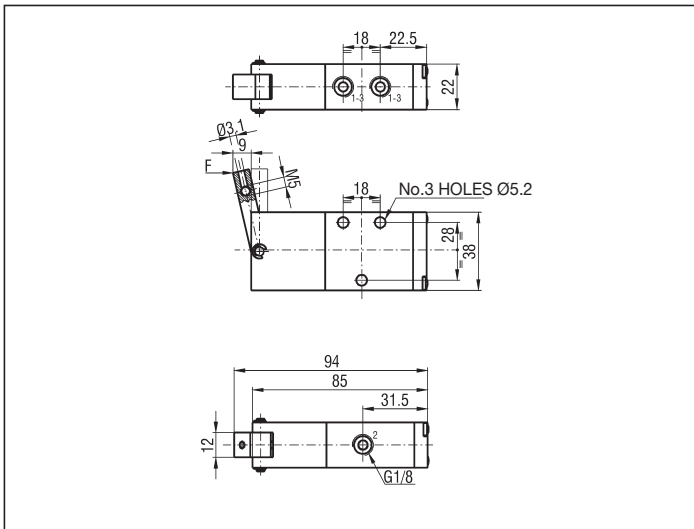
EKA8/A - EKC8/A



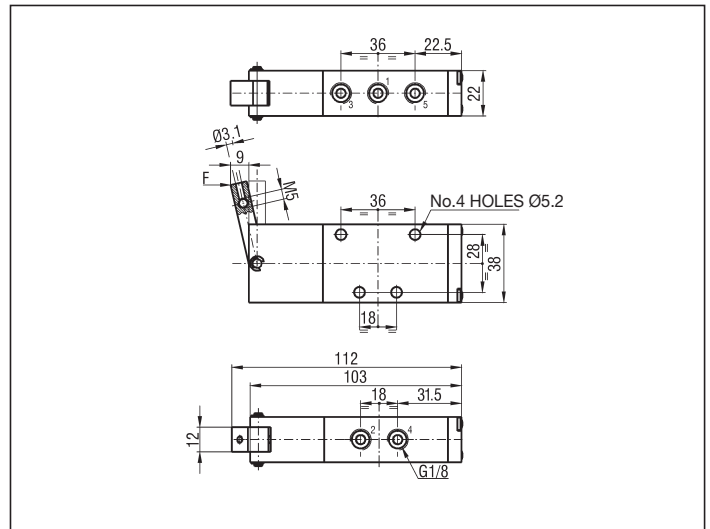
EKCA8/A



EKA8/TD - EKC8/TD*



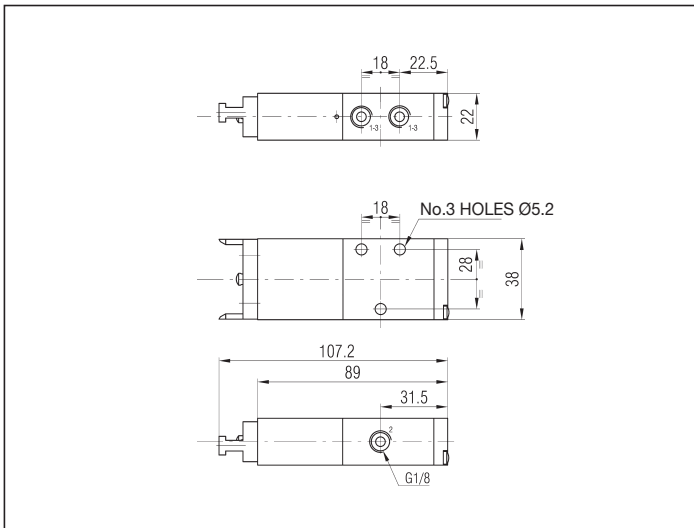
EKCA8/TD*



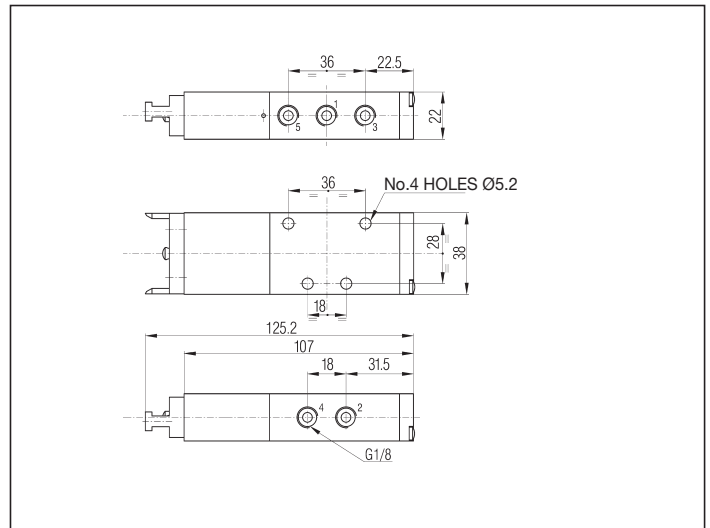
* IT IS POSSIBLE TO INCREASE THE SENSITIVITY OF THE KEY USING A Ø 3 mm EXTENSION ON THE SAME KEY

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EKC8/Q - EKA8/Q



EKCA8/Q



P.S.: SEE ACTUATORS FOR PANEL MOUNTING ON PAGE 3.5

P.S.: SEE ACTUATORS FOR PANEL MOUNTING ON PAGE 3.5

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MANUALLY ACTUATED VALVES G 1/8

Symbol	Function	Controls		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return			
	3/2 N.O. monostable	Push rod button	Mechanical spring	480	155	EK8/T
	3/2 N.C. monostable					
	3/2 bistable	Drawer	Drawer	480	155	EK8/TF
	5/2 monostable	Push rod button	Mechanical spring	480	185	EKCA8/T
	5/2 bistable	Drawer	Drawer	480	185	EKCA8/TF
	3/2 N.O. monostable	Front lever	Mechanical spring	480	150	EK8/MV
	3/2 N.C. monostable					
	3/2 bistable	Front lever	Front lever	480	150	EK8/MVF
	5/2 monostable	Front lever	Mechanical spring	480	185	EKCA8/MV
	5/2 bistable	Front lever	Front lever	480	185	EKCA8/MVF
	3/2 N.O. monostable	Lateral knob	Mechanical spring	480	155	EK8/M
	3/2 N.C. monostable					
	3/2 bistable	Lateral knob	Lateral knob	480	185	EK8/MF
	5/2 monostable	Lateral knob	Mechanical spring	480	205	EKCA8/M
	5/2 bistable	Lateral knob	Lateral knob	480	205	EKCA8/MF
	5/3 monostable closed centre	Lateral knob	Mechanical spring	300	205	EKCA8/MS
	5/3 stable closed centre	Lateral knob	Lateral knob	300	205	EKCA8/MSF
	5/3 monostable open centre	Lateral knob	Mechanical spring	300	205	EKCA8/MA
	5/3 stable open centre	Lateral knob	Lateral knob	300	205	EKCA8/MAF

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

E.G.: EK8/M/EX

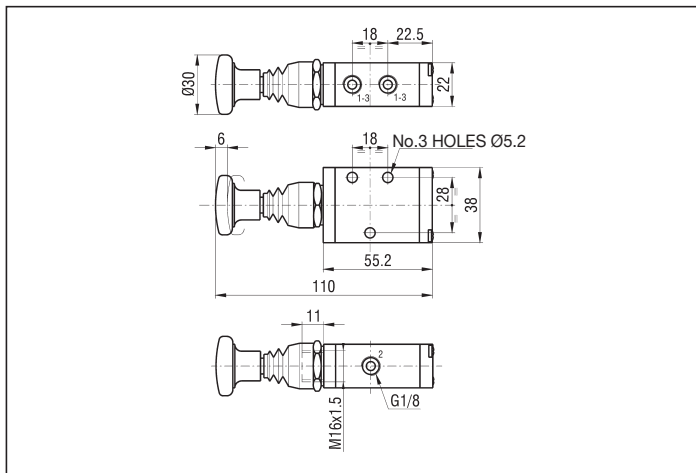
MANUALLY ACTUATED VALVES G 1/8

Symbol	Function	Controls		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return			
	3/2 bistable	Selector	Selector	480	240	EK8/SLF
	5/2 bistable	Selector	Selector	480	260	EKCA8/SLF

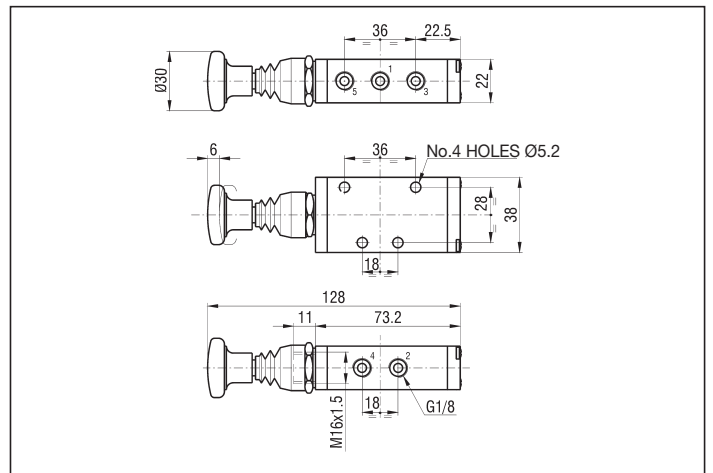
*EX Consistent with the ATEX directive $\text{Ex II 2G Ex h IIC T5 Gb } -20^{\circ}\text{C} < \text{Ta} < 60^{\circ}\text{C}$
 $\text{Ex II 2D Ex h IIC T100}^{\circ}\text{C Db}$

E.G.: EK8/M/EX

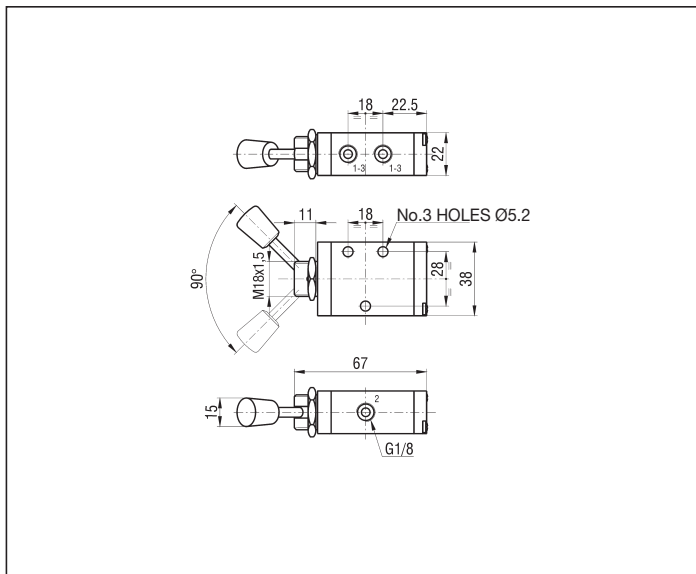
EK8/T - EK8/TF



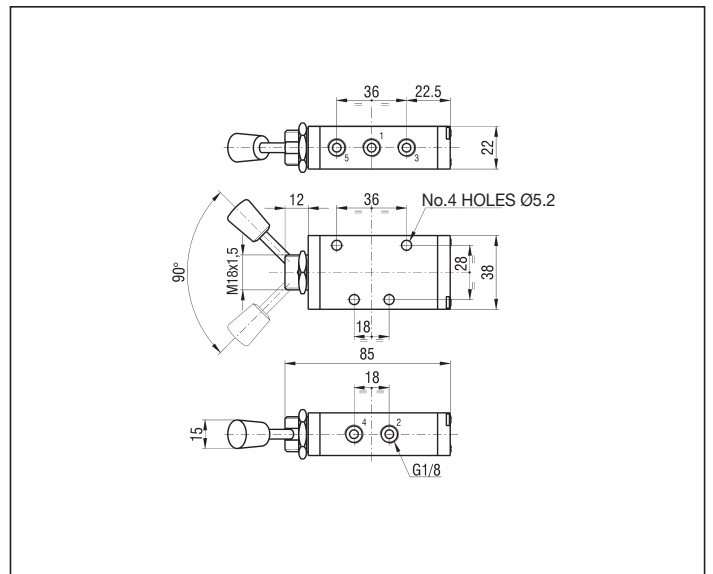
EKCA8/T - EKCA8/TF



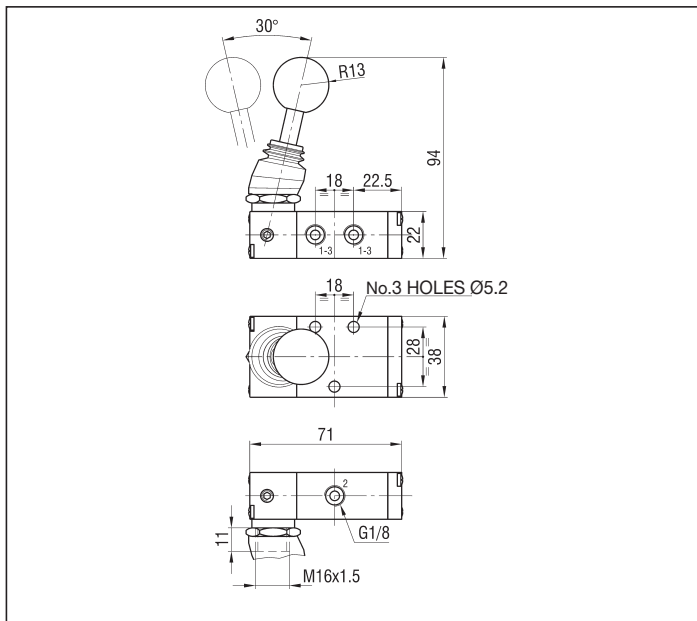
EK8/MV - EK8/MVF



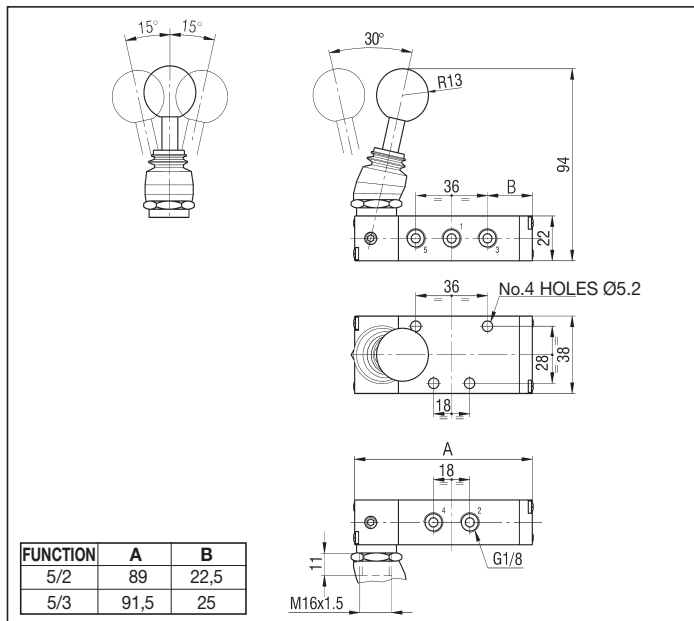
EKCA8/MV - EKCA8/MVF



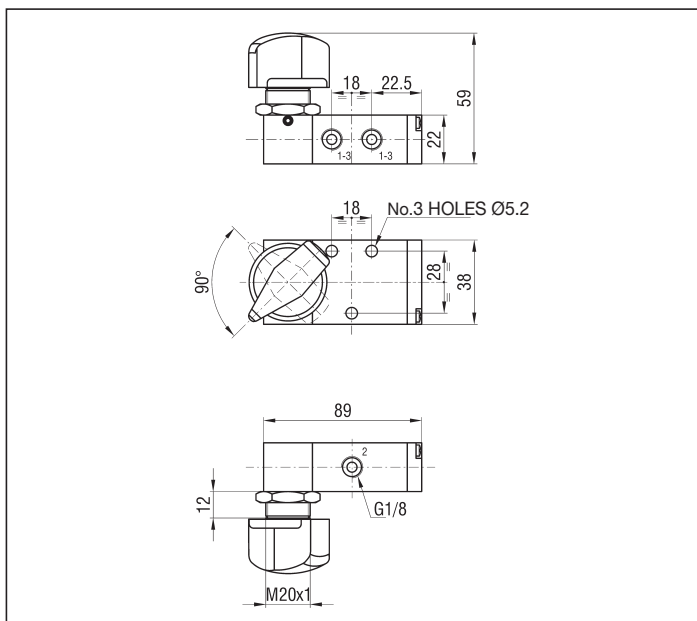
EK8/M - EK8/MF



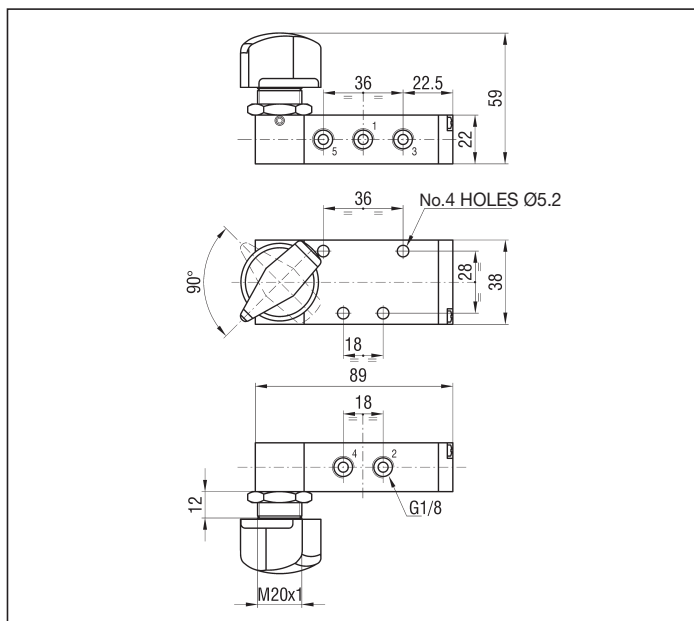
5/2 - 5/3 LATERAL KNOB



EK8/SLF



EKCA8/SLF



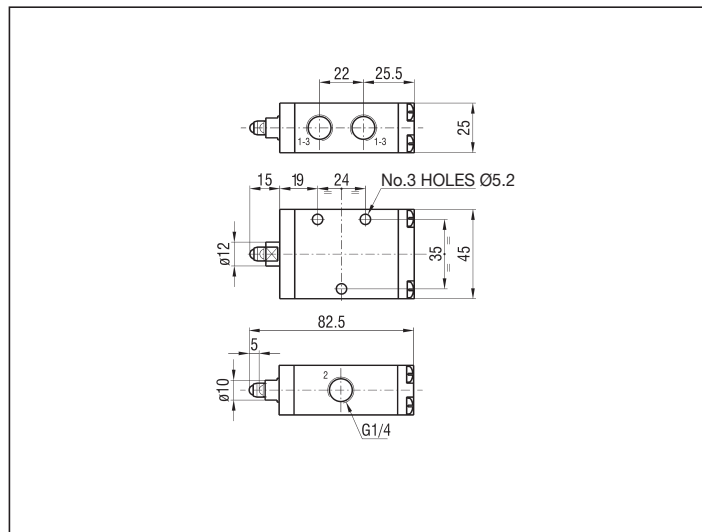
MECHANICALLY ACTUATED VALVES G 1/4

Symbol	Function	Controls		Actuation force at 6 bar (N)	Flow rate at 6 bar $\Delta P = 1$ bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return				
	3/2 N.O. monostable	Drawer	Mechanical spring	51	900	205	EK4/PS
	3/2 N.C. monostable						
	3/2 bistable	Drawer	Drawer	9,5	900	200	EK4/PSS
	5/2 monostable	Drawer	Mechanical spring	51	900	250	EKCA4/PS
	5/2 bistable	Drawer	Drawer	9,5	900	250	EKCA4/PSS
	3/2 N.O. monostable	Front lever	Mechanical spring	21	900	270	EK4/LR
	3/2 N.C. monostable						
	3/2 bistable	Front lever	Front lever	16	900	325	EK4/LRLR
	5/2 monostable	Front lever	Mechanical spring	21	900	320	EKCA4/LR
	5/2 bistable	Front lever	Front lever	16	900	380	EKCA4/LRLR

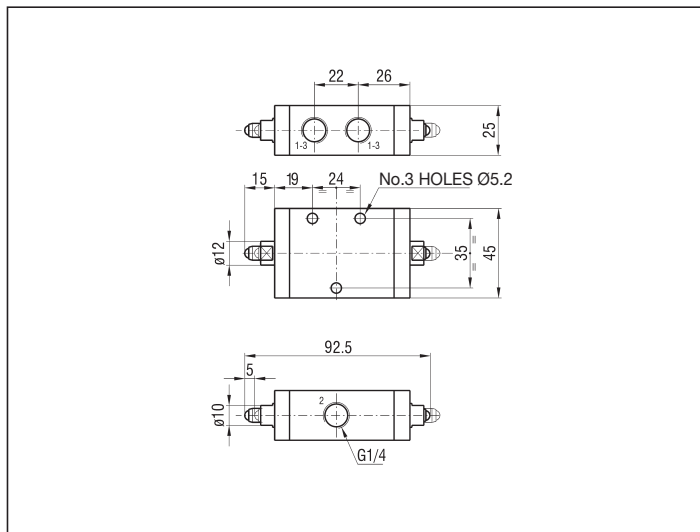
P.S.: ADD THE LETTER "N" TO THE TYPE TO ORDER THE VALVES WITH PLASTIC ROLLER - E.G.: **EK4/LRN**

*EX Consistent with the ATEX directive 2G Ex h IIC T5 Gb -20°C<Ta<60°C E.G.: **EK4/PSS/EX**
2D Ex h IIIC T100°C Db

EK4/PS

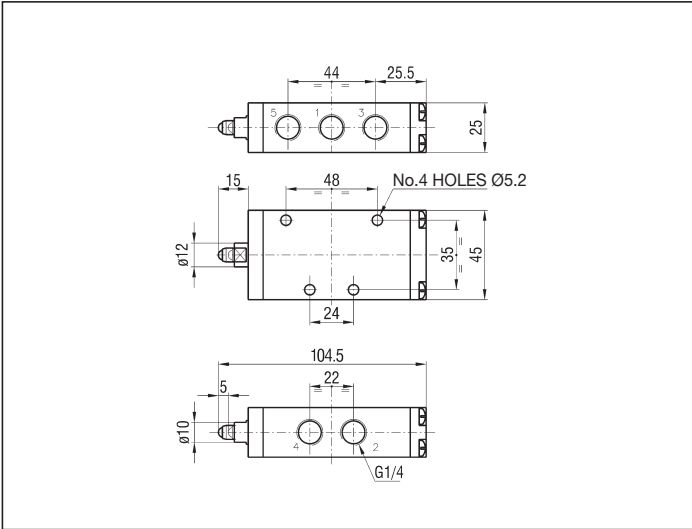


EK4/PSS

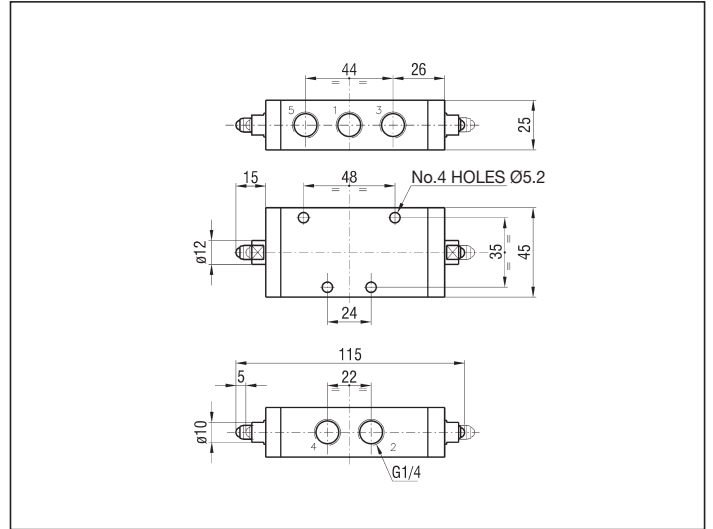


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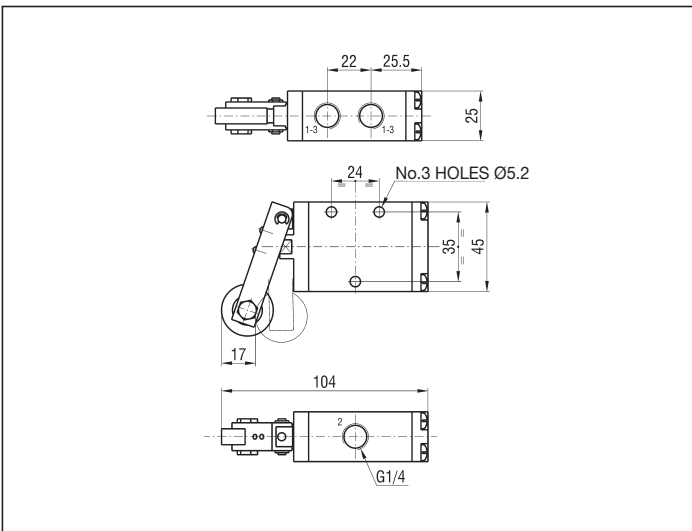
EKCA4/PS



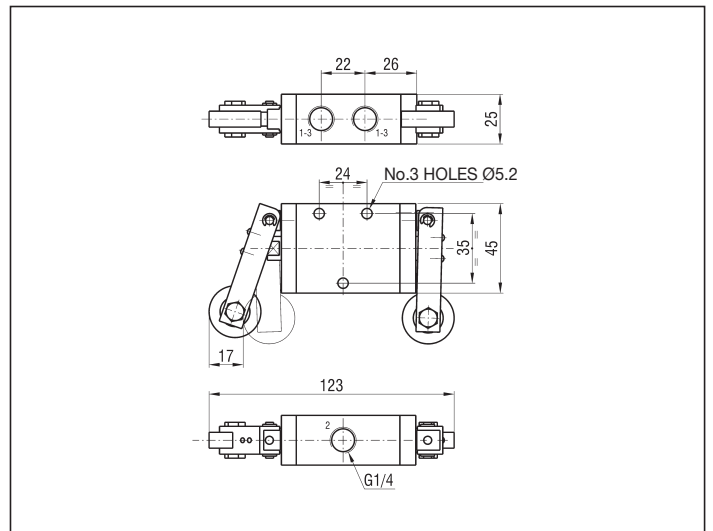
EKCA4/PSS



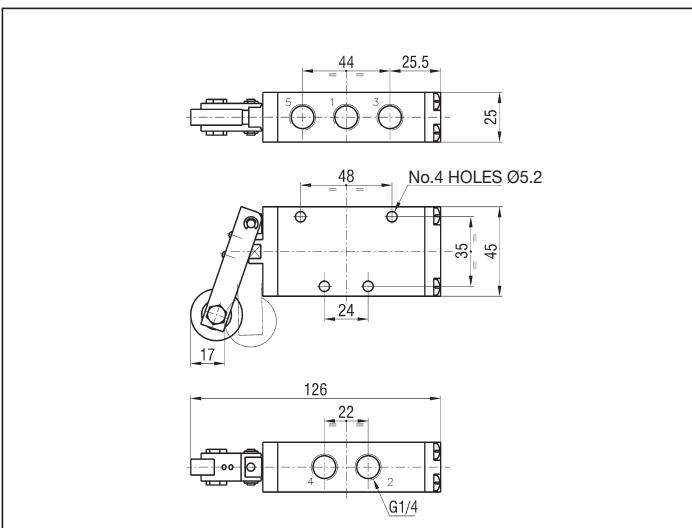
EK4/LR*



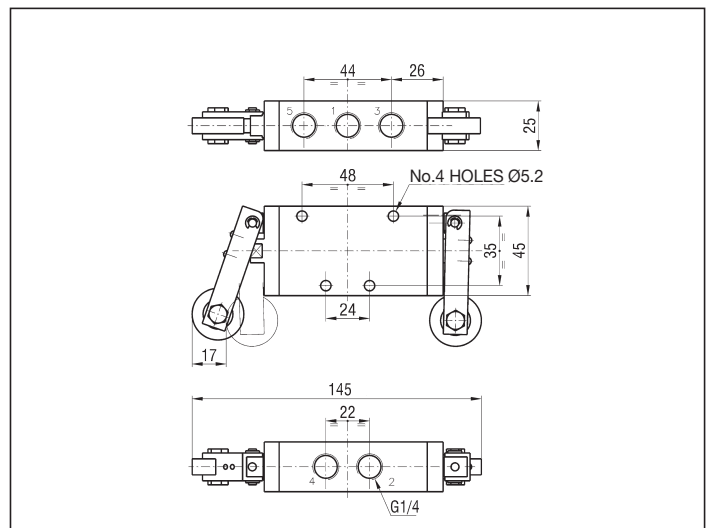
EK4/LRLR*



EKCA4/LR*



EKCA4/LRLR*



* P.S.: ADD THE LETTER "N" TO THE TYPE TO ORDER THE VALVES WITH PLASTIC ROLLER - E.G.: **EK4/LRN**

MANUALLY ACTUATED VALVES G 1/4

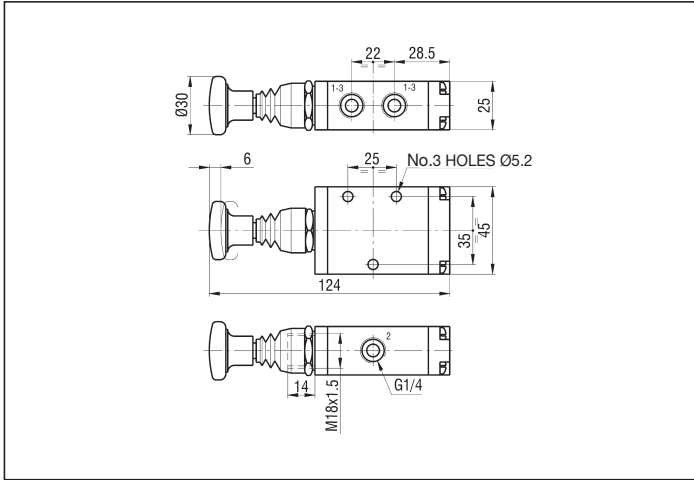
Symbol	Function	Controls		Flow rate at 6 bar $\Delta P = 1 \text{ bar (NI/min)}$	Weight (g)	TYPE*
		Pilot	Return			
	3/2 N.O. monostable	Push rod button	Mechanical spring	900	240	EK4/T
	3/2 N.C. monostable					
	3/2 bistable	Drawer	Drawer	900	240	EK4/TF
	5/2 monostable	Push rod button	Mechanical spring	900	305	EKCA4/T
	5/2 bistable	Drawer	Drawer	900	305	EKCA4/TF
	3/2 N.O. monostable	Front lever	Mechanical spring	920	230	EK4/MV
	3/2 N.C. monostable					
	3/2 bistable	Front lever	Front lever	920	230	EK4/MVF
	5/2 monostable	Front lever	Mechanical spring	920	185	EKCA4/MV
	5/2 bistable	Front lever	Front lever	920	185	EKCA4/MVF
	3/2 N.O. monostable	Lateral knob	Mechanical spring	920	255	EK4/M
	3/2 N.C. monostable					
	3/2 bistable	Lateral knob	Lateral knob	920	250	EK4/MF
	5/2 monostable	Lateral knob	Mechanical spring	920	310	EKCA4/M
	5/2 bistable	Lateral knob	Lateral knob	920	310	EKCA4/MF
	5/3 monostable closed centre	Lateral knob	Mechanical spring	780	310	EKCA4/MS
	5/3 stable closed centre	Lateral knob	Lateral knob	780	310	EKCA4/MSF
	5/3 monostable open centre	Lateral knob	Mechanical spring	780	310	EKCA4/MA
	5/3 stable open centre	Lateral knob	Lateral knob	780	310	EKCA4/MAF

*/EX Consistent with the ATEX directive || 2G Ex h IIC T5 Gb -20°C < Ta < 60°C || 2D Ex h IIIC T100°C Db

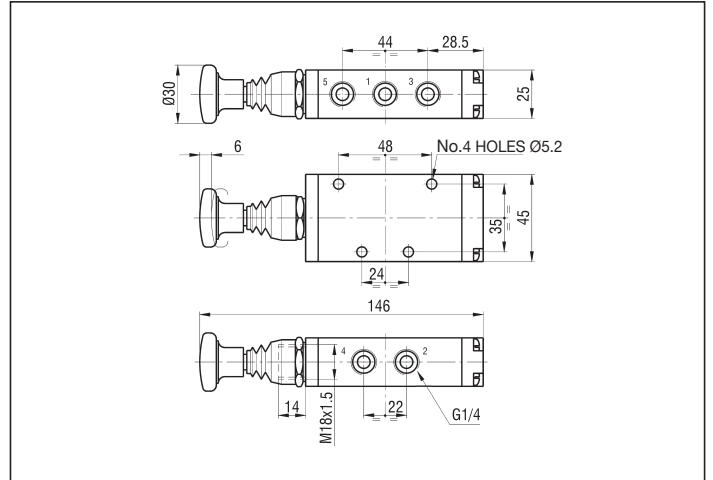
E.G.: EK4/TF/EX

3

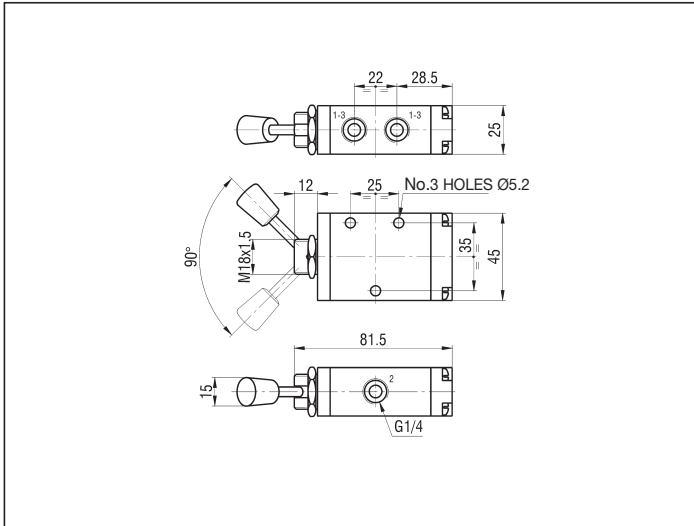
EK4/T - EK4/TF



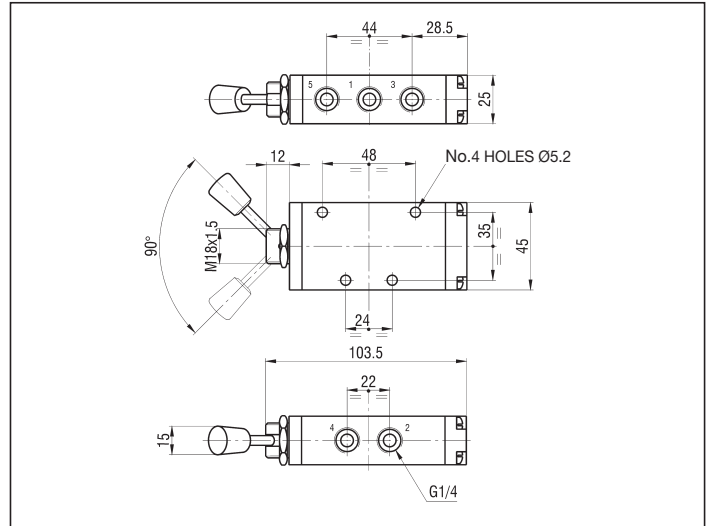
EKCA4/T - EKCA4/TF



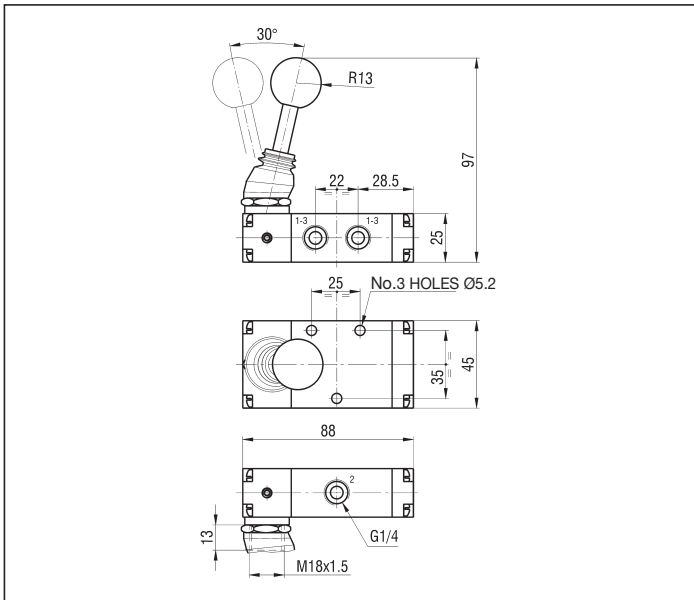
EK4/MV - EK4/MVF



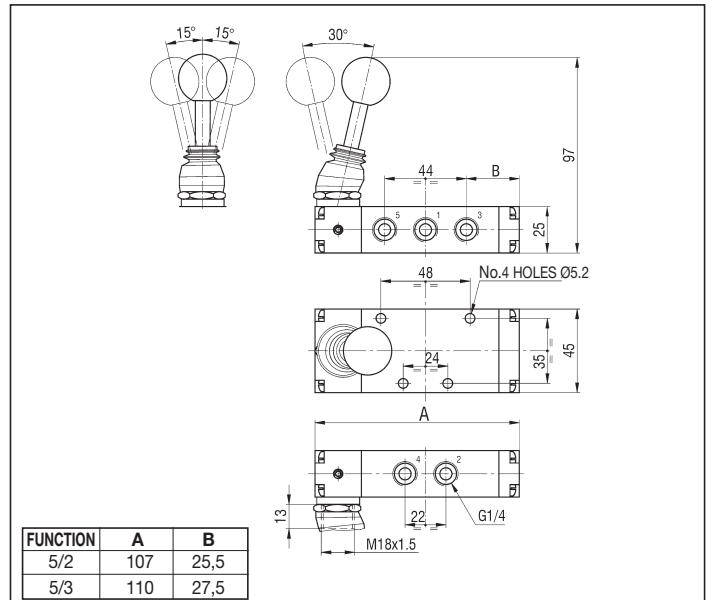
EKCA4/MV - EKCA4/MVF



EK4/M - EK4/MF



5/2 - 5/3 LATERAL KNOB



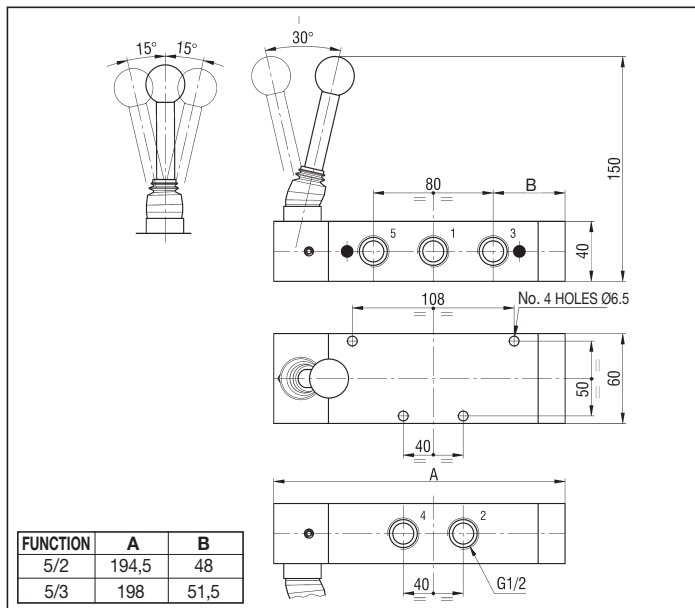
MANUALLY ACTUATED VALVES G 1/2

Symbol	Function	Controls		Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return			
	5/2 monostable	Lateral knob	Mechanical spring	2250	1200	EKCA2/M
	5/2 bistable	Lateral knob	Lateral knob	2250	1200	EKCA2/MF
	5/3 monostable closed centre	Lateral knob	Mechanical spring	2000	1200	EKCA2/MS
	5/3 stable closed centre	Lateral knob	Mechanical spring	2000	1200	EKCA2/MSF
	5/3 monostable open centre	Lateral knob	Mechanical spring	2000	1200	EKCA2/MA
	5/3 stable open centre	Lateral knob	Lateral knob	2000	1200	EKCA2/MAF

*EX Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -20°C < Ta < 60°C
II 2D Ex h IIC T100°C Db

E.G.: EKCA2/MF/EX

5/2 - 5/3 LATERAL KNOB



3