

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.

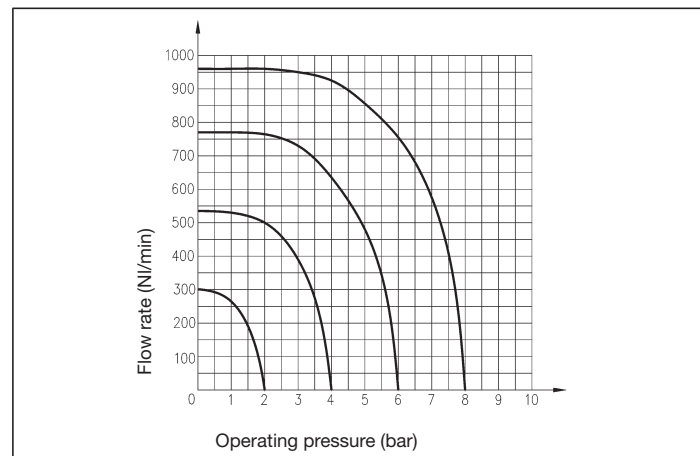
TECHNICAL DATA

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)

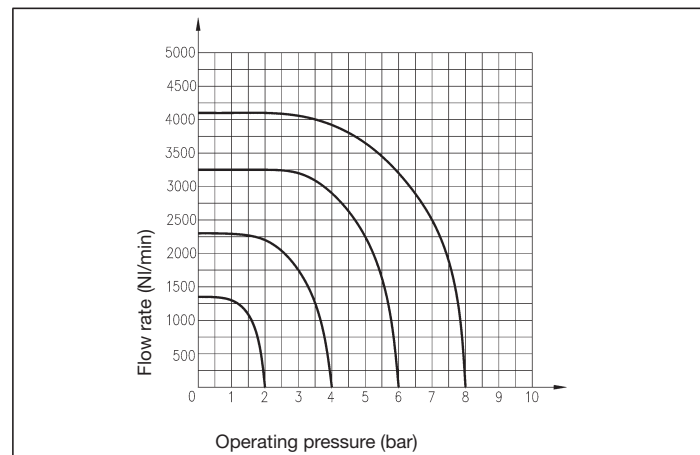
SPARE PARTS

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



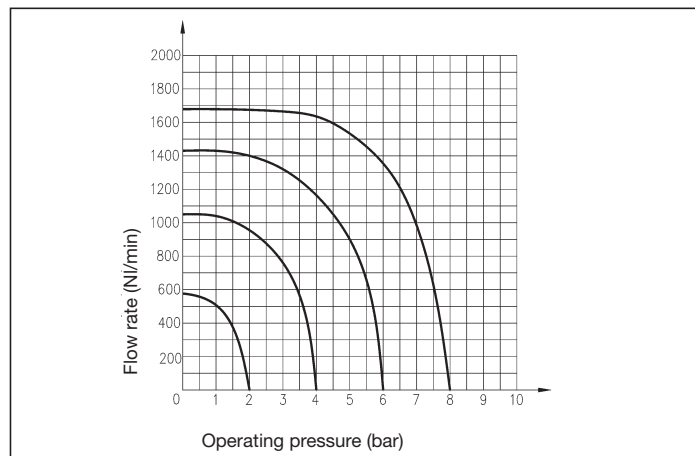
FLOW CHART - EK G 1/2 - 5/2



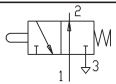
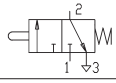
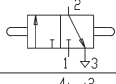
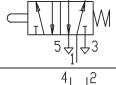
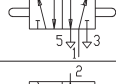
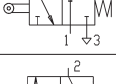
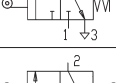
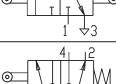
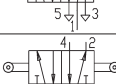
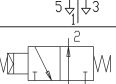
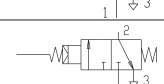
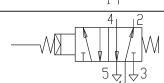
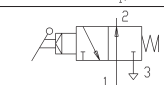
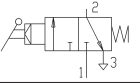
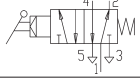
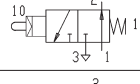
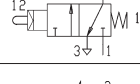
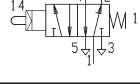
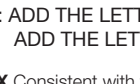
MATERIALS

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

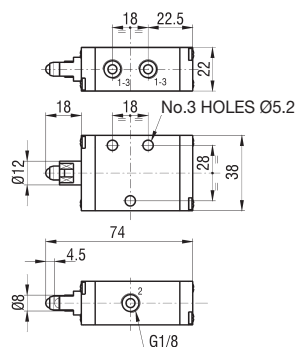
Symbol	Function	Controls		Actuation force at 6 bar (N)	Flow rate at 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Weight (g)	TYPE*
		Pilot	Return				
	3/2 N.O. monostable	Plunger	Mechanical spring	75	390	135	EK8/PS
	3/2 N.C. monostable						
	3/2 bistable	Plunger	Plunger	6	390	140	EK8/PSS
	5/2 monostable	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**

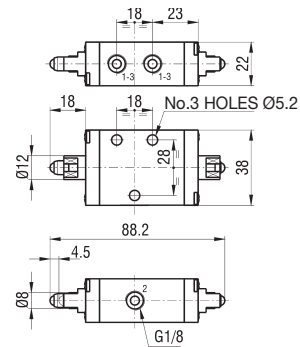
*EX Consistent with the ATEX directive  II 2G Ex h IIC T5 Gb -20°C<Ta<60°C
 II 2D Ex h IIC T100°C Db

E.G.: **EK8/PSS/EX**

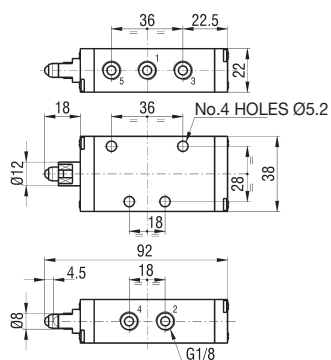
EK8/PS



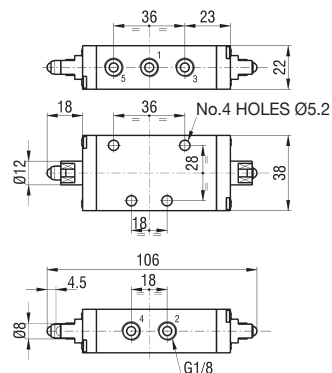
EK8/PSS



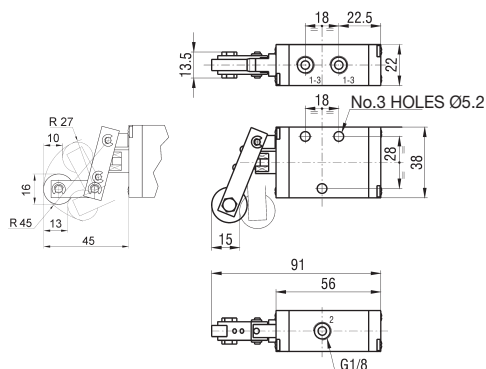
EKCA8/PS



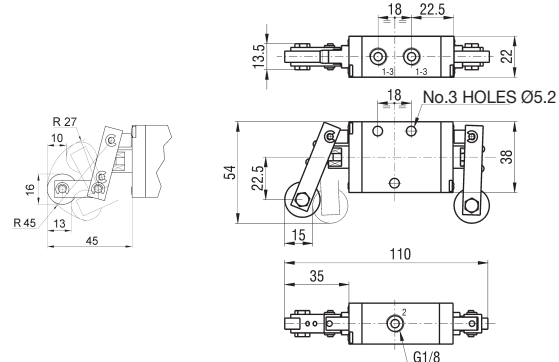
EKCA8/PSS



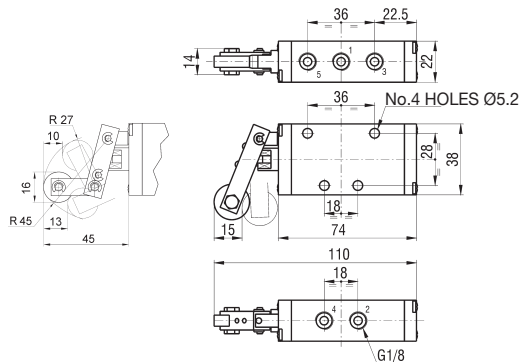
EK8/LR*



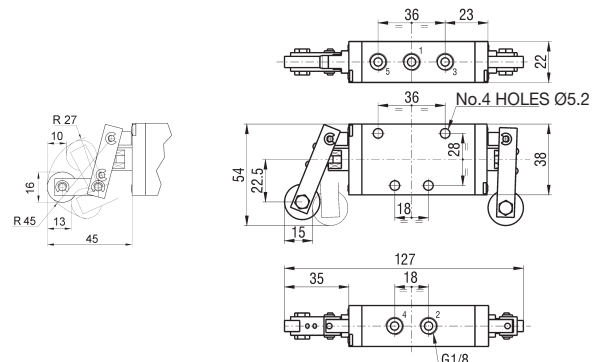
EK8/LRLR*



EKCA8/LR*

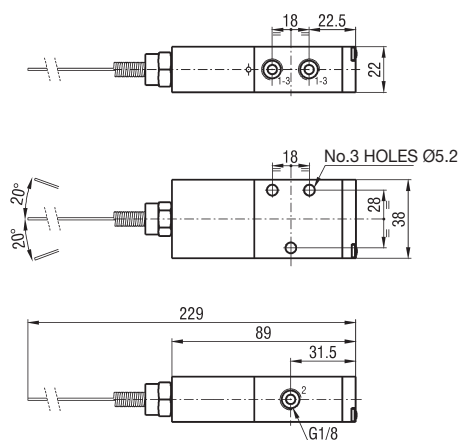


EKCA8/LRLR*

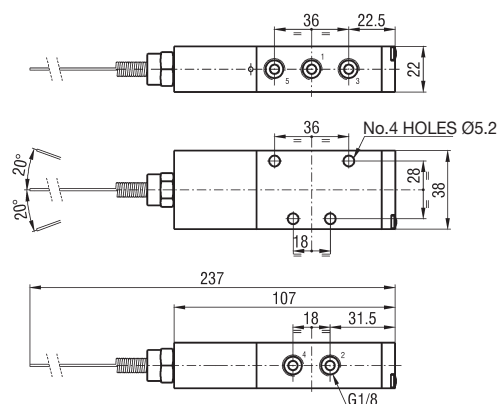


* - ADD THE LETTER "U" TO THE TYPE TO ORDER THE UNIDIRECTIONAL ROLLER VALVES - E.G.: **EKCA8/LRLRU**
 - ADD THE LETTER "N" TO THE TYPE TO ORDER THE VALVES WITH PLASTIC ROLLER - E.G.: **EK8/LRN**

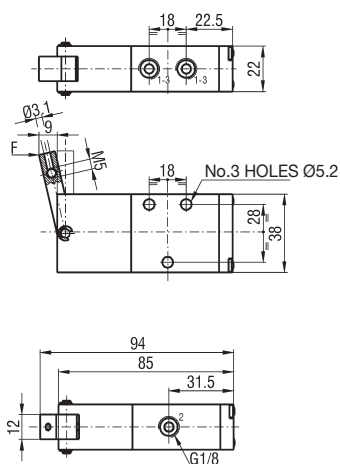
EKA8/A - EKC8/A



EKCA8/A

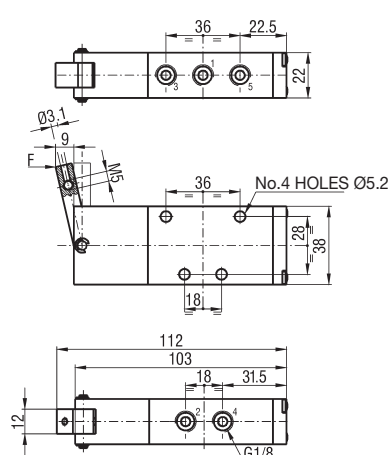


EKA8/TD - EKC8/TD*



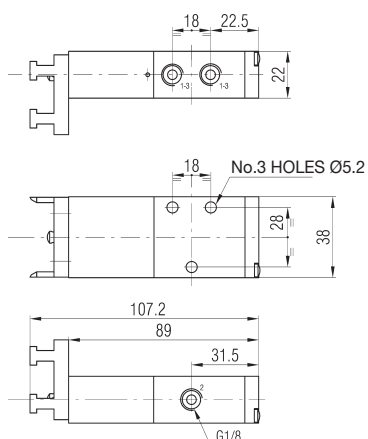
* IT IS POSSIBLE TO INCREASE THE SENSITIVITY OF THE KEY USING A Ø 3 mm EXTENSION ON THE SAME KEY

EKCA8/TD*



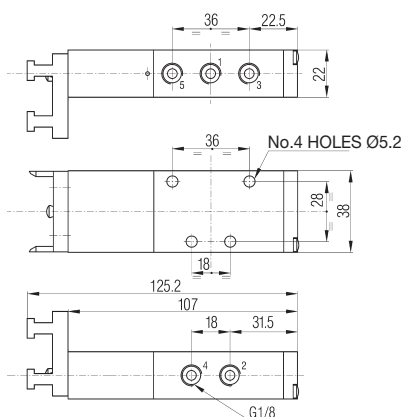
* IT IS POSSIBLE TO INCREASE THE SENSITIVITY OF THE KEY USING A Ø 3 mm EXTENSION ON THE SAME KEY

EKC8/Q - EKA8/Q



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

EKCA8/Q



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

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 IIC T100°C Db

E.G.: EK8/M/EX

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

E.G.: **EK8/M/EX**

Technical drawing of a 1/2 inch NPT female plug with three mounting holes. The drawing includes three views: a front view, a top view, and a side view.

Front View: Shows the plug's profile. Dimensions include a diameter of $\varnothing 30$, a length of 18, a diameter of 22.5, a length of 22, and a diameter of 1-3.

Top View: Shows the three mounting holes (No. 3 HOLES $\varnothing 5.2$). Dimensions include a diameter of 6, a length of 18, a diameter of 28, a length of 38, a diameter of 55.2, and a length of 110.

Side View: Shows the plug's profile. Dimensions include a length of 11, a thread of M16x1.5, and a diameter of G1/8.

Technical drawing of a 1/8 inch NPT female fitting with three mounting holes. The drawing includes three views: a top view, a side view, and a front view.

Top View: Shows the cylindrical body with a 1/8 inch NPT female thread on the left end. The distance between the first two mounting holes is 18mm, and the distance between the second and third mounting holes is 22.5mm. The diameter of the mounting holes is 22mm. The text "No.3 HOLES Ø5.2" is present.

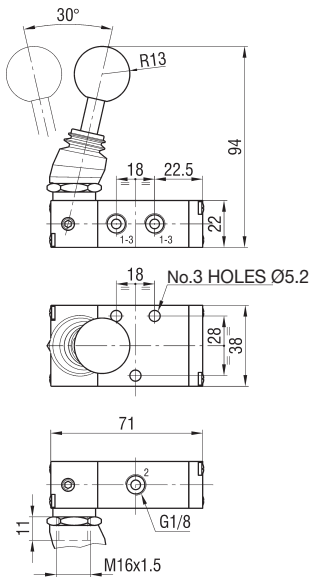
Side View: Shows the mounting holes and the overall dimensions. The diameter of the mounting holes is 11mm, and the distance between the first two mounting holes is 18mm. The overall length is 38mm. The text "M18x1.5" is present.

Front View: Shows the 1/8 inch NPT thread and the overall length. The overall length is 67mm, and the diameter of the mounting holes is 15mm. The text "G1/8" is present.

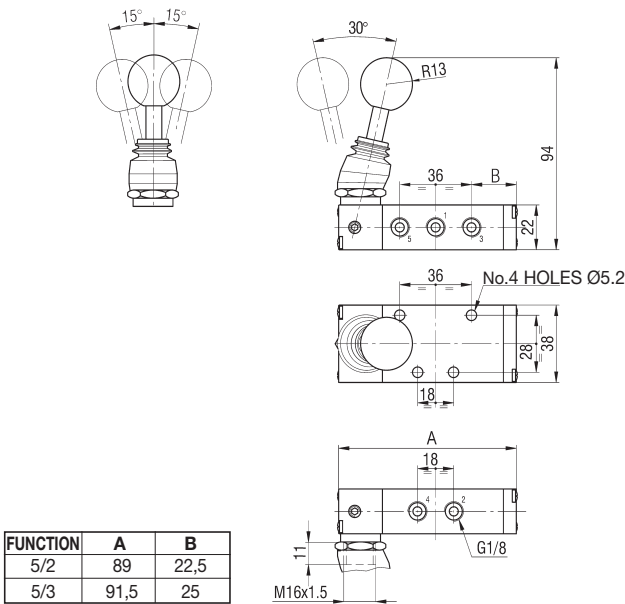
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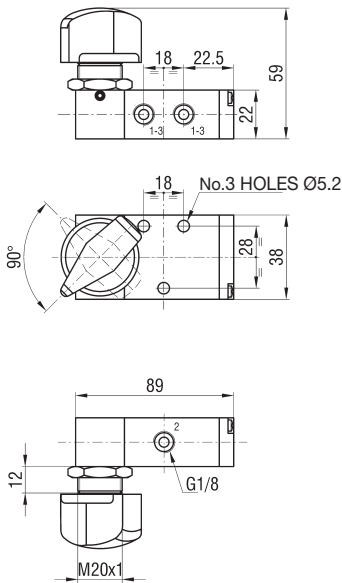
EK8/M - EK8/MF



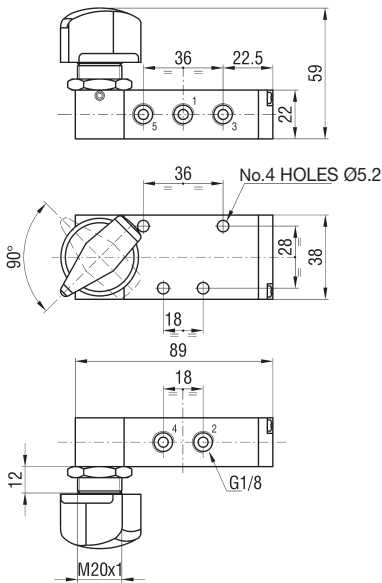
5/2 - 5/3 LATERAL KNOB



EK8/SLF



EKCA8/SLF

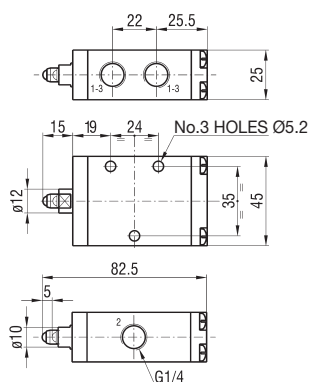


MECHANICALLY ACTUATED VALVES G 1/4

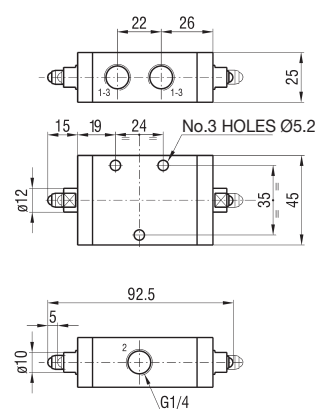
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		Pilot	Return				
	3/2 N.O. monostable	Drawer	Mechanical spring	51	900	205	EK4/PS
	3/2 N.C. monostable						
	3/2 bistable	Drawer	Drawer	9,5	900	200	EK4/PSS
	5/2 monostable	Drawer	Mechanical spring	51	900	250	EKCA4/PS
	5/2 bistable	Drawer	Drawer	9,5	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 II 2G Ex h IIC T5 Gb -20°C<Ta<60°C
II 2D Ex h IIC T100°C DbE.G.: **EK4/PSS/EX**

EK4/PS

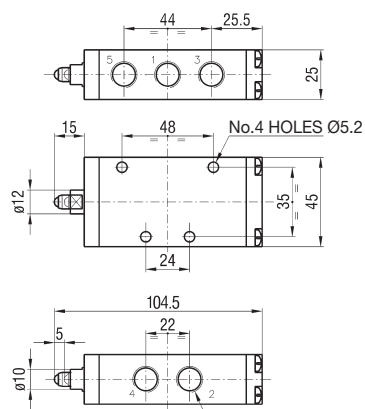


EK4/PSS

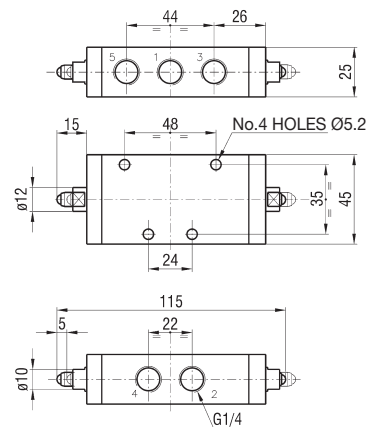


3

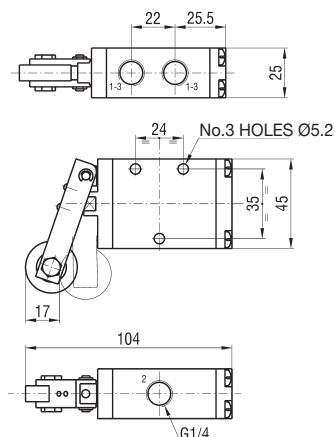
EKCA4/PS



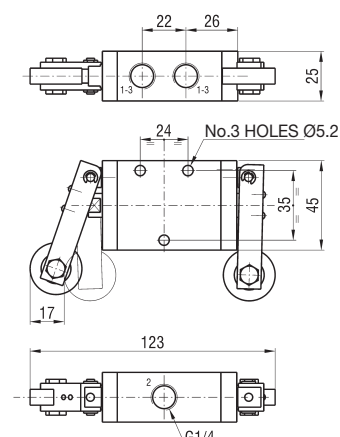
EKCA4/PSS



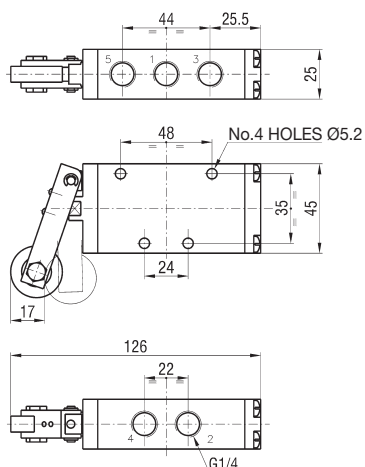
EK4/LR*



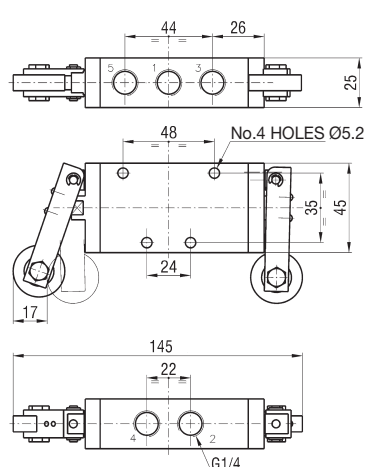
EK4/LRLR*



EKCA4/LR*



EKCA4/LRLR*



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

MANUALLY ACTUATED VALVES G 1/4

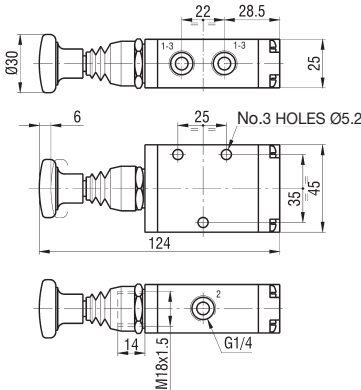
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		Pilot	Return			
	3/2 N.O. monostable	Push rod button	Mechanical spring	900	240	EK4/T
	3/2 N.C. monostable					
	3/2 bistable	Drawer	Drawer	900	240	EK4/TF
	5/2 monostable	Push rod button	Mechanical spring	900	305	EKCA4/T
	5/2 bistable	Drawer	Drawer	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 IIC T100°C Db

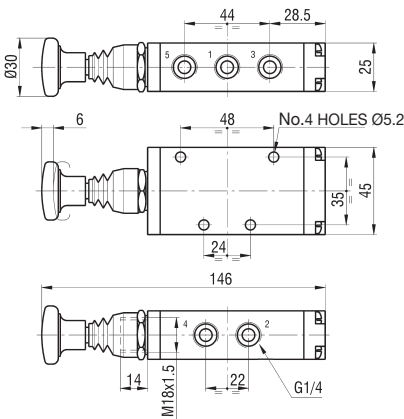
E.G.: **EK4/TF/EX**

3

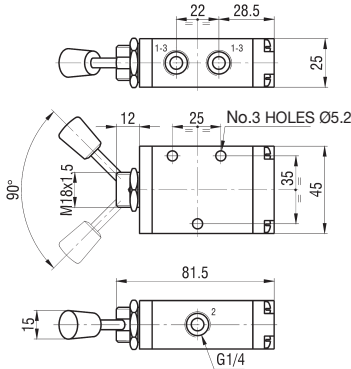
EK4/T - EK4/TF



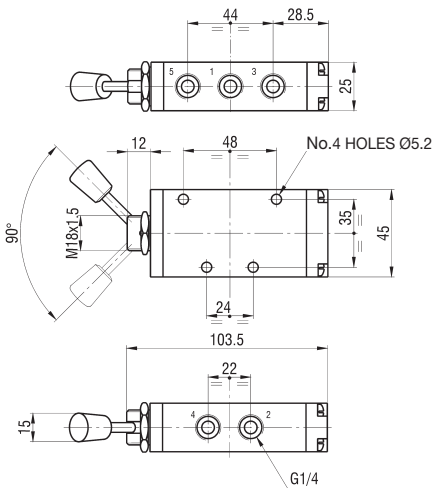
EKCA4/T - EKCA4/TF



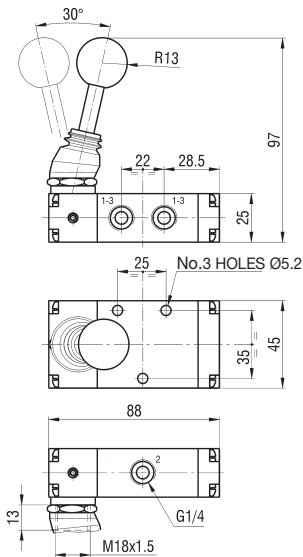
EK4/MV - EK4/MVF



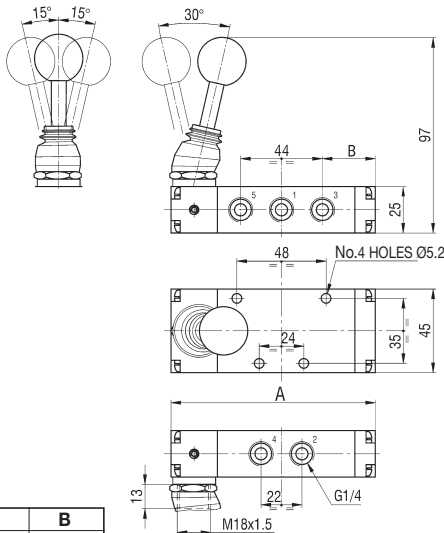
EKCA4/MV - EKCA4/MVF



EK4/M - EK4/MF

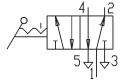
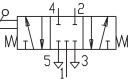
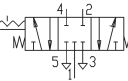
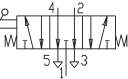
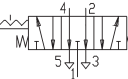


5/2 - 5/3 LATERAL KNOB



FUNCTION	A	B
5/2	107	25,5
5/3	110	27,5

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

