

ADJUSTABLE PRESSURE SWITCH - K4 SERIES



Execution with electric connection normally closed



Execution with electric connection normally open

Technical features:

Body: 24 mm hexagonal in tropicalized carbon steel

Assembly: in every position

Maximum dimension (L =width max, H =height max):

- NC execution: L 26mm x H 55mm - NA execution: L 26mm x H 45mm

Working temperature: from - 20°C to + 80°C

Switching frequency: 200 cycles/min

Switching accuracy: ± 5% of the pressure settled to 20°C **Operating point:** adjustable through an external screw

Fixed hysteresis value:

- membrane execution \sim 6% of the settled value - piston execution \sim 10% of the settled value

Weight: 0,06 Kg

Mechanical life: 10⁶ cycles at 70 bar (1000 psi) at 20°C

Electric Features:

- Maximum load: 2 Ampère at 48 Volt AC

1 Ampère at 48 Volt DC (see dedicated page)

- Electric protection according to DIN 40050: IP54 with P1

rubber cup protection

Warranty: see dedicated page Spare parts: see dedicated page

Also available:

- K4X with fluid connection port made in Aisi 316 stainless steel

- K4L body in brass

- Seals in Viton, EPDM, PTFE

CE II 3 G/D EEx e T6

HOW TO ORDER K4 **P1** Switching Hydraulic Type of Type of Protection Body Preset Condition Execution Seal Type pressure electric Electric Connection max Material Cap value contact Connection range Bar 0 3 4 5 Bar 1/4" 1/8" 1/8" 1/4" 1/4" R 0.2>2.5 Membrane M10x1 25 BSP BSP **BSPT** NPT NPT BSPT 1/8" BSPT 1/4" 1/4" 1/4" S 1>12 Membrane 25 M10x1 BSP BSP NPT NPT BSP VITON 1/4" 1/8" 1/8" 1/4" 1/2 SP 1>12 Piston 300 M10x1 BSPT BSP BSP NPT NPT BSPT D AISI316L means Accessory on PTFE Fast-on down request NA T 5>50 Membrane 200 M10x1 Indicate BSP BSP **BSPT** NPT NPT BSP pressure essential to the value OTTONE setting protect the 1/4" instrument 1/8 1/4" 1/4 F needed TP 5>50 300 M10x1 Piston Screw BSP BSP BSPT NPT NPT BSPT If omitted from dirt and **EPDM** NC means up moisture connection 1/8" 1/4" 1/8 1/4" 1/4" zinc plated pressure V 10>100 Piston 300 M10x1 BSPT NPT NPT setting BSP BSP BSPT if omitted means 1/8" 1/4" 1/8" NPT 1/4" **NBR** 1/." Z 20>200 Piston 300 M10x1 NPT BSP BSP BSPT BSPT 1/4" 1/8" 50>400 Piston 600 M10x1 BSPT NPT









Execution with electric connection P2



Execution with electric connection M2



Execution with electric connection M3

Body: 24 mm hexagonal in tropicalized carbon steel

Assembly: in every position

Maximum dimension (L =width max, H =height max):

P2 execution: L 26mm x H 50mm
M2 execution: L 39mm x H 75mm
M3 execution: L 48mm x H 78mm

Working temperature: from - 25°C to + 85°C

Switching frequency: 90 cycles/min

Switching accuracy: \pm 4% of the pressure settled to 20°C **Operating point:** adjustable through an internal screw

Fixed hysteresis value:

- membrane execution \sim 10% of the settled value - piston execution \sim 15% of the settled value

Weight: 0,05 Kg

Mechanical life: 106 cycles at 70 bar (1000 psi) at 20°C

Electric Features:

- Maximum load: 0.5 Ampère at 250 Volt AC (see dedicated page)

- Exchange contacts NA and NC

- Electric connection according to DIN 43650 for M2 and M3

- Electric protection according to DIN 40050:

IP65 for M2/M3 execution IP54 for P2 execution

Warranty: see dedicated page Spare parts: see dedicated page

Also available:

- F4X with fluid connection port made in Aisi

316 stainless steel

- K4L body in brass

- Seals in Viton, EPDM, PTFE

- WF4: vacuum switch with adjustable field from 0.15 to 0.75 bar

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Switching pressure Execution range			P max	Body Material	Hydraulic Connection							Seal Type	Preset value	Condition	Type of Electric Connection
	Bar		Bar		0	1	2	3	4	5	6		Bar		
R	0,2>2.5	Membrane	25	×	¹ / ₈ "BSP	¹/₄"BSP	1/8"BSPT	M10x1	¹/ ₈ "NPT	¹ / ₄ "NPT	¹/₄"BSPT	V VITON	Si	D means down pressure setting	P2 Connection with screw
S	1>12	Membrane	25	AISI316L	¹/ ₈ "BSP	¹/₄"BSP	1/8"BSPT	M10x1	1/8"NPT	¹ / ₄ "NPT	¹/₄"BSPT	990909766			
Т	5>50	Piston	200	L BRASS	1/8"BSP	¹/₄"BSP	1/8"BSPT	///	¹/ ₈ "NPT	¹ / ₄ "NPT	¹/₄"BSPT	T PTFE			
٧	10>100	Piston	300	If omitted	¹/ ₈ "BSP	¹/₄"BSP	1/8"BSPT	///	¹ / ₈ "NPT	¹ / ₄ "NPT	¹/₄"BSPT	E EPDM	value if needed	U means	connector 16x16
Z	20>200	Piston	300	ZITIC	1/8"BSP	¹/₄"BSP	1/8"BSPT	///	1/8"NPT	¹ / ₄ "NPT	¹/₄"BSPT	if omitted means		up pressure setting	M3 connector
Υ	50>400	Piston	600	plated	¹/ ₈ "BSP	¹/₄"BSP	1/8"BSPT	///	1/8"NPT	¹ / ₄ "NPT	¹/₄"BSPT	NRR		Setting	30x30









Execution with electric connection M2



Execution with electric connection M3

Body: Ø 40 mm circular in tropicalized carbon steel **Assembly:** through a 27 mm screw in every position **Maximum dimension (L =width max, H =height max):**

- M2 execution: L 45mm x H 78 mm - M3 execution: L 55mm x H 78 mm

Working temperature: from - 20°C to + 80°C

Switching frequency: 60 cycles/min

Switching accuracy: ± 4% of the pressure settled to 20°C **Operating point:** adjustable through an internal screw **Fixed hysteresis value:** ~ 12% of the settled value

Weight: 0,18 Kg

Mechanical life: 10⁶ cycles at 10 bar and 20°C

Electric Features:

- Maximum load: 0.5 Ampère at 250 Volt AC

0.15 Ampère at 110 Volt DC (see dedicated page)

- Exchange contacts NA and NC

- Electric connection according to DIN 43650

- Electric protection according to DIN 40050: IP65

Warranty: see dedicated page **Spare parts:** see dedicated page

Also available:

- FS4X with fluid connection port made in Aisi 316 stainless steel

- Seals in Viton, EPDM, PTFE



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Туре	Switching pressure range	Execution	P max	Hydraulic connection	Body material	Seal Type	Preset value	Condition	Type of Electric Connection	
	Bar		Bar	Only			Bar			
FS40	0.1 > 1	Membrane	10	1/4"BSP	×	V VITON		D	M2	
FS41	0.3 > 3	Membrane	10	1/4"BSP	AISI316L If omitted means zinc plated	T PTFE	Indicate the value if needed	means down pressure	connector 16x16 M3 connector 30x30	
FS42	0.5 > 5	Membrane	10	¹ / ₄ "BSP		E EPDM		setting U means up		
FS43	1 > 10	Membrane	20	¹ / ₄ "BSP		if omitted means NBR		pressure setting		





adjustable pressure switch - **K3 – K3S** series

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K3Execution for high pressures



K3SExecution for low pressures

Technical features K3

Body: : 27 mm hexagonal in tropicalized carbon steel
Assembly: in every position
Maximum dimensions:
L 57mm x H 70 mm
Switching accuracy:

 \pm 4% of the pressure settled to 20°C

Fixed hysteresis value:
- membrane execution ~ 10%

- piston execution ~ 15%

Weight: 0,09 Kg

Technical features K3S

Body: 40x40mm square in anodised

aluminium

Assembly: in every position
Maximum dimensions:
L 65mm x H 75 mm
Switching accuracy:

± 3% of the pressure settled to 20°C

Fixed hysteresis value: ~ 7% of the settled value

Weight: 0,1 Kg

Both common characteristics

Working temperature: from - 20°C to + 80°C

Switching frequency: 120 cycles/min

Operating point: adjustable through an internal screw

Electric connection type: 16x16 connector

Mechanical life: 106 cycles at 70 bar (1000 psi) at 20°C

Electric features:

- Maximum load: 5 Ampère at 250 Volt AC

0.25 Ampère a 125 Volt DC (see dedicated page)

- Exchange contacts NA and NC

- Electric contact according to DIN 43650

- Electric protection according to DIN40050: IP65

Warranty: see dedicated page Spare parts: see dedicated page

Also available:

- K3X , K3SX with fluid connection port made in Aisi 316 stainless steel

- Seals in Viton, EPDM, PTFE

- Microswitches with gold plated contacts

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	HOW TO ORDER												
		<u>K3</u>		Ė	-	<u>-</u>	<u></u> :						
Туре	Switching pressure range	Execution	P max	Hydraulic Connection	Body Material	Seal Type	Microswitches Type	Preset value	Condition				
	Bar		Bar					Bar					
K3S1	0.05 > 0.5	Membrane	10										
K3S2	0.1 > 1	Membrane	10	1/4" BSP	X AISI316L	VITON	G						
K3S3	0.5 > 5	Membrane	15	female									
K3S4	1 > 10	Membrane	15						D means				
K31	1 > 10	Membrane	25		orthogon of retributed two on	PTFE	Gold plated contacts	Indicate the	down pressure setting				
K33	5 > 50	Membrane	200		if omitted means	Е		value if needed	U				
K33P	5 > 50	Piston	300	1/4" BSP	standard execution	EPDM	if omited means standard contacts		means up pressure setting				
K35	10 > 100	Membrane	200	male	CACOULION	if omitted means							
K35P	10 > 100	Piston	300			NBR							
K37	30 > 250	Piston	300										

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F3 /P2 F3 /M3 Execution for high pressures





F3S _/M3 F3S_/P2 Execution for low pressures

Technical Features F3

Body: 27 mm hexagonal in tropicalized carbon steel Assembly: in every position Maximum dimensions:

- P2: L 30mm x H 65mm
- M3: L 48mm x H 78mm

Switching accuracy:

± 4% of the pressure settled to 20°C

Fixed hysteresis value:

- membrane execution ~ 10%
- piston execution ~ 15%

Weight: 0,08 Kg

Technical Features F3S

Body: 40x40mm square in anodized aluminium Assembly: in every position

Maximum dimensions:

- P2: L 55mm x H 72mm
- M3: L 55mm x H 85mm

Switching accuracy:

± 3% of the pressure settled to 20°C

Fixed hysteresis value:

~ 7% of the value settled

Weight: 0,1Kg

Both common characteristics

Working temperature: from - 20°C to + 80°C

Operating point: adjustable through an internal screw

Switching frequency: 90 cycles/min

Mechanical life: 10⁶ cycles at 70 bar (1000 psi) at 20°C

Electric features:

- Maximum load: 0.5 Ampère at 250 Volt AC
 - 0.15 Ampère at 110 Volt DC
- Exchange contacts NA and NC
- Electric contact according to DIN 43650
- Electric protection according to DIN40050: IP65

Warranty: see dedicated page Spare parts: see dedicated page

Also available:

- F3X, F3SX with fluid connection port made in Aisi 316 stainless steel
- Seals in Viton, EPDM, PTFE
- Microswitches with gold plated contacts

CE II 3 G/D EEx e T6 HOW TO ORDER F3.. Switching Type of Electric Hydraulic Body Microswitches Preset Execution Seal Type Condition Type pressure Connection Material value Connection max Type range Bar Bar Bar F3S1 0.05 > 0.5Membrane 10 VITON F3S2 0.1 > 1Membrane 10 1/4" BSP D female F3S3 15 0.5 > 5Membrane means P2 AISI316L Gold plated down F3S4 1 > 10 Membrane 15 PTFE fast-on 6.3 mm contacts pressure Indicate 0.2 > 2.5Membrane F30 10 setting the value if if omitted F31 1 > 10 Membrane 25 E needed **M3** if omitted means U means **EPDM** Connector F33 5 > 50 Piston 300 standard standard means up 1/4" BSP 30x30 execution contacts pressure male F35 10 > 100 Piston 300 setting if omitted F37 30 > 250 Piston 300 means NBR F39 100 > 400 Piston

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Body: 30x30 mm square in nickel-plated brass

Assembly: in every position

Maximum dimension (L =width max, H =height max):

L 69mm x H 52 mm

Working temperature: from - 20°C to + 80°C

Switching frequency: 90 cycles/min

Switching accuracy: ± 4% of the pressure settled to 20°C **Operating point:** adjustable through an internal screw protected

by a cap

Fixed hysteresis value:

- membrane execution \sim 10% of the settled value - piston execution \sim 14% of the settled value

Weight: 0,18 Kg

Electric connection type: 30x30 connector **Mechanical life:** 10⁶ cycles at 70 bar 20°C

Electric Features:

- Maximum load: 0.5 Ampère at 250 Volt AC

0.15 Ampère at 110 Volt DC (see dedicated page)

- Exchange contacts NA and NC

- Electric connection according to DIN 43650

- Electric protection according to DIN 40050: IP65

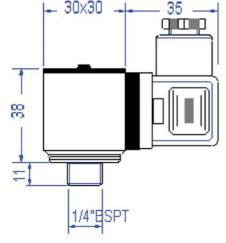
Warranty: see dedicated page Spare parts: see dedicated page



- Seals in Viton, EPDM, PTFE

- Microswitches with gold plated contacts (instead of silver-plated

as in the standard execution)





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Туре	Switching pressure range	Execution	P max	Hydraulic Connection	Seal Type	Microswitches Type	Preset value	Condition							
	Bar		Bar	Only			Bar								
KR60	0.2 > 2	Membrane	25		V	G	Indicate the value if needed	D means							
KR61	1 > 15	Membrane	25	20	T	Gold plated contacts		down pressure							
KR63	4 > 40	Piston	200	¹/₄" BSPT male	PTFE E	If omitted		setting							
KR64	15 > 150	Piston	300		EPDM	means standard		means up							
KR65	25 > 250	Piston	300		If omitted means NBR	contacts		pressure setting							

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K7 Standard



K7 + K7RID (see adaptors page)

Body: 36 mm hexagonal in tropicalized carbon steel

Assembly: in every position

Maximum dimension (L =width max, H =height max):

L 74mm x H 84mm

Cap protection : in nylon charged with fiber glass **Working temperature:** from - 20°C to + 80°C

Switching frequency: 120 cycles/min

Switching accuracy: ± 3% of the pressure settled to 20°C **Operating point:** adjustable through an internal screw

protected by a cap

Fixed hysteresis value: ~ 13% of the settled value

Weight: 0,2 Kg

Mechanical life: 10⁶ cycles at 70 bar (1000 psi) at 20°C

Electric Features:

- Maximum load: 5 Ampère at 250 Volt AC

0.25 Ampère a 125 Volt DC (see dedicated page)

- Exchange contacts NA and NC

- Electric connection according to DIN 43650

- Electric protection according to DIN 40050: IP65

Warranty: see dedicated page Spare parts: see dedicated page

Also available:

- K7X with fluid connection port in AISI 316 stainless steel
- Seals in Viton, EPDM, PTFE
- Micro switches with gold plated contacts (instead of silverplated as in the standard execution)
- Adaptor type K7RID for flange fixing (see adaptors page)
- Electric connector with light signal of insertion

CE II 3 G/D EEx e T6

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		<u>K7.</u>	İ	Ī	<u> </u>			<u>'</u>	_;_	
Туре	Switching pressure range	Execution	P max	Hydraulic Connection	Body Material	Seal Type	Microswitches Type	Preset value	Condition	Type of Electric
	Bar		Bar	Only				Bar		
K71	1 > 12	Membrane	25		X	V	G		D means down pressure setting	M4 Electric connector with light signal of insertion
K73	5 > 50	Piston	300	1/4" BSP	AISI316L	T PTFE	Gold plated contacts	Indicate the		
K75	15 > 150	Piston	350	male	If omitted means tropicalized	E EPDM	if omitted means standard contacts	value if needed	U means up	If omitted
K77	30 > 300	Piston	400		carbon steel	If omitted means NBR			pressure setting	means standard connector







K9 Standard



K9 + K7RID (see adaptors page)

Body: 32 mm hexagonal in tropicalized carbon steel **Metal ring:** Ø 40 mm in anodised aluminium

Assembly: in every position

Maximum dimension (L =width max, H =height max):

L 54mm x H 128mm

Working temperature: from - 20°C to + 80°C

Switching frequency: 120 cycles/min

Switching accuracy: \pm 2% of the pressure settled to 20°C **Operating point:** adjustable through an external metal ring

Fixed hysteresis value: ~ 12% of the settled value

Weight: 0,4 Kg

Mechanical life: 10⁶ cycles at 70 bar (1000 psi) at 20°C

Electric Features:

- Maximum load: 5 Ampère at 250 Volt AC

0.25 Ampère at 125 Volt DC (see dedicated page)

- Exchange contacts NA and NC

- Electric connection according to DIN 43650

- Electric protection according to DIN 40050: IP65

Warranty: see dedicated page **Spare parts:** see dedicated page

Also available:

- Seals in Viton

- Micro switches with gold plated contacts (instead of silver-

plated as in the standard execution)

- Adaptor type K7RID for flange fixing (see adaptors page)

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Туре	Switching pressure range	Execution	P max	Seal Type	Hydraulic Connection	Microswitches Type		Preset value	Condition				
	Bar		Bar		Only			Bar					
K93	2 > 40	Piston	200			G Gold plated contacts if omitted means standard contacts			D				
K94	5 > 100	Piston	300	V VITON				la dia ata tha	means down pressure				
K95	20 > 200	Piston	400		1/ ₄ " BSP male			Indicate the value if needed	setting				
K97	30 > 300	Piston	600	If omitted means NBR				necaca	means up				
K99	40 > 400	Piston	600						pressure setting				







F5

Technical features:

Body: 30x30 mm square in anodised aluminium

Assembly: in every position

Maximum dimension (L =width max, H =height max):

L 72mm x H 80mm

Working temperature: from - 20°C to + 80°C

Switching frequency: 120 cycles/min

Switching accuracy: ± 3% of the pressure settled to 20°C **Operating point:** adjustable through an internal screw

protected by a safety cap

Fixed hysteresis value: ~ 12% of the settled value

Weight: 0,15 Kg

Mechanical life: 106 cycles at 70 bar at 20°C

Electric Features:

- Maximum load: 5 Ampère at 250 Volt AC

0.1 Ampère at 250 volt DC (see dedicated

page)

- Exchange contacts NA and NC

- Electric connection according to DIN 43650

- Electric protection according to DIN 40050: IP65

Warranty: see dedicated page **Spare parts:** see dedicated page

Also available:

- Seals in Viton

- Micro switches with gold plated contacts (instead of silver-

plated as in the standard execution)

CE II 3 G/D EEx e T6

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Туре	Switching pressure range	Execution	P max	Hydraulic Connection	Seal Type	Microswitches Type	Preset value	Condition					
,	Bar		Bar	Only			Bar						
F53	5 > 50	Piston	300		V VITON	G Gold plated	Indicate	D means down pressure					
F55	15 > 150	Piston	350	1/4" BSP female	If omitted means	contacts if omitted	Indicate the value if	setting U					
F57	57 30 > 300 Piston		400		NBR	standard contacts	needed	means up pressure setting					











K5 PExecution with graduate knob





K51
Execution for low pressures

CE II 3 G/D EEx e T6

Body: square 40x40mm in anodized aluminium

Assembly: in every position with 1/4"BSPF threaded port or

Cetop flanged without needs adaptors

Maximum dimension (L =width max, H =height max):

- K51 standard execution: L 74mm \times H 102mm

- K51 with knob execution: L 74mm x 120mm

- K5 standard execution: L 74mm x 80mm

- K5 with knob execution: L 74mm x 102mm **Working temperature:** from - 20°C to + 80°C

Switching frequency: 120 cycles/min

Switching accuracy: ± 2% of the pressure settled to 20°C **Fixed hysteresis value:** - piston execution ~ 12% - membrane execution ~ 10%

Weight: 0,35 Kg

Mechanical life: 10⁶ cycles at 70 bar at 20°C

Electric Features:

- Maximum load: 5 Ampère at 250 Volt AC

0.25 Ampère at 125 Volt DC (see dedicated page)

- Exchange contact NA and NC

- Electric connection according to DIN 43650

- Electric protection according to DIN 40050: IP65

Warranty: see dedicated page Spare parts: see dedicated page Also available: - Seal in Viton

- Microswitch with gold plated contact

 Cetop modular manifold type B6 and B10 for attachment to electrovalves Cetop 3 and 5 (see adapters page)

- Electric connector with light signal of insertion

 Only for low pressures K51X with fluid port connection in Stainless Steel

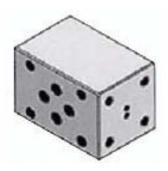
	HOW TO ORDER														
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Туре	Switching pressure range	Execution	P max	Material connection	Hydraulic connection	Seal or membran type	Type of microswitch	Preset value in Bar	Condition	Type pf execution	Type of electric connection				
	Bar		Bar	Only low pressure	Only			Bar			0.5				
K51.1	0.2 > 2	Membrane	12	X AISI316L		V									
K51.2	0.5 > 5	Membrane	12							Р	M4				
K51.3	1 > 10	Membrane	15	means body	1/4" BSP		G			execution	Connector With light				
K51.4	3 > 15	Membrane	20	Anodized aluminium	female or		Gold plated contact	Indicate		adjustable graduate knob	signal of insertion				
K53	2 > 40	Piston	200		connection to a Cetop	PTFE	If omitted	the value if	setting						
K54	5 > 100	Piston	300		panel without		Means	necessary	U means up	If amitted	If amittad				
K55	20 > 200	Piston	400		any adaptors	If omitted means NBR	standard contacts		pressure setting	If omitted means	If omitted means standard connector				
K57	30 > 300	Piston	500						Journa	standard version					
K59	40 > 400	Piston	600												

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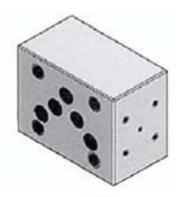
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B6



B10

Manifolds for the modular connection to the electrovalves CETOP 3 or 5 for the K5 series

Technical features B6 and B10:

Material: anodised aluminium

Maximum working pressure: 350 bar

Standard equipment:

- screws to fix the pressure switch

- dowel to close the pressure ports not in use

- O-ring for seal

Dimension:

- B6 70 x 45 x 44 mm

- B10 90 x 70 x 50 mm

Weight:

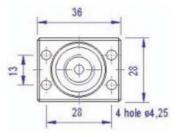
- B6 0.37 Kg - B10 0.8 Kg

Technical features K7RID:

Material: tropicalized carbon steel
Maximum working pressure: 350 bar
Standard equipment:

- socket head screws M4x16

- O-ring for seal **Weight:** 0.07 Kg



K7RIDAdaptor for K7 and K9





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