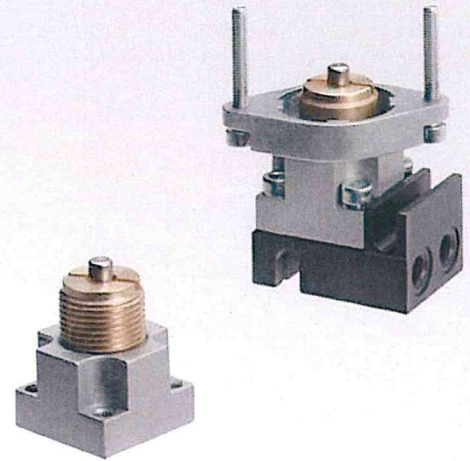


AI

Miniature limit switches

Univer limit switches, mounted on sub-bases with threaded connections or with quick couplings, may be combined with different types of manual operators for panel mounting complying with the various need of the plant.



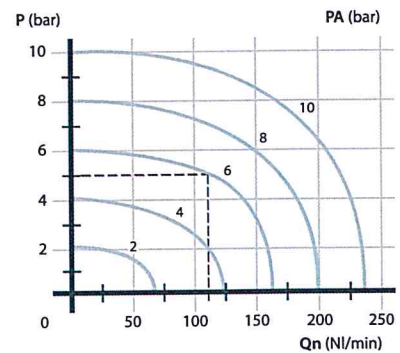
TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ +90 °C
Fluid temperature	max +50 °C
Fluid	defiltered air 50 um not dehumidified, lubricated or not
Commutation system	poppet system
Ways/Positions	2/2 NC, 3/2 NC, 2/2 NO, 3/2 NO
Pressure	max 10 bar
Control	manual, mechanical
Return	mechanical spring
Connections	interface for sub-base
Nominal Ø	2,3 mm (1,5 sensible type)
Nominal flow rate (NI/min)	110 NI/min

CONSTRUCTIVE CHARACTERISTICS

Valve body	zamak
Seals	nitrile rubber
Sub-base	zamak
Spool	nickel-plated brass

Flow rate characteristics

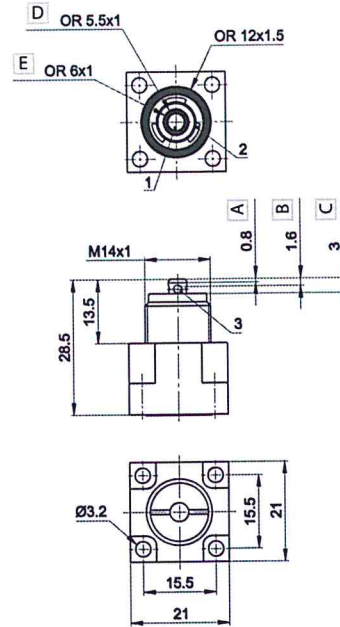


P = Working pressure
 PA = Supply pressure
 Qn = Flow rate

Mechanical push button - spring



- A Pre-stroke
- B Max opening
- C Total stroke
- D 3/2 NC - 3/2 NO - 2/2 NC
- E 2/2 NO



1 = Supply port
2 = Use
3 = Exhaust

	Symbol	Ø mm	Flow rate NI/min	Force N	Weight Kg	Part no.
3/2 NC		2,3	110	15	0,040	AI-3500
		1,5	55	4	0,040	AI-3500S (a)
3/2 NO		2,3	110	15	0,040	AI-3501
		1,3	45	4	0,040	AI-3501S(a)
2/2 NC		2,3	110	15	0,040	AI-3502
2/2 NO (b)		2,3	110	15	0,040	AI-3503

(a) = sensible (b) = 2/2 NO version available upon request

PNEUMATIC AND MECHANICAL ACTUATORS

MANUAL PUSH

	Pneumatic operator	AI-3550			Recessed button	BLACK, RED, GREEN	AI-3511, AI-3512, AI-3513	
	Amplified pneumatic operator	AI-3551			Head button	RED, BLACK	AI-3514, AI-3516	
	Roller operator 1 position	AI-3560			Button	GREEN, RED, BLACK	AI-3515, AI-3517, AI-3519	
	Ball-push operator 1 position	AI-3562			Accident prevention rotating selector	BLACK	AI-3520, AI-3521	
	Operator with omni-directional antenna 1 position	AI-3563			Rotating lever selector	BLACK	AI-3522, AI-3523	
	Roller lever operator 1 position	AI-3570			Lever operator	BLACK	AI-3524	
	Articulated roller operator 1 position Complete actuation with stroke 2,5 mm, max stroke 4,7 mm	AI-3571			Omni-directional operator	BLACK	AI-3525	
	Key operator 1 position	AI-3572			Push-pull operator	BLACK	AI-3526	

For actuators dimensions see section "Accessories>Actuators"

Mechanical push button for panel mounting - spring

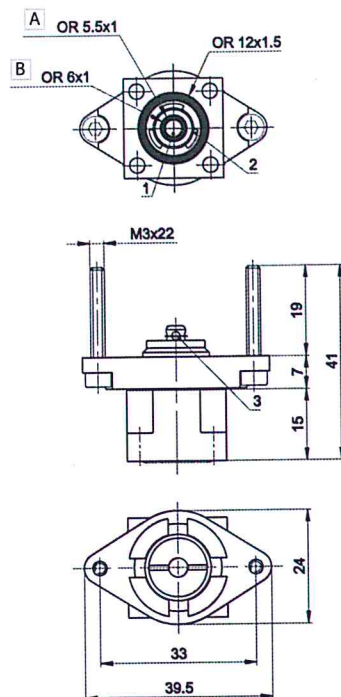


A 3/2 NC - 3/2 NO - 2/2

B 2/2 NO

	Symbol	Ø mm	Flow rate NI/min	Force N	Weight Kg	Part no.
3/2 NC		2,3	110	15	0,055	AI-3500Q
		1,5	55	4	0,055	AI-3500SQ (a)
3/2 NO		2,3	110	15	0,055	AI-3501Q
		1,3	45	4	0,055	AI-3501SQ (a)
2/2 NC		2,3	110	15	0,055	AI-3502Q
2/2 NO (b)		2,3	110	15	0,055	AI-3503Q

(a) = sensible (b) = upon request only 2/2 NO version



1 = Supply port
2 = Use
3 = Exhaust

MANUAL PUSH

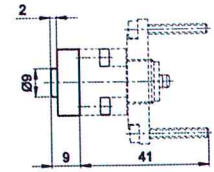
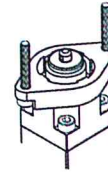
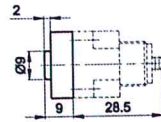
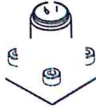
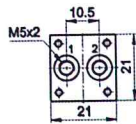
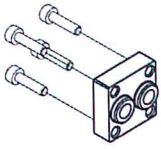
	Recessed button	<ul style="list-style-type: none"> ■ BLACK AI-3511Q ■ RED AI-3512Q ■ GREEN AI-3513Q 	
	Head button	<ul style="list-style-type: none"> ■ RED AI-3514Q ■ BLACK AI-3516Q 	
	Button	<ul style="list-style-type: none"> ■ GREEN AI-3515Q ■ RED AI-3517Q ■ BLACK AI-3519Q 	
	Accident prevention rotating selector	<ul style="list-style-type: none"> ■ BLACK AI-3520Q ■ BLACK AI-3521Q 	
	Rotating lever selector	<ul style="list-style-type: none"> ■ BLACK AI-3522Q ■ BLACK AI-3523Q 	
	Lever operator	<ul style="list-style-type: none"> ■ BLACK AI-3524Q 	
	Omni-directional operator	<ul style="list-style-type: none"> ■ BLACK AI-3525Q 	
	Push-pull operator	<ul style="list-style-type: none"> ■ BLACK AI-3526Q 	

For actuators dimensions see section "Accessories>Actuators"

AI-3610

AI-3610 + AI-3500

AI-3610 + AI-3500Q

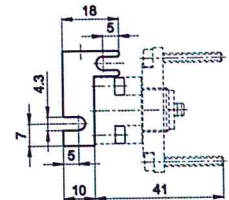
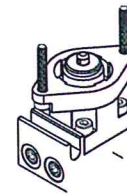
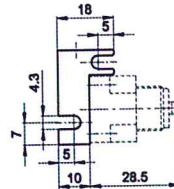
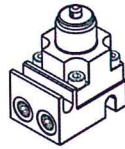
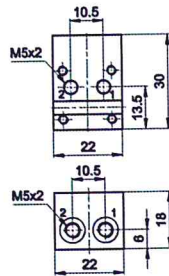
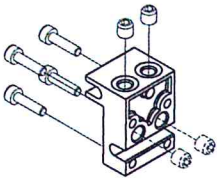


Sub-base with M5 threaded connections
weight: 0,020 Kg

AI-3612

AI-3612 + AI-3500

AI-3612 + AI-3500Q



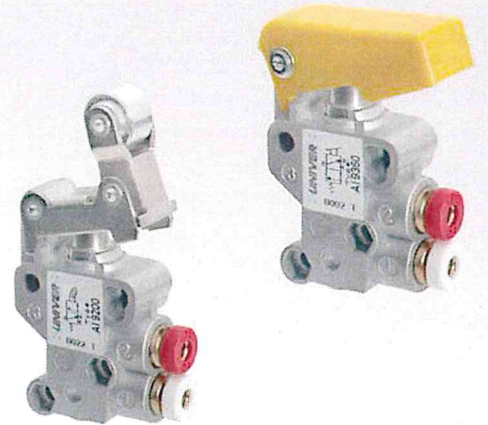
Sub-base with side or dorsal consumptions and threaded connections M5
weight: 0,020 Kg

Part numbers include M3x12 fixing screws (4 pcs) and M5x5 dowel pins to close the unused ways. The M5x5 dowel pins must be mounted with loctite (243 type). Be sure that loctite does not obstruct the ports or sinks inside the valve. The dowel pins must be screwed till reaching the base surface. Avoid screwing them completely.

AI JET

Pneumatic switches JET series

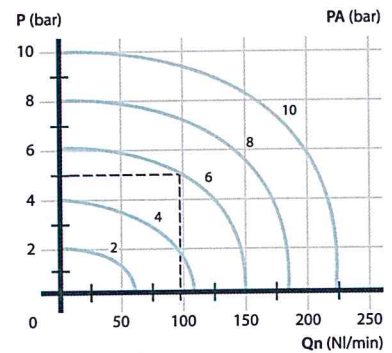
- Light with compact design
- Low operating force and high response time
- M5 threaded connections or push-in fitting tube Ø4
- Wide range of actuators and manual overrides for mounting panel (Original Univer)



TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ +90 °C
Fluid temperature	max +50 °C
Fluid	not dehumidified filtered air 50 µm, lubricated or not
Commutation system	poppet system
Ways/Positions	2/2 NC, 3/2 NC, 2/2 NO, 3/2 NO
Pressure	max 10 bar
Control	manual, mechanical
Return	mechanical spring
Connections	M5, tube Ø4
Nominal Ø	2,5 mm
Nominal flow rate (NI/min)	70 NI/min

Flow rate characteristics



P = Working pressure
 PA = Supply pressure
 Qn = Flow rate

CONSTRUCTIVE CHARACTERISTICS

Valve body	zamak
Seals	nitrile rubber
Spool	nickel-plated brass

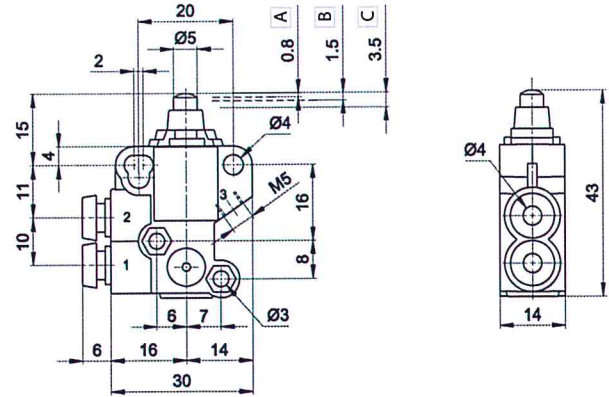
OTHER VERSIONS AVAILABLE



Ball-push - spring tube Ø4



Symbol	Connection	Force (a) N	Weight Kg	Part no.
	tube Ø4	14	0,060	AI-9000
	tube Ø4	14	0,060	AI-9010
	tube Ø4	14	0,060	AI-9020
	tube Ø4	14	0,060	AI-9030

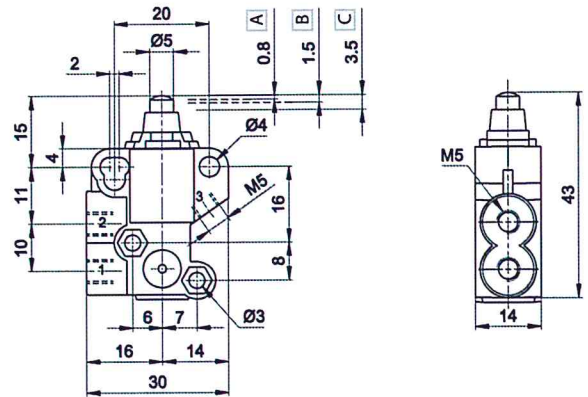


- A Pre-stroke
- B Maximum opening
- C Total stroke
- 1 = Supply port
- 2 = Use
- 3 = Exhaust

Ball-push - spring M5



Symbol	Connection	Force (a) N	Weight Kg	Part no.
	M5	14	0,060	AI-9000M
	M5	14	0,060	AI-9010M
	M5	14	0,060	AI-9020M
	M5	14	0,060	AI-9030M

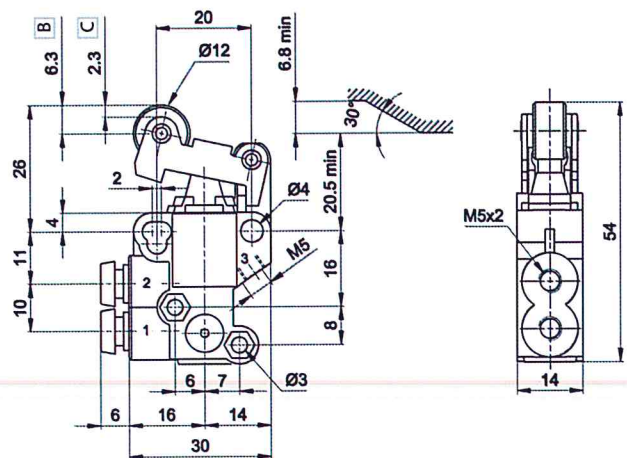


- A Pre-stroke
- B Maximum opening
- C Total stroke
- 1 = Supply port
- 2 = Use
- 3 = Exhaust

Roller lever - tube Ø4



Symbol	Connection	Force (a) N	Weight Kg	Part no.
	tube Ø4	7	0,085	AI-9100
	tube Ø4	7	0,085	AI-9110
	tube Ø4	7	0,085	AI-9120
	tube Ø4	7	0,085	AI-9130



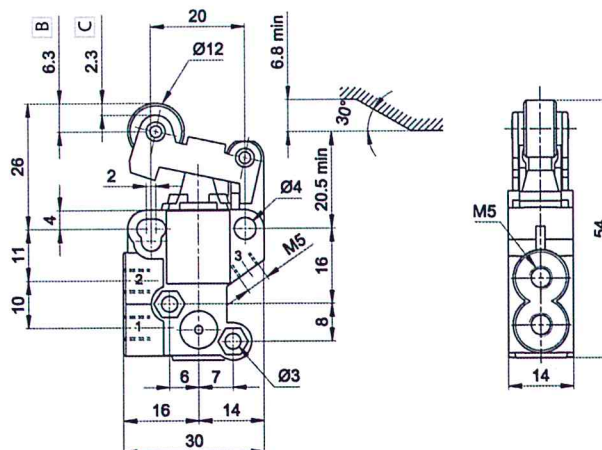
- B Maximum opening
- C Total stroke
- 1 = Supply port
- 2 = Use
- 3 = Exhaust

(a) = at 6 bar (b) = upon request 2/2 NO version

Roller lever - spring M5



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		M5	7	0,085	AI-9100M
3/2 NO		M5	7	0,085	AI-9110M
2/2 NC		M5	7	0,085	AI-9120M
2/2 NO (b)		M5	7	0,085	AI-9130M



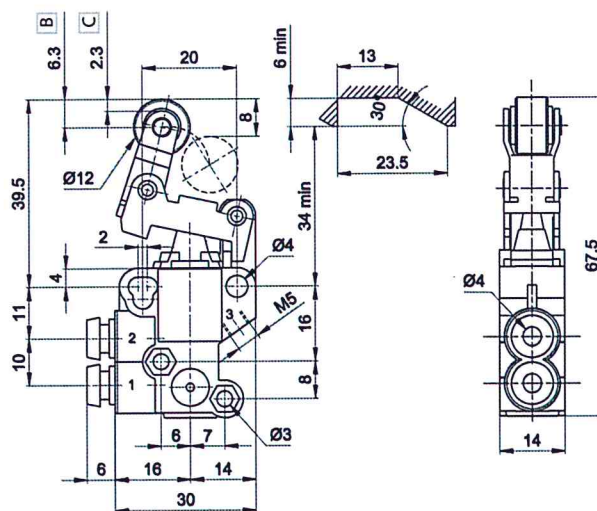
B Maximum opening
C Total stroke

1 = Supply port
2 = Use
3 = Exhaust

Uni-directional roller lever - spring tube Ø4



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		tube Ø4	4	0,085	AI-9200
3/2 NO		tube Ø4	4	0,085	AI-9210
2/2 NC		tube Ø4	4	0,085	AI-9220
2/2 NO (b)		tube Ø4	4	0,085	AI-9230



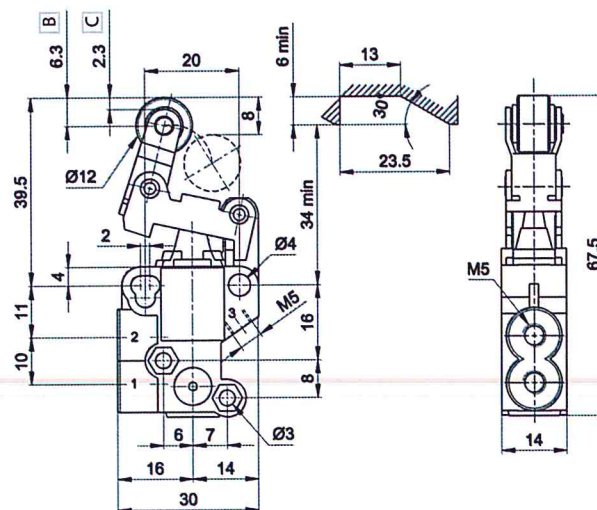
B Maximum opening
C Total stroke

1 = Supply port
2 = Use
3 = Exhaust

Uni-directional roller lever - spring M5



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		M5	4	0,085	AI-9200M
3/2 NO		M5	4	0,085	AI-9210M
2/2 NC		M5	4	0,085	AI-9220M
2/2 NO (b)		M5	4	0,085	AI-9230M



B Maximum opening
C Total stroke

1 = Supply port
2 = Use
3 = Exhaust

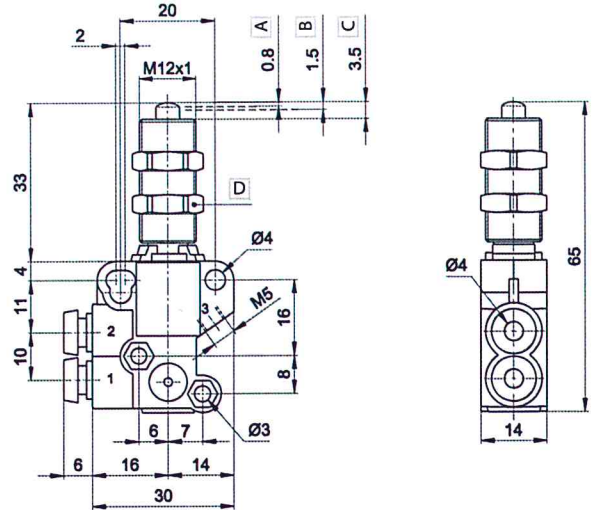
(a) = at 6 bar (b) = upon request 2/2 NO version

4
Poppet valves

Mechanical push button with screw mounting - spring tube Ø4



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		tube Ø4	14	0,082	AI-9300
3/2 NO		tube Ø4	14	0,082	AI-9310
2/2 NC		tube Ø4	14	0,082	AI-9320
2/2 NO (b)		tube Ø4	14	0,082	AI-9330

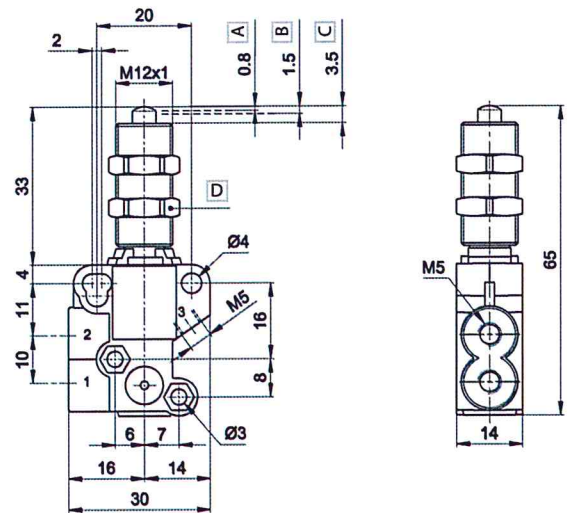


- A Pre-stroke
 - B Maximum opening
 - C Total stroke
 - D Wrench 14
- 1 = Supply port
 - 2 = Use
 - 3 = Exhaust

Mechanical push button with screw mounting - spring M5



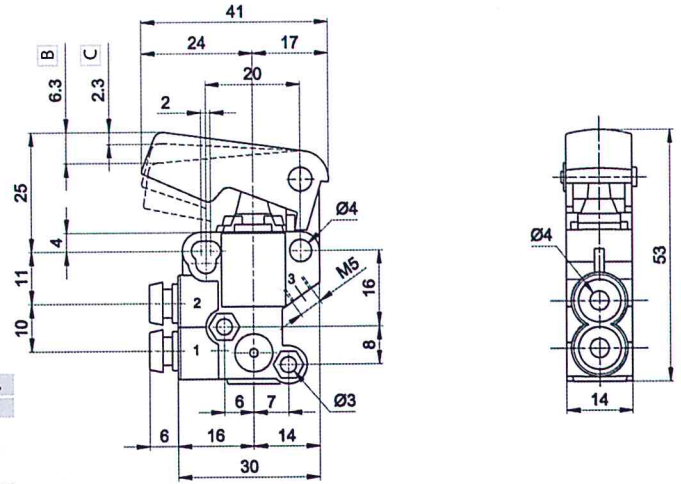
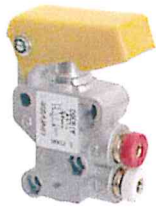
	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		M5	14	0,082	AI-9300M
3/2 NO		M5	14	0,082	AI-9310M
2/2 NC		M5	14	0,082	AI-9320M
2/2 NO (b)		M5	14	0,082	AI-9330M



- A Pre-stroke
 - B Maximum opening
 - C Total stroke
 - D Wrench 14
- 1 = Supply port
 - 2 = Use
 - 3 = Exhaust

(a) = at 6 bar (b) = upon request 2/2 NO version

Button - spring tube Ø4



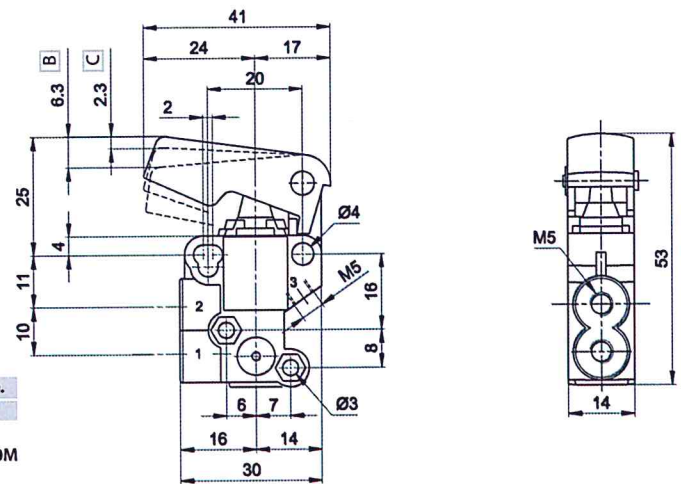
	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		tube Ø4	7	0,065	AI-9350
3/2 NO		tube Ø4	7	0,065	AI-9360
2/2 NC		tube Ø4	7	0,065	AI-9370
2/2 NO (b)		tube Ø4	7	0,065	AI-9380

Button yellow colour

B Maximum opening
C Total stroke

1 = Supply port
2 = Use
3 = Exhaust

Button - spring M5



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		M5	7	0,065	AI-9350M
3/2 NO		M5	7	0,065	AI-9360M
2/2 NC		M5	7	0,065	AI-9370M
2/2 NO (b)		M5	7	0,065	AI-9380M

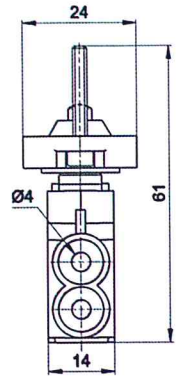
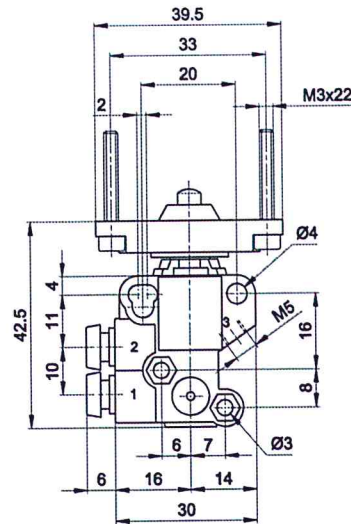
Button yellow colour

B Maximum opening
C Total stroke

1 = Supply port
2 = Use
3 = Exhaust

(a) = at 6 bar (b) = upon request 2/2 NO version

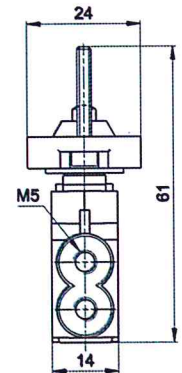
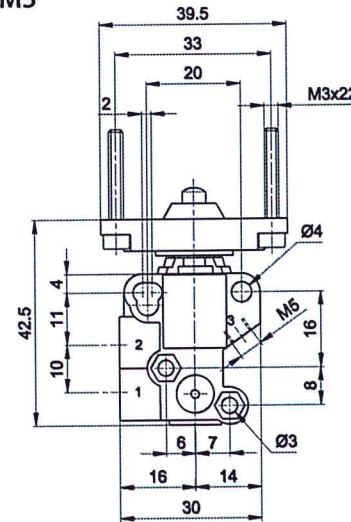
Mechanical push button for panel mounting - spring tube Ø4



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		M ₁₀ tube Ø4	14	0,075	AI-9400
3/2 NO		M ₁₀ tube Ø4	14	0,075	AI-9410
2/2 NC		M ₁₀ tube Ø4	14	0,075	AI-9420
2/2 NO (b)		M ₁₀ tube Ø4	14	0,075	AI-9430

1 = Supply port
2 = Use
3 = Exhaust

Mechanical push button for panel mounting - spring M5



	Symbol	Connection	Force (a) N	Weight Kg	Part no.
3/2 NC		M5	14	0,075	AI-9400M
3/2 NO		M5	14	0,075	AI-9410M
2/2 NC		M5	14	0,075	AI-9420M
2/2 NO (b)		M5	14	0,075	AI-9430M

1 = Supply port
2 = Use
3 = Exhaust

MANUAL ACTUATORS

	Recessed button	<ul style="list-style-type: none"> BLACK AI-3511Q RED AI-3512Q GREEN AI-3513Q 		<ul style="list-style-type: none"> BLACK AI-3522Q BLACK AI-3523Q
	Head button	<ul style="list-style-type: none"> RED AI-3514Q BLACK AI-3516Q RED AI-3514QD BLACK AI-3516QD 		<ul style="list-style-type: none"> BLACK AI-3524Q
	Button	<ul style="list-style-type: none"> GREEN AI-3515Q RED AI-3517Q BLACK AI-3519Q 		<ul style="list-style-type: none"> BLACK AI-3525Q
	Rotating selector	<ul style="list-style-type: none"> BLACK AI-3520Q BLACK AI-3521Q 		<ul style="list-style-type: none"> BLACK AI-3526Q

(a) = at 6 bar (b) = upon request 2/2 NO version
For actuator dimensions refer to section "Accessories>Actuators"