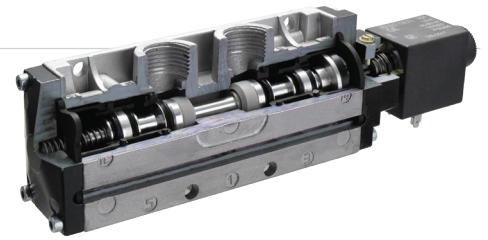
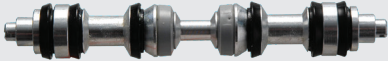


**mixed system**

For heavy applications  
Fast commutation  
Large number of cycles  
High flow rate

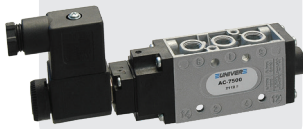
**MIXED**

for heavy applications



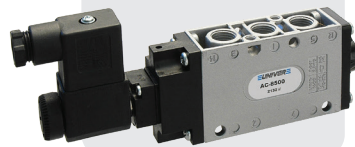
**AC 7 - G1/8**

1080 NI/min



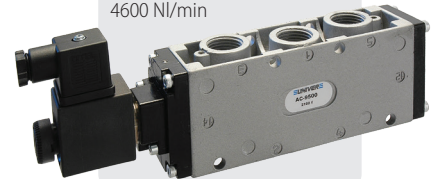
**AC 8 - G1/4**

1600 NI/min



**AC 9 - G1/2**

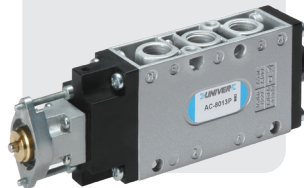
4600 NI/min



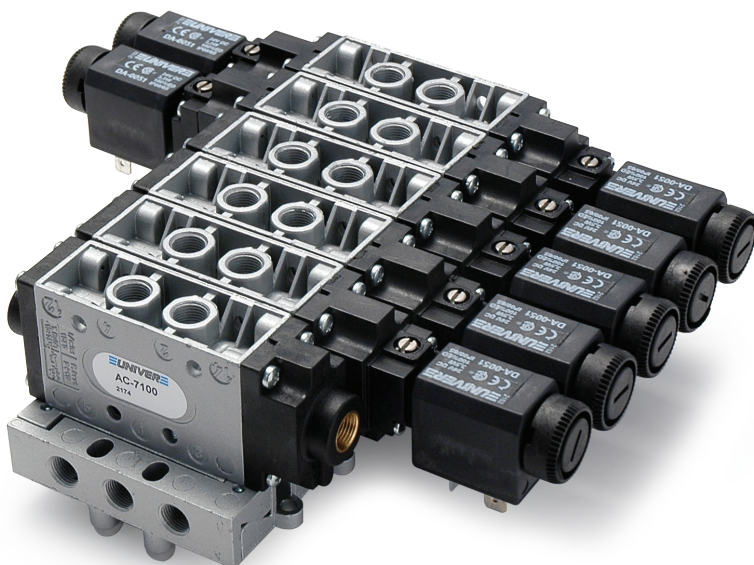
**Mechanic**



**Indirect drive**



**Pneumatic**



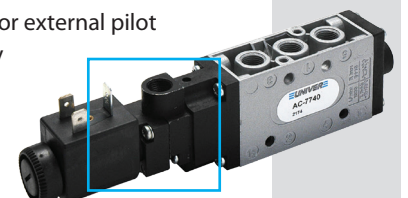
Angle plate for "H"  
solenoid option



Angle plate for "P"  
solenoid option



Plate for external pilot  
supply





MIXED threaded valves G1/8 - G 1/4 - G1/2

- Mixed commutation system (spool - poppet)
- High flow rate
- Quick response time
- High cycles
- Control: manual, mechanical, pneumatic, electric
- Modular sub-bases



|                            |   |            |                        |
|----------------------------|---|------------|------------------------|
| Fluid                      | 50 µm filtered air, with or without lubrication   |            |                        |
| Temperature ambient        | -10 ÷ +45 °C                                      |            |                        |
| Temperature fluid          | max +50°C   |            |                        |
| Commutation system         | poppet mixed system                               |            |                        |
| Ways/Position              | 5/2   |            |                        |
| Pressure                   | max 10 bar  |            |                        |
| Control                    | pneumatic, electric, mechanical                   |            |                        |
| Return                     | pneumatic + spring, pneumatic, electric           |            |                        |
| Connections                | G1/8  | G1/4       | G1/2                   |
| Nominal bore (mm)          | 6   | 8          | 15                     |
| Nominal flow rate (NL/min) | 1080  | 1600       | 4600                   |
| Valve body                 | die-cast aluminium                                |            |                        |
| Seals                      | nitrile rubber, polyurethane                      |            |                        |
| Actuators                  | technopolymer                                     |            |                        |
| Spool                      | aluminium   |            |                        |
| Electropilot               | G1/8 - G1/4<br>AA                                 | G1/2<br>AB |                        |
| Coil                       | U1 - DA   |            | U2 - DB                |
| Power consumption          | 3,5 W (DC) - 5 VA (AC)                            |            | 11 W (DC) - 10 VA (AC) |
| Connector                  | AM 5110   |            | AM 5111                |
| Voltage                    | 12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC |            |                        |
| Manual override            | impulse screw - 2 positions                       |            |                        |

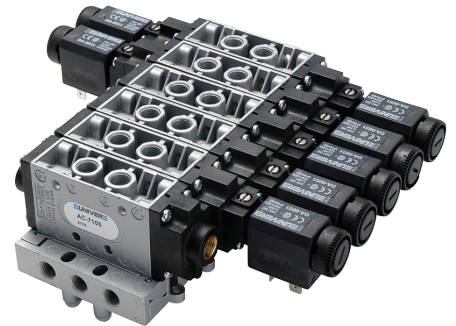


Reference Standard

II 2G Ex h IIC T5 Gb

II 2D Ex h IIC T100°C Db

II 3 GD c nA II T5 -10 °C ≤ Ta ≤ 45°C IP65

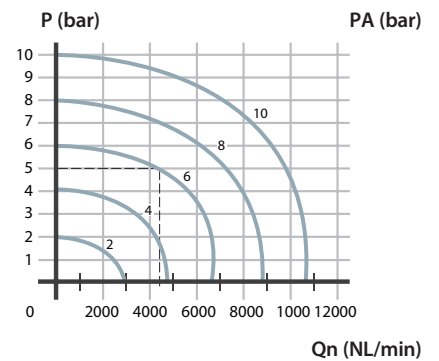
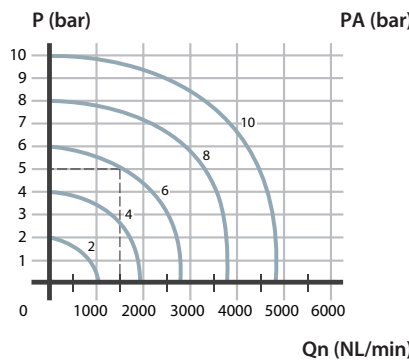
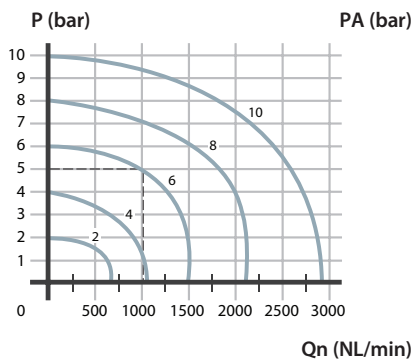


FLOW RATE CHARACTERISTICS

G1/8

G1/4

G1/2



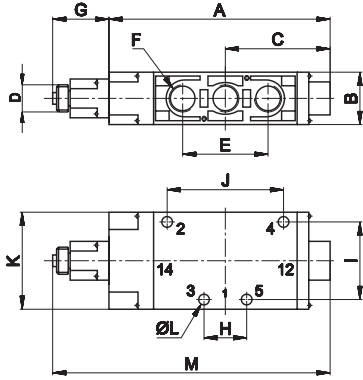
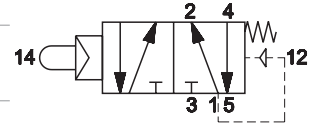
P (bar) = Working pressure

PA (bar) = supply pressure

Qn (NL/min) = Flow rate

**INDIRECT MECHANICAL CONTROL FOR USE WITH PNEUMATIC, MECHANICAL AND MANUAL ACTUATORS**

|  | Code    | Way | Thread | Control      |                    | Pressure<br>bar | Weight<br>Kg |
|--|---------|-----|--------|--------------|--------------------|-----------------|--------------|
|  |         |     |        | 14           | 12                 |                 |              |
|  | AC-7010 | 5/2 | G1/8   | ball pushrod | pneumatic + spring | 1,8÷10          | 0,27         |
|  | AC-8010 | 5/2 | G1/4   | ball pushrod | pneumatic + spring | 2,3÷10          | 0,28         |
|  | AC-9010 | 5/2 | G1/2   | ball pushrod | pneumatic + spring | 2÷10            | 0,33         |



|      | A   | B  | C  | D     | E  | F    | G  | H  | I  | J   | K  | L   | M   |
|------|-----|----|----|-------|----|------|----|----|----|-----|----|-----|-----|
| G1/8 | 99  | 25 | 47 | M14x1 | 36 | G1/8 | 27 | 18 | 26 | 36  | 40 | 4,5 | 126 |
| G1/4 | 114 | 27 | 54 | M14x1 | 44 | G1/4 | 27 | 22 | 40 | 60  | 50 | 5,5 | 141 |
| G1/2 | 163 | 40 | 83 | M14x1 | 80 | G1/2 | 27 | 40 | 50 | 108 | 63 | 6,5 | 190 |

1 = Supply port  
 2 - 4 = Use  
 3 - 5 = Exhaust  
 14 = Control  
 12 = Return

**PNEUMATIC AND MECHANICAL ACTUATORS**

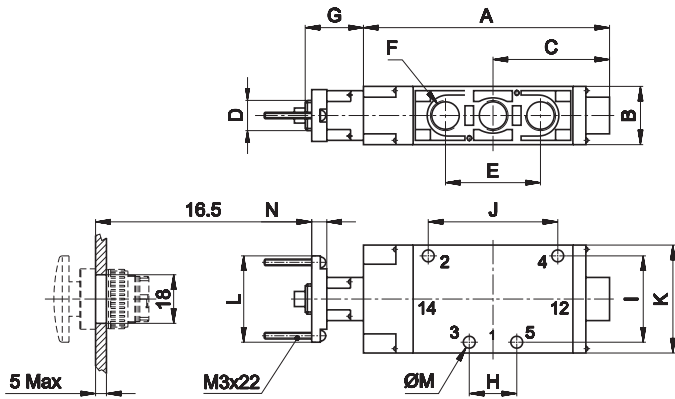
|  |         |  |  |
|--|---------|--|--|
|  | AI-3550 | Pneumatic operator   |  |
|  | AI-3551 | Amplified pneumatic operator   |  |
|  | AI-3560 | Roller operator 1 position   |  |
|  | AI-3562 | Ball-push operator 1 position  |  |
|  | AI-3563 | Operator with omni-directional antenna 1 position  |  |
|  | AI-3570 | Roller lever operator 1 position   |  |
|  | AI-3571 | Articulated roller operator 1 position<br>Complete actuation with stroke 2,5 mm, max stroke 4,7 mm |  |
|  | AI-3572 | Key operator 1 position  |  |

**MANUAL PUSH**

|  |          |       |                                       |  |
|--|----------|-------|---------------------------------------|--|
|  | AI-3511  | BLACK | Recessed button                       |  |
|  | AI-3512  | RED   |                                       |  |
|  | AI-3513  | GREEN |                                       |  |
|  | AI-3514  | RED   | Head button                           |  |
|  | AI-3516  | BLACK |                                       |  |
|  | AI-3514D | RED   |                                       |  |
|  | AI-3516D | BLACK | Button                                |  |
|  | AI-3515  | GREEN |                                       |  |
|  | AI-3517  | RED   |                                       |  |
|  | AI-3519  | BLACK | Accident prevention rotating selector |  |
|  | AI-3520  | BLACK |                                       |  |
|  | AI-3521  | BLACK |                                       |  |
|  | AI-3522  | BLACK | Rotating lever selector               |  |
|  | AI-3523  | BLACK |                                       |  |
|  | AI-3524  | BLACK | Lever operator                        |  |
|  | AI-3525  | BLACK | Omni-directional operator             |  |
|  | AI-3526  | BLACK | Push-pull operator                    |  |

INDIRECT CONTROL FOR PANEL MOUNTING ACTUATORS Ø 22

| Code     | Way | Thread | Control      | Return              | Pressure | Weight |  |
|----------|-----|--------|--------------|---------------------|----------|--------|--|
|          |     |        |              |                     |          |        |  |
| AC-7013  | 5/2 | G1/8   | ball pushrod | pneumatic + spring  | 1,8÷10   | 0,28   |  |
| AC-8013  | 5/2 | G1/4   | ball pushrod | pneumatic + spring  | 2,3÷10   | 0,29   |  |
| AC-9013  | 5/2 | G1/2   | ball pushrod | pneumatic + spring  | 2÷10     | 0,84   |  |
| AC-7013P | 5/2 | G1/8   | ball pushrod | pneumatic amplified | 1÷10     | 0,29   |  |
| AC-8013P | 5/2 | G1/4   | ball pushrod | pneumatic amplified | 1÷10     | 0,28   |  |
| AC-9013P | 5/2 | G1/2   | ball pushrod | pneumatic amplified | 1÷10     | 0,83   |  |



|      | A   | B  | C  | D     | E  | F    | G  | H  | I  | J   | K  | L  | M   | N |
|------|-----|----|----|-------|----|------|----|----|----|-----|----|----|-----|---|
| G1/8 | 99  | 25 | 47 | M14x1 | 36 | G1/8 | 27 | 18 | 26 | 36  | 40 | 40 | 4,5 | 7 |
| G1/4 | 114 | 27 | 54 | M14x1 | 44 | G1/4 | 27 | 22 | 40 | 60  | 50 | 40 | 5,5 | 7 |
| G1/2 | 163 | 40 | 83 | M14x1 | 80 | G1/2 | 27 | 40 | 50 | 108 | 63 | 40 | 6,5 | 7 |

- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

MANUAL PUSH

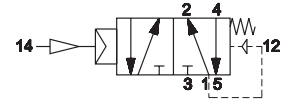
|  |           |         |                                       |  |
|--|-----------|---------|---------------------------------------|--|
|  | AI-3511Q  | ■ BLACK |                                       |  |
|  | AI-3512Q  | ■ RED   | Recessed button                       |  |
|  | AI-3513Q  | ■ GREEN |                                       |  |
|  | AI-3514Q  | ■ RED   |                                       |  |
|  | AI-3516Q  | ■ BLACK | Head button                           |  |
|  | AI-3514QD | ■ RED   |                                       |  |
|  | AI-3516QD | ■ BLACK |                                       |  |
|  | AI-3515Q  | ■ GREEN |                                       |  |
|  | AI-3517Q  | ■ RED   | Button                                |  |
|  | AI-3519Q  | ■ BLACK |                                       |  |
|  | AI-3520Q  | ■ BLACK | Accident prevention rotating selector |  |
|  | AI-3521Q  | ■ BLACK |                                       |  |
|  | AI-3522Q  | ■ BLACK | Rotating lever selector               |  |
|  | AI-3523Q  | ■ BLACK |                                       |  |
|  | AI-3524Q  | ■ BLACK | Lever operator                        |  |
|  | AI-3525Q  | ■ BLACK | Omni-directional operator             |  |
|  | AI-3526Q  | ■ BLACK | Push-pull operator                    |  |

**PNEUMATIC IMPULSE**

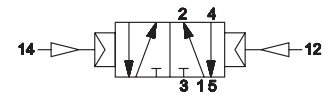
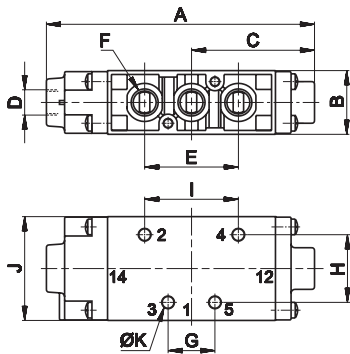
|                                 | Code | Way | Thread | Control   | Return    | Times (ms) |        | Pressure bar | Weight Kg |
|---------------------------------|------|-----|--------|-----------|-----------|------------|--------|--------------|-----------|
|                                 |      |     |        |           |           | En.        | De-en. |              |           |
| <b>SINGLE PNEUMATIC IMPULSE</b> |      |     |        | <b>14</b> | <b>12</b> |            |        |              |           |



|                |     |      |                     |                    |    |    |        |      |
|----------------|-----|------|---------------------|--------------------|----|----|--------|------|
| <b>AC-7100</b> | 5/2 | G1/8 | pneumatic amplified | pneumatic + spring | 8  | 10 | 1,8÷10 | 0,22 |
| <b>AC-8100</b> | 5/2 | G1/4 | pneumatic amplified | pneumatic + spring | 10 | 10 | 2,3÷10 | 0,23 |
| <b>AC-9100</b> | 5/2 | G1/2 | pneumatic amplified | pneumatic + spring | 10 | 10 | 2÷10   | 0,76 |

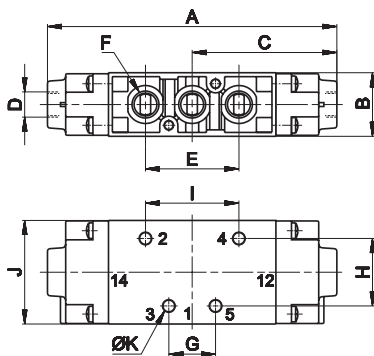

**DOUBLE PNEUMATIC IMPULSE**

|                |     |      |                     |                     |   |    |        |      |
|----------------|-----|------|---------------------|---------------------|---|----|--------|------|
| <b>AC-7120</b> | 5/2 | G1/8 | pneumatic amplified | pneumatic amplified | 5 | 10 | 1÷10   | 0,23 |
| <b>AC-8120</b> | 5/2 | G1/4 | pneumatic amplified | pneumatic amplified | 6 | 6  | 0,8÷10 | 0,21 |
| <b>AC-9120</b> | 5/2 | G1/2 | pneumatic amplified | pneumatic amplified | 8 | 8  | 0,8÷10 | 0,77 |


**Single pneumatic impulse**


|             | A   | B  | C    | D    | E  | F    | G  | H  | I   | J  | K   |
|-------------|-----|----|------|------|----|------|----|----|-----|----|-----|
| <b>G1/8</b> | 103 | 25 | 47   | G1/8 | 36 | G1/8 | 18 | 26 | 36  | 40 | 4,5 |
| <b>G1/4</b> | 117 | 27 | 54   | G1/8 | 44 | G1/4 | 22 | 40 | 60  | 50 | 5,5 |
| <b>G1/2</b> | 165 | 40 | 82,5 | G1/8 | 80 | G1/2 | 40 | 50 | 108 | 63 | 6,5 |

- 1 = Alimentazione
- 2 - 4 = Utilizzo
- 3 - 5 = Scarico
- 14 = Comando
- 12 = Ritorno

**Double pneumatic impulse**



|             | A     | B  | C    | D    | E  | F    | G  | H  | I   | J  | K   |
|-------------|-------|----|------|------|----|------|----|----|-----|----|-----|
| <b>G1/8</b> | 112   | 25 | 56   | G1/8 | 36 | G1/8 | 18 | 26 | 36  | 40 | 4,5 |
| <b>G1/4</b> | 126,5 | 25 | 63   | G1/8 | 44 | G1/4 | 22 | 40 | 60  | 50 | 5,5 |
| <b>G1/2</b> | 165   | 40 | 82,5 | G1/8 | 80 | G1/2 | 40 | 50 | 108 | 63 | 6,5 |

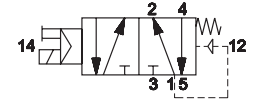
- 1 = Alimentazione
- 2 - 4 = Utilizzo
- 3 - 5 = Scarico
- 14 = Comando
- 12 = Ritorno

ELECTRIC IMPULSE


|  | Code | Way | Thread | Control | Return | Times (ms) |      | Pressure<br>bar | Weight<br>Kg |
|--|------|-----|--------|---------|--------|------------|------|-----------------|--------------|
|  |      |     |        | 14      | 12     | Ecc.       | Dis. |                 |              |

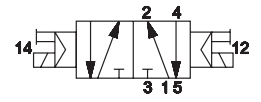
SINGLE ELECTRIC IMPULSE

|  |                |     |      |                     |                    |    |    |        |      |
|--|----------------|-----|------|---------------------|--------------------|----|----|--------|------|
|  | <b>AC-7500</b> | 5/2 | G1/8 | pneumatic amplified | pneumatic + spring | 18 | 20 | 1,8÷10 | 0,27 |
|  | <b>AC-8500</b> | 5/2 | G1/4 | pneumatic amplified | pneumatic + spring | 22 | 22 | 2,3÷10 | 0,28 |
|  | <b>AC-9500</b> | 5/2 | G1/2 | pneumatic amplified | pneumatic + spring | 23 | 30 | 2÷10   | 1,1  |

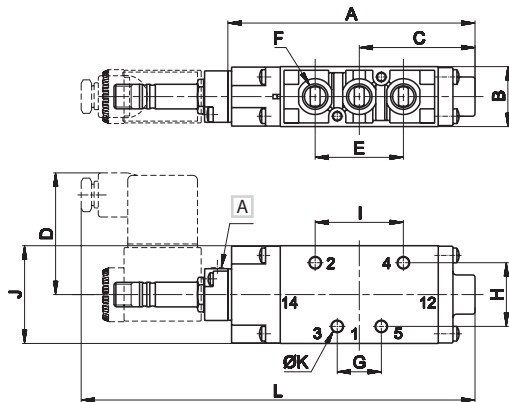


DOUBLE ELECTRIC IMPULSE

|  |                |     |      |                    |                    |    |    |        |      |
|--|----------------|-----|------|--------------------|--------------------|----|----|--------|------|
|  | <b>AC-7520</b> | 5/2 | G1/8 | electric amplified | electric amplified | 14 | 14 | 1÷10   | 0,33 |
|  | <b>AC-8520</b> | 5/2 | G1/4 | electric amplified | electric amplified | 14 | 14 | 0,8÷10 | 0,31 |
|  | <b>AC-9520</b> | 5/2 | G1/2 | electric amplified | electric amplified | 16 | 16 | 0,8÷10 | 1,1  |



Single electric impulse

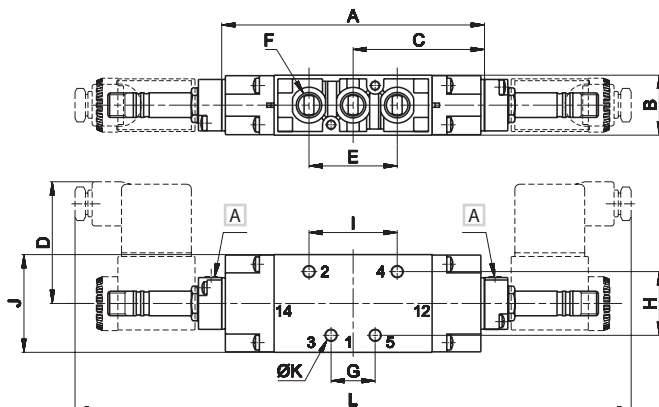


|             | A   | B  | C  | D  | E  | F    | G  | H  | I   | J  | K   | L   |
|-------------|-----|----|----|----|----|------|----|----|-----|----|-----|-----|
| <b>G1/8</b> | 101 | 25 | 47 | 50 | 36 | G1/8 | 18 | 26 | 36  | 40 | 4,5 | 164 |
| <b>G1/4</b> | 116 | 27 | 54 | 50 | 44 | G1/4 | 22 | 40 | 60  | 50 | 5,5 | 180 |
| <b>G1/2</b> | 165 | 40 | 83 | 48 | 80 | G1/2 | 40 | 50 | 108 | 63 | 6,5 | 241 |

**A** Manual override

- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

Double electric impulse



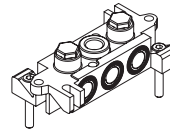
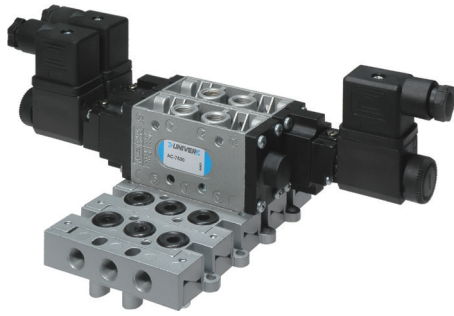
|             | A   | B  | C    | D  | E  | F    | G  | H  | I   | J  | K   | L   |
|-------------|-----|----|------|----|----|------|----|----|-----|----|-----|-----|
| <b>G1/8</b> | 107 | 25 | 53,5 | 50 | 36 | G1/8 | 18 | 26 | 36  | 40 | 4,5 | 227 |
| <b>G1/4</b> | 124 | 27 | 62   | 50 | 44 | G1/4 | 22 | 40 | 60  | 50 | 5,5 | 252 |
| <b>G1/2</b> | 164 | 40 | 80,5 | 48 | 80 | G1/2 | 40 | 50 | 108 | 63 | 6,5 | 317 |

**A** Manual override

- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

For external servoassisted pilot, use AM - 5148 plates  
Electrovalves are supplied without coil, connector

MODULAR SUB-BASE G1/8



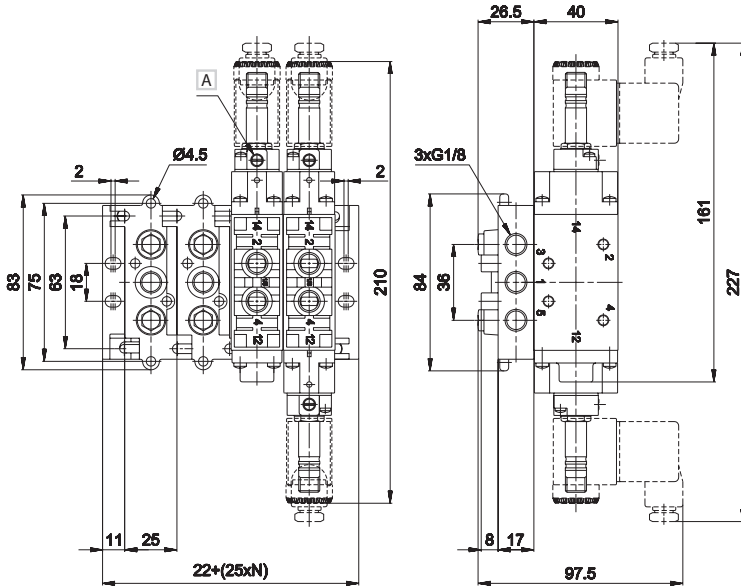
AC-7900

Sub-base with connections G1/8 weight: 0,15 Kg



AC-7905

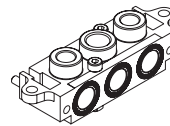
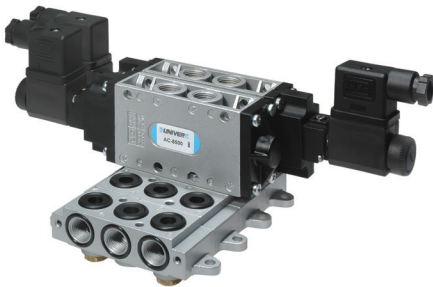
Inlet plate MIXED system 5/2 - G1/8 weight: 0,06 Kg



A Manual override

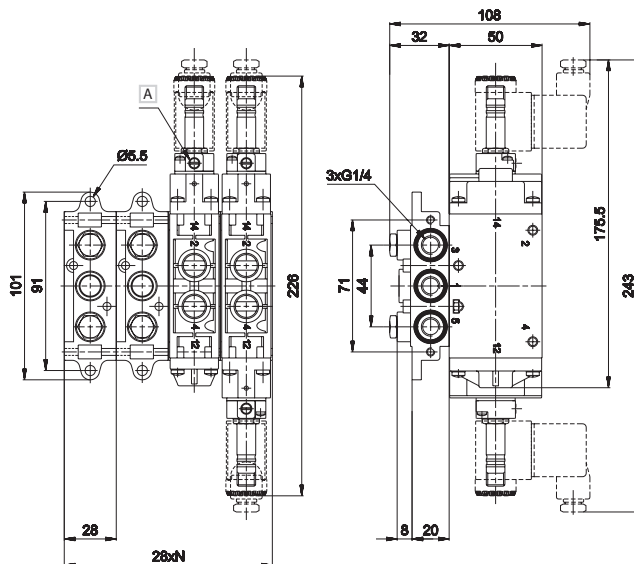
- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

MODULAR SUB-BASE G1/4



AC-8900

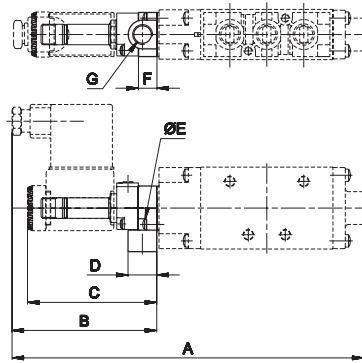
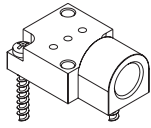
Sub-base with threaded connections G1/4 Screws included weight: 0,22 Kg



A Manual override

- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

LATE FOR EXTERNAL PILOT

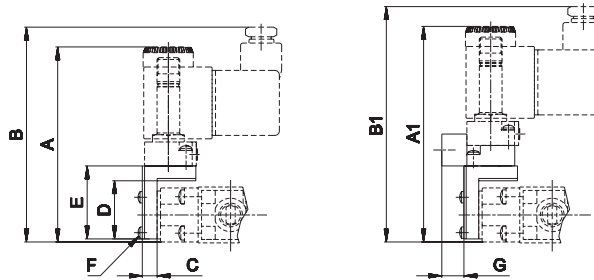
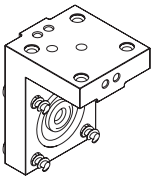


AM-5148

Plate for external servoassisted pilot weight: 0,03 Kg

|      | A     | B    | C  | D  | E      | F | G    |
|------|-------|------|----|----|--------|---|------|
| G1/8 | 171,5 | 70,5 | 63 | 14 | 2,9X10 | 9 | G1/8 |
| G1/4 | 186   | 70,5 | 63 | 14 | 2,9X10 | 9 | G1/8 |

ANGLE PLATE FOR "H"

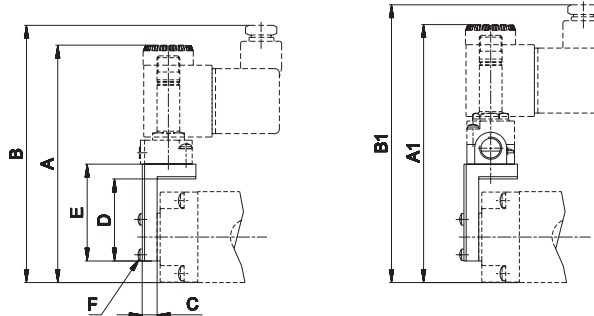
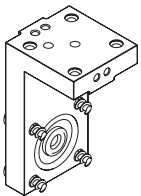


AM-5151 + AM-5148

"H" option solenoid square weight: 0,035 Kg

|      | A    | A1   | B    | B1    | C   | D    | E  | F      | G   |
|------|------|------|------|-------|-----|------|----|--------|-----|
| G1/8 | 87,7 | 96,7 | 95,5 | 104,5 | 6,5 | 25,5 | 32 | 2,9X10 | 9,7 |
| G1/4 | 88,7 | 97,7 | 96,5 | 105,5 | 6,5 | 25,5 | 32 | 2,9X10 | 9,7 |

ANGLE PLATE FOR "P"

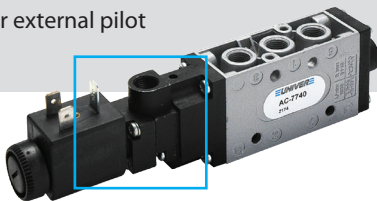


AM-5152 + AM-5148

"P" option solenoid square weight: 0,05 Kg

|      | A   | A1  | B     | B1    | C   | D  | E    | F      |
|------|-----|-----|-------|-------|-----|----|------|--------|
| G1/8 | 106 | 115 | 113,5 | 122,5 | 6,5 | 36 | 42,5 | 2,9X10 |
| G1/4 | 111 | 120 | 118,5 | 127,5 | 6,5 | 36 | 42,5 | 2,9X10 |

Plate for external pilot supply



Angle plate for "H" solenoid option



Angle plate for "P" solenoid option



COILS

Omologazione CSA/UL

Possibility of replacement without intervention in the pneumatic circuit  
 Other voltages available upon request

360° rotation on the pilot. Coil winding: H class

Ambient temperature: -10 ÷ +45 °C. Fluid temperature: -10 ÷ +95 °C.

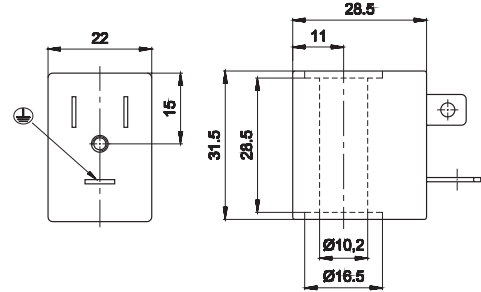
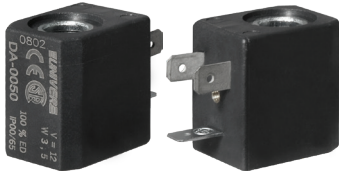
The solenoid valves functioning with 100V-230V must be incorporated (EN60204-1)

Under continuous service a maximum temperature will not compromise the functioning of the coil provided that the working position is ventilated.

Protection class IP65, if used with connector.

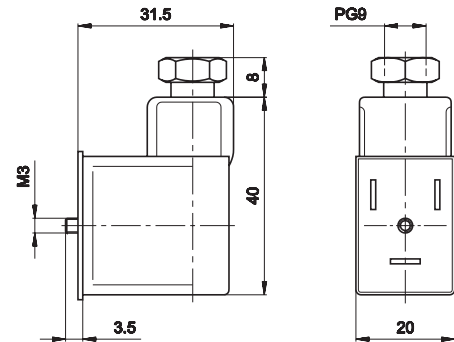


U1 22 MM COIL



| Code    | Duty cycle ED (a) % | Power consumption W |              | Tolerance tension % | Rated voltage     | Weight Kg |
|---------|---------------------|---------------------|--------------|---------------------|-------------------|-----------|
|         |                     | Hold                | Inrush       |                     |                   |           |
| DA-0050 | 100                 | 3,5                 | 3,5          | ±10                 | 12 V DC           | 0,06      |
| DA-0051 | 100                 | 3,5                 | 3,5          | ±10                 | 24 V DC           | 0,06      |
| DA-0106 | 100                 | 5,4 VA (Max)        | 7,8 VA (Max) | ±10                 | 24 V AC/50-60 HZ  | 0,06      |
| DA-0108 | 100                 | 5,4 VA (Max)        | 7,8 VA (Max) | ±10                 | 110 V AC/50-60 HZ | 0,06      |
| DA-0124 | 100                 | 5,4 VA (Max)        | 7,8 VA (Max) | ±10                 | 230 V AC/50-60 HZ | 0,06      |

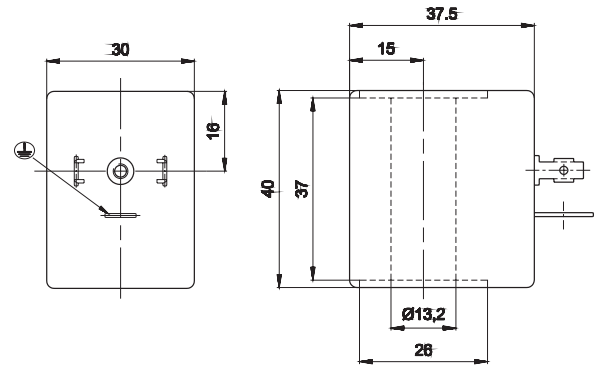
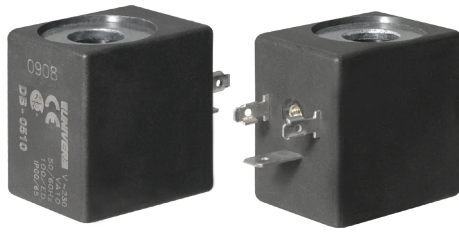
CONNECTOR FOR COIL U1



| Code    | Series coils | Protection rating | Cable connection | Guidance |
|---------|--------------|-------------------|------------------|----------|
| AM-5110 | U1           | IP65              | PG9              | 180°     |

LED available upon request.

U2 30 MM COIL

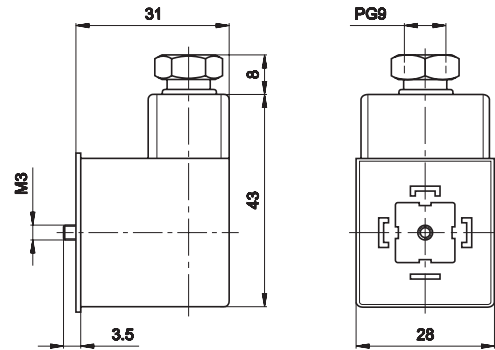


| Code    | Duty cycle ED(a) % | Power consumption W |             | Tension tolerance % | Rated voltage     | Weight Kg |
|---------|--------------------|---------------------|-------------|---------------------|-------------------|-----------|
|         |                    | Hold                | Hold        |                     |                   |           |
| DB-0501 | 100                | 11                  | 11          | ±10                 | 12 V DC           | 0,06      |
| DB-0502 | 100                | 11                  | 11          | ±10                 | 24 V DC           | 0,06      |
| DB-0507 | 100                | 10 VA (Max)         | 16 VA (Max) | ±10                 | 24 V AC/50-60 HZ  | 0,06      |
| DB-0509 | 100                | 10 VA (Max)         | 16 VA (Max) | ±10                 | 110 V AC/50-60 HZ | 0,06      |
| DB-0510 | 100                | 10 VA (Max)         | 16 VA (Max) | ±10                 | 230 V AC/50-60 HZ | 0,06      |

(a) = 110V - 230V solenoid valves must be built-in (EN-60204-1)

Under continuous service a maximum temperature will not compromise the functioning of the coil provided that the working position is ventilated

DIN 43650 CONNECTOR FOR SERIES U2/U3



| Code    | Series coils | Protection rating | Cable connection | Guidance |
|---------|--------------|-------------------|------------------|----------|
| AM-5111 | U2/U3        | IP65              | PG9              | 360°     |

LED available upon request.