# MINI-SOLENOID VALVES

ISO 15218 (CNOMO, size 15) interface
direct operated, pad mounting body
connector size 15

NC
NO
U

**3/2**
Series
**302**

## FEATURES

- *Compact, monobloc solenoid pilot valve with spade-plug connector type EN 175301-803, industry standard form C, with 9,4 mm spacing, or to ISO 15217/DIN 43650 form C, with 8 mm spacing*
- *Version with or without integrated LED and electrical protection LED indicator visible from 3 sides*
- *The solenoid valves satisfy all relevant EC directives*

## GENERAL

**Differential pressure** See «SPECIFICATIONS» [1 bar = 100 kPa]
**Pneumatic base** ISO 15218 (CNOMO E06.36.120N, size 15)
**Connection** Subbase
**Response time** 8 - 15 ms

| fluids (✳) | temperature range (TS) | seal materials (✳) |
|---|---|---|
| air or inert gas filtered at 50 µm, lubricated or not | -10°C to +50°C (LP1) (1) | NBR (nitrile) FPM (fluoroelastomer) |
| | -25°C to +60°C (LP2) (1) | |
| | -25°C to +60°C /+50°C (LP3) (1) | |

(1) LP1, LP2, LP3: see "electrical characteristics" table

## MATERIALS IN CONTACT WITH FLUID

**(✳) Ensure that the compatibility of the fluids in contact with the materials is verified**

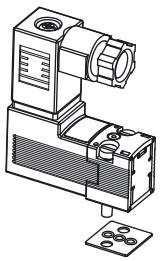
**Body** PARA
**Internal parts** POM, PET, stainless steel and brass
**Seals** NBR (disc), FPM (others)
**Pneumatic interface seal** TPE

## OTHER MATERIALS

**Coil** Thermoplastic PET

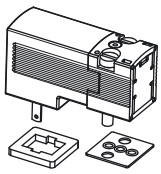
## ELECTRICAL CHARACTERISTICS

**Coil insulation class** F
**Connector** Spade plug (cable Ø 4-6 mm)
**Connector specification** DIN 43650, 9,4 mm, form C
or ISO 15217 / DIN 43650, 8 mm, form C
**Electrical safety** IEC 335
**Electrical enclosure protection** Moulded IP65 (EN 60529)
**Standard voltages** DC (=) : 24V
(Other voltages on request) AC (~) : 24V - 115V - 230V / 50-60 Hz



**PNEUMATIC CNOMO interface (standard)**

**PNEUMATIC-ELECTRIC interface (available on request)**



| coils | | | power ratings (✧) | | | | operator ambient temperature range (4) (TS) | type (2) |
|---|---|---|---|---|---|---|---|---|
| power ranges | voltages (V) | | inrush ~ | holding ~ | | hot/cold = | | |
| | ~ | = | (VA) | (VA) | (W) | (W) | (°C) | |
| LP1 | - | 24 | - | - | - | 0,5 / 0,55 | -10 to +50 | 01 |
| LP2 | 24-115 | 24 | 1,4 | 1,2 | 1,1 | 1 / 1,2 | -25 to +60 | |
| LP3 | 230 | 24 | 2,1 | 1,6 | 1,5 | 2 / 2,65 | -25 to +60 (~)/+50 (=)(3) | |

(✧) **Nominal power ratings of versions without LED indicator and electrical protection.**
For versions with LED indicator and electrical protection, add:
0,15 W with DC (=)
0,4 W / VA with AC (~)

(2) Refer to the dimensional drawings on the following page.. (3) With LED, see page 6 (4) For joinable subbase mounting, see page 6.

## SPECIFICATIONS (NO and U, following page)

| orifice size | flow at 6 bar l/min (ANR) | | coefficient Kv | | operating pressure differential (bar) | | power ranges | basic catalogue number | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | manual operator | | | | | |
| | | | | | | | | impulse | | | maintained | | |
| | | | | | | | | 9,4 mm | | 8 mm | 9,4 mm | | 8 mm |
| (mm) | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 | min. | max. (PS) | | ~ | = | = | ~ | = | = |
| **NC - Normally closed (Without LED and protection)** | | | | | | | | | | | | | |
| 0,6 | 11 | 20 | 0,11 | 0,26 | 0 | 8 | LP1 | - | **30211106** | **-** | - | **30211107** | **-** |
| | | | | | 0 | 10 | LP2 | **30211109** | | **30210109** | **30211110** | | **30210110** |
| 0,8 | 17 | 28 | 0,22 | 0,35 | 0 | 8 | LP2 | **30211112** | | **30210112** | **30211113** | | **30210113** |
| 1,1 | 32 | 51 | 0,35 | 0,50 | 0 | 5 | LP2 | **30211118** | | **30210118** | **30211119** | | **30210119** |
| | | | | | 0 | 10 | LP3 | **30211121** | | **30210121** | **30211122** | | **30210122** |
| 1,5 | 39 | 53 | 0,50 | 0,56 | 0 | 3 | LP2 | **30211124** | | **30210124** | **30211125** | | **30210125** |
| | | | | | 0 | 6 | LP3 | **30211127** | | **30210127** | **30211128** | | **30210128** |
| **NC - Normally closed (With LED and protection)** (5) | | | | | | | | | | | | | |
| 0,6 | 11 | 20 | 0,11 | 0,26 | 0 | 10 | LP2 | **30215109** | | **30214109** | **30215110** | | **30214110** |
| 0,8 | 17 | 28 | 0,22 | 0,35 | 0 | 8 | LP2 | **30215112** | | **30214112** | **30215113** | | **30214113** |
| 1,1 | 32 | 51 | 0,35 | 0,50 | 0 | 5 | LP2 | **30215118** | | **30214118** | **30215119** | | **30214119** |
| | | | | | 0 | 10 | LP3 | **30215121** | | **-** | **30215122** | | **-** |
| 1,5 | 39 | 53 | 0,50 | 0,56 | 0 | 3 | LP2 | **30215124** | | **30214124** | **30215125** | | **30214125** |
| | | | | | 0 | 6 | LP3 | **30215127** | | **-** | **30215128** | | **-** |

(5) Only available in 24 V AC/DC and 115 V AC.

| | ~ | = |
|---|---|---|
| with connector | --A | --D |
| without connector | --L | --P |

to be inserted after the basic catalogue number

When ordering, please specify in addition to the basic catalogue number:
the type of current: voltage / frequency + the version: with or without connector

Examples:
- with connector 24V DC : **30211109**--D 24V DC
- without connector 24V DC : **30211109**--P 24V DC

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## SPECIFICATIONS: NO, U

| orifice size | flow at 6 bar l/min (ANR) | | flow coefficient Kv | | operating pressure differential (bar) | | power ranges | basic catalogue number | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | manual operator impulse | | maintained | |
| | | | | | | | | 9,4 mm | 8 mm | 9,4 mm | 8 mm |
| (mm) | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 | min. | max. (PS) | | ~ = | = | ~ = | = |
| **NO - Normally open (Without LED and protection)** | | | | | | | | | | | |
| 0,8 | 20 | 17 | 0,26 | 0,20 | 0 | 8 | LP2 | **30211130** | **30210130** | **30211131** | **30210131** |
| | | | | | 0 | 10 | LP2 | **30211133** | **30210133** | **30211134** | **30210134** |
| 1 | 28 | 32 | 0,35 | 0,35 | 0 | 5 | LP2 | **30211136** | **30210136** | **30211137** | **30210137** |
| | | | | | 0 | 8 | LP3 | **30211139** | **30210139** | **30211140** | **30210140** |
| 1,5 | 53 | 39 | 0,56 | 0,50 | 0 | 2 | LP2 | **30211142** | **30210142** | **30211143** | **30210143** |
| | | | | | 0 | 6 | LP3 | **30211145** | **30210145** | **30211146** | **30210146** |
| **NO - Normally open (With LED and protection)** (5) | | | | | | | | | | | |
| 0,8 | 20 | 17 | 0,26 | 0,20 | 0 | 8 | LP2 | **30215130** | **30214130** | **30215131** | **30214131** |
| | | | | | 0 | 10 | LP2 | **30215133** | **30214133** | **30215134** | **30214134** |
| 1 | 28 | 32 | 0,35 | 0,35 | 0 | 5 | LP2 | **30215136** | **30214136** | **30215137** | **30214137** |
| | | | | | 0 | 8 | LP3 | **30215139** | - | **30215140** | - |
| 1,5 | 53 | 39 | 0,56 | 0,50 | 0 | 2 | LP2 | **30215142** | **30214142** | **30215143** | **30214143** |
| | | | | | 0 | 6 | LP3 | **30215145** | - | **30215146** | - |
| | 1 ↔ 2 | 2 ↔ 3 | 1 ↔ 2 | 2 ↔ 3 | | | | | | | |
| **U - universal (Without LED and protection)** | | | | | | | | | | | |
| 0,8 | 17 | 20 | 0,20 | 0,26 | 0 | 6 | LP2 | **30211148** | **30210148** | **30211149** | **30210149** |
| **U - universal (With LED and protection)** (5) | | | | | | | | | | | |
| 0,8 | 17 | 20 | 0,20 | 0,26 | 0 | 6 | LP2 | **30215148** | **30214148** | **30215149** | **30214149** |

(5) Only available in 24 V AC/DC and 115 V AC.

When ordering, please specify in addition to the basic catalogue number:
the type of current: voltage / frequency + the version: with or without connector

| | ~ | = |
|---|---|---|
| with connector | --A | --D |
| without connector | --L | --P |

to be inserted after the basic catalogue number

Examples:
- with connector 24V DC : **30211130**--D 24V DC
- without connector 24V DC : **30211130**--P 24V DC

## OPTIONS AND ACCESSORIES

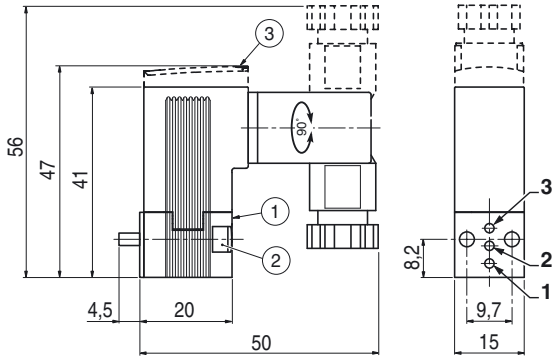
- Seals and disc made of FPM (fluoroelastomer)
- Versions without manual operator and Uv (Universal vacuum): contact us
- Version with pneumatic-electric interface
- Version 12 V DC, LP2, connector DIN 43650, 9,4 mm, industry standard B
- Connector ISO 15217 / DIN 43650, 8 mm, form C:
  - standard: catalogue number **88130211**
  - with cable 2 m length: catalogue number **88130214**
- Connector EN 175301-803 industry standard form C (9,4 mm):
  - standard: catalogue number **88143581**
  - with cable 2 m length: catalogue number **88143567**
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX Directive 94/9/EC (see "Explosionproof solenoids" section)

## INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws and mounting pad seal(s)
- Installation/maintenance instructions are included with each valve

## DIMENSIONS (mm), WEIGHT (kg)

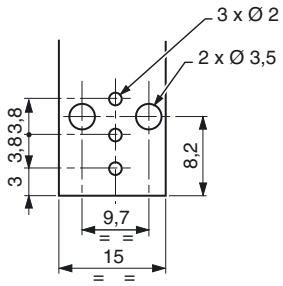
**TYPE 01**
IEC 335 / DIN 43650
IP65




| function | | connection 1 | 2 | 3 |
|---|---|---|---|---|
| | NC | P | O | E |
| | NO | E | O | P |
| universal | MIX | P2 | O | P1 |
| universal | SEL | O 2 | P | O 1 |

P: Pressure O: Outlet
E: Exhaust

Subbase mounting surface: ISO 15218 (CNOMO E06.36.120N, size 15)




| weight (1) |
|---|
| 0,047 |

(1) with standard connector.

① Manual operator location
② 2 mounting screw M3 x 20
③ Version with LED and electrical protection



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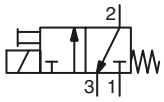
# MINI-SOLENOID VALVES

ISO 15218 (CNOMO, size 15) interface direct operated, pad mounting body connection M12 or with cable ends

**NC**




**3/2**
Series
**302**

## FEATURES

- *Compact, monobloc solenoid pilot valve with M12 connector or cable ends*
- *Version with integrated LED indicator and electrical protection. LED indicator visible from 3 sides*
- *The solenoid valves satisfy all relevant EC directives*

## GENERAL

| | |
|---|---|
| **Differential pressure** | See «SPECIFICATIONS» [1 bar = 100 kPa] |
| **Pneumatic base** | ISO 15218 (CNOMO E06.36.120N, size 15) |
| **Connection** | Subbase |
| **Response time** | 8 - 15 ms |

| fluids (∗) | temperature range (TS) | seal materials (∗) |
|---|---|---|
| air or inert gas<br>filtered at 50 µm, lubricated or not | -25°C to +60°C (LP2) (1) | NBR (nitrile)<br>FPM (fluoroelastomer) |

(1) LP2: see "electrical characteristics" table

## MATERIALS IN CONTACT WITH FLUID

**(∗) Ensure that the compatibility of the fluids in contact with the materials is verified**

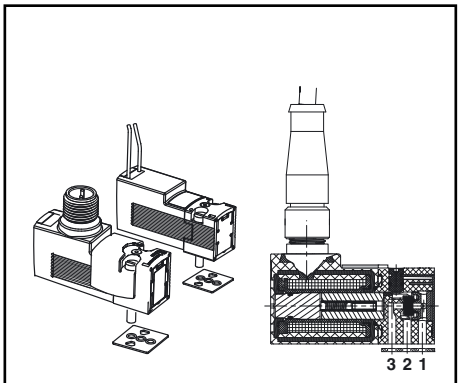
| | |
|---|---|
| **Body** | PAA |
| **Internal parts** | POM, PET, stainless steel and brass |
| **Pneumatic interface seal** | TPE |

## OTHER MATERIALS

| | |
|---|---|
| **Coil** | Thermoplastic PET |

## ELECTRICAL CHARACTERISTICS

| | | |
|---|---|---|
| **Coil insulation class** | | F |
| **Connection** | | Connector M12 or cable ends |
| **Electrical safety** | | IEC 335 |
| | connector M12 | CNOMO E03.62.520.N |
| | cable ends | EN 60730 |
| **Electrical enclosure protection** | | Moulded IP67 (EN 60529) |
| **Standard voltages** | | DC (=) : 24V |




| coils | | | power ratings (✧) | | | | operator ambient temperature range (3) (TS) | type (2) |
|---|---|---|---|---|---|---|---|---|
| power ranges | voltages (V) | | inrush ~ | holding ~ | | hot/cold = | | |
| | ~ | = | (VA) | (VA) | (W) | (W) | (°C) | |
| LP2 | - | 24 | - | - | - | 1,15 / 1,35 | -25 to +60 | 01-02-03 |

(2) Refer to the dimensional drawings on the following page. (3) For joinable subbase mounting, see page 6.

(✧) **Nominal power ratings of standard versions (with LED indicator and electrical protection)**

## SPECIFICATIONS

| orifice size | flow at 6 bar l/min (ANR) | | coefficient Kv | | operating pressure differential (bar) | | power ranges | basic catalogue number | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | manual operator | |
| (mm) | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 | min. | max. (PS) | | impulse | maintained |
| **NC - Normally closed, connection M12 + LED and protection** | | | | | | | | | |
| 0,6 | 11 | 20 | 0,11 | 0,26 | 0 | 10 | LP2 | **30212109** | **30212110** |
| 0,8 | 17 | 28 | 0,22 | 0,35 | 0 | 8 | LP2 | **30212112** | **30212113** |
| 1,1 | 32 | 51 | 0,35 | 0,50 | 0 | 5 | LP2 | **30212118** | **30212119** |
| 1,5 | 39 | 53 | 0,50 | 0,56 | 0 | 3 | LP2 | **30212124** | **30212125** |
| **NC - Normally closed, cable ends + LED and protection** | | | | | | | | | |
| 0,6 | 11 | 20 | 0,11 | 0,26 | 0 | 10 | LP2 | **30213109** | **30213110** |
| 0,8 | 17 | 28 | 0,22 | 0,35 | 0 | 8 | LP2 | **30213112** | **30213113** |
| 1,1 | 32 | 51 | 0,35 | 0,50 | 0 | 5 | LP2 | **30213118** | **30213119** |
| 1,5 | 39 | 53 | 0,50 | 0,56 | 0 | 3 | LP2 | **30213124** | **30213125** |

When ordering:

| | M12 | cable | |
|---|---|---|---|
| with connector | --D | | to be inserted after the basic catalogue number |
| without connector | --P | | |
| complete | | --D | |

Examples:
- M12 with connector : **30212109**--D
- M12 without connector : **30212109**--P
- cable ends : **30213109**--D

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## OPTIONS AND ACCESSORIES

- Seals and disc made of FPM (fluoroelastomer)
- Versions without manual operator, NO (Normally Open), U (Universal) and Uv (Universal vacuum): contact us
- Version with pneumatic-electric interface
- Straight M12 connector:
  - with 5 m cable length: catalogue number **88130212**
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX Directive 94/9/EC (see "Explosionproof solenoids" section)

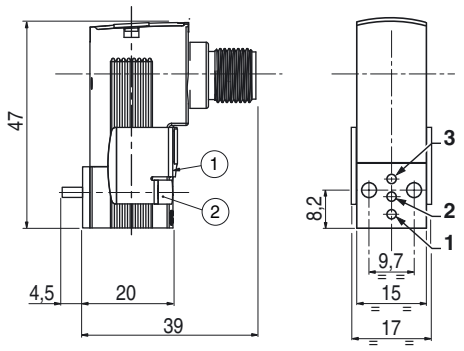
## INSTALLATION

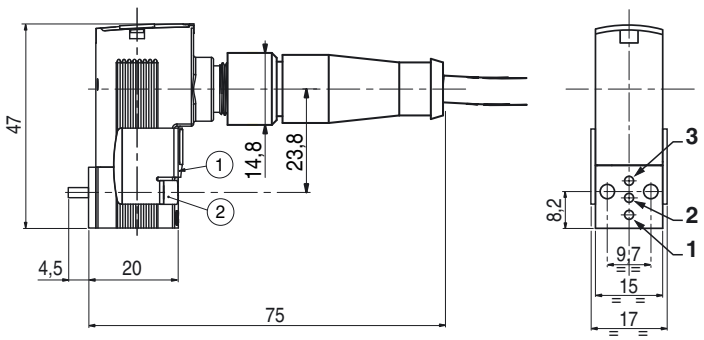
- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws and mounting pad seal(s)
- Installation/maintenance instructions are included with each valve

## DIMENSIONS (mm), WEIGHT (kg)

### TYPE 01
IEC 335
Connection M12
IP67

### TYPE 02
IEC 335 /
Straight M12 connector, 5 m cable length
IP67




(1) Manual operator location.

(2) 2 mounting screw M3 x 20

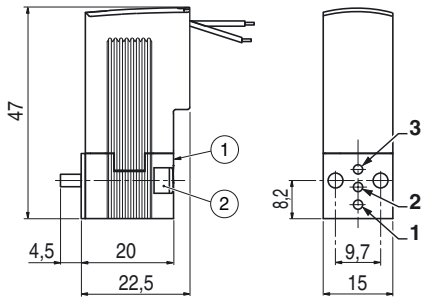
| weight | | |
|---|---|---|
| M12 (1) | | cable ends |
| (1) | (2) | |
| 0,049 | 0,288 | 0,040 |

(1) Without connector
(2) With connector

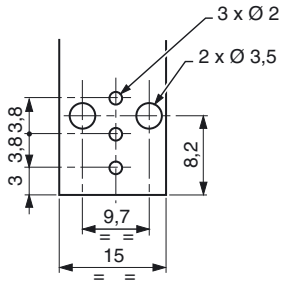
| | connection | | |
|---|---|---|---|
| function | 1 | 2 | 3 |
| NC | P | O | E |

P: Pressure O: Outlet
E: Exhaust

### TYPE 03
IEC 335
Cable ends 0,3 m length
IP67




Subbase mounting surface: ISO 15218
(CNOMO E06.36.120N, size 15)

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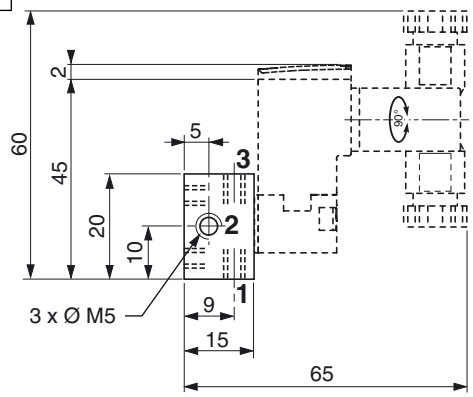
## DIMENSIONS (mm), WEIGHT (kg)

### Single subbase
Aluminium or brass



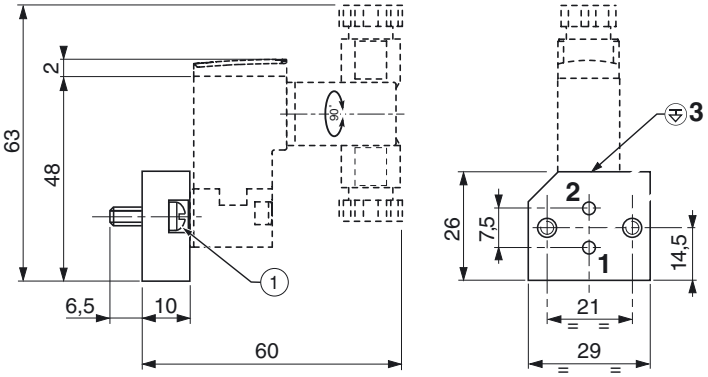

① Mounting: 2 holes M3, depth 4,5

Orifice (2) can be connected on the left or on the right of the subbase.

| material | catalogue number | weight (1) |
|---|---|---|
| aluminium | **88263002** | 0,011 |
| brass | **30300001** | 0,034 |

(1) subbase alone

### Adapter CNOMO size 30
(**only for NC version**)
Aluminium

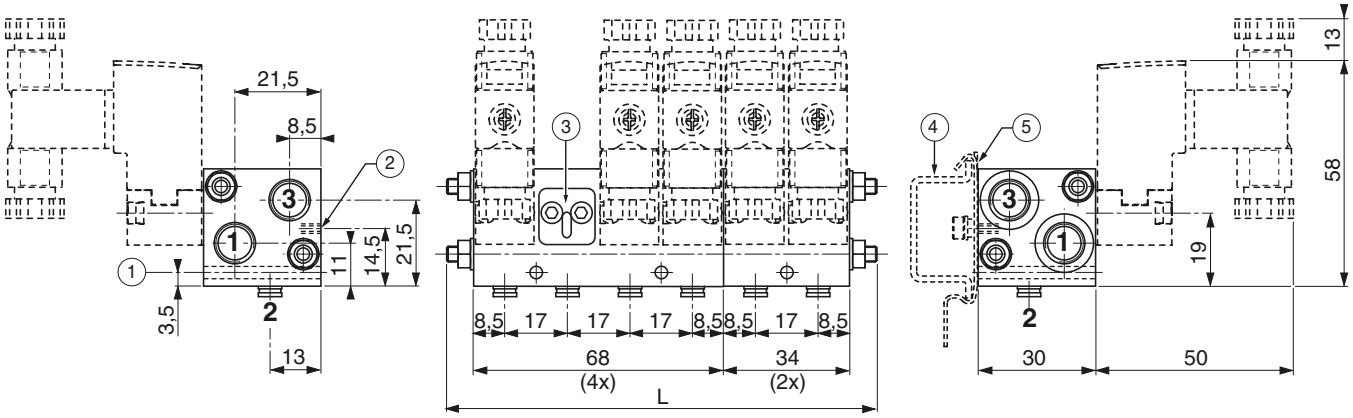



① Mounting: 2 screws M4 x 10 (supplied)

| catalogue number | weight (2) |
|---|---|
| **88263001** | 0,018 |

(2) adapter alone

### Joinable subbases
Aluminium




Ports 1 and 3: G1/8

Port 2: coupling for 4mm OD tube

① Fixing hole Ø 3,2 (2 for 4x ; 1 for 2x)
② Fixing hole M3, depth 8 (2 for 4x ; 1 for 2x)
③ Mating surface blanking plates (option)
④ TS35 DIN rail (not supplied)
⑤ Clip for DIN rail mounting (option)

| catalogue number | x | subbases | L | weight (3) |
|---|---|---|---|---|
| **35500564** | 2 | 2x | - | 0,076 |
| **35500565** | 4 | 4x | - | 0,148 |
| **35500566** | 6 | 4x + 2x | 114 | 0,236 |
| **35500567** | 8 | 4x + 4x | 148 | 0,313 |
| **35500568** | 10 | 4x + 4x + 2x | 182 | 0,389 |
| **35500569** | 12 | 4x + 4x + 4x | 216 | 0,466 |

(3) subbases alone
x = place for mini-solenoid valves.
2 plugs R1/8 supplied.

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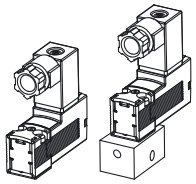
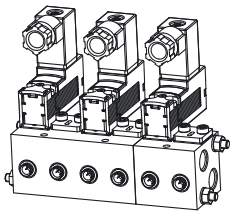
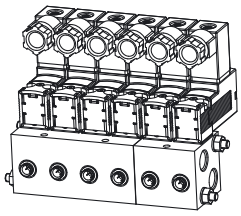
## OPTIONS AND ACCESSORIES

- Additional subbase with 2 places (with seals): catalogue number **35500570**
- 2 tie-rods + nuts for a subbase with:
  4 places: catalogue number **88100752**
  6 places: catalogue number **88100753**
  8 places: catalogue number **88100754**
  10 places: catalogue number **88100755**
  12 places: catalogue number **88100756**
- Mounting kit for DIN rail (2 clips + screws + washers): catalogue number **88100757**
- Mating surface blanking plate: catalogue number **88130203**

## AMBIENT TEMPERATURE RANGES

| current type | power range | power coil | | version |  |  |  |
|---|---|---|---|---|---|---|---|
| | | inrush/ holding (VA) ~ | hot/cold (W) = | | | | |
| DC (=) | LP1 (1) | - | 0,5/0,55 | standard | -10°C ; +50°C | | -10°C ; +50°C |
| | LP2 (1) | - | 1/1,2 | standard | -25°C ; +60°C | | -25°C ; +60°C |
| | | - | 1,15/1,35 | LED + protection | | | -25°C ; +40°C |
| | LP3 (2) | - | 2/2,65 | standard | -25°C ; +50°C | | -25°C ; +40°C |
| | | - | 2,15/2,8 | LED + protection | -25°C ; +40°C | | - |
| AC (~) | LP2 (2) | 1,4/1,2 | - | standard | -25°C ; +60°C | | -25°C ; +40°C |
| | | 1,8/1,6 | - | LED + protection | | | |
| | LP3 (2) | 2,1/1,6 | - | standard | -25°C ; +60°C | | -25°C ; +40°C |
| | | 2,5/2 | - | LED + protection | -25°C ; +50°C | | - |

(1) Voltage: -15% / +20%

(2) Voltage: -15% / +10%

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