

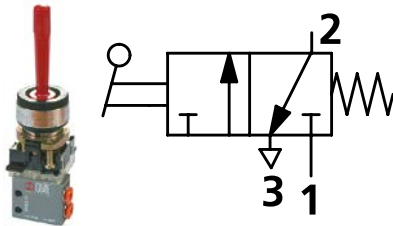
## 3/2-way miniature valve

manually operated, for panel mounting, series VME

**PLUS** ||

Art. No. 106410

Type No. 512.404



Exemplary illustration

Monostable (non-latching) and bistable (latching) versions available.

Discontinued product. No longer available. New product 154134 (512.404-1)

### Technical data

|                             |                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------|
| Operation                   | manually                                                                             |
| Function                    | 3/2 NC                                                                               |
| Version                     | monostable hand lever                                                                |
| Connection                  | M5 IT on side                                                                        |
| Nominal Ø                   | 2.5 mm                                                                               |
| Flow rate measurement 1     | flow rate at 6 bar and $\Delta p$ 1 bar                                              |
| Flow rate 1                 | 60 NI/min                                                                            |
| Flow rate measurement 2     | flow rate at 6 bar and $\Delta p$ 0.5 bar                                            |
| Flow rate 2                 | 35 NI/min                                                                            |
| Medium                      | filtered compressed air with or without lubrication. If lubricated, then continuous. |
| Operating pressure          | 0.5 - 10 bar                                                                         |
| Operating pressure at 6 bar | 8 N                                                                                  |
| Operating temperature       | -10 to 60 °C                                                                         |
| Valve body                  | aluminium                                                                            |
| Sealant                     | NBR                                                                                  |
| Spring                      | stainless steel                                                                      |
| Pushbutton                  | nickel-plated brass                                                                  |
| Series                      | series VME                                                                           |

## Commercial data

|                         |                  |
|-------------------------|------------------|
| Customs tariff number   | 84818079         |
| Country of origin       | IT               |
| eCl@ss 5.1.4            | 27291801         |
| eCl@ss 9.0              | 27291390         |
| UNSPSC_Code_v190501     | 40141603         |
| UNSPSC_CodeDesc_v190501 | Pneumatic valves |

B1

# MINIVALVES, MECHANICALLY AND HAND OPERATED SERIES VME

VALVES

MINIVALVES, MECHANICALLY AND HAND OPERATED SERIES VME

- Minivalves with 3/2 NO NC poppet,
- Installation in any position
- Push-in fittings for pipe Ø 4 mm and M5 on the valve body
- Low actuation force
- Rapid, accurate signal
- Mechanical actuation
- The 2 places adapter allows manual actuation of 1 or 2 VME valves with manual Ø 22 panel actuators. Thus it is possible to obtain 3/2, 5/2, 5/3 open centre and 5/3 pressure centre pneumatic functions.
- On request, it is possible to place a NC-NO electric switch next to VME valve for mixed solenoid/pneumatic signals.

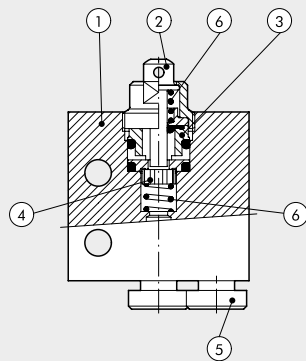


## TECHNICAL DATA

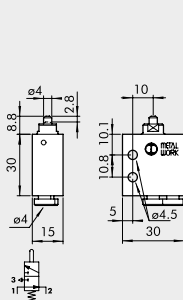
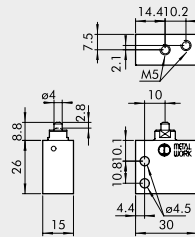
|                                    |              |                                                                                       |
|------------------------------------|--------------|---------------------------------------------------------------------------------------|
| Valve fitting port                 |              | Push-in fitting for pipe diam. 4 and M5 (axial or side)                               |
| Fluid                              |              | Filtered air without lubrication; lubrication, if used, must be continuous            |
| Type                               |              | With poppet                                                                           |
| Versions                           |              | Mechanical and manual                                                                 |
| Operators:                         |              | With Plunger – Plunger for wall-mounting – Roller lever – Unidirectional roller lever |
| • mechanical                       |              | Depending on the type of actuation panel selected                                     |
| • manual                           |              |                                                                                       |
| Operating pressure                 | bar          | 0.5 to 10                                                                             |
| Operating temperature range        | °C           | -10° to +60                                                                           |
| Nominal diameter                   | mm           | 2.5                                                                                   |
| Conductance C                      | Nl/min · bar | 16.5                                                                                  |
| Critical ratio b                   | bar/bar      | 0.03                                                                                  |
| Flow rate at 6 Bar ΔP 0.5 Bar      | Nl/min       | 35                                                                                    |
| Flow rate at 6 Bar ΔP 1 Bar        | Nl/min       | 60                                                                                    |
| Actuation force – Plunger at 6 Bar | N            | 8                                                                                     |
| Recommended lubricant              |              | ISO and UNI FD22                                                                      |
| Installation                       |              | In any position                                                                       |
| Compatibility with oils            |              | See chapter Z1                                                                        |

## COMPONENTS

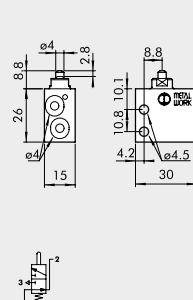
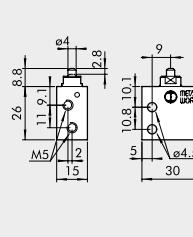
- ① VALVE BODY: Aluminium
- ② BUTTON: chemically nickel-plated brass
- ③ DISTANCE PLATES: Brass
- ④ GASKETS: NBR
- ⑤ PUSH-IN FITTING CARTRIDGES: stainless steel, brass and plastic
- ⑥ SPRINGS: stainless steel



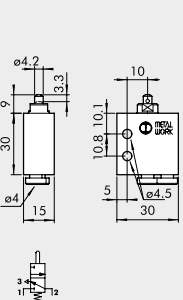
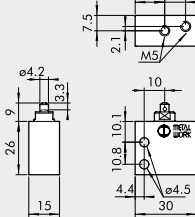
B1.4

**PLUNGER 3/2 NO - AXIAL FITTINGS**
**Ø 4**

**M5**


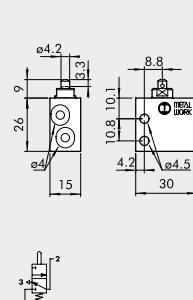
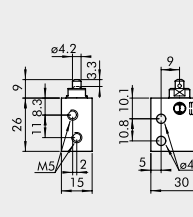
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000101 | VME1-10 NO Ø 4 | 42         |
| W3501000110 | VME1-16 NO M5  | 36         |

**PLUNGER 3/2 NO - SIDE FITTINGS**
**Ø 4**

**M5**


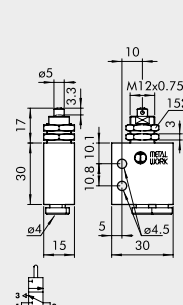
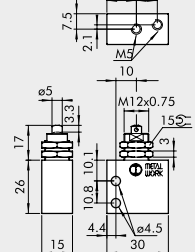
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000100 | VME2-00 NO Ø 4 | 34         |
| W3501000110 | VME2-10 NO M5  | 34         |

**PLUNGER 3/2 NC - AXIAL FITTINGS**
**Ø 4**

**M5**


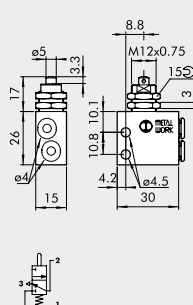
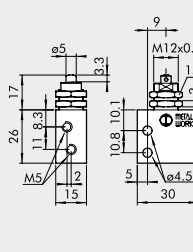
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000100 | VME1-01 NC Ø 4 | 42         |
| W3501000111 | VME1-11 NC M5  | 36         |

**PLUNGER 3/2 NC - SIDE FITTINGS**
**Ø 4**

**M5**


| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000101 | VME2-01 NC Ø 4 | 34         |
| W3501000111 | VME2-11 NC M5  | 34         |

**PLUNGER FOR WALL MOUNTING, 3/2 NC - AXIAL FITTINGS**
**Ø 4**

**M5**


| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000400 | VME1-04 NC Ø 4 | 54         |
| W3501000411 | VME1-14 NC M5  | 48         |

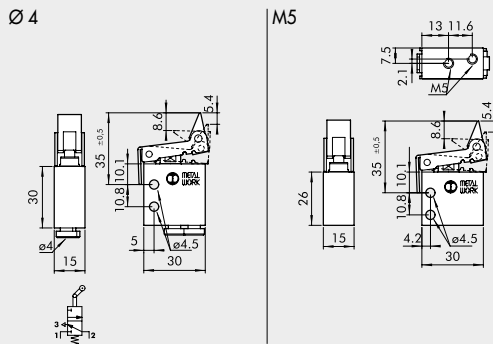
**PLUNGER FOR WALL MOUNTING, 3/2 NC - SIDE FITTINGS**
**Ø 4**

**M5**


| Code         | Description    | Weight [g] |
|--------------|----------------|------------|
| W35010001401 | VME2-04 NC Ø 4 | 46         |
| W35010001411 | VME2-14 NC M5  | 46         |

**VALVES**

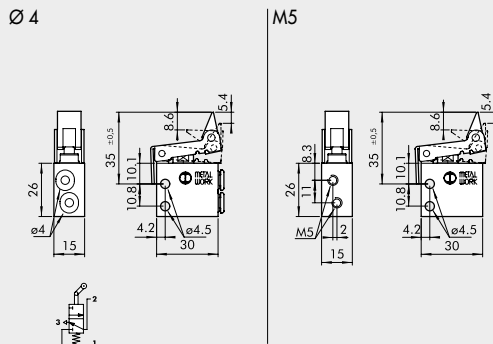
MINIVALVES, MECHANICALLY AND HAND OPERATED SERIES VME

## UNIDIRECTIONAL ROLLER LEVER, 3/2 NC - AXIAL FITTINGS



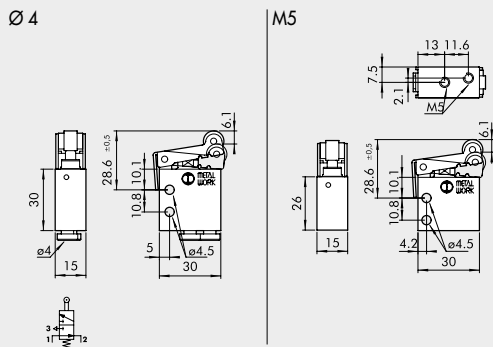
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000300 | VME1-03 NC Ø 4 | 60         |
| W3501000311 | VME1-13 NC M5  | 54         |

## UNIDIRECTIONAL ROLLER LEVER, 3/2 NC - SIDE FITTINGS



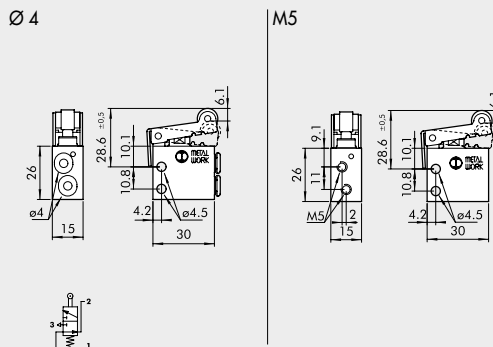
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501001301 | VME2-03 NC Ø 4 | 52         |
| W3501001311 | VME2-13 NC M5  | 52         |

## ROLLER LEVER, 3/2 NO - AXIAL FITTINGS



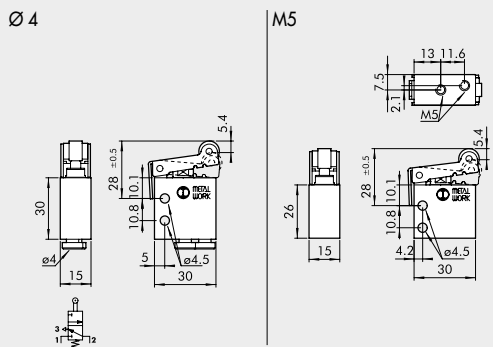
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000201 | VME1-05 NO Ø 4 | 58         |
| W3501000210 | VME1-15 NO M5  | 52         |

## ROLLER LEVER, 3/2 NO - SIDE FITTINGS



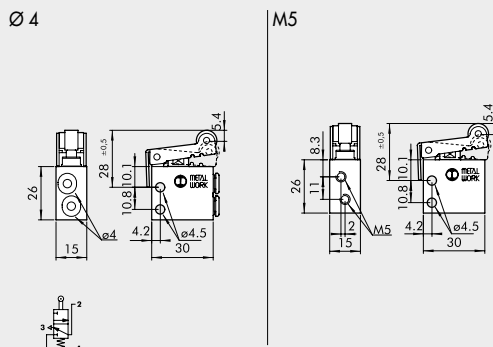
| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501001200 | VME2-05 NO Ø 4 | 50         |
| W3501001210 | VME2-15 NO M5  | 50         |

## ROLLER LEVER, 3/2 NC - AXIAL FITTINGS



| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501000200 | VME1-02 NC Ø 4 | 56         |
| W3501000211 | VME1-12 NC M5  | 50         |

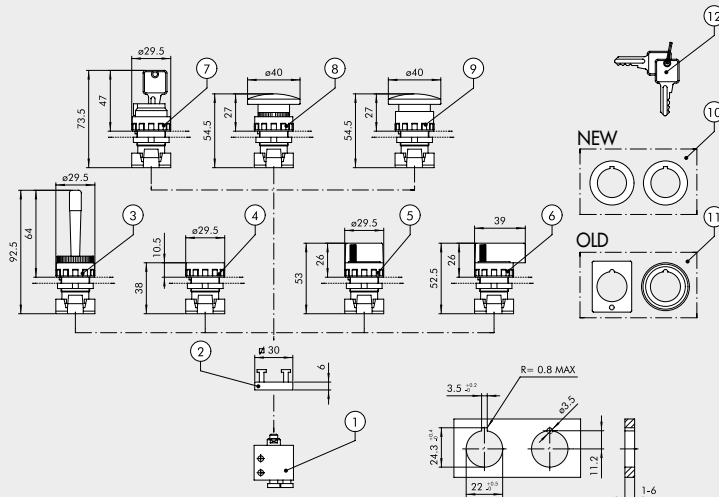
## ROLLER LEVER, 3/2 NC - SIDE FITTINGS



| Code        | Description    | Weight [g] |
|-------------|----------------|------------|
| W3501001201 | VME2-02 NC Ø 4 | 52         |
| W3501001211 | VME2-12 NC M5  | 50         |

**MANUAL VME VALVES – ASSEMBLY DIAGRAM**
**NOTES:**

- For 5/2 pneumatic operation, assemble a 3/2 NC plunger valve and a 3/2 NO one on the adapter.
- For 5/3 pneumatic operation with open centres, assemble two 3/2 NC plunger valves on the adapter.
- For 5/3 pneumatic operation with pressure centres, assemble two 3/2 NO plunger valves on the adapter.


**VALVES**

MINIVALVES, MECHANICALLY AND HAND OPERATED SERIES VME

**ORDERING CODES**

| Symbol                                                                                                | Reference | Code        | Description                                                                             | Weight [g] |
|-------------------------------------------------------------------------------------------------------|-----------|-------------|-----------------------------------------------------------------------------------------|------------|
|                    | ①         | W3501000100 | 3/2 NC Axial fittings Ø 4                                                               | 42         |
|                                                                                                       |           | W3501000111 | 3/2 NC Axial fittings M5                                                                | 36         |
|                                                                                                       |           | W3501001101 | 3/2 NC Side fittings Ø 4                                                                | 34         |
|                                                                                                       |           | W3501001111 | 3/2 NC Side fittings M5                                                                 | 34         |
|                    | ①         | W3501000101 | 3/2 NO Axial fittings Ø 4                                                               | 42         |
|                                                                                                       |           | W3501000110 | 3/2 NO Axial fittings M5                                                                | 36         |
|                                                                                                       |           | W3501001100 | 3/2 NO Side fittings Ø 4                                                                | 34         |
|                                                                                                       |           | W3501001110 | 3/2 NO Side fittings M5                                                                 | 34         |
|                                                                                                       | ②         | 0351000050  | 2 places adaptor thickness 6.8 mm                                                       | 5          |
|                    | ③         | W0351000015 | Red handler with horizontally pivoted lever                                             | 25         |
|                    | ④         | W0351000011 | Fat push button + 2 red/black coloured disks<br>◆ Bistable fat push button without disk | 15         |
|                    | ⑤         | W0351000030 | Black selector short lever at 2 positions with return                                   | 20         |
|                                                                                                       |           | W0351000031 | Black selector short lever at 2 positions                                               | 20         |
|                    | ⑤         | W0351000032 | Black selector short lever at 3 positions with return                                   | 20         |
|                                                                                                       |           | W0351000033 | Black selector short lever at 3 positions                                               | 20         |
|                    | ⑥         | W0351000034 | Black selector long lever at 2 positions with return                                    | 26         |
|                                                                                                       |           | W0351000035 | Black selector long lever at 2 positions                                                | 26         |
|                    | ⑥         | W0351000036 | Black selector long lever at 3 positions with return                                    | 26         |
|                                                                                                       |           | W0351000037 | Black selector long lever at 3 positions                                                | 26         |
|                    | ⑦         | W0351000016 | 2 positions key selector with extractable key in 2 positions                            | 50         |
|                                                                                                       |           | W0351000018 | 2 positions key selector with extractable key in 0                                      | 50         |
|                    | ⑧         | W0351000013 | Red mushroom-head push button Ø 40                                                      | 27         |
|                                                                                                       |           | W0351000017 | Black mushroom-head push button Ø 40                                                    | 27         |
|                    | ⑨         | W0351000014 | Red mushroom-head push button with lock Ø 40                                            | 29         |
| ◆ It can't be supplied. As working replaced by selector with bistable short lever at 2 positions (⑤). | ⑩         | W0351000049 | ◆ Reducer from 30 to 22.5 mm                                                            |            |
| ✦ Usable only with technopolymer body selectors.                                                      | ⑪         | W0351000050 | ▲ Adapter for bore Ø 30 G2326                                                           |            |
| ▲ Usable only with metal body selectors.                                                              | ⑫         | W0351000021 | ✦ Key for ESC selectors                                                                 |            |
|                                                                                                       |           | W0351000056 | Green disk for push button (④)                                                          |            |

## Accessories

|                                                                                                                                 | Art. No. | Type No. |
|---------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| 3/2-way valve, mechanical, tappet, panel-mounted, NC, G 1/8                                                                     | 106441   | 515.101  |
| Push button with red and black discs, monostable                                                                                | 106444   | DK-M     |
| Short rotating lever, black, 3 positions, monostable                                                                            | 106448   | KDH-3M   |
| Short rotating lever, black, 2 positions, monostable                                                                            | 106446   | KDH-2M   |
| Short rotating lever, black, 3 positions, bistable                                                                              | 106449   | KDH-3B   |
| Short rotating lever, black, 2 positions, bistable                                                                              | 106447   | KDH-2B   |
| Long rotating lever, black, 3 positions, monostable                                                                             | 106452   | LDH-3M   |
| Long rotating lever, black, 2 positions, monostable                                                                             | 106450   | LDH-2M   |
| Long rotating lever, black, 3 positions, bistable                                                                               | 106453   | LDH-3B   |
| Long rotating lever, black, 2 positions, bistable                                                                               | 106451   | LDH-2B   |
| Lockable 2 position switch with key removal in all positions                                                                    | 106454   | V2SS-JS  |
| Lockable 2 position switch with key removal in home position                                                                    | 106455   | V2SS-GS  |
| Red palm button, monostable                                                                                                     | 106456   | RPT-M    |
| Red palm button with emergency locking                                                                                          | 106457   | RPT-NR   |
| 3/2-way miniature valve, Mechanical, Tappet, NO, Connection M5 (side), Operating pre. 0.5-10 bar, Operating temp. -10°C to 60°C | 106386   | 511.122  |

## Spareparts

|                                                                                                                              | Art. No. | Type No. |
|------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| 3/2-way miniature valve, Mechanical, Tappet, NC, Connection M5, Operating pre. 0.5 - 10 bar, Operating temp. -10 °C to 60 °C | 106388   | 511.132  |
| Adapter max. 2 valves, required for mounting on basic valve                                                                  | 106443   | A2V      |
| Manual lever, red, monostable                                                                                                | 106445   | HH-M     |