

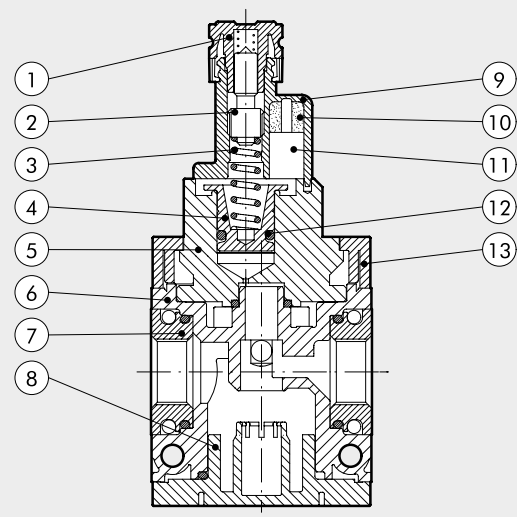
Syntesi® pressure switches feature a high degree of miniaturisation and a modern attractive design. As they are extremely modular, the Syntesi® series can be installed facing up or down. They come ready assembled with a 2-metre cable or an M8 connector with a 300-mm cable. The contact is the switching type, which means it can be normally open or normally closed. It can be regulated via a knurled push-lock handle. On the front and back there is a port (1/8" for size 1 and 1/4" size 2) that can be used with pressure gauges or as an additional air intake.



| TECHNICAL DATA   | SY1 PRESSURE SWITCHES  |      |      | SY2 PRESSURE SWITCHES         |      |      |     |     |
|--|--|------|------|-------------------------------|------|------|-----|-----|
|  | 1/8"   | 1/4" | 3/8" | 3/8"                          | 1/2" | 3/4" | 1"  |     |
| Threaded port  |  |      |      |                               |      |      |     |     |
| Adjustable pressure interval                             | bar  |      |      | 0.5 to 10                     |      |      |     |     |
| Hysteresis (not adjustable)                              | bar  |      |      | From 0.4 to 0.8 (See diagram) |      |      |     |     |
| Maximum pressure   | bar  |      |      | 15                            |      |      |     |     |
|  | MPa  |      |      | 1.5                           |      |      |     |     |
|  | psi  |      |      | 217                           |      |      |     |     |
| Min/Max temperature at 10 bar; 1 MPa; 145 psi            | °C   |      |      | From -10 to 50                |      |      |     |     |
| Maximum current  | A  |      |      | 2                             |      |      |     |     |
| Maximum voltage  | V  |      |      | 250                           |      |      |     |     |
| Outside diameter of cable                                | mm   |      |      | 4.9                           |      |      |     |     |
| Number of wires and cross section                        |  |      |      | 3 x 0.5 mm <sup>2</sup>       |      |      |     |     |
| Contacts   | Normally-Open (NO) and Normally-Closed (NC)  |      |      |                               |      |      |     |     |
| Protection   | IP65   |      |      | IP65                          |      |      |     |     |
| Number of switchings                                     | 5 x 10 <sup>6</sup>  |      |      | 5 x 10 <sup>6</sup>           |      |      |     |     |
| Fluid  | Filtered lubricated or unlubricated compressed air. Lubrication, if used, must be continuous |      |      |                               |      |      |     |     |
| Mounting position  | In any position  |      |      |                               |      |      |     |     |
| Additional air take-off, for pressure gauges or fittings | 1/8", front and rear   |      |      | 1/4", front and rear          |      |      |     |     |
| Additional air take-off flow rate at 6.3 bar             | NL/min   |      |      | 1500                          |      |      |     |     |
| (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)            | scfm   |      |      | 53                            |      |      |     |     |
| Wall fixing screws                                       | No. 2 M4 screws  |      |      | No. 2 M5 screws               |      |      |     |     |
| Weight   | g  | 255  | 250  | 241                           | 443  | 416  | 412 | 400 |

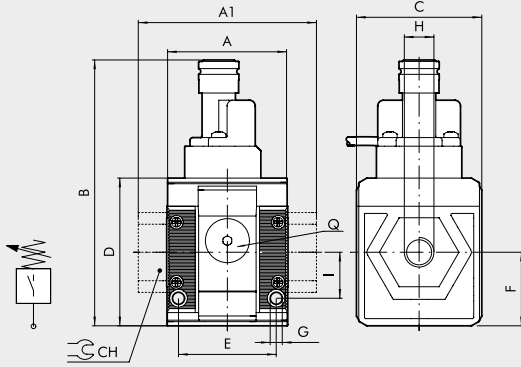
## COMPONENTS

- ① Technopolymer adjusting "push lock" handle
- ② OT58 brass adjusting screw
- ③ Steel piston spring
- ④ OT58 brass piston
- ⑤ Aluminium top plug
- ⑥ Technopolymer body
- ⑦ IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
- ⑧ Technopolymer bottom plug
- ⑨ Technopolymer pressure switch body
- ⑩ Resin finish for IP65
- ⑪ Electrical contact
- ⑫ O-ring NBR gasket
- ⑬ Technopolymer flange



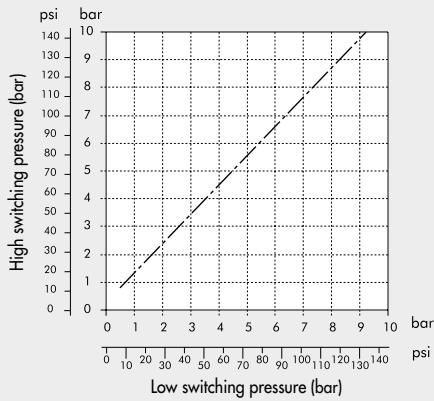
**UNITS**  
 Syntesi® PRESSURE SWITCHES

**DIMENSIONS**



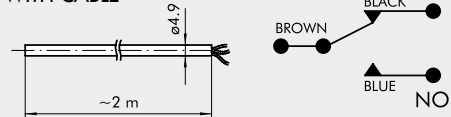
|                                    | SIZE 1             |      |      | SIZE 2             |      |      |    |
|------------------------------------|--------------------|------|------|--------------------|------|------|----|
| H (threaded port)                  | 1/8"               | 1/4" | 3/8" | 3/8"               | 1/2" | 3/4" | 1" |
| A                                  | 42                 |      |      | 60.5               |      |      |    |
| A1                                 | -                  | -    | 44   | -                  | -    | 95   | 95 |
| B                                  | 93                 |      |      | 101                |      |      |    |
| C                                  | 44                 |      |      | 61                 |      |      |    |
| CH                                 | -                  |      |      | -                  | -    | 32   | 36 |
| D                                  | 51.5               |      |      | 70.5               |      |      |    |
| E                                  | 33.5               |      |      | 47.5               |      |      |    |
| F                                  | 25.6               |      |      | 32.5               |      |      |    |
| G                                  | Hole for M4 screws |      |      | Hole for M5 screws |      |      |    |
| I                                  | 16                 |      |      | 22.5               |      |      |    |
| Q (no. 2 additional air takes-off) | 1/8"               |      |      | 1/4"               |      |      |    |

**HYSTERESIS GRAPH**

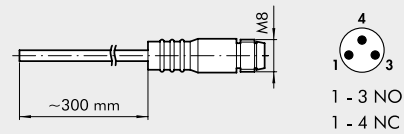


**WIRING DIAGRAM**

VERSION WITH CABLE



VERSION WITH M8 CONNECTOR



**KEY TO CODES**

| 56         | 1        | 1   | S                   | 10  | 1   |
|------------|----------|---|---------------------|---|---|
| SYNTESI    | SIZE     | THREADED INPUT CONNECTION   | ELEMENT             | TYPE  | THREADED OUTPUT CONNECTION  |
| 56 Syntesi | 1 Size 1 | 0 Without bushing<br>1 1/8" port<br>2 1/4" port<br>3 3/8" port              | S Pressure switches | 10 2 m cable<br>20 300 mm cable with M8 connector | 0 Without bushing<br>1 1/8" port<br>2 1/4" port<br>3 3/8" port              |
|            | 2 Size 2 | 0 Without bushing<br>3 3/8" port<br>4 1/2" port<br>5 3/4" port<br>6 1" port |                     |   | 0 Without bushing<br>3 3/8" port<br>4 1/2" port<br>5 3/4" port<br>6 1" port |

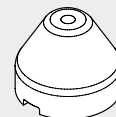
**PURCHASE ORDER CODES HAVING A MORE FREQUENT USE**

N.B. Besides the below mentioned codes, you can order elements composed at your will according to the key to codes.

| Code                                  | Description                                       |
|---------------------------------------|---|
| <b>Syntesi® SY1 PRESSURE SWITCHES</b> |   |
| 5610S100                              | Pressure switch 2 m cable SY1 without bushings    |
| 5611S101                              | Pressure switch 2 m cable SY1 1/8                 |
| 5612S102                              | Pressure switch 2 m cable SY1 1/4                 |
| 5613S103                              | Pressure switch 2 m cable SY1 3/8                 |
| <hr/>                                 |   |
| 5610S200                              | Pressure switch M8 SY1 connector without bushings |
| 5611S201                              | Pressure switch M8 connector SY1 1/8              |
| 5612S202                              | Pressure switch M8 connector SY1 1/4              |
| 5613S203                              | Pressure switch M8 connector SY1 3/8              |

| Code                                  | Description                                       |
|---------------------------------------|---|
| <b>Syntesi® SY2 PRESSURE SWITCHES</b> |   |
| 5620S100                              | Pressure switch 2 m cable SY2 without bushings    |
| 5623S103                              | Pressure switch 2 m cable SY2 3/8                 |
| 5624S104                              | Pressure switch 2 m cable SY2 1/2                 |
| 5625S105                              | Pressure switch 2 m cable SY2 3/4                 |
| 5626S106                              | Pressure switch 2 m cable SY2 1                   |
| <hr/>                                 |   |
| 5620S200                              | Pressure switch M8 SY2 connector without bushings |
| 5623S203                              | Pressure switch M8 connector SY2 3/8              |
| 5624S204                              | Pressure switch M8 connector SY2 1/2              |
| 5625S205                              | Pressure switch M8 connector SY2 3/4              |
| 5626S206                              | Pressure switch M8 connector SY2 1                |

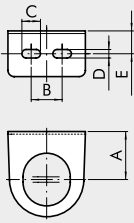
**ACCESSOIRES: SECURITY KNOB**



| Code    | Description                         |
|---------|-------------------------------------|
| 9200703 | Security knob APR / pressure switch |

NOTE: Pull outwards to remove the knob from the pressure switch on the unit. Insert the security knob and regulate the pressure switch. Then press the handle firmly to lock it in position. If the pressure switch needs to be reset, remove the security knob by forcing it laterally with a screwdriver.

**MOUNTING BRACKET FOR REG. AND FR KNOB**



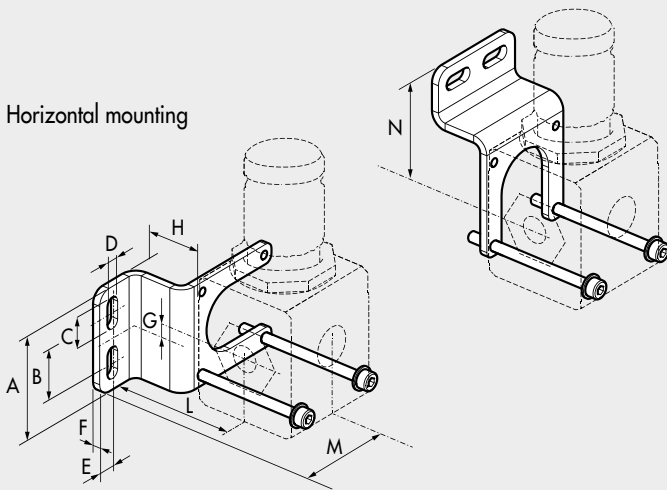
| Code    | Description              |
|---------|--------------------------|
| 9200701 | SF100 - BIT-ND 1/4 - SY1 |
| 9400701 | SF200 - ND-3/8 1/2 - SY2 |

| Code    | A  | B  | C  | D   | E    |
|---------|----|----|----|-----|------|
| 9200701 | 32 | 20 | 12 | 5.5 | 14.2 |
| 9400701 | 42 | 40 | 12 | 5.5 | 15   |

**MOUNTING BRACKET**

Vertical mounting

Horizontal mounting

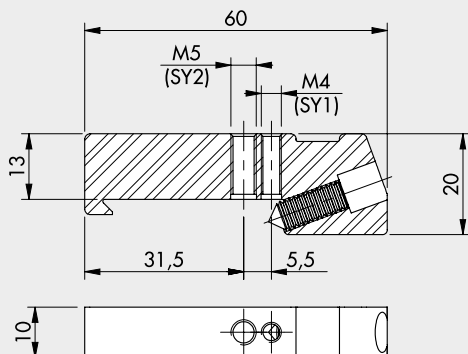


| Code     | Description          |
|----------|----------------------|
| 9200716X | Mounting bracket SY1 |
| 9200717X | Mounting bracket SY2 |

Note: Supplie complete with screws and washers.  
Max torque 0.8 Nm for SY1 - Max torque 2.0 Nm for SY2  
Codes to be used for units in the standard and the anti-corrosion version

| Code     | A    | B  | C    | D   | E | F | G   | H  | L    | M    | N    |
|----------|------|----|------|-----|---|---|-----|----|------|------|------|
| 9200716X | 41.5 | 20 | 12.7 | 5.5 | 7 | 3 | 0.8 | 25 | 43.8 | 46.5 | 47   |
| 9200717X | 60   | 40 | 12.7 | 5.5 | 8 | 3 | 1.3 | 30 | 57.5 | 58.3 | 59.5 |

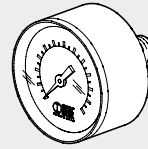
**CONNECTION BRACKETS ON THE BAR (DIN EN50022)**



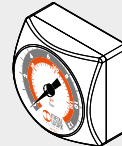
| Code     | Description                               |
|----------|---|
| 9200718X | Connection brackets on DIN bar, SY1 - SY2 |

Note: 2 pieces per pack complete with screws and washers.  
Max torque 0.8 Nm for SY1 - Max torque 2.0 Nm for SY2  
Codes to be used for units in the standard and the anti-corrosion version

**PRESSURE GAUGES**

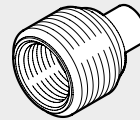


| Code    | Description  |
|---------|--------------|
| 9700101 | M 40 1/8 012 |
| 9700102 | M 40 1/8 04  |
| 9800101 | M 50 1/8 012 |
| 9800102 | M 50 1/8 04  |
| 9900101 | M 63 1/4 012 |



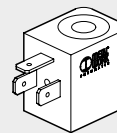
|         |                 |
|---------|-----------------|
| 9700109 | M 40x40 1/8 04  |
| 9700110 | M 40x40 1/8 012 |

**ADAPTERS FOR PRESSURE GAUGES (SY2)**



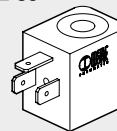
| Code    | Description                        |
|---------|------------------------------------|
| 9210005 | 1/4 adapter for 1/8 pressure gauge |

**COIL 22 mm FOR APR AND V3V ELPN**



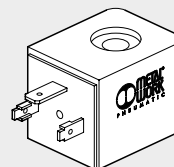
| Code        | Description                 |
|-------------|-----------------------------|
| W0215000151 | Coil 22 Ø 8 BA 2W-12VDC     |
| W0215000101 | Coil 22 Ø 8 BA 2W-24VDC     |
| W0215000111 | Coil 22 Ø 8 BA 3.5VA-24VAC  |
| W0215000121 | Coil 22 Ø 8 BA 3.5VA-110VAC |
| W0215000131 | Coil 22 Ø 8 BA 3.5VA-220VAC |

**"UL" AND "CSA" COILS 22 mm**



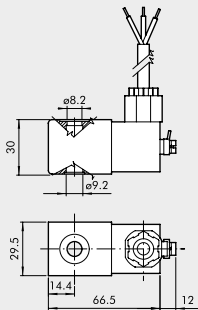
| Code        | Description                    |
|-------------|--------------------------------|
| W0215000251 | Coil 22 Ø 8 BA 2W-12VDC UR     |
| W0215000201 | Coil 22 Ø 8 BA 2W-24VDC UR     |
| W0215000211 | Coil 22 Ø 8 BA 3.5VA-24VAC UR  |
| W0215000221 | Coil 22 Ø 8 BA 3.5VA-110VAC UR |
| W0215000231 | Coil 22 Ø 8 BA 3.5VA-220VAC UR |

**COIL 30 mm FOR APR AND V3V ELPN**



| Code        | Description                       |
|-------------|-----------------------------------|
| W0210010100 | Coil 30 Ø 8 2W-24VDC              |
| W0210011100 | Coil 30 Ø 8 3.5VA-24VAC 50/60 HZ  |
| W0210012100 | Coil 30 Ø 8 3.5VA-110VAC 50/60 HZ |
| W0210013100 | Coil 30 Ø 8 3.5VA-220VAC 50/60 HZ |

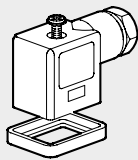
**KIT FOR COIL EEXM**



| Code       | Description                             |
|------------|---|
| 0227606913 | Kit for coil 30 24 VDC EEXMT5 cable 3m  |
| 0227606915 | Kit for coil 30 24 VDC EEXMT5 cable 5m  |
| 0227608013 | Kit for coil 30 24 VAC EEXMT5 cable 3m  |
| 0227608015 | Kit for coil 30 24 VAC EEXMT5 cable 5m  |
| 0227608023 | Kit for coil 30 110 VAC EEXMT5 cable 3m |
| 0227608025 | Kit for coil 30 110 VAC EEXMT5 cable 5m |
| 0227608033 | Kit for coil 30 230 VAC EEXMT5 cable 3m |
| 0227608035 | Kit for coil 30 230 VAC EEXMT5 cable 5m |

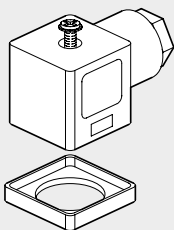
According to Atex 2014/34/EU rule,  
 Ⓢ II 2G Ex mb IIC T4/T5 Gb  
 Ⓢ II 2D Ex tb IIIC T130/T95 °C IP66 Db  
**N.B.:** Supplied complete with adapter for Ø8 mm sleeve

**ELECTRIC CONNECTOR 22 mm FOR APR AND V3V ELPN**



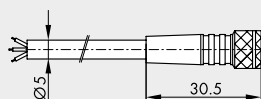
| Code        | Description               |
|-------------|---------------------------|
| W0970510011 | Connector standard        |
| W0970510012 | Connector 22 LED 24V      |
| W0970510013 | Connector 22 LED 110V     |
| W0970510014 | Connector 22 LED 220V     |
| W0970510015 | Connector 22 LED VDR 24V  |
| W0970510016 | Connector 22 LED VDR 110V |
| W0970510017 | Connector 22 LED VDR 220V |
| W0970510070 | Connector 22 II 2 GD ATEX |

**ELECTRIC CONNECTOR 30 mm FOR APR AND V3V ELPN**



| Code        | Description               |
|-------------|---------------------------|
| W0970520033 | Connector 30 STD          |
| W0970520034 | Connector 30 LED 24V      |
| W0970520035 | Connector 30 LED 110V     |
| W0970520036 | Connector 30 LED 220V     |
| W0970520037 | Connector 30 LED VDR 24V  |
| W0970520038 | Connector 30 LED VDR 110V |
| W0970520039 | Connector 30 LED VDR 220V |

**M8 STRAIGHT CONNECTOR WITH CABLE FOR PRESSURE SWITCHES**



| Pin | Cable color |
|-----|-------------|
| 1   | Brown       |
| 3   | Blue        |
| 4   | Black       |

| Code       | Description  |
|------------|--|
| 02400A0100 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 1 m   |
| 02400A0250 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 2.5 m |
| 02400A0500 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 5 m   |
| 02400A1000 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 10 m  |

Mobile laying cable, class 6 according to IEC 60228

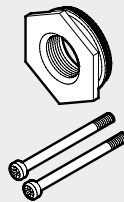
**KIT COIL SIDE 22 IP65**



| Code       | Description             |
|------------|-------------------------|
| 0222100100 | Kit for coils 22 - IP65 |

Improved IP65 protection, even after prolonged exposure to atmospheric agents.

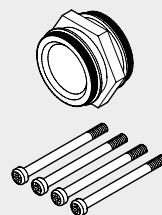
**THREADED PORT**



| Code     | Description                       |
|----------|-----------------------------------|
| 9210001  | Kit IN OUT 1/8 SY1                |
| 9210002  | Kit IN OUT 1/4 SY1                |
| 9210003  | Kit IN OUT 3/8 SY1                |
| 9210011  | Kit IN OUT 3/8 SY2                |
| 9210012  | Kit IN OUT 1/2 SY2                |
| 9210013  | Kit IN OUT 3/4 SY2                |
| 9210014  | Kit IN OUT 1 SY2                  |
| 9210001X | Kit IN OUT 1/8 SY1 anti-corrosion |
| 9210002X | Kit IN OUT 1/4 SY1 anti-corrosion |
| 9210003X | Kit IN OUT 3/8 SY1 anti-corrosion |
| 9210011X | Kit IN OUT 3/8 SY2 anti-corrosion |
| 9210012X | Kit IN OUT 1/2 SY2 anti-corrosion |
| 9210013X | Kit IN OUT 3/4 SY2 anti-corrosion |
| 9210014X | Kit IN OUT 1 SY2 anti-corrosion   |

Max torque 0.4 Nm for SY1  
 Max torque 2.5 Nm for SY2

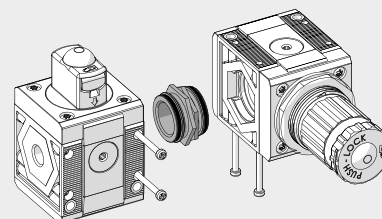
**CONNECTING NIPPLE KIT**



| Code     | Description                              |
|----------|--|
| 9210000  | Connecting nipple kit SY1                |
| 9210010  | Connecting nipple kit SY2                |
| 9210000X | Connecting nipple kit SY1 anti-corrosion |
| 9210010X | Connecting nipple kit SY2 anti-corrosion |

Max torque 0.4 Nm for SY1  
 Max torque 2.5 Nm for SY2

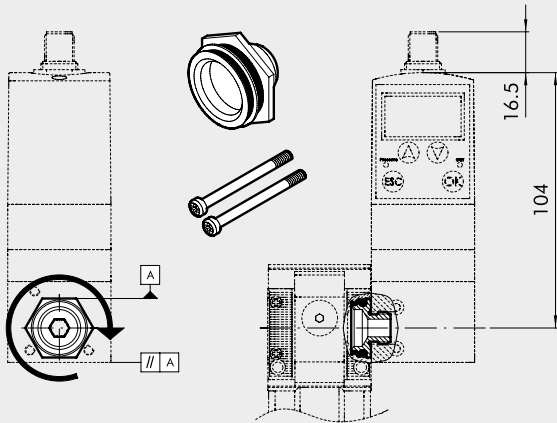
**90° CONNECTING ELEMENT KIT**



| Code     | Description                                   |
|----------|---|
| 9210009  | 90° SY1 connection element kit                |
| 9210019  | 90° SY2 connection element kit                |
| 9210009X | 90° anti-corrosion SY1 connection element kit |
| 9210019X | 90° anti-corrosion SY2 connection element kit |

Max torque 0.4 Nm for SY1  
 Max torque 2.5 Nm for SY2

**KIT CONNECTING REGTRONIC 1/4 (PAGE C6.10) AND GS REGULATOR (PAGE C6.2)**



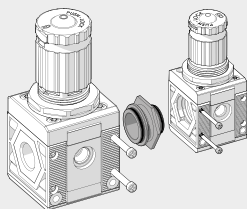
| Code    | Description                   |
|---------|-------------------------------|
| 9210004 | Adapter for regtronic 1/4 SY1 |

Max torque for screw, 0.4 Nm

**Instructions:**

- 1) Screw the connecting bushing onto the REGTRONIC 1/4 as far as it will go. Use sealant on the G1/4 thread to provide a further seal.
- 2) Unscrew the bushing slightly until two surfaces of the hexagon are parallel to the body of REGTRONIC 1/4 (see diagram).
- 3) Insert the bushing into the Syntesi® unit.
- 4) Tighten the two self-tapping screws in the Syntesi® unit to a torque of 0.4 Nm max.

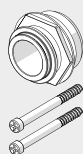
**SY1 - SY2 SIZE ADAPTER**



| Code     | Description                           |
|----------|---------------------------------------|
| 9210006  | SY1 - SY2 size adapter                |
| 9210006X | SY1 - SY2 size adapter anti-corrosion |

Max torque for screw, 0.4 Nm for SY1  
Max torque for screw, 2.5 Nm for SY2

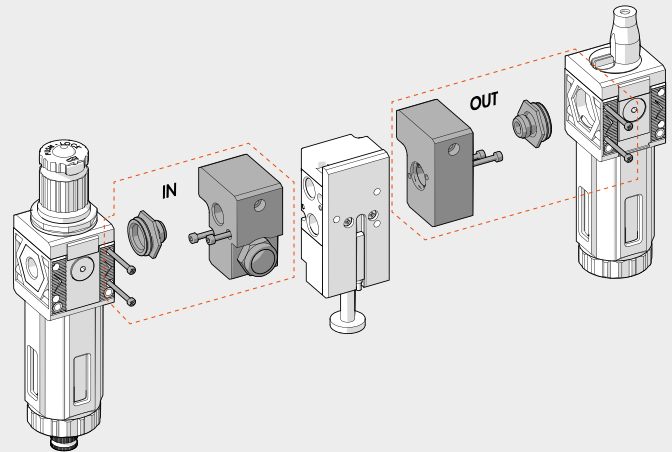
**SY1 - SY2 KIT FOR CONNECTION TO FLUX 1 - 2**



| Code       | Description          |
|------------|----------------------|
| 900099A002 | Adapter FLUX 1 - SY1 |
| 900099A003 | Adapter FLUX 2 - SY2 |

Max torque for screw, 0.4 Nm for SY1  
Max torque for screw, 2.5 Nm for SY2  
See page C6.33 for the assembly diagram.

**SY1 - SY2 KIT FOR CONNECTION TO SERIE 70 SAFE AIR® VALVES**

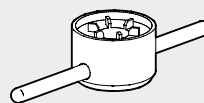


| Code    | Description                 |
|---------|-----------------------------|
| 9210015 | IN 1/4 SY1 block accessory  |
| 9210016 | OUT 1/4 SY1 block accessory |
| 9210022 | IN 3/8 SY1 block accessory  |
| 9210023 | OUT 3/8 SY1 block accessory |
| 9210017 | IN 3/8 SY2 block accessory  |
| 9210018 | OUT 3/8 SY2 block accessory |
| 9210020 | IN 1/2 SY2 block accessory  |
| 9210021 | OUT 1/2 SY2 block accessory |

Max torque for screw, 0.4 Nm for SY1  
Max torque for screw, 2.5 Nm for SY2

See page B1.151 for the assembly diagram.

**BOWL DISASSEMBLY SPANNER**



| Code    | Description        |
|---------|--------------------|
| 9170601 | CS TF - TL BIT/SY1 |
| 9210050 | CS TF - TL SY2     |

**WALL-FIXING SCREW**



| Code    | Description              |
|---------|--------------------------|
| 9210030 | M4 x 55 fixing screw SY1 |
| 9210031 | M5 x 75 fixing screw SY2 |

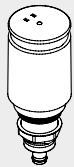
Max torque 0.8 Nm for SY1  
Max torque 2.0 Nm for SY2

**PADLOCK**



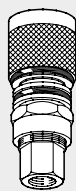
| Code    | Description |
|---------|-------------|
| 9062401 | Padlock     |

## AUTOMATIC DRAIN (RA)



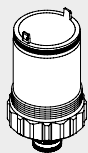
| Code    | Description                   |
|---------|-------------------------------|
| 9000802 | RA automatic drain spare part |

## AUTOMATIC DRAIN (SAC)



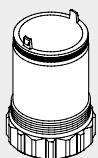
| Code    | Description                |
|---------|----------------------------|
| 9000803 | Spares SAC automatic drain |

## BOWL RMSA/RA/SAC



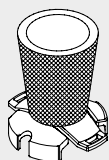
| Code    | Description              |
|---------|--------------------------|
| 9210100 | Bowl FIL FR DEP RMSA SY1 |
| 9210101 | Bowl FIL FR RA SY1       |
| 9210102 | Bowl FIL FR DEP SAC SY1  |
| 9210105 | Bowl FIL FR DEP RMSA SY2 |
| 9210106 | Bowl FIL FR RA SY2       |
| 9210107 | Bowl FIL FR DEP SAC SY2  |

## LUBRICATOR BOWL



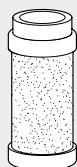
| Code    | Description  |
|---------|--------------|
| 9210110 | Bowl LUB SY1 |
| 9210115 | Bowl LUB SY2 |

## FILTERING ELEMENT



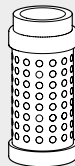
| Code    | Description                        |
|---------|------------------------------------|
| 9210150 | Filtering element 5µm (yellow) SY1 |
| 9210151 | Filtering element 20µm (white) SY1 |
| 9210152 | Filtering element 50µm (blue) SY1  |
| 9210155 | Filtering element 5µm (yellow) SY2 |
| 9210156 | Filtering element 20µm (white) SY2 |
| 9210157 | Filtering element 50µm (blue) SY2  |

## PURIFIER FILTERING ELEMENT



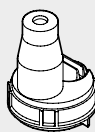
| Code    | Description              |
|---------|--------------------------|
| 9210160 | Cartridge 0.01µm DEP SY1 |
| 9210165 | Cartridge 0.01µm DEP SY2 |
| 9210162 | Cartridge 1µm DEP SY1    |
| 9210167 | Cartridge 1µm DEP SY2    |

## AC FILTERING ELEMENT (ACTIVE CARBON)



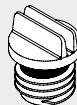
| Code    | Description      |
|---------|------------------|
| 9210161 | Cartridge AC SY1 |
| 9210166 | Cartridge AC SY2 |

## TRANSPARENT LUBRICATOR COVER



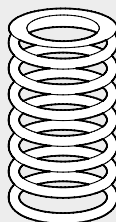
| Code    | Description               |
|---------|---------------------------|
| 9210180 | Transparent cover LUB SY1 |
| 9210185 | Transparent cover LUB SY2 |

## LUBRICATOR OIL-FILLING CAP



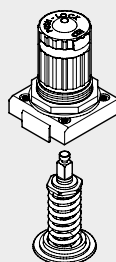
| Code    | Description             |
|---------|-------------------------|
| 9210181 | Oil-filling cap LUB SY1 |
| 9210186 | Oil-filling cap LUB SY2 |

## SPRINGS FOR REGULATORS AND FR



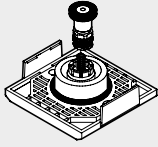
| Code     | Description                         |
|----------|-------------------------------------|
| 9210190  | Spares MO 02 SY1                    |
| 9210191  | Spares MO 04 SY1/SY1 anti-corrosion |
| 9210192  | Spares MO 08 SY1                    |
| 9210193  | Spares MO 012 SY1                   |
| 9210195  | Spares MO 02 SY2                    |
| 9210196  | Spares MO 04 SY2                    |
| 9210197  | Spares MO 08 SY2                    |
| 9210198  | Spares MO 012 SY2                   |
| 9210192X | Spares 08 SY1 anti-corrosion        |
| 9210193X | Spares 012 SY1 anti-corrosion       |
| 9210197X | Spares 08 SY2 anti-corrosion        |
| 9210198X | Spares 012 SY2 anti-corrosion       |

## BELL FOR REG AND FR



| Code     | Description                 |
|----------|-----------------------------|
| 9210200  | Bell 02 SY1                 |
| 9210201  | Bell 04 SY1                 |
| 9210202  | Bell 08 SY1                 |
| 9210203  | Bell 012 SY1                |
| 9210220  | Bell 02 SY2                 |
| 9210221  | Bell 04 SY2                 |
| 9210222  | Bell 08 SY2                 |
| 9210223  | Bell 012 SY2                |
| 9210202X | Bell 08 SY1 anti-corrosion  |
| 9210203X | Bell 012 SY1 anti-corrosion |
| 9210222X | Bell 08 SY2 anti-corrosion  |
| 9210223X | Bell 012 SY2 anti-corrosion |

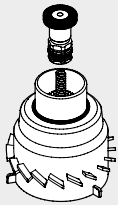
**POPPET FOR REG**



| Code     | Description                   |
|----------|-------------------------------|
| 9210210  | Poppet REG SY1                |
| 9210230  | Poppet REG SY2                |
| 9210210X | Poppet REG SY1 anti-corrosion |
| 9210230X | Poppet REG SY2 anti-corrosion |

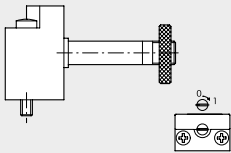
**NOTES**

**POPPET FOR FR**



| Code    | Description        |
|---------|--------------------|
| 9210211 | Poppet FR 5µm SY1  |
| 9210212 | Poppet FR 20µm SY1 |
| 9210213 | Poppet FR 50µm SY1 |
| 9210231 | Poppet FR 5µm SY2  |
| 9210232 | Poppet FR 20µm SY2 |
| 9210233 | Poppet FR 50µm SY2 |

**CNOMO CONTROL FOR V3V AND APR SY2**



| Code    | Description                             |
|---------|---|
| 9453922 | Elpn Cnomo control kit, manual bistable |

**NOTES**

Syntesi® is an important milestone achieved by Metal Work, the result of thirty years' experience producing air-treatment units. It has been studied in minute detail to obtain the best possible performance in a reduced space and with limited weight. The capacity is much higher than that of other units of the same size.

This modular unit features a very simple yet effective system that requires no brackets, stay bolts or yoke for assembling the elements.

The basic version of Syntesi® incorporates numerous functions that are not provided or are only optional with traditional units. Examples are padlockable knobs, additional pneumatic ports on the front and back, flow options from left to right or vice versa, regulators with compensation system - which are accurate even when the upstream pressure changes, with rapid downstream pressure relief - full indelible marking, automatic condensate drain even in size 1, and 360° visual inspection of oil and condensate levels. The basic materials, technopolymer and nickel-plated brass have excellent corrosion resistance. An anti-corrosion version is available with stainless steel components (screws, plates) or Geomet®-treated ones (regulator springs).



| TECHNICAL DATA   | SIZE 1  |      |      | SIZE 2                                |      |                 |    |
|--|---|------|------|---------------------------------------|------|-----------------|----|
|  | 1/8"  | 1/4" | 3/8" | 3/8"                                  | 1/2" | 3/4"            | 1" |
| Threaded port  | 1/8"  | 1/4" | 3/8" | 3/8"                                  | 1/2" | 3/4"            | 1" |
| Max. input pressure  | bar   |      | 15   | 13                                    |      |                 |    |
|  | MPa   |      | 1.5  | 1.3                                   |      |                 |    |
|  | psi   |      | 217  | 188                                   |      |                 |    |
| Flow rate  |   |      |      | See catalogue of the various elements |      |                 |    |
| Min/max temperature at 10 bar; 1 MPa; 145 psi  | °C  |      |      | from -10 to +50                       |      | from -10 to +50 |    |
| Padlockable knob   | The knobs of the regulators, filter regulators and standard sectioning valves can all be padlocked  |      |      |                                       |      |                 |    |
| Fluid  | Compressed air or other inert gases   |      |      |                                       |      |                 |    |
| Mounting position  | See catalogue of the various elements   |      |      |                                       |      |                 |    |
| Direction of flow  | Flow options right to left or vice versa  |      |      |                                       |      |                 |    |
| Additional air take-off, for pressure gauges or fittings                             | 1/8", front and rear, on all modules  |      |      | 1/4", front and rear, on all modules  |      |                 |    |
| Wall fixing screws   | No. 2 M4 screws   |      |      | No. 2 M5 screws                       |      |                 |    |
| Certification for potentially explosive atmosphere according to ATEX 2014/34/EU rule | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div>             II 3G Ex h IIC T5 Gc -10°C &lt; Ta &lt; 50°C<br/>             II 3D Ex h IIIC T100 °C Dc           </div> </div> |      |      |                                       |      |                 |    |

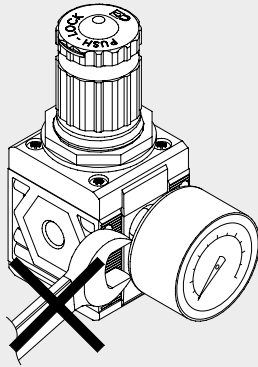
#### ANTI-CORROSION VERSION

Differences compared to the standard version:

- stainless steel screws
- stainless steel plate for R, FR, V3V knobs
- Geomet®-treated regulator spring and filter-regulator

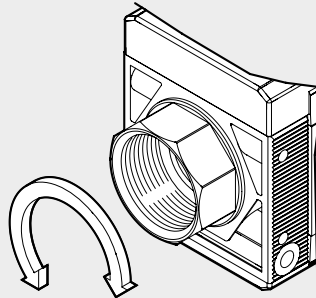


**FIXING TO FRONT PORTS**



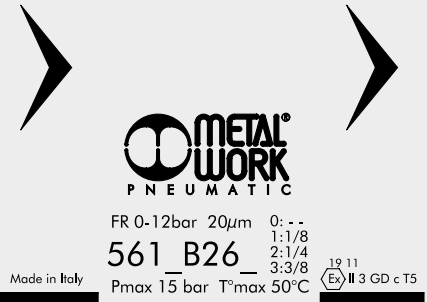
Do not use a spanner for fixing taper threaded elements to the front ports. Mount by hand and apply a liquid sealant (not teflon®).

**ROTARY BUSHINGS**



3/4" and 1" bushings in Size 2 rotate freely to facilitate assembly operations.

**LASER MARKING**

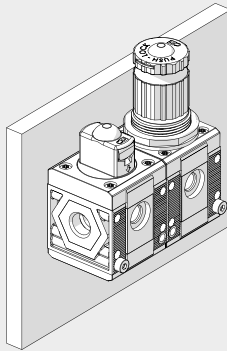


The following is marked indelibly on the body:

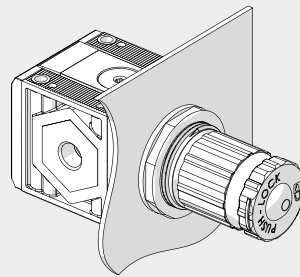
- Metal Work trademark
- Code
- Maximum pressure and temperature
- Degree of filtration or pressure range, where relevant
- Week and year of manufacture
- Atex category
- Made in Italy

**MOUNTING OPTIONS**

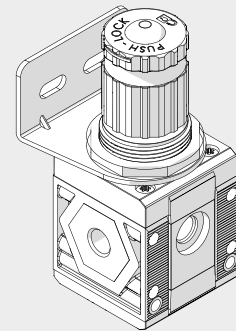
**On the wall, using two screws**



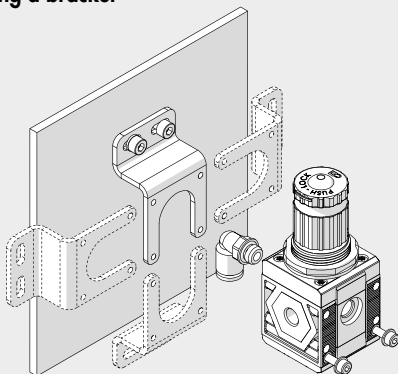
**On a panel**



**Using knob bracket**

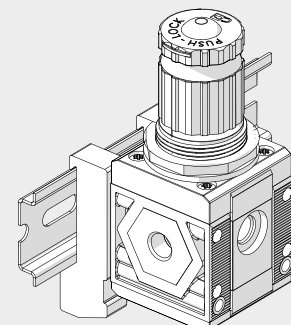


**Using a bracket**



The bracket can be secured in any position, and the fittings can be mounted on the pressure gauge air intake at the back of the unit.

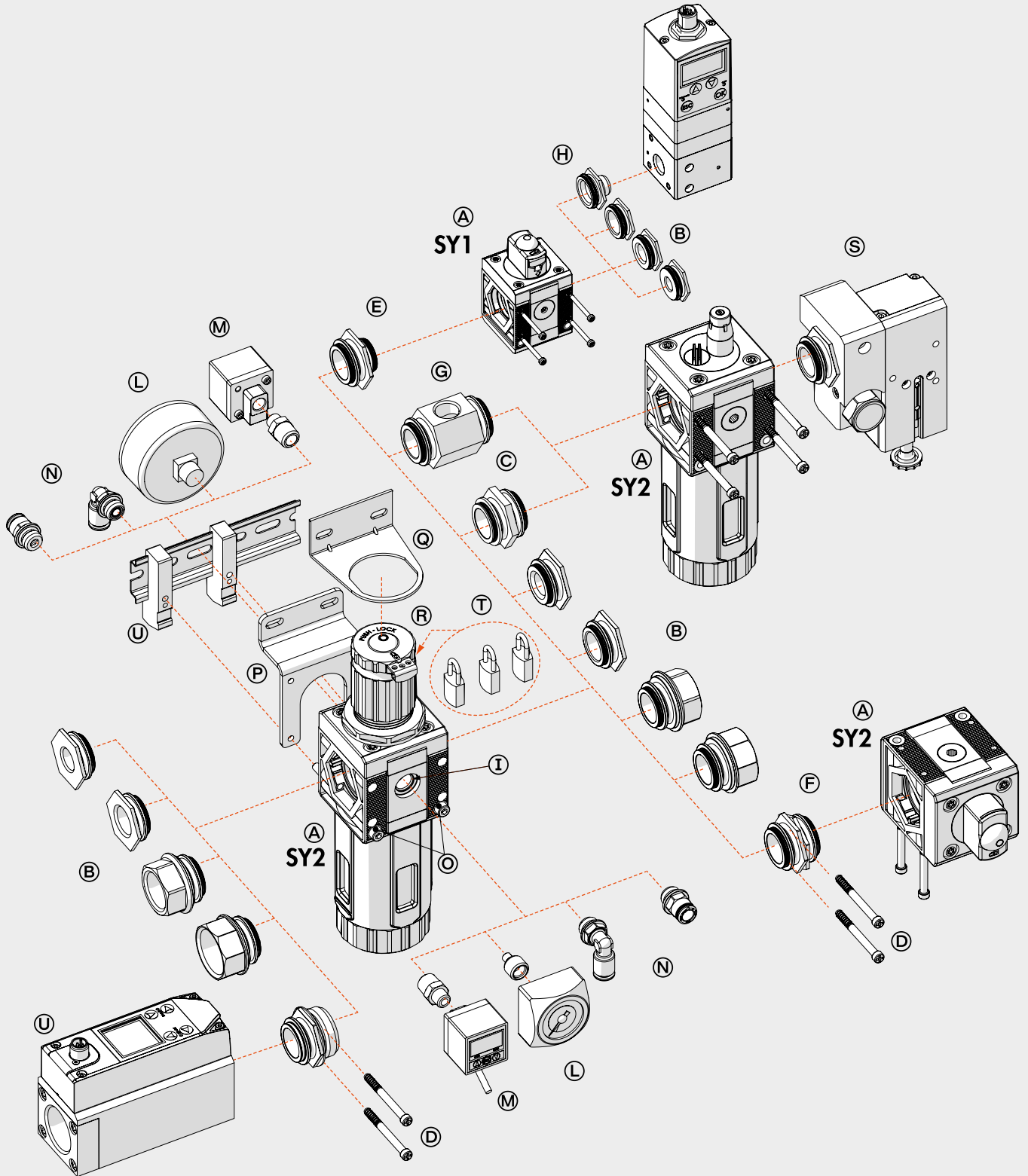
**On a DIN EN50022 bar with the apposite adaptor**



MODULARITY AND FLEXIBILITY

UNITS

GENERAL TECHNICAL DATA Syntesi®



The various elements of Syntesi® ④ can be connected to the air feed and delivery circuit using pneumatic nickel brass or passivated aluminium ports ⑤ and can be fixed together using nipples ⑥.

The nipples and ports are easy to remove by unscrewing the two front screws ⑦. This solution has numerous advantages:

- Reduced overall dimensions.
- Free composition of multiple elements, without the need for brackets, stay bolts or yoke.
- The threads for the fittings are metallic, allowing high tightening torques, also for tapered threads.
- Maximum flexibility: a unit can be transformed at any time by adding an element or replacing a port with another one, e.g. 1/4" instead of 1/8".
- The air intake port can be the same or different from the outlet port, as desired.

Standard Syntesi® ports are: 1/8", 1/4", 3/8" for size 1; 3/8", 1/2", 3/4", 1" for size 2.

It may be necessary to use a vice to insert the bushes into size 2.

The nipples have different functions:

- Nipple ⑥ joins two elements of the same size together.
- Size adaptor ⑧ can be used to connect an element in the Syntesi® 2 series with one in the Syntesi® 1 series.
- The 90° adaptor ⑨ can be used to connect two 90° angled elements. For example, it can help directing the regulator knob or the control knob of a sectioning valve towards the user.
- The two-way air intake ⑩ is a simple and cost-effective system which, besides connecting two elements together, has 2 opposing threaded air intakes.
- The adaptor for Regtronic ⑪ can be used to fix the Regtronic 1/4" proportional valve to a Syntesi® size 1 element.

**Additional ports ⑫.** On the front and back of ALL Syntesi® elements there is a port (1/8" for size 1, 1/4" for size 2) that can be used for pressure gauges ⑬, pressure switches ⑭ or, given the high flow rate, as additional air take-off ⑮. These ports are downstream of the element, so, for example, a regulator port can supply air at a set pressure or a filter port can supply filtered air (not valid for activated carbon filter and depurator).

**Wall fixing.** Only two through screws ⑯ are needed. No bulky brackets or additional flanges are required. The bracket ⑰ can be used to separate the unit from the fixing wall, e.g. to mount a fitting to the rear port.

**Fixing on a DIN EN50022 bar.** Can be done using the bracket kit ⑱.

**Regulator fixing bracket ⑲.** Regulators and filter-regulators can also be fixed using a steel bracket ⑲ that embraces the bell.

**Padlockable knob ⑲.** The knobs of regulators, filter-regulator and sectioning valves can all be padlocked. The steel plate is included in the supply. You can insert up to two 3 mm diameter padlocks ⑲ on size 1 and three padlocks on size 2. As an alternative, the sectioning valve can have a steel plate suitable for a single 6 mm diameter padlock.

**Safety valve ⑳.** The unit can incorporate a series 70 SAFE AIR® safety valve.

**Flowmeter series FLUX 1-2 ㉑.** The unit can incorporate a series FLUX 1 or FLUX 2 flow meter.