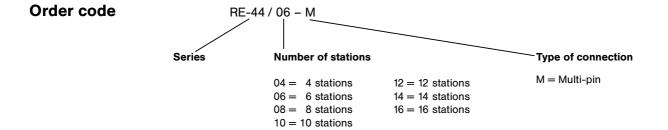
330 und 360 NI/min (0.335 and 0.366 Cv)



# **Technical data for series RE-44**





#### **Design and function**

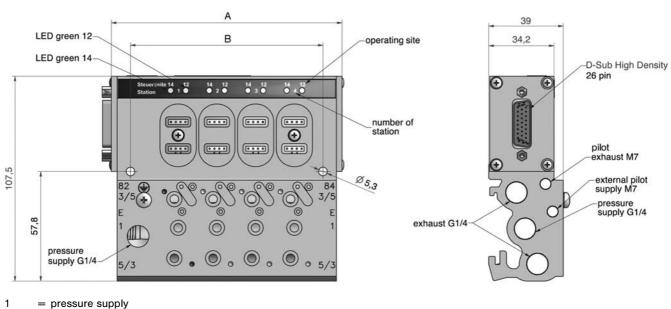
Manifold system with integrated electrical connection including LED, manual override and built-in circuit protection. The above order code covers only the manifold. The valves and the multi-pin plug with cable must be ordered separately. The valve terminal is delivered pre-assembled and function tested. If not specified with the order, valve configuration is as follows: Valves are mounted according to their order number, starting with high numbers (MF-44-533-HN-...) on the side of the multi-pin, ending with low numbers (MF-44-510-HN-...) on the opposite side, followed by blind plates (RE-44-VP, if ordered).

| Technical data        | Multi-pin   |  |  |  |
|-----------------------|---|--|--|--|
| Pressure supply 1     | G1/4 left, right and top  |  |  |  |
| Exhaust 3 + 5         | G1/4 left and right   |  |  |  |
| Exhaust 82/84         | M7 left and right   |  |  |  |
| External pilot supply | M7 left and right   |  |  |  |
| Outlets 2 + 4         | G1/8 (Valves)   |  |  |  |
| Number of stations    | 4, 6, 8, 10, 12, 14 and 16  |  |  |  |
| Materials             | Body: AI; mounting parts: steel zinc plated; Seals: NBR;<br>Inner parts: plastic, copper, brass |  |  |  |
| Degree of protection  | IP 65 acc. to EN 60529 with D-sub-plug 28-ST-10-M1-26-105 or 28-ST-10-M1-26-110                 |  |  |  |
| Temperature range     | + 5 °C + 50 °C (+41 °F + 122 °F)  |  |  |  |
| Connectors            | Multi-pin D-sub HD 26-pins  |  |  |  |
| Voltage               | 24 V DC +/- 10 %  |  |  |  |
| Status display        | yellow  |  |  |  |
| Mounting              | 2 mounting holes for M4 x 40<br>Mounting rail according DIN EN 60715 TH35                       |  |  |  |

4 – 16 valve stations 330 und 360 NI/min (0.335 and 0.366 Cv)



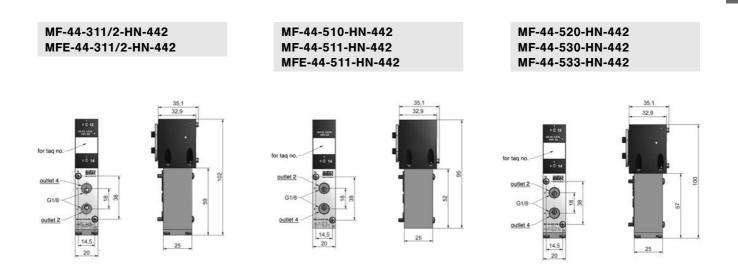
# Multi-pin manifold



3,5 = exhausts

82, 84 = external pilot exhausts

E = pilot supply



Pin assignment see page 7.042.

| Order number | Number of stations | X     | Y     | Weight (without valves) |
|--------------|--------------------|-------|-------|-------------------------|
| RE-44/04-M   | 4                  | 120.9 | 100.9 | 0.65 kg (1.433 lbs.)    |
| RE-44/06-M   | 6                  | 161.5 | 141.5 | 0.87 kg (1.918 lbs.)    |
| RE-44/08-M   | 8                  | 202.1 | 182.1 | 1.1 kg (2.425 lbs.)     |
| RE-44/10-M   | 10                 | 242.7 | 222.7 | 1.3 kg (2.866 lbs.)     |
| RE-44/12-M   | 12                 | 283.3 | 263.3 | 1.5 kg (3.307 lbs.)     |
| RE-44/14-M   | 14                 | 323.9 | 303.9 | 1.7 kg (3.748 lbs.)     |
| RE-44/16-M   | 16                 | 364.5 | 344.5 | 1.9 kg (4.189 lbs.)     |

330 und 360 NI/min (0.335 and 0.366 Cv)

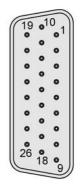
# Pin assignment RE-44 with D-Sub 26-pin Multi-pin

Counted from left to right.

| Pin | 4 – 12 stations        | 14 stations            | 16 stations            | wire coding  |
|-----|------------------------|------------------------|------------------------|--------------|
| 1   | Valve 1 pilot port 14  | Valve 1 pilot port 14  | Valve 1 pilot port 14  | white        |
| 2   | Valve 1 pilot port 12  | Valve 1 pilot port 12  | Valve 1 pilot port 12  | brown        |
| 3   | Valve 2 pilot port 14  | Valve 2 pilot port 14  | Valve 2 pilot port 14  | green        |
| 4   | Valve 2 pilot port 12  | Valve 2 pilot port 12  | Valve 2 pilot port 12  | yellow       |
| 5   | Valve 3 pilot port 14  | Valve 3 pilot port 14  | Valve 3 pilot port 14  | grey         |
| 6   | Valve 3 pilot port 12  | Valve 3 pilot port 12  | Valve 3 pilot port 12  | pink         |
| 7   | Valve 4 pilot port 14  | Valve 4 pilot port 14  | Valve 4 pilot port 14  | blue         |
| 8   | Valve 4 pilot port 12  | Valve 4 pilot port 12  | Valve 4 pilot port 12  | red          |
| 9   | Valve 5 pilot port 14  | Valve 5 pilot port 14  | Valve 5 pilot port 14  | black        |
| 10  | Valve 5 pilot port 12  | Valve 5 pilot port 12  | Valve 5 pilot port 12  | violet       |
| 11  | Valve 6 pilot port 14  | Valve 6 pilot port 14  | Valve 6 pilot port 14  | grey/pink    |
| 12  | Valve 6 pilot port 12  | Valve 6 pilot port 12  | Valve 6 pilot port 12  | red/blue     |
| 13  | Valve 7 pilot port 14  | Valve 7 pilot port 14  | Valve 7 pilot port 14  | white/green  |
| 14  | Valve 7 pilot port 12  | Valve 7 pilot port 12  | Valve 7 pilot port 12  | brown/green  |
| 15  | Valve 8 pilot port 14  | Valve 8 pilot port 14  | Valve 8 pilot port 14  | white/yellow |
| 16  | Valve 8 pilot port 12  | Valve 8 pilot port 12  | Valve 8 pilot port 12  | yellow/brown |
| 17  | Valve 9 pilot port 14  | Valve 9 pilot port 14  | Valve 9 pilot port 14  | white/grey   |
| 18  | Valve 9 pilot port 12  | Valve 9 pilot port 12  | Valve 10 pilot port 14 | grey/brown   |
| 19  | Valve 10 pilot port 14 | Valve 10 pilot port 14 | Valve 11 pilot port 14 | white/pink   |
| 20  | Valve 10 pilot port 12 | Valve 10 pilot port 12 | Valve 12 pilot port 14 | pink/brown   |
| 21  | Valve 11 pilot port 14 | Valve 11 pilot port 14 | Valve 13 pilot port 14 | white/blue   |
| 22  | Valve 11 pilot port 12 | Valve 12 pilot port 14 | Valve 14 pilot port 14 | brown/blue   |
| 23  | Valve 12 pilot port 14 | Valve 13 pilot port 14 | Valve 15 pilot port 14 | white/red    |
| 24  | Valve 12 pilot port 12 | Valve 14 pilot port 14 | Valve 16 pilot port 14 | brown/red    |
| 25  | Ground                 | Ground                 | Ground                 | white/black  |
| 26  | free                   | free                   | free                   | -            |

View on valve terminal (plug)





Wiring colour acc. to DIN 47100 (coloured or assigned with numbers).

### Explanations for PIN-assignment (26 pins available)

Terminal 4 – 12 stationsAll stations can be completely mounted with 2 x 3/2-way and 5/2-way double solenoid<br/>or 5/3-way valves.Terminal 14 stationsStations 1 – 10 can be mounted with 2 x 3/2-way and 5/2-way double solenoid or<br/>5/3-way valves. Stations 11 – 14 can be only mounted with single solenoid valves.Terminal 16 stationsStations 1 – 8 can be mounted with 2 x 3/2-way and 5/2-way double solenoid or<br/>5/3-way valves. Stations 9 – 16 can be only mounted with single solenoid valves.

### Multi-pin D-Sub-connector, 26-pins with cable

| Order code         | Description  | Cable length |
|--------------------|--|--------------|
| 28-ST-10-M1-26-105 | Multi-pin D-Sub-connector, 26-pins, multi-plug, straight | 5 m          |
| 28-ST-10-M1-26-110 | Multi-pin D-Sub-connector, 26-pins, multi-plug, straight | 10 m         |

# Valve terminals RE-44 with Multi-pin connection

4 - 16 valve stations 330 und 360 NI/min (0.335 and 0.366 Cv)



## Valve and accessories for series RE-44

| /2-way solenoid valve NC, spring return<br>vay solenoid valve, monostable with air spring return<br>vay solenoid valve, monostable with spring return<br>vay solenoid valve, bistable<br>vay solenoid valve, center position closed<br>vay solenoid valve, center position exhausted<br>/2-way solenoid valve, monostable with spring return<br>vay solenoid valve with spring return, ext. pilot supply |
|--|
| vay solenoid valve, monostable with spring return<br>vay solenoid valve, bistable<br>vay solenoid valve, center position closed<br>vay solenoid valve, center position exhausted<br>/2-way solenoid valve, monostable with spring return   |
| vay solenoid valve, bistable<br>vay solenoid valve, center position closed<br>vay solenoid valve, center position exhausted<br>/2-way solenoid valve, monostable with spring return  |
| vay solenoid valve, center position closed<br>vay solenoid valve, center position exhausted<br>/2-way solenoid valve, monostable with spring return  |
| vay solenoid valve, center position exhausted<br>/2-way solenoid valve, monostable with spring return  |
| /2-way solenoid valve, monostable with spring return   |
|  |
| vay solenoid valve with spring return, ext. pilot supply   |
|  |
|  |
| blind plate with pressure supply port (G1/8) is used if 3 different operating pressures are requ<br>Pressure access is always to chanel 1. The supply is only possible from top. The blind plat<br>res 1 valve station.<br>use of the RE-44-EP requires always the use of 2 dividing plates (see below).<br>htting screws and seals are included.<br>rials AI, NBR, Steel<br>ht 0,090 kg (0.198 lb.)     |
| ר<br>וו<br>ר   |

Blind plate RE-44-VP



Dividing plate RE-44-DT

The dividing plate RE-44-DT can only be used in chanel 1. The number of dividing plates is not limited and provides the option on additional different operating pressures. The mounting is always from the inside to the outside. By working with more than 2 different operating pressures, a blind plate RE-44-EP must be used.

Required mounting tools Materials Weight

Materials

Weight

Mounting screws and seals are included. AI, NBR, Steel

0,100 kg (0.220 lb.)

Allen key 4 mm and mounting pin Ø 4 Brass, Steel, NBR 0,010 kg (0.022 lb.)



Dividing plate RE-04-DT

The dividing plate RE-04-DT is used for the separation of 2 different operating pressures. It can be mounted in chanels 1, 3 and 5. In each chanel only 1 dividing plate can be mounted. Required mounting tools Allen key 4 mm and screwdriver Materials Brass, Steel, NBR Weight 0,010 kg (0.022 lb.)

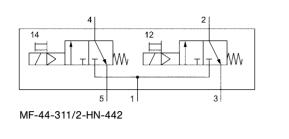
Suitable fittings Straight push-in fittings Plugs Silencers

series 44-APC 40-279-1-14, 40-279-1-18, 40-279-1-M7, 40-277-14 40-90-014, 40-501-14, 40-502-M7

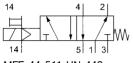
7

# Valves MF-44 for valve terminal RE-44 330 und 360 NI/min (0.335 and 0.366 Cv)

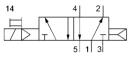




14



MFE-44-511-HN-442



MF-44-510-HN-442



<sup>14</sup> M 4 2 N T 5 1 3 MF-44-530-HN-442

MF-44-520-HN-442



MF-44-533-HN-442



2

WW

3

12

L

 $\overline{7}$ 

WW

5

12

MFE-44-311/2-HN-442

12

1

4

14

L

Í7

12/14

## **Design and function**

Spool valve actuated by an electrical signal. Mounting screws and seals are included.

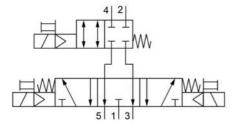
| Order number <sup>1)</sup> | MF-44-311/2   | MF-44-510                          | MF-44-511               | MF-44-520                 | MF-44-530               | MF-44-533              | MFE-44-311/2                | MFE-44-511             |
|----------------------------|---|------------------------------------|-------------------------|---------------------------|-------------------------|------------------------|-----------------------------|------------------------|
| Function                   | 2 x 3/2-way   | 5/2-way                            | 5/2-way                 | 5/2-way                   | 5/3-way                 | 5/3-way                | 2 x 3/2-way                 | 5/2-way                |
|                            | NC,   | single solenoid                    | single solenoid         | double solenoid           | center position         | center position        | NC, spring return           | spring return          |
|                            | spring return   | air spring return                  | spring return           |                           | closed                  | exhausted              | ext. pilot supply           | ext. pilot supply      |
| Connection                 | G1/8 at 2 and   | G1/8 at 2 and 4; flange at 1, 3, 5 |                         |                           |                         |                        |                             |                        |
| Nominal size               | 4 mm  | 4 mm                               |                         |                           |                         |                        |                             |                        |
| Medium                     | Compressed air in accordance with ISO 8573-1:2010, Class 7:2:4 - and free of aggressive additives.  |                                    |                         |                           |                         |                        |                             |                        |
| Flow rate                  | 330 NI/min<br>(0.335 Cv) 360 NI/min<br>(0.366 Cv) 360 NI/min<br>(0.366 Cv) 360 NI/min<br>(0.366 Cv) |                                    |                         | 360 NI/min<br>(0.366 Cv)  |                         |                        |                             |                        |
| Working<br>pressure range  | 3 8 bar<br>(44 116 psi)   | 2.5 8 bar<br>(36 116 psi)          | 3 8 bar<br>(44 116 psi) | 2.5 8 bar<br>(36 116 psi) | 3 8 bar<br>(44 116 psi) |                        | 1.5 8 bar<br>(21.75116 psi) | 0 8 bar<br>(0 116 psi) |
| Pilot<br>pressure range    | 3 8 bar<br>(44 116 psi) (44 116 psi)  |                                    |                         |                           |                         | 38 bar<br>(44 116 psi) |                             |                        |
| Response<br>time at 6 bar  | on 16 ms<br>off 30 ms   | on 12 ms<br>off 38 ms              |                         | on 12 ms                  |                         | on 12 ms<br>off 38 ms  | on 16 ms<br>off 30 ms       | on 12 ms<br>off 38 ms  |
| Temperature<br>range       | + 5 °C + 50 °C (+ 41 °F + 122 °F)   |                                    |                         |                           |                         |                        |                             |                        |
| Materials                  | Body: AI (anodized), plastic; Seals: NBR and POM; Inner parts: AI, stainless steel and brass        |                                    |                         |                           |                         |                        |                             |                        |
| Voltage                    | 24 V DC ± 10 %  |                                    |                         |                           |                         |                        |                             |                        |
| Power<br>consumption       | 2 x 0.8 W   | W 0.8 W                            |                         | 2 x 0.8 W                 |                         | 2 x 0.8 W              | 0.8 W                       |                        |
| Degree of protection       | IP 65 according to EN 60529 mounted on manifold RE-44   |                                    |                         |                           |                         |                        |                             |                        |
| Weight                     | 0.160 kg 0.150 kg 0.150 kg (0.353 lb.) (0.331 lb.) (0.353 lb.)                                      |                                    |                         | 0.150 kg<br>(0.331 lb.)   |                         |                        |                             |                        |

<sup>1)</sup> Please specify complete according to the order codes (see below circuit symbols).

Subject to change

Valve MFE-44-544/2 for valve terminal RE-44 250 NI/min (0.254 CV)





MFE-44-544/2-HN-442

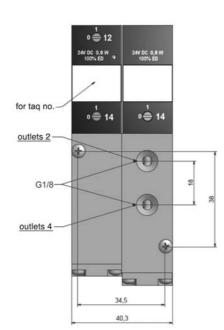


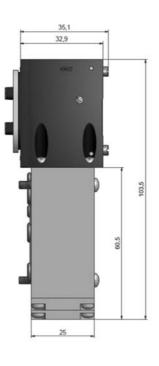
## **Design and function**

This hybrid valve combines a 5/3 open centre double solenoid valve with a 4/2 solenoid spring return valve, to give a 5/3 valve which can function either as an open centre 5/3 valve or as a closed centre 5/3 valve.

Furthermore this configuration can be thought of as "Normally Closed" since all ports are closed in the absence of any electrical signals to the coils.

# Dimensions





| Order number           | MFE-44-544/2-HN-442                                   |  |  |
|------------------------|---|--|--|
| Connection 1, 3 and 5  | Flange  |  |  |
| Connection 2 and 4     | G1/8  |  |  |
| Nominal size           | 4 mm  |  |  |
| Nominal flow           | 250 NI/min (0.254 Cv)                                 |  |  |
| Working pressure range | 2 8 bar (29 116 psi)                                  |  |  |
| Pilot pressure range   | 3 8 bar (44 116 psi)                                  |  |  |
| Temperature range      | + 5 °C + 50 °C (+ 41 °F + 122 °F)                     |  |  |
| Medium                 | compressed air  |  |  |
| Assembly position      | Any   |  |  |
| Voltage                | 24 V DC ± 10 %  |  |  |
| Power consumption      | 0,8 W per solenoid coil                               |  |  |
| Degree of protection   | IP 65 according to EN 60529 mounted on manifold RE-44 |  |  |
| Materials              | Body: AI (anodized), plastic; Seals: NBR and POM;     |  |  |
|                        | Inner parts: AI, stainless steel, brass               |  |  |
| Weight                 | 0,335 kg (0.738 lb.)                                  |  |  |