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Series RE-04



Technical details

Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR
Protection	IP 65 according to EN 60529



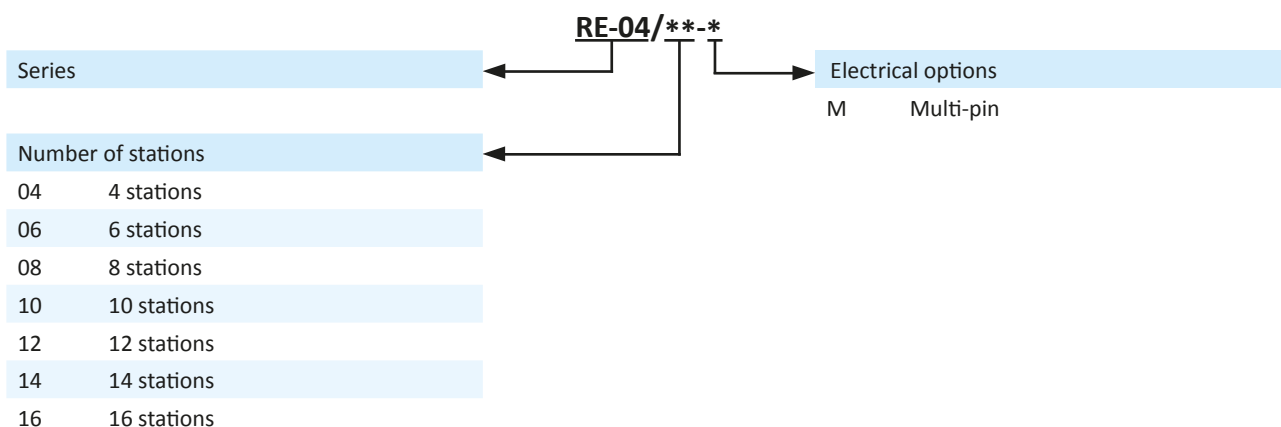
Manifold system with integrated electrical connection including LED, manual override and built-in circuit protection.

Double solenoid valves and 5/3-way valves require 2 stations on the manifold.

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 on the side of the multi-pin, ending with low numbers on the opposite side, followed by blind plates (if ordered).

Order code

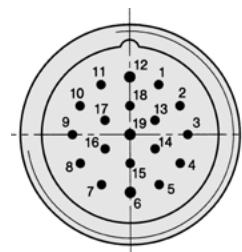


Electrical options

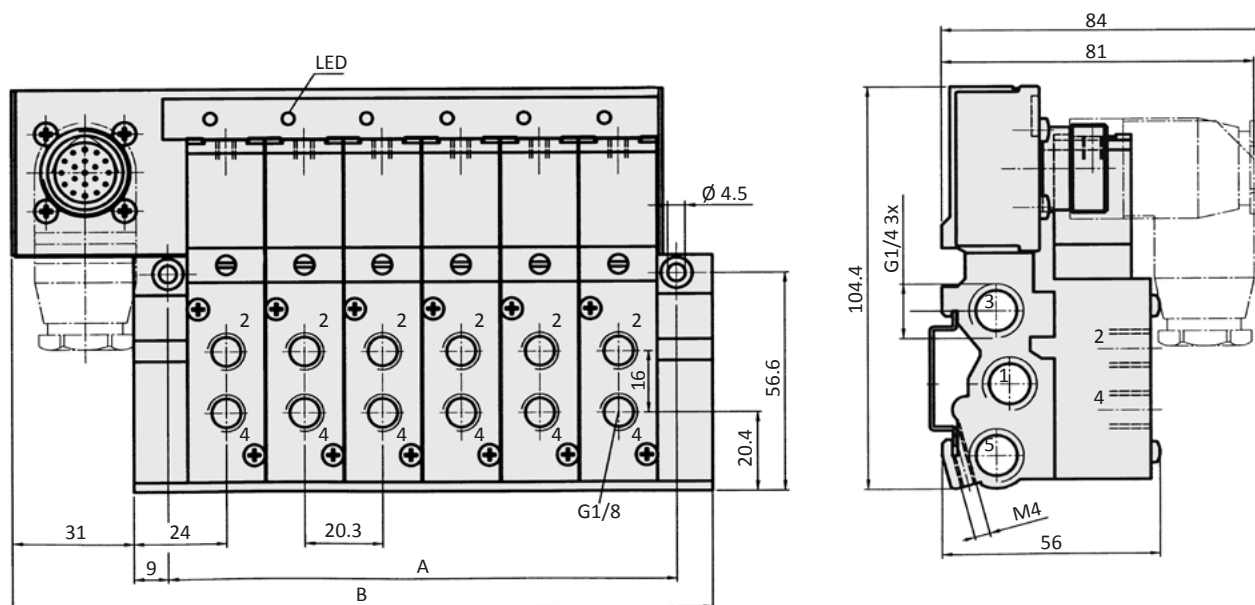
Multi-pin

The 19-pin multi plug (see page 7-04) has to be ordered separately.

Pin	Function	Cable, 8-pin	Cable, 16-pin	Pin	Function	Cable, 8-pin	Cable, 16-pin
1	valve 1	black 1	black 1	11	valve 10	-	black 10
2	valve 2	black 2	black 2	12	PE	green/ yellow	green/ yellow
3	valve 3	black 3	black 3	13	valve 11	-	black 11
4	valve 4	black 4	black 4	14	valve 12	-	black 12
5	valve 5	black 5	black 5	15	valve 13	-	black 13
6	GND	black 9	black 9	16	valve 14	-	black 14
7	valve 6	black 6	black 6	17	valve 15	-	black 15
8	valve 7	black 7	black 7	18	valve 16	-	black 16
9	valve 8	black 8	black 8	19	GND	-	black 18
10	valve 9	-	black 17				



Dimensions



- 1 = pressure inlet
2,4 = outlets
3,5 = exhausts

Model-no.:	A	B	Weight without valves (kg)
RE-04/04-M	90.9	140	0.51
RE-04/06-M	131.5	180.6	0.72
RE-04/08-M	172.1	221.2	0.93
RE-04/10-M	212.7	261.8	1.14
RE-04/12-M	253.3	302.4	1.35
RE-04/14-M	293.9	343	1.56
RE-04/16-M	334.5	383.6	1.77

Series RE-04



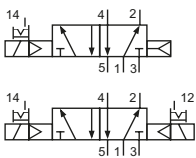
Technical details

Outlets	G1/8
Nominal size	4 mm
Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR and POM, inner parts: Al, stainless steel and brass
Nominal voltage	24 V DC, ± 10%
Power consumption	2 W
Protection	IP 65 according to EN 60529



Electrically operated spool valve. The manual override is detent and is operated by screwdriver.

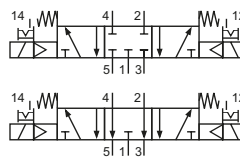
5/2-way valves



MF-04-510-HN-412
5/2-way, single solenoid, air spring return

MF-24-520-HN-412
5/2-way, double solenoid

5/3-way valves







MF-24-530-HN-412
5/3-way, center position closed

MF-24-533-HN-412
5/3-way, center position exhausted

Technical data

Model-no.:	MF-04-510-HN-412	MF-24-520-HN-412	MF-24-530-HN-412	MF-24-533-HN-412
Required space	1 station	2 stations	2 stations	2 stations
Operating pressure (bar)	2.5...8	2.5...8	3...8	3...8
Pilot pressure (bar)	2.5...8	2.5...8	3...8	3...8
Flow rate (l/min)	360	360	360	360
Response time (ms) at 6 bar	on: 13 off: 16	on: 11 off: 11	on: 15 off: 22	on: 15 off: 22
Weight (kg)	0.112	0.230	0.232	0.232

Accessories

Model-no.:	RE-04-DT	Model-no.:	28-ST-RE-10x-yy
	Pressure dividing plug		19-pin multi plug, straight
		x = 3	3 m cable
		x = 7	7 m cable
		yy = 8	up to 8 stations
		yy = 16	up to 16 stations
Model-no.:	RE-04-V-EP	Model-no.:	28-ST-RE-11x-yy
	Blind plate		19-pin multi plug, elbow
		x = 3	3 m cable
		x = 7	7 m cable
		yy = 8	up to 8 stations
		yy = 16	up to 16 stations

Technical details

Temperature range	-10°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR
Protection	IP 65 according to EN 60529



Manifold system with integrated electrical connection including LED indicators, manual override and built-in circuit protection. Valves with connection G1/4 require 2 stations on the manifold. The above order code covers only the manifold. 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 at the side of the multi-pin, ending with low numbers on the opposite side, followed by blind plates (if ordered).

Order code

Series		Electrical options	
Number of stations		M-1	Multi-pin
04*	4 stations	AS3	AS-Interface (only for 4, 8 and 12 stations)
06	6 stations	B1-1	Profibus-DP
08	8 stations		
10	10 stations		
12	12 stations		
14	14 stations		
16	16 stations		
18	18 stations		
20	20 stations		
22	22 stations		
24**	24 stations		

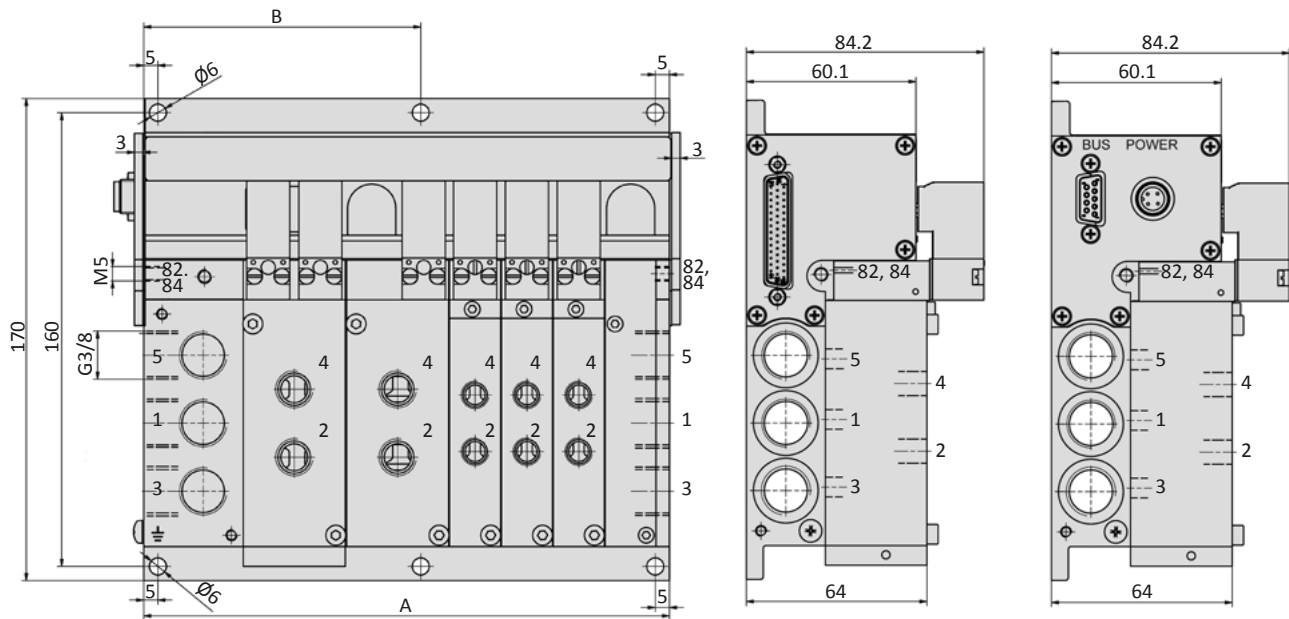
* not for Profibus-DP
** not for Multi-pin



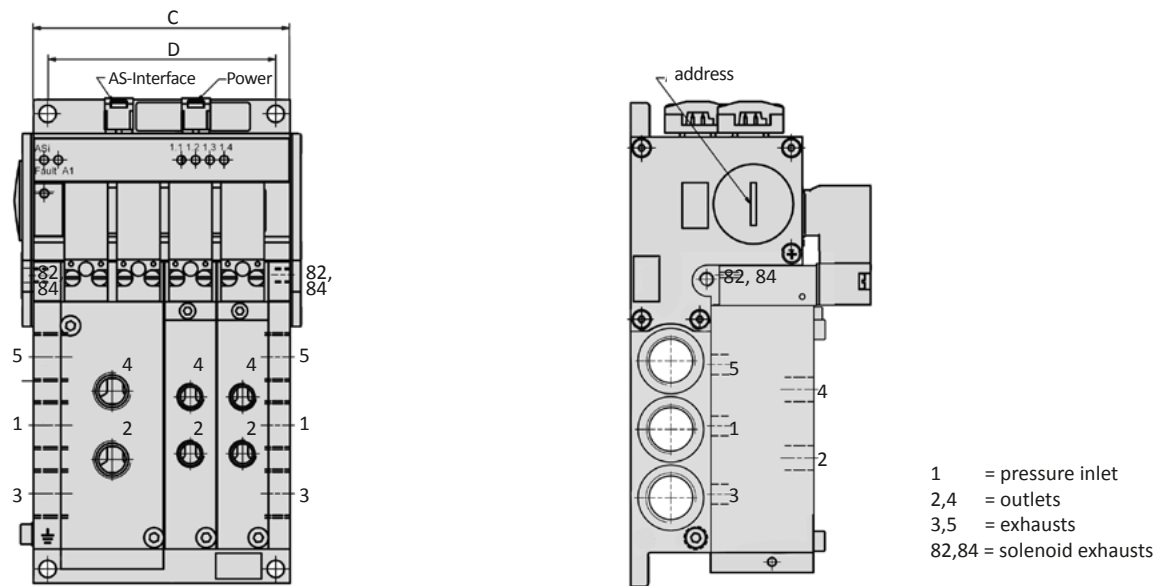
More detailed information about the installation you find in the manual at www.airtec.de.

Dimensions

Multi-pin, Profibus-DP



AS-Interface



Model-no.:		A	B	Weight without valves (kg)
RE-19/04-M-1		113	-	0.93
RE-19/06-M-1	RE-19/06-B-1	149	-	1.26
RE-19/08-M-1	RE-19/08-B-1	186	-	1.59
RE-19/10-M-1	RE-19/10-B-1	222	-	1.92
RE-19/12-M-1	RE-19/12-B-1	259	129.5	2.25
RE-19/14-M-1	RE-19/14-B-1	295	147.5	2.58
RE-19/16-M-1	RE-19/16-B-1	332	166	2.91
RE-19/18-M-1	RE-19/18-B-1	369	184.5	3.24
RE-19/20-M-1	RE-19/20-B-1	405	202.5	3.57
RE-19/22-M-1	RE-19/22-B-1	442	221	3.90
	RE-19/24-B-1	478	239	4.23

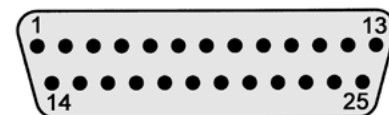
Model-no.:	C	D	Weight without valves (kg)
RE-19/04-AS3	96	80	0.82
RE-19/08-AS3	165	155	1.48
RE-19/12-AS3	228	238	2.14

Electrical options

Multi-pin

The 25-pin multi plug (see page 7-07) has to be ordered separately.

Pin	Function	Wire colour	Pin	Function	Wire colour
1	valve 1	white	14	valve 14	brown/ green
2	valve 2	brown	15	valve 15	white/ yellow
3	valve 3	green	16	valve 16	yellow/ brown
4	valve 4	yellow	17	valve 17	white/ grey
5	valve 5	grey	18	valve 18	grey/ brown
6	valve 6	pink	19	valve 19	white/ pink
7	valve 7	blue	20	valve 20	pink/ brown
8	valve 8	red	21	valve 21	white/ blue
9	valve 9	black	22	valve 22	brown/ blue
10	valve 10	violet	23	GND	white/ red
11	valve 11	grey/ pink	24	GND	brown/ red
12	valve 12	red/ blue	25	GND	white/ black
13	valve 13	white/ green			



Profibus-DP

Bus connector	bushing 9-pin D-SUB
Power connector	plug 4-pin M12
Baud rate	selectable between 9600 Bit/s and 12 Mbit/s
Voltage	24 V DC \pm 10%
Address selection	by 2 decimal coded rotary switches.
Bus terminal resistance	switchable ON - OFF






7

AS-Interface

Bus connector	AS-Interface connector
Power connector	AS-Interface connector
Bus voltage	18.5 ... 31.6 V DC
Power voltage	24 V DC \pm 10%
Address selection	Each IC slave (max. 4 valves) 1 programming socket = 1 address



Accessories

Model-no.:	RE-19-DT	Model-no.:	28-ST-68-M-xxx
	Pressure dividing plug		25-pin multi plug, straight
		xxx = 105	5 m cable
		xxx = 110	10 m cable
Model-no.:	RE-19-V-EP		
	Blind plate		

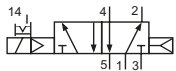
Technical details

Outlets	G1/8, G1/4
Temperature range	-10°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR, inner parts: Al, stainless steel and brass
Nominal voltage	24 V DC, ± 10%
Power consumption	1 W
Protection	IP 65 according to EN 60529

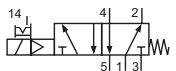


Electrically operated spool valve. The manual override is non-detent or detent and is operated by bolt or screwdriver.

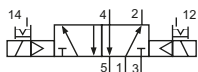
5/2-way valves



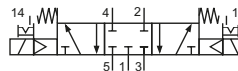
KF-09-510-HNx-442
KF-10-510-HNx-442
5/2-way, single solenoid, air spring return



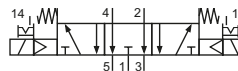
KF-09-511-HNx-442
KF-10-511-HNx-442
5/2-way, single solenoid, mechanical spring return



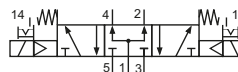
KF-10-520-HNx-442
5/2-way, double solenoid



KF-10-530-HNx-442
5/3-way, center position closed



KF-10-533-HNx-442
5/3-way, center position exhausted



KF-10-534-HNx-442
5/3-way, center position pressurized

Please complete: x = manual override (R = detent, T = non-detent)

Technical data

Model-no.:	KF-09-510-HNx-442	KF-09-511-HNx-442	KF-10-510-HNx-442	KF-10-511-HNx-442
Required space	1 station	1 station	2 stations	2 stations
Outlets	G1/8	G1/8	G1/4	G1/4
Operating pressure (bar)	3...8	3...8	2.5...8	2.5...8
Pilot pressure (bar)	3...8	3...8	2.5...8	2.5...8
Nominal size (mm)	6	6	9	9
Flow rate (NI/min)	950	810	2100	1800
Response time (ms) at 6 bar	on: 11 off: 20	on: 10 off: 26	on: 13 off: 26	on: 18 off: 29
Weight (kg)	0.200	0.200	0.370	0.370

Model-no.:	KF-10-520-HNx-442	KF-10-530-HNx-442	KF-10-533-HNx-442	KF-10-534-HNx-442
Required space	2 stations	2 stations	2 stations	2 stations
Outlets	G1/4	G1/4	G1/4	G1/4
Operating pressure (bar)	2.5...8	3...8	3...8	3...8
Pilot pressure (bar)	2.5...8	3...8	3...8	3...8
Nominal size (mm)	9	9	9	9
Flow rate (NI/min)	2100	1500	1500	1500
Response time (ms) at 6 bar	on: 16 off: 16	on: 16 off: 26	on: 16 off: 26	on: 16 off: 26
Weight (kg)	0.430	0.430	0.430	0.430

Please complete: x = manual override (R = detent, T = non-detent)

Technical details

Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR, FKM
Protection	IP 65 according to EN 60529



Manifold system with integrated electrical connection including LED indicators. Each station can accommodate two 3/2-way valves or one 5/2- or 5/3-way valve. All connections are accessible from the front.

The valves and the multi-pin plug with cable must be ordered separately.

The manifold can be mounted with 4 M5 screws from bottom or from top using the mounting bracket RE-10-B-01 or on a DIN-rail (screws are included).

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 on the side of the multi-pin, ending with low numbers on the opposite side, followed by blind plates (if ordered).

Order code

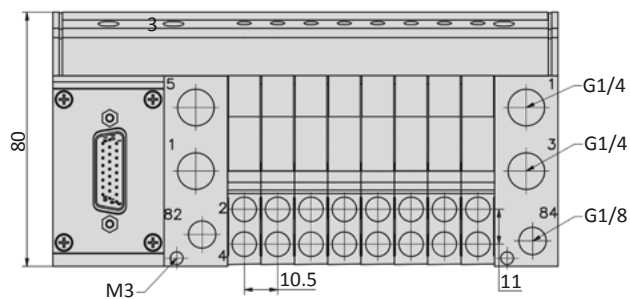
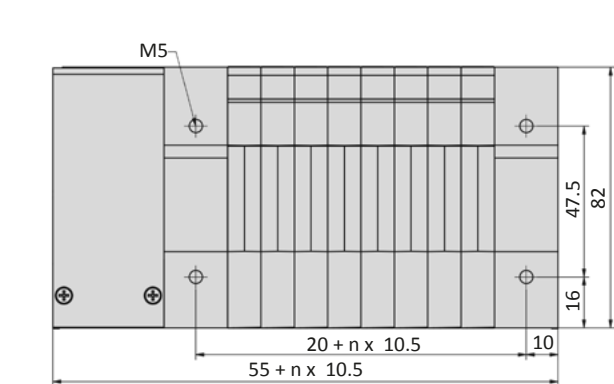
Series		Pneumatical connections	
Number of stations		Electrical options	
04	4 stations	040	tube connection Ø 4 at 2 and 4 G1/4 at 1
06*	6 stations	041	tube connection Ø 4 at 2 and 4 tube connection Ø 8 at 1
08	8 stations	042	tube connection Ø 4 at 2 and 4 tube connection Ø 10 at 1
10*	10 stations	060	tube connection Ø 6 at 2 and 4 G1/4 at 1
12	12 stations	061	tube connection Ø 6 at 2 and 4 tube connection Ø 8 at 1
* only for Multi-pin		062	tube connection Ø 6 at 2 and 4 tube connection Ø 10 at 1
		M-1	Multi-pin
		B1	Profibus-DP
		B6	CANopen



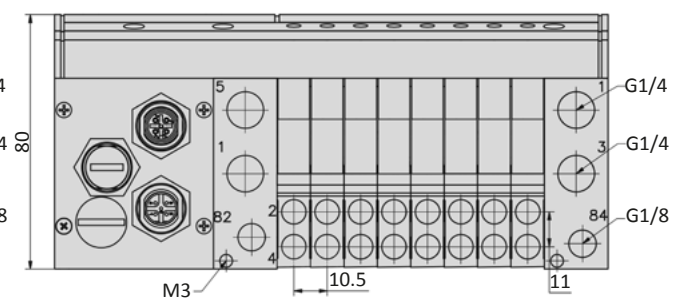
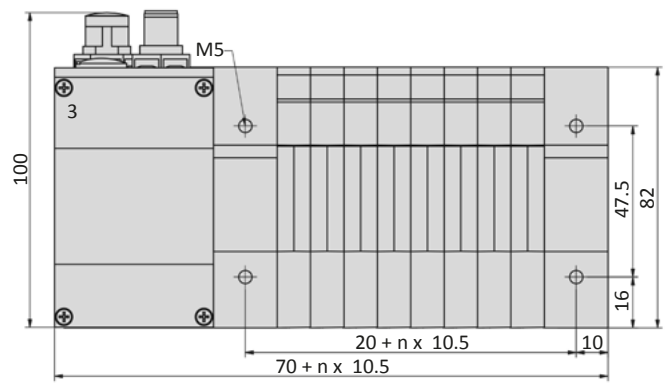
More detailed information about the installation you find in the manual at www.airtec.de.

Dimensions

Multi-pin



Bus connection



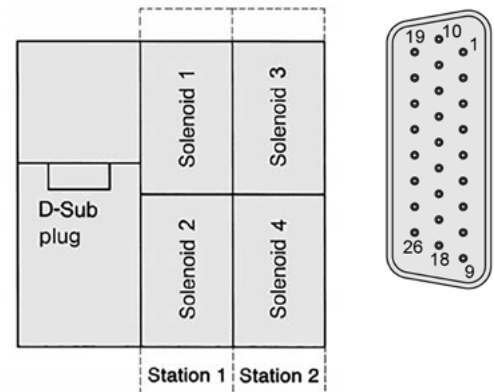
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts
- 82,84 = solenoid exhausts
- n = number of stations

Electrical options

Multi-pin

The 26-pin multi plug (see page 7-13) has to be ordered separately.

Pin	Function	Wire colour	Pin	Function	Wire colour
1	solenoid 1	white	14	solenoid 14	brown/ green
2	solenoid 2	brown	15	solenoid 15	white/ yellow
3	solenoid 3	green	16	solenoid 16	yellow/ brown
4	solenoid 4	yellow	17	solenoid 17	white/ grey
5	solenoid 5	grey	18	solenoid 18	grey/ brown
6	solenoid 6	pink	19	solenoid 19	white/ pink
7	solenoid 7	blue	20	solenoid 20	pink/ brown
8	solenoid 8	red	21	solenoid 21	white/ blue
9	solenoid 9	black	22	solenoid 22	brown/ blue
10	solenoid 10	violet	23	solenoid 23	white/ red
11	solenoid 11	grey/ pink	24	solenoid 24	brown/ red
12	solenoid 12	red/ blue	25	GND	white/ black
13	solenoid 13	white/ green	26	-	-



Profibus-DP

Bus connector	Bus In: plug M12 5-pin B-code Bus Out: socket M12 5-pin B-code
Power connector	plug M12 5-pin A-code
Baud rate	9.6 Kbit/s ... 12 Mbit/s
Voltage	24 V DC \pm 10%
Power consumption	4.3 W
Address selection	by 2 decimal coded rotary switches
Bus terminal resistance	external over Bus Out socket



CANopen

Bus connector	Bus In: plug M12 5-pin A-code Bus Out: socket M12 5-pin A-code
Power connector	plug M12 4-pin A-code
Baud rate	10 Kbit/s ... 1 Mbit/s
Voltage	24 V DC \pm 10%
Power consumption	4.3 W
Address selection	by 2 decimal coded rotary switches
Bus terminal resistance	external over Bus Out socket



Series RE-10



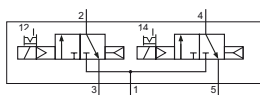
Technical details

Outlets	according to the pneumatical connections of the terminal
Nominal size	4 mm
Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR, FKM, PU inner parts: Al, stainless steel and brass
Nominal voltage	24 V DC, ± 10%
Power consumption	0.8 W
Protection	IP 65 according to EN 60529

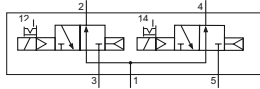


Electrically operated spool valve. The manual override is non-detent. The manual override is located on top of the terminal cover.

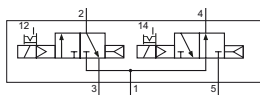
2 x 3/2-way valves



LF-10-310/2-HN-412
2 x 3/2-way, single solenoid, air spring return, NC

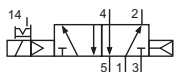


LF-10-312/2-HN-412
2 x 3/2-way, single solenoid, air spring return, NO

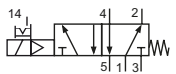


LF-10-314/2-HN-412
2 x 3/2-way, single solenoid, air spring return, 1 x NC, 1 x NO

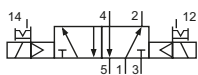
5/2-way valves



LF-10-510-HN-412
5/2-way, single solenoid, air spring return

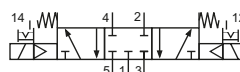


LF-10-511-HN-412
5/2-way, single solenoid, mechanical spring return

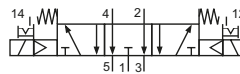


LF-10-520-HN-412
5/2-way, double solenoid

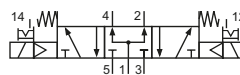
5/3-way valves



LF-10-530-HN-412
5/3-way, center position closed



LF-10-533-HN-412
5/3-way, center position exhausted



LF-10-534-HN-412
5/3-way, center position pressurized

Technical data






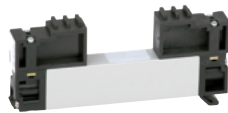
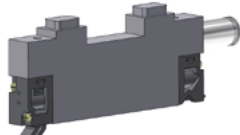
Model-no.:	LF-10-310/2-HN-412	LF-10-312/2-HN-412	LF-10-314/2-HN-412
Operating pressure (bar)	1.5...8	1.5...8	1.5...8
Pilot pressure (bar)	1.5...8	1.5...8	1.5...8
Flow rate (NI/min)	300	220	300 / 220 (NC / NO)
Response time (ms) at 6 bar	on: 14 off: 22	on: 14 off: 22	on: 14 off: 22
Weight (kg)	0.050	0.050	0.050

Technical data

Model-no.:	LF-10-510-HN-412	LF-10-511-HN-412	LF-10-520-HN-412
Operating pressure (bar)	1.5...8	3...8	1.5...8
Pilot pressure (bar)	1.5...8	3...8	1.5...8
Flow rate (NI/min)	300	300	300
Response time (ms) at 6 bar	on: 18 off: 28	on: 14 off: 30	on: 15 off: 15
Weight (kg)	0.044	0.042	0.052

Model-no.:	LF-10-530-HN-412	LF-10-533-HN-412	LF-10-534-HN-412
Operating pressure (bar)	3.5...8	3.5...8	3.5...8
Pilot pressure (bar)	3.5...8	3.5...8	3.5...8
Flow rate (NI/min)	280	280	300
Response time (ms) at 6 bar	on: 20 off: 30	on: 16 off: 30	on: 16 off: 30
Weight (kg)	0.050	0.050	0.050

Accessories

Model-no.:	RE-10-DT-01	Model-no.:	28-ST-10-M1-26-xxx
	Pressure dividing plug P-canal		26-pin multi plug, straight
Model-no.:	RE-10-MS-01	xxx = 105	5 m cable
	Kit for DIN-rail mounting	xxx = 110	10 m cable
Model-no.:	RE-10-B-01	Model-no.:	28-ST-RE-46-xx-yy
	Mounting bracket (pair)		Connector kit
Model-no.:	RE-10-V-EP	xx = 01	in- and output
	Blind plate	xx = 02	with termination resistance
Model-no.:	RE-10-P-01	yy = B1	Profibus
	Device for additional air supply	yy = B6	CANopen

Technical details

Temperature range	-10°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR
Protection	IP 65 according to EN 60529



Manifold system with integrated electrical connection including LED indicators. Each station can accommodate two 3/2-way valves or one 5/2- or 5/3-way valve. All connections are accessible from the front. 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 at the side of the multi-pin, ending with low numbers on the opposite side, followed by blind plates (if ordered).

Order code

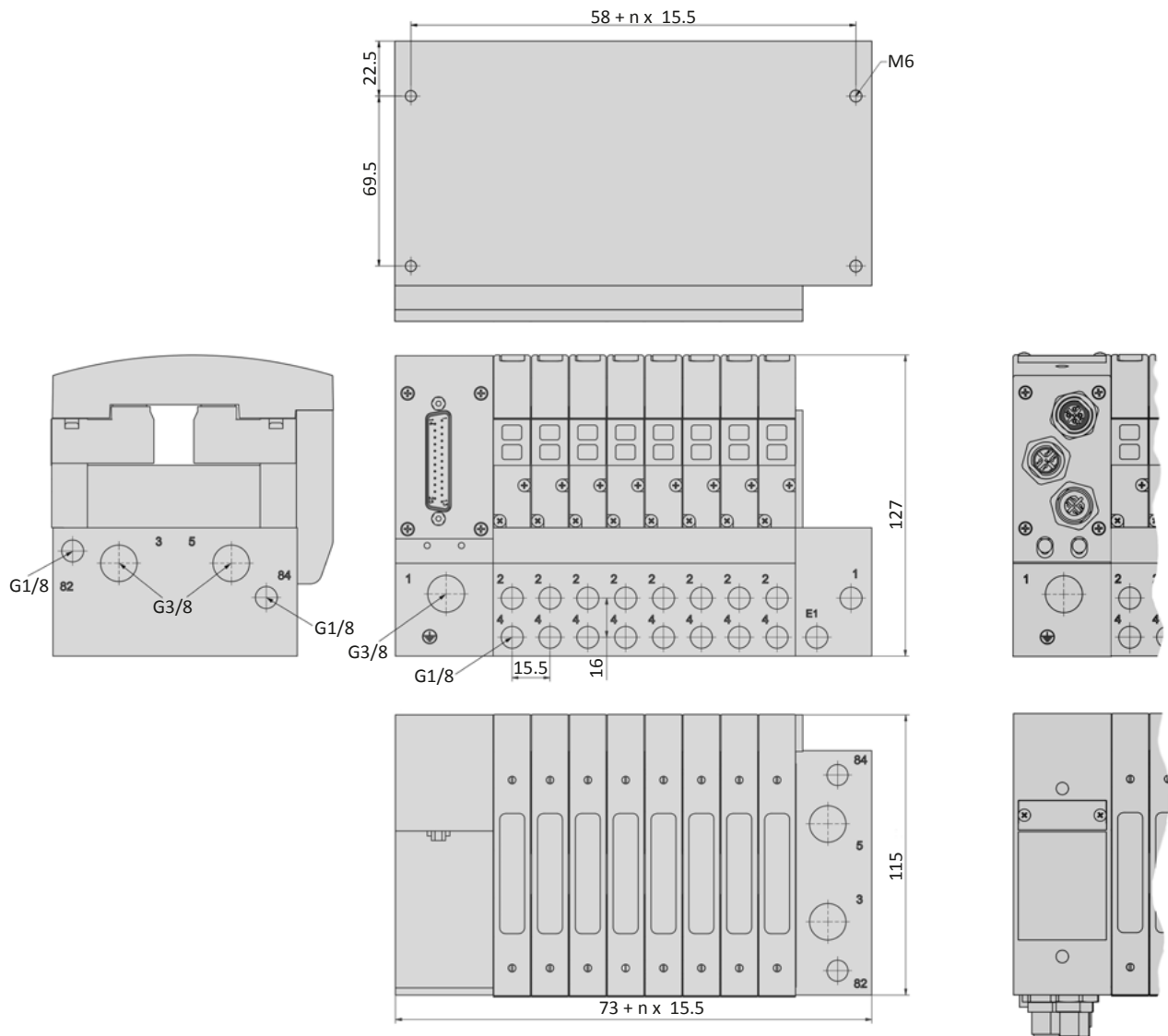
Series		Pneumatical connections	
Number of stations		Pilot air	
04	4 stations	00	G1/8 at 2 and 4 G3/8 at 1
06	6 stations	60	tube connection Ø 6 at 2 and 4 tube connection Ø 10 at 1
08	8 stations	61	tube connection Ø 6 at 2 and 4 tube connection Ø 8 at 1
10	10 stations	62	tube connection Ø 6 at 2 and 4 tube connection Ø 12 at 1
12	12 stations	80	tube connection Ø 8 at 2 and 4 tube connection Ø 10 at 1
14	14 stations	81	tube connection Ø 8 at 2 and 4 tube connection Ø 8 at 1
16	16 stations	82	tube connection Ø 8 at 2 and 4 tube connection Ø 12 at 1
18	18 stations		
20	20 stations		
22*	22 stations		
24*	24 stations		
	* only for terminals with Bus connection		
Position of the pneumatic connection		Electrical options	
blank	at the side	M-1	Multi-pin
G*	at the bottom	AS3	AS-Interface (only for 4, 8 and 12 stations)
	* only for 8, 12 and 16 stations	B1-1	Profibus-DP
		B6-1	CANopen
		B7-1	Profinet-RT
		B8-1*	EtherCAT
			* on request



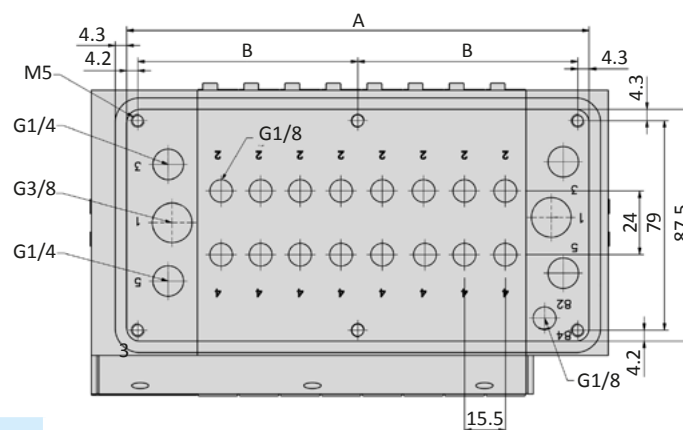
More detailed information about the installation you find in the manual at www.airtec.de.

Dimensions

Multi-pin, Bus connection



Version RE-46-G



Model-no.:	A	B
RE-46/08-G	174.5	83 (2x)
RE-46/12-G	236.5	76 (3x)
RE-46/16-G	298.5	72.5 (4x)

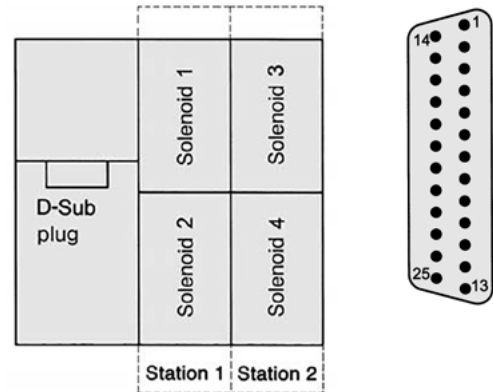
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts
- 82,84 = solenoid exhausts
- n = number of stations

Electrical options

Multi-pin, 2 up to 12 stations

The 25-pin multi plug (see page 7-19) has to be ordered separately.

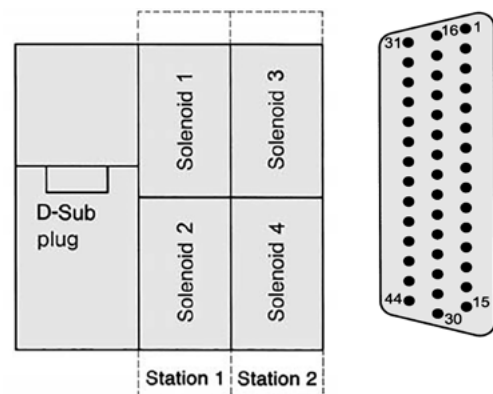
Pin	Function	Wire colour	Pin	Function	Wire colour
1	GND	white	14	solenoid 2	brown/ green
2	solenoid 1	brown	15	solenoid 4	white/ yellow
3	solenoid 3	green	16	solenoid 6	yellow/ brown
4	solenoid 5	yellow	17	solenoid 8	white/ grey
5	solenoid 7	grey	18	solenoid 10	grey/ brown
6	solenoid 9	pink	19	solenoid 12	white/ pink
7	solenoid 11	blue	20	solenoid 14	pink/ brown
8	solenoid 13	red	21	solenoid 16	white/ blue
9	solenoid 15	black	22	solenoid 18	brown/ blue
10	solenoid 17	violet	23	solenoid 20	white/ red
11	solenoid 19	grey/ pink	24	solenoid 22	brown/ red
12	solenoid 21	red/ blue	25	GND	white/ black
13	solenoid 23	white/ green			



Multi-pin, 14 up to 20 stations

The 44-pin multi plug (see page 7-19) has to be ordered separately.

Pin	Function	Wire colour	Pin	Function	Wire colour
1	GND	white	23	solenoid 20	white/ red
2	solenoid 3	brown	24	solenoid 23	brown/ red
3	solenoid 6	green	25	solenoid 26	white/ black
4	solenoid 9	yellow	26	solenoid 29	brown/ black
5	solenoid 12	grey	27	solenoid 32	grey/ green
6	solenoid 15	pink	28	solenoid 35	yellow/ grey
7	solenoid 18	blue	29	solenoid 38	pink/ green
8	solenoid 21	red	30	-	yellow/ pink
9	solenoid 24	black	31	solenoid 1	green/ blue
10	solenoid 27	violet	32	solenoid 4	yellow/ blue
11	solenoid 30	grey/ pink	33	solenoid 7	green/ red
12	solenoid 33	red/ blue	34	solenoid 10	yellow/ red
13	solenoid 36	white/ green	35	solenoid 13	green/ black
14	solenoid 39	brown/ green	36	solenoid 16	yellow/ black
15	-	white/ yellow	37	solenoid 19	grey/ blue
16	GND	yellow/ brown	38	solenoid 22	pink/ blue
17	solenoid 2	white/ grey	39	solenoid 25	grey/ red
18	solenoid 5	grey/ brown	40	solenoid 28	pink/ red
19	solenoid 8	white/ pink	41	solenoid 31	grey/ black
20	solenoid 11	pink/ brown	42	solenoid 34	pink/ black
21	solenoid 14	white/ blue	43	solenoid 37	blue/ black
22	solenoid 17	brown/ blue	44	solenoid 40	red/ black



AS-Interface

Bus connector	AS-Interface connector
Power connector	AS-Interface connector
Bus voltage	18.5 ... 31.6 V DC
Power voltage	24 V DC \pm 10%
Address selection	Low voltage switch plug \varnothing 1.3 mm, slave selection by DIP-switch



Electrical options

Profibus-DP

Bus connector	Bus In: plug M12, 5-pin, B-code Bus Out: socket M12, 5-pin, B-code
Power connector	plug M12, 5-pin, A-code
Baud rate	9.6 Kbit/s ... 12 Mbit/s, automatic adjustment
Voltage	24 V DC \pm 10%
Power consumption	2.9 W
Address selection	by 2 decimal coded rotary switches
Bus terminal resistance	external over Bus Out socket



CANopen

Bus connector	Bus In: plug M12, 5-pin, A-code Bus Out: socket M12, 5-pin, A-code
Power connector	plug M12, 5-pin, A-code
Baud rate	10 Kbit/s ... 1 Mbit/s
Voltage	24 V DC \pm 10%
Power consumption	2.9 W
Address selection	by 2 decimal coded rotary switches
Bus terminal resistance	external over Bus Out socket



Profinet-RT

Bus connector	Bus In: socket M12, 4-pin, D-code Bus Out: socket M12, 4-pin, D-code
Power connector	plug M12, 5-pin, A-code
Baud rate	100 Mbit/s, full duplex
Voltage	24 V DC \pm 10%
Power consumption	3.6 W
Address selection	by controller remote



EtherCAT

Bus connector	Bus In: socket M12, 4-pin, D-code Bus Out: socket M12, 4-pin, D-code
Power connector	plug M12, 5-pin, A-code
Baud rate	100 Mbit/s, full duplex
Voltage	24 V DC \pm 10%
Power consumption	3.5 W



Series RE-46



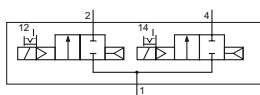
Technical details

Outlets	according to the pneumatical connections of the terminal
Temperature range	-10°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR, inner parts: Al, stainless steel and brass
Nominal voltage	24 V DC, $\pm 10\%$
Power consumption	1.3 W
Protection	IP 65 according to EN 60529



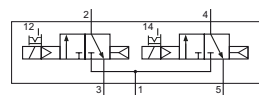
Electrically operated spool valve. The manual override is non-detent. The manual override is located on top of the valve cover.

2/2-way valve

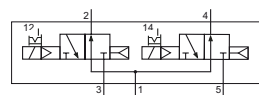


KF-46-210/2-HN-S12
2 x 2/2-way, single solenoid, air spring return, NC

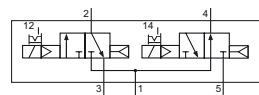
2 x 3/2-way valves



KF-46-310/2-HN-S12
2 x 3/2-way, single solenoid, air spring return, NC

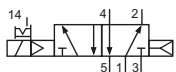


KF-46-312/2-HN-S12
2 x 3/2-way, single solenoid, air spring return, NO

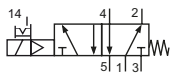


KF-46-314/2-HN-S12
2 x 3/2-way, single solenoid, air spring return, 1 x NC, 1 x NO

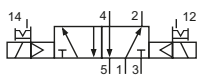
5/2-way valves



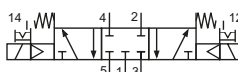
KF-46-510-HN-S12
5/2-way, single solenoid, air spring return



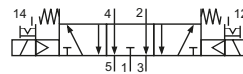
KF-46-511-HN-S12
5/2-way, single solenoid, mechanical spring return



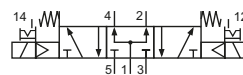
KF-46-520-HN-S12
5/2-way, double solenoid



KF-46-530-HN-S12
5/3-way, center position closed



KF-46-533-HN-S12
5/3-way, center position exhausted



KF-46-534-HN-S12
5/3-way, center position pressurized

Technical data

Model-no.:	KF-46-210/2-HN-S12	KF-46-310/2-HN-S12	KF-46-312/2-HN-S12	KF-46-314/2-HN-S12
Operating pressure (bar)	2.5...8	2.5...8	2.5...8	2.5...8
Pilot pressure (bar) *	2.5...8	2.5...8	2.5...8	2.5...8
Nominal size (mm)	4.5	4.5	4.5	4.5
Flow rate (l/min)	430	430	630	430 / 630 (NC / NO)
Response time (ms) at 6 bar	on: 15 off: 28	on: 15 off: 28	on: 15 off: 28	on: 15 off: 28
Weight (kg)	0.188	0.188	0.188	0.188

* Valves are not suitable for external pilot supply.







Technical data

Model-no.:	KF-46-510-HN-S12	KF-46-511-HN-S12	KF-46-520-HN-S12
Internal pilot pressure			
Operating pressure (bar)	2.5...8	2.5...8	2.5...8
Pilot pressure (bar)	2.5...8	2.5...8	2.5...8
External pilot pressure			
Operating pressure (bar)	- *	0...10	0...10
Pilot pressure (bar)	- *	3...8	3...8
Nominal size (mm)	6	6	6
Flow rate (NI/min)	950	810	950
Response time (ms) at 6 bar	on: 15 off: 31	on: 14 off: 33	on: 20 off: 20
Weight (kg)	0.158	0.158	0.188

* Valves are not suitable for external pilot supply.

Model-no.:	KF-46-530-HN-S12	KF-46-533-HN-S12	KF-46-534-HN-S12
Internal pilot pressure			
Operating pressure (bar)	3...8	3...8	3...8
Pilot pressure (bar)	3...8	3...8	3...8
External pilot pressure			
Operating pressure (bar)	0...10	0...10	0...10
Pilot pressure (bar)	3...8	3...8	3...8
Nominal size (mm)	6	6	6
Flow rate (NI/min)	680	680	680
Response time (ms) at 6 bar	on: 20 off: 30	on: 20 off: 30	on: 20 off: 30
Weight (kg)	0.188	0.188	0.188

Accessories

Model-no.:	RE-19-DT	Model-no.:	28-ST-46-M1-yy-xxx
	Pressure dividing plug		25- or 44-pin multi plug, straight yy = 25 25-pin yy = 44 44-pin xxx = 105 5 m cable xxx = 110 10 m cable
Model-no.:	RE-x6-V-EP	Model-no.:	28-ST-RE-46-xx-yy
	x = 1 Blind plate, set x = 4 Blind plate for valve and coil station		Connector kit xx = 01 in- and output xx = 02 with termination resistance yy = B1 Profibus yy = B6 CANopen
Model-no.:	RE-46-RSV	Model-no.:	RE-46-B-01
	Check valve		Mounting bracket (pair)

Series REF-10 and REF-14

Technical details

Temperature range	-10°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, in each case free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below the lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR
Protection	IP 65 according to EN 60529



Description

- Modular valve-terminal for pneumatic control systems
- Flexible and extendable
- Up to 24 stations can be incorporated into each terminal
- 2 valve sizes (10 mm and 14 mm width) can be mounted on the same terminal
- Outlet ports of the valve can be configured 3 ways. Upward, Lateral or Rear
- Din Rail mounting option
- Various Bus Systems and IO Link available
- Options:
 - internal or external pilot port
 - adapter plates for additional operating ports
 - pressure dividing plate in air channels 1, 3 and 5

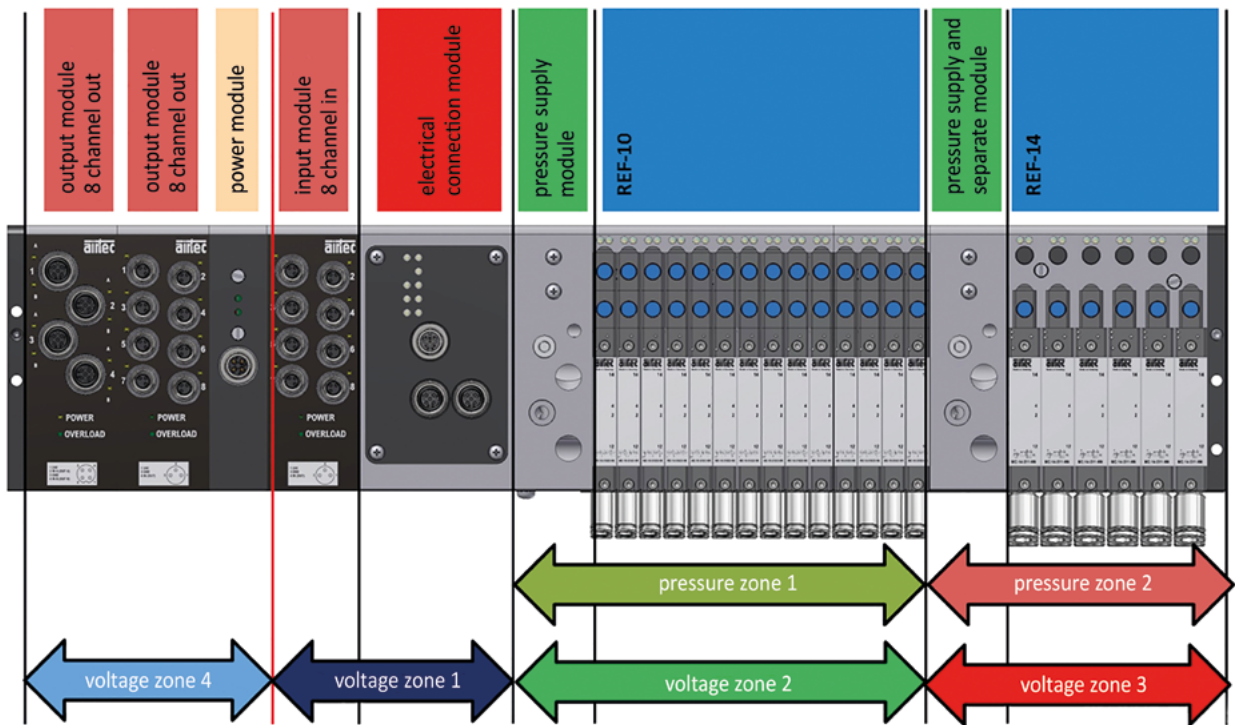
Technical data

Number of stations	3 to 24
Electrical connection	Multi-pin, IO-Link, CANopen, ProfiNet (IRT/RT), EtherCAT
Voltage	24 V DC \pm 10%
Power consumption	max. 1,3 W solenoid, electronic according version
Flow rate	10 mm: 400 NI/min, 14 mm: 600 NI/min
Inlet/Exhaust Ports	1, 3 and 5 G1/4, E1 (external pilot port) M7
Operating ports	M7 (10 mm valves), G1/8 (14 mm valves)
Operating pressure	0 ... 8 bar (external pilot pressure), 3 ... 8 bar (internal pilot pressure)
Pilot pressure	3 ... 8 bar



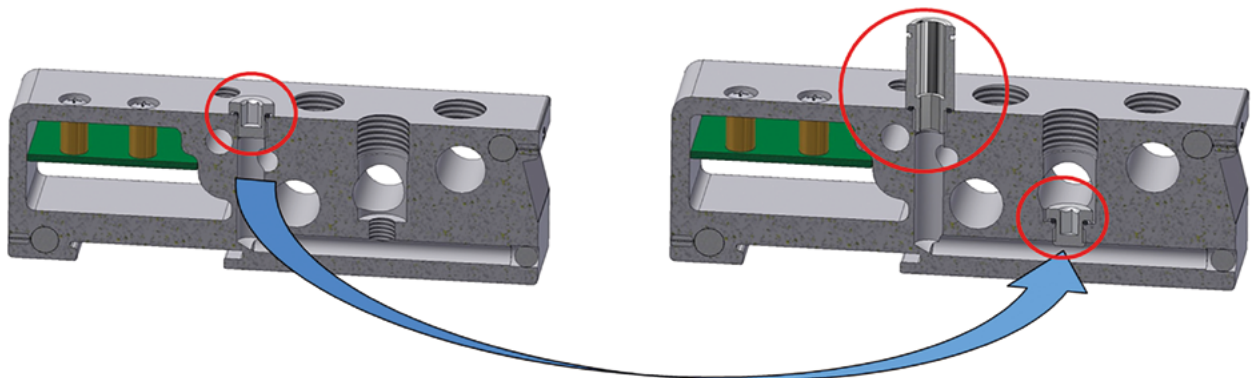
For further information please see: www.airtec.de

Voltage- and pressure zones



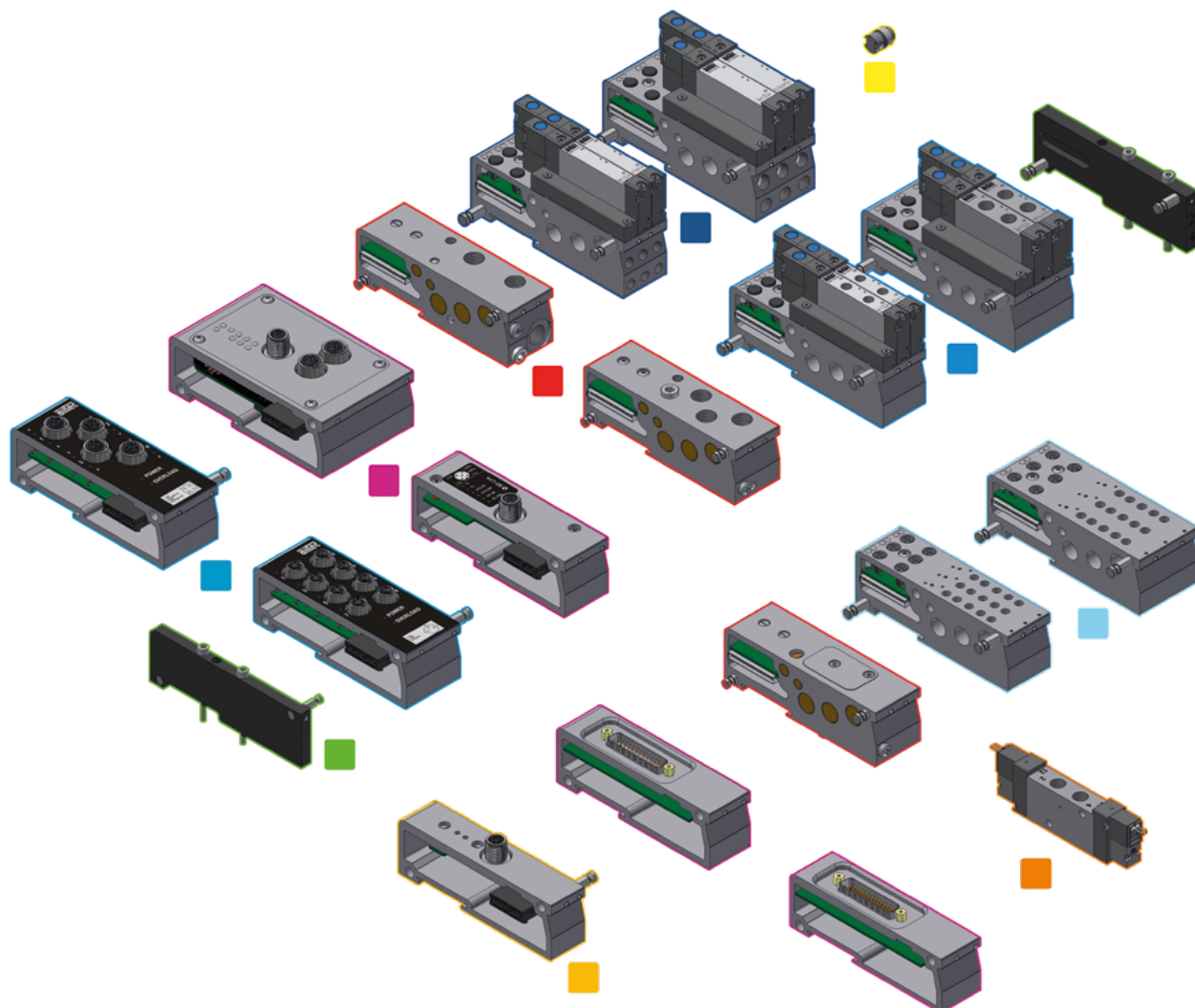
Up to 4 separate suitable voltage zones for emergency stops, voltage switch off's operated by separation- or power-module.

Changing from internal to external pilot pressure






Internal pilot pressure:
- plug on pilot pressure port








External pilot pressure:
- plug displaced to port 1
- pilot port with M7 push in fitting



Electrical modules

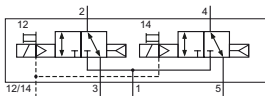
-  Bus-module, IO-Link, Multi-pin
-  Input- and Output-module
-  Power module

Pneumatical modules

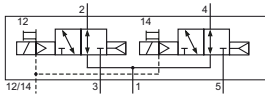
-  Manifolds with lateral outlet ports, MC-valves
-  Manifolds without outlet ports, MF-valves
-  Manifolds with rear outlet ports, MC-valves
-  Adapter to allow dual operating pressures
-  End plates
-  M-valve for direct wiring
-  Pressure dividing plate

Series REF-10 and REF-14

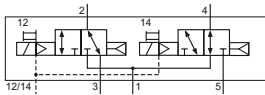
Valve functions



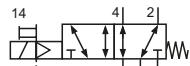
2 x 3/2-way, single solenoid, air spring return, NC



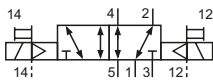
2 x 3/2-way, single solenoid, air spring return, NO



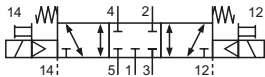
2 x 3/2-way, single solenoid, air spring return, 1 x NC, 1 x NO



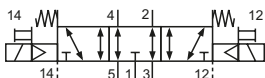
5/2-way, single solenoid, mechanical spring return



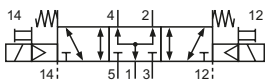
5/2-way, double solenoid



5/3-way, center position closed



5/3-way, center position exhausted

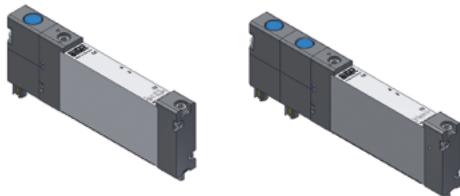


5/3-way, center position pressurized

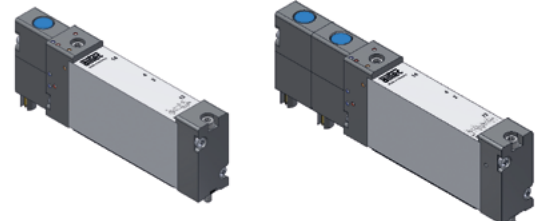


Valve series

MC-10



MC-14



For further information please see:



airtec.de