

Valve terminal RE-46 with Multi-pin, AS-Interface or Fieldbus, 4 – 24 valve stations, 950 NI/min (0.965 Cv)



Technical data for series

RE-46



Order code

		RE-46/08-M-1-080			
Series	Number of stations	Electrical options		Pilot supply options	
		M-1 = Multi-pin		0 = internal pilot supply (standard)	
		AS3 = AS-Interface		E = external pilot supply	
		AS3-R... = AS-Interface ¹⁾			
		B1-1 = Profibus-DP			
		B3-1 = DeviceNet			

Tube connection options

00 = G 1/8 at ports 2 and 4, G 3/8 at port 1
60 = \varnothing 6 mm at ports 2 and 4, \varnothing 10 mm at port 1
61 = \varnothing 6 mm at ports 2 and 4, \varnothing 8 mm at port 1
62 = \varnothing 6 mm at ports 2 and 4, \varnothing 12 mm at port 1
80 = \varnothing 8 mm at ports 2 and 4, \varnothing 10 mm at port 1
81 = \varnothing 8 mm at ports 2 and 4, \varnothing 8 mm at port 1
82 = \varnothing 8 mm at ports 2 und 4, \varnothing 12 mm at port 1

¹⁾ Valve terminals with AS-Interface are available with integrated sensor connectors, M8 bushing 3-pole

RE-46/04-AS3-R04-... 4 stations and 4 x M8 - bushing
 RE-46/08-AS3-R08-... 8 stations and 8 x M8 - bushing
 RE-46/12-AS3-R12-... 12 stations and 12 x M8 - bushing

Design and function

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).

Techn. data	AS-Interface	Profibus-DP	DeviceNet	Multi-pin
Number of stations	4, 8, 12	6, 8, 10, 12 ... 24		4, 6, 8, 10 ... 20
Working pressure range	3 ... 8 bar (44 ... 116 psi) / 0 ... 8 bar (0 ... 116 psi) with external pilot supply			
Temperature range	- 10 °C ... + 50 °C (+ 14 °F ... + 122 °F)			
Degree of protection	IP 65 according to VDE 0470 / EN 60529 (with suitable connectors)			
Voltage	Bus 18,5 V DC ... 31,6 V DC Power 24 V DC - 10 % + 15 %	24 V DC \pm 10 %		24 V DC - 10 % + 15 %
Power consumption each solenoid	1.3 W / Valve solenoid* 0.6 W / Slave	1.3 W / Valve solenoid* 2.9 W Bus system	1.3 W / Valve solenoid* 2.5 W Bus system	1.3 W / Valve solenoid*
Status display	LED Yellow	Valve solenoid energized	Valve solenoid energized	Valve solenoid energized
	LED Green	Power	Power	Power
	LED Green	Bus active (1 / slave)	Bus active	Bus active
	LED Green	-	-	Module active
	LED Red	Bus error (1 / slave)	Bus error	Bus error
	LED Red	-	-	Module error
EMC circuit	Power with Polarized circuit protection and built-in surge protection			Polarized circuit protection, built-in surge protection
Electrical connections	Power - ASi connector Bus - ASi connector	Power - 5-pin M12 socket A-code Bus 2 x - 5-pin M12 out-bushing B-code in-socket B-code	Power - 5-pin M12 socket B-code Bus - 5-pin M12 socket A-code	Common GND D-SUB 25-pin, 4 ... 12 stations D-SUB 44-pin, 14 ... 20 stations
Address selection	Low voltage switch plug \varnothing 1.3 mm Slave selection by DIP-switch	By 2 rotary switches	MAC - ID by 8-pin DIP-switch Bit 1 ... 6	-
Baud rate	Standard address range 0 ... 31	Automatic adjustment 9,6 kBit/s ... 12 Mbit/s	DIP-switch Bit 7 + 8 125, 250, 500 kBit/s	-

Bus termination resistance is available for Profibus-DP and DeviceNet as an accessory (see page 6.083).

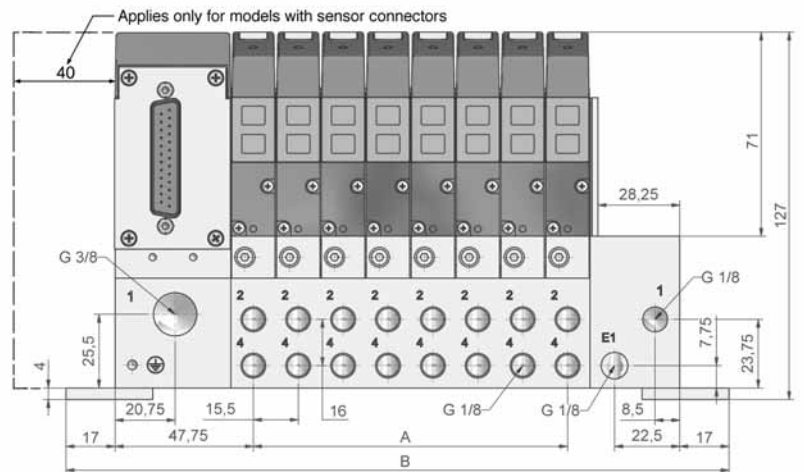
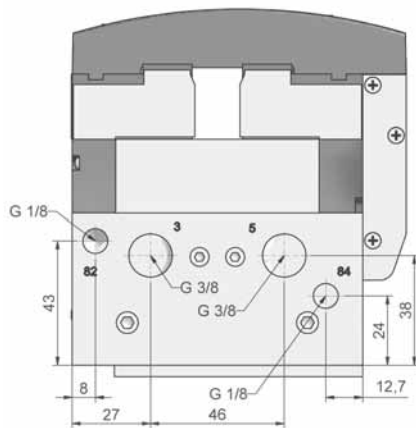
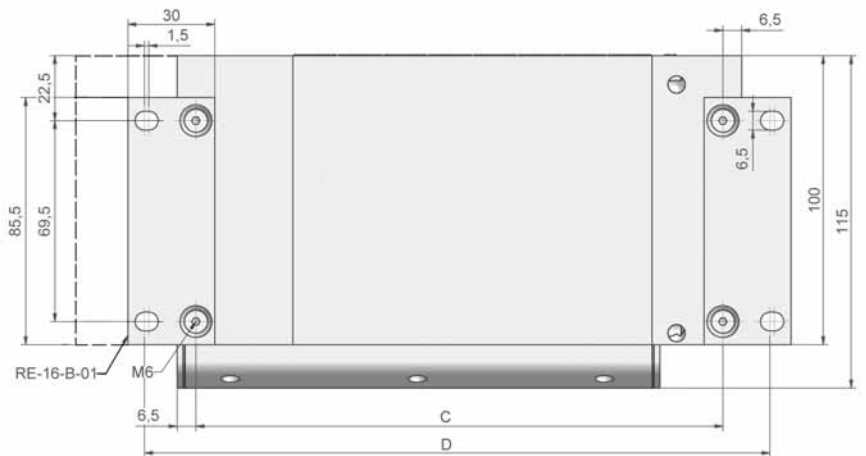
* The status display consumes 0.3 W of the 1.3 W power consumption.

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Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 950 NI/min (0.965 Cv)**



Dimensions for series

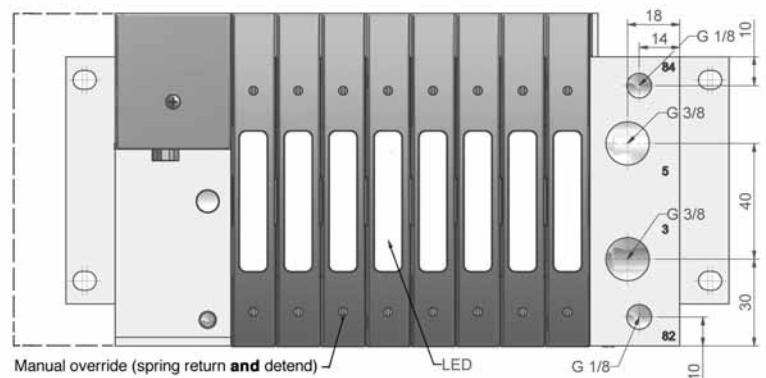
RE-46



- 1 = pressure supply G 3/8 and G 1/8
- E1 = external pilot supply G 1/8
- 2, 4 = outlets G 1/8
- 3, 5 = exhausts G 3/8
- 82, 84 = pilot exhaust G 1/8

The dimensions of AS-Interface and the different bus types are identical with the multi-pin model.

Six plugs, 4 x G 1/8 and 2 x G 3/8 are included.



Order number	A	B	C	D
RE-46/04-...	46.5	167	120	154
RE-46/06-...	77.5	198	151	185
RE-46/08-...	108.5	229	182	216
RE-46/10-...	139.5	260	213	247
RE-46/12-...	170.5	291	244	278
RE-46/14-...	201.5	322	275	309
RE-46/16-...	232.5	353	306	340
RE-46/18-...	263.5	384	337	371
RE-46/20-...	294.5	415	368	402
RE-46/22-...	325.5	446	399	433
RE-46/24-...	356.5	477	430	464

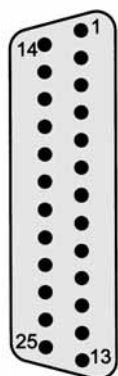
Technical data for series

RE-46

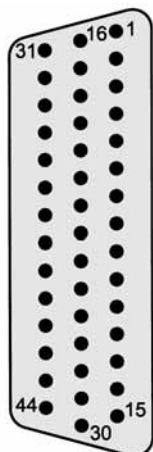
Pin assignment

View on valve terminal

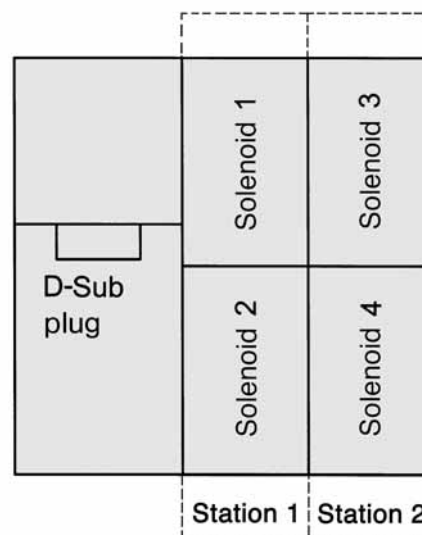
D-Sub
25-pin



D-Sub
44-pin



Solenoid layout



Connector cable 28-ST-16-M1-25-...*

For valve terminals with 4 ... 12 stations.

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

Connector cable 28-ST-16-M1-44-...*

For valve terminals with 14 ... 20 stations.

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

Wiring colour acc. to DIN 47100 (coloured or signed by numbers).

* See page 6.083

Valves and accessories for series

RE-46

Valves

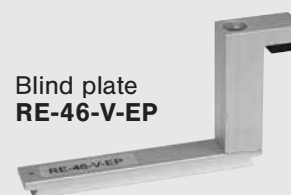


- KF-46-310/2-HN-S12** 2 x 3/2 NC, with connector bridge
- KF-46-312/2-HN-S12** 2 x 3/2 NO, with connector bridge
- KF-46-314/2-HN-S12** 2 x 3/2 NO/NC, with connector bridge
- KF-46-510-HN-S12** 5/2-way, with air spring return, with connector bridge
- KF-46-511-HN-S12** 5/2-way, with spring return, with connector bridge
- KF-46-520-HN-S12** 5/2-way, double solenoid, with connector bridge
- KF-46-530-HN-S12** 5/3-way, center position closed, with connector bridge
- KF-46-533-HN-S12** 5/3-way, center position exhausted, with connector bridge
- KF-46-534-HN-S12** 5/3-way, center position pressurized, with connector bridge

Other single elements



Blind plate
RE-16-V-EP



Blind plate
RE-46-V-EP

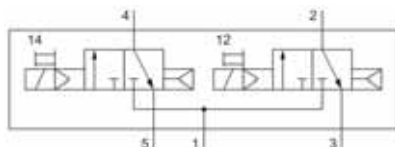
- RE-19-DT** Dividing plate for 2 different pressures
- RE-26-DS** Seal kit for KF-26 and KF-46
- RE-46-B-01** Bracket for flange mounting
- RE-46-B-02** Bracket for flange mounting (Terminals with sensor connectors)
- RE-46-DS** Seal kit for KF-46
- RE-46-RSV** Check valve for dynamic exhaust pressure
- RE-16-V-EP** Blind plate set
- RE-46-V-EP** Blind plate set
- 21-KF-46-01** Mounting Kit (Seal, mounting clamp and screw for valve fixing)
- 28-ST-16-M1-25-105** Connector Multi-pin D-Sub, 25-pin with 5 m cable
- 28-ST-16-M1-25-110** Connector Multi-pin D-Sub, 25-pin with 10 m cable
- 28-ST-16-M1-44-105** Connector Multi-pin D-Sub, 44-pin with 5 m cable
- 28-ST-16-M1-44-110** Connector Multi-pin D-Sub, 44-pin with 10 m cable
- 28-ST-RE-16-01-B1** Connector kit RE-46, Profibus-DP, in and out
- 28-ST-RE-16-02-B1** Connector kit RE-46, Profibus-DP termination resistance
- 54-RE-46-G** Operating manual RE-46, AS-Interface, Profibus-DP, DeviceNet, Multi-pin

**Valve for
Valve terminal RE-46
950 NI/min (0.965 Cv)**

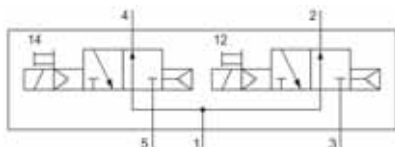


Technical data for valves

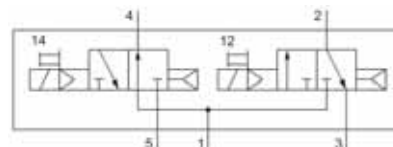
KF-46



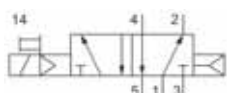
KF-46-310/2-HN-S12



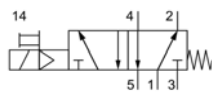
KF-46-312/2-HN-S12



KF-46-314/2-HN-S12



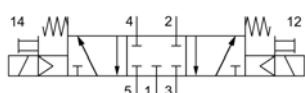
KF-46-510-HN-S12



KF-46-511-HN-S12



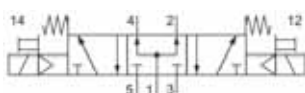
KF-46-520-HN-S12



KF-46-530-HN-S12



KF-46-533-HN-S12



KF-46-534-HN-S12



Design and function

Spool valve actuated by an electrical signal.

Order number*	KF-46-310/2-...	KF-46-312/2-...	KF-46-314/2-...	KF-46-510-...	KF-46-511-...	KF-46-520-...	KF-46-530-...	KF-46-533-...	KF-46-534-...
Function	2 x 3/2-way NC	2 x 3/2-way NO	2 x 3/2-way 1 x NO 1 x NC	5/2-way air spring return	5/2-way mechanical spring return	5/2-way double solenoid	5/3-way center pos. closed	5/3-way center pos. exhausted	5/3-way center pos. pressurized
Connection	Flange								
Nominal size	4.5 mm			6 mm					
Nominal flow	430 NI/min (0.437 Cv) NC 630 NI/min (0.640 Cv) NO			950 NI/min (0.965 Cv)	810 NI/min (0.823 Cv)	950 NI/min (0.965 Cv)	680 NI/min (0.691 Cv)		
Pressure range	Working pressure 2.5 ... 8 bar (36 ... 116 psi)						Working pressure 3 ... 8 bar (44 ... 116 psi)		
Internal pilot supply	Valves are not suitable								
External pilot supply	Valves are not suitable				Pilot pressure 3 ... 8 bar / Working pressure 0 ... 10 bar ¹⁾				
Response time at 6 bar	on 15 ms off 28 ms			on 15 ms off 31 ms	on 14 ms off 33 ms	20 ms	on 20 ms off 30 ms		
Temperature range	- 10 °C ... + 50 °C (+ 14 °F ... + 122 °F)								
Materials	Body: Al (anodized), plastic, Seals: NBR; Inner parts: Al, stainless steel, brass								
Operating voltage	24 V DC - 10 % ... + 15 %								
Power consumption	1 W per solenoid, 0.3 W per LED								
Degree of protection	IP 65 according to EN 60529, when assembled on RE-46								
Weight	0.19 kg (0.42 lb.)			0.16 kg (0.35 lb.)		0.19 kg (0.42 lb.)			

* Please complete according to order code (see circuit symbols)

¹⁾ For KF-46-511-... the pilot pressure must be higher than the working pressure.