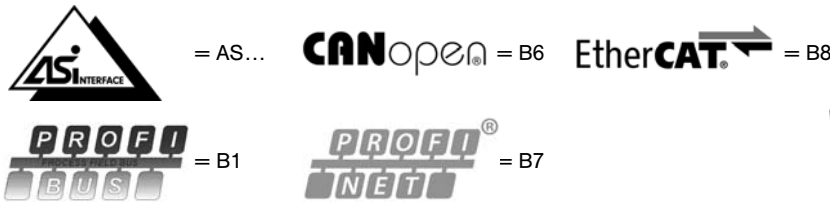


Valve terminal RE-46

with Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 430 to 950 NI/min (0.437 to 0.965 Cv)



Type of connection



Order code

Series RE-46/08-M-1-080

Series

Number of stations

Electrical options

- M-1 = Multi-pin
- AS3 = AS-Interface
- AS3-R... = AS-Interface¹⁾
- B1-1 = Profibus-DP
- B6-1 = CANopen
- B7-1 = Profinet-RT²⁾
- B8-1 = EtherCAT²⁾

Pilot supply options

- 0 = internal pilot supply (standard)
- E = external pilot supply

Tube connection options

- 00 = G1/8 at ports 2 and 4, G3/8 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 and 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	Multi-pin
Number of stations	4, 8, 12	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 \pm 10 %	24 V DC \pm 10 %
Power consumption	1.3 W Valve solenoid* 0.6 W / Slave	1.3 W Valve solenoid*
Status display	LED Yellow	Valve solenoid energized
	LED Green	Power
	LED Green	Bus active (1 / slave)
	LED Green	-
	LED Red	Bus error (1 / slave)
	LED Red	-
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	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	-
Baud rate	Standard address range 0 ... 31	-

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

Valve terminal RE-46

with Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 430 to 950 NI/min (0.437 to 0.965 Cv)



Type of connection



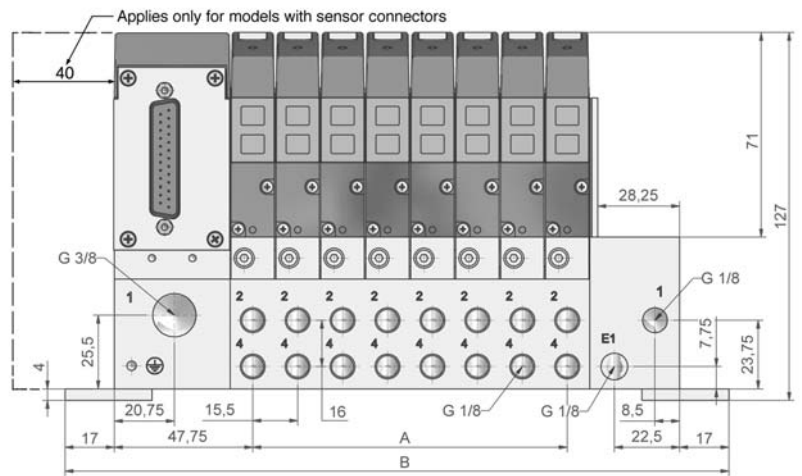
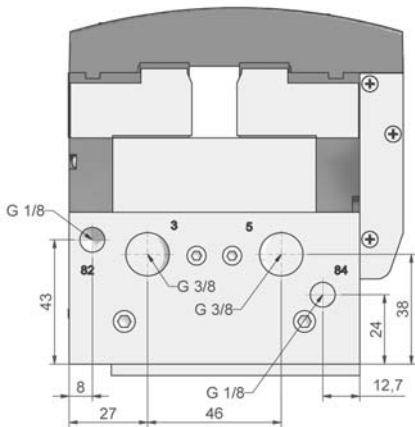
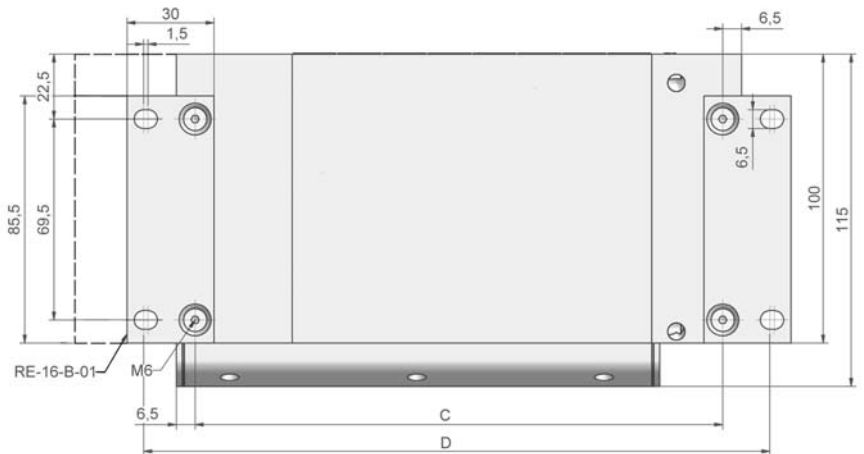
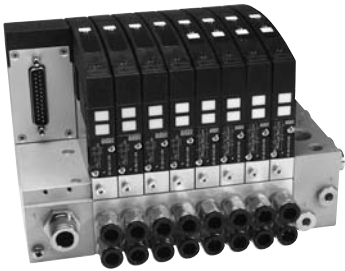
Techn. data	Profibus-DP	CANopen	ProfiNet I/O RT (Real Time)	EtherCAT
Number of stations	6, 8, 10, 12 ... 24	6, 8, 10, 12 ... 24	6, 8, 10, 12 ... 24	6, 8, 10, 12 ... 24
Working pressure range	3 ... 8 bar (44 ... 116 psi) / 0 ... 8 bar (0 ... 116 psi) with external pilot supply			
Temperature range	- 10 °C ... + 50 °C (+ 14 °F ... + 122 °F)			
Degree of protection	IP 65 according to VDE 0470 / EN 60529 (with suitable connectors)			
Voltage	24 V DC ± 10 %			
Power consumption each solenoid	1.3 W Valve solenoid* 2.9 W Bus system		1.3 W Valve solenoid* 3.6 W Bus system	1.3 W Valve solenoid* 3.5 W Bus system
Status display	LED Yellow	Valve solenoid energized	Valve solenoid energized	Valve solenoid energized
	LED Green	Power	Power	Power
	LED Green	Bus active	Init	Bus OK
	LED Green	-	Run	Link/Activity Port 1
	LED Green	-	-	Link/Activity Port 2
	LED Red	Bus error	Bus error	Bus error
	LED Red	-	status	-
EMC circuit	Power with Polarized circuit protection and built-in surge protection			
Electrical connections	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 A-code Bus in – 5-pin M12 socket A-code Bus out – 5-pin M12 bushing A-code	Power – 5-pin M12 socket A-code Bus in – 4-pin M12 socket D-code Bus out – 4-pin M12 bushing D-code	Power – 5-pin M12 socket A-code Bus in – 4-pin M12 socket D-code Bus out – 4-pin M12 bushing D-code
Address selection	By 2 rotary switches	By 2 rotary switches	By controller-remote	-
Baud rate	Automatic adjustment 9.6 kBit/s ... 12 Mbit/s	10kBit/s ... 1Mbit/s	100Mbit/s Full duplex	100Mbit/s Full duplex

Connector kit is available for Profibus-DP and CANopen as an accessory (see page 7.089).

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

Valve terminal RE-46

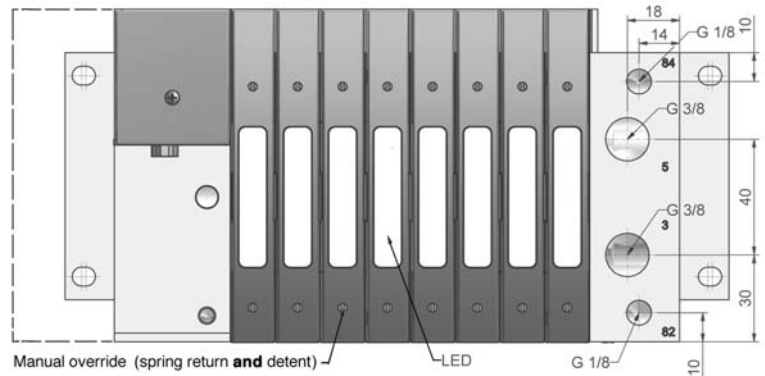
with Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 430 to 950 NI/min (0.437 to 0.965 Cv)



- 1 = pressure supply G3/8 und G1/8
- E1 = external pilot supply G1/8
- 2, 4 = outlets G1/8
- 3, 5 = exhausts G3/8
- 82, 84 = solenoid exhausts G1/8

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

Six plugs, 4 x G1/8 and 2 x G3/8 are included.



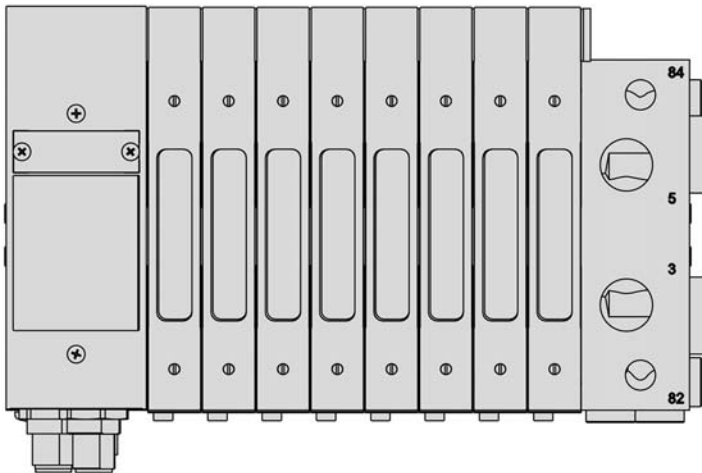
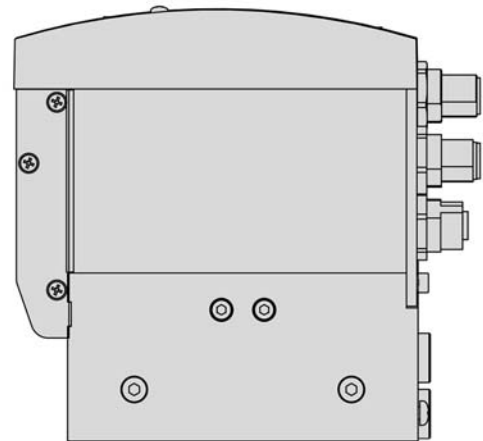
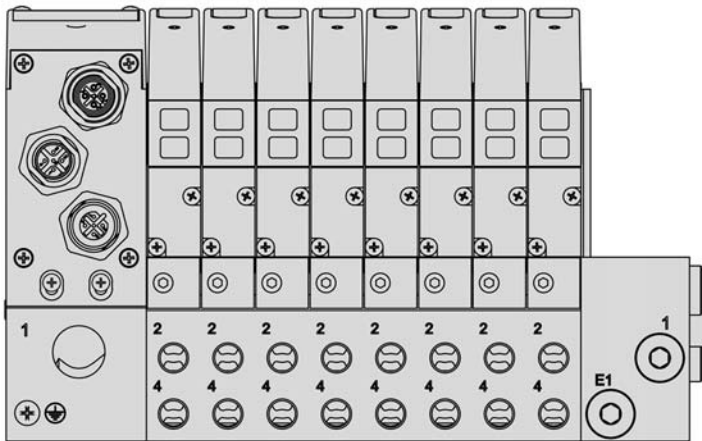
Order number	A	B	C	D
RE-46/04-...	46.5	167	120	154
RE-46/06-...	77.5	198	151	185
RE-46/08-...	108.5	229	182	216
RE-46/10-...	139.5	260	213	247
RE-46/12-...	170.5	291	244	278
RE-46/14-...	201.5	322	275	309
RE-46/16-...	232.5	353	306	340
RE-46/18-...	263.5	384	337	371
RE-46/20-...	294.5	415	368	402
RE-46/22-...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

Valve terminal RE-46

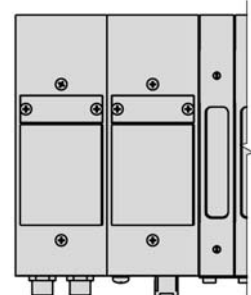
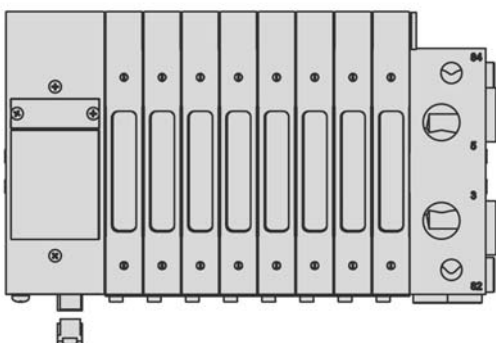
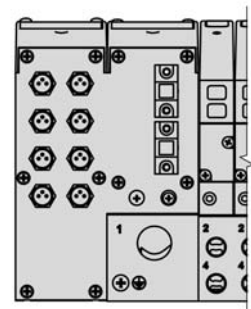
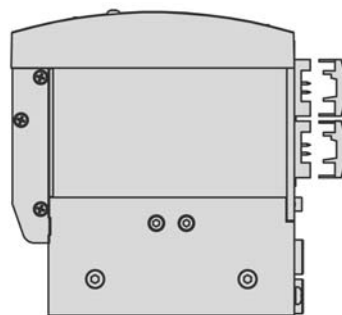
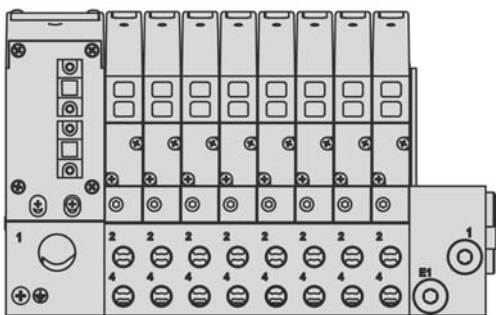
with Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 430 to 950 NI/min (0.437 to 0.965 Cv)



RE-46 Fieldbus



RE-46 AS-Interface and AS-Interface with feed-back signal port*



* The feed-back signal box extends the terminal by 40 mm.

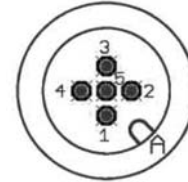
Valve terminal RE-46

with Multi-pin, AS-Interface or Fieldbus,
Pin assignment fieldbus-connection for series RE-46



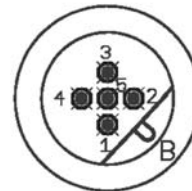
POWER IN Plug M12 5-pin A-code (POWER 24V)¹⁾

Pin	Name	Description
1	+24V	Power supply Bus electronic
2	+24V_1	Power supply valve stations 1...12
3	GND	Ground for 24 V DC
4	GND	Ground for 24 V DC
5	+24V_2	Power supply valve stations 13 ... 24



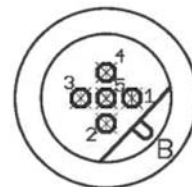
BUS IN Plug M12 5-pin B-code

Pin	Name	Description
1	+5V	Power supply terminal
2	A	RS485A (Tx/Rx-N)
3	GND	Ground
4	B	RS485B (Tx/Rx-P)
5	Shield ¹⁾	Shield



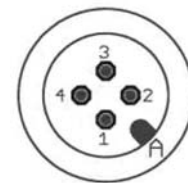
BUS OUT Socket M12 5-pin B-code³⁾

Pin	Name	Description
1	+5V	Power supply terminal
2	A	RS485A (Tx/Rx-N)
3	GND	Ground
4	B	RS485B (Tx/Rx-P)
5	Shield ¹⁾	Shield



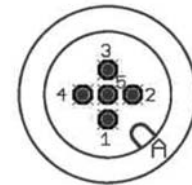
POWER IN Plug M12 5-pin A-code (POWER 24V)¹⁾

Pin	Name	Description
1	+24V	Power supply Bus electronic
2	+24V_1	Power supply valve stations 1...12
3	GND	Ground for 24 V DC
4	GND	Ground for 24 V DC
5	+24V_2	Power supply valve stations 13 ... 24



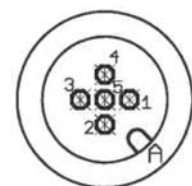
BUS IN Plug M12 5-pin A-code

Pin	Name	Description
1	SHLD	Shield ¹⁾
2	CAN V+	CAN Supply ²⁾
3	GND	CAN Ground
4	CAN H	CAN High
5	CAN L	CAN Low



BUS OUT Socket M12 5-pin A-code³⁾

Pin	Name	Description
1	SHLD	Shield ¹⁾
2	CAN V+	CAN Supply ²⁾
3	GND	CAN Ground
4	CAN H	CAN High
5	CAN L	CAN Low



¹⁾ The shield can be connected to the metal collar of the plug (improves the shield and is recommended) or at pin 5.

²⁾ This PIN can be used optional with +24V for the power supply of the CAN-Transceiver. For the standard version this pin cannot be used for this option. Please specify by ordering.

³⁾ An unused socket connection must be terminated with the termination resistance.

Valve terminal RE-46

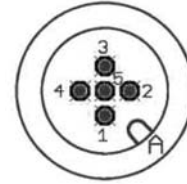
with Multi-pin, AS-Interface or Fieldbus,

Pin assignment fieldbus-connection for series RE-46



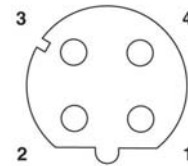
POWER IN Plug M12 5-pin A-code (POWER 24V)

Pin	Name	Description
1	+24V	Power supply Bus electronic
2	+24V_1	Power supply valve stations 1 ... 12
3	GND	Ground for 24 V DC
4	GND	Ground for 24 V DC
5	+24V_2	Power supply valve stations 13 ... 24



BUS IN **BUS OUT** Socket M12 4-pin D-code

Pin	Name	Description
1	Tx ⁺	Transmit-data +
2	Rx ⁺	Receive-data +
3	Tx	Transmit-data -
4	Rx	Receive-data +



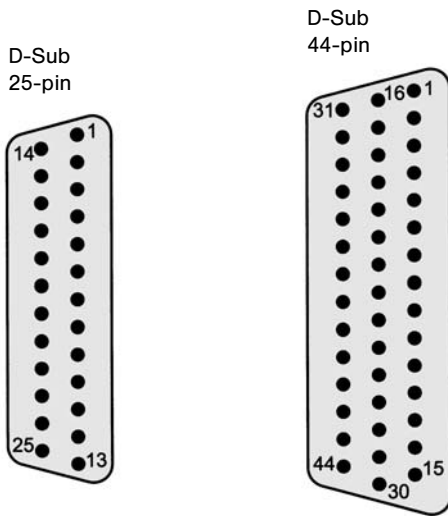
Valve terminal RE-46

with Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 430 to 950 NI/min (0.437 to 0.965 Cv)

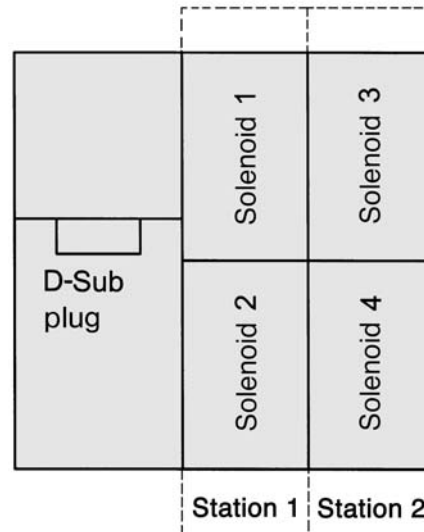


Pin assignment

View on valve terminal



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 7.084

Valve terminal RE-46

with Multi-pin, AS-Interface or Fieldbus,
4 – 24 valve stations, 430 to 950 NI/min (0.437 to 0.965 Cv)



Valves and accessories for series RE-46

Valves



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

7

Other single elements



Blind plate
RE-16-V-EP

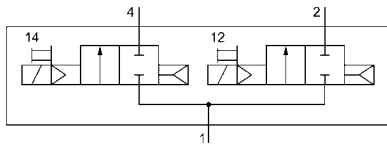


Blind plate for blank station
RE-46-V-EP

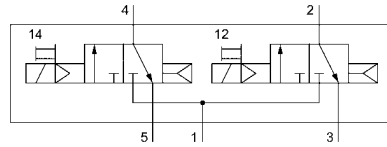
RE-19-DT	Dividing plate for 2 different pressures
RE-26-DS	Seal kit for KF-26 and KF-46
RE-46-B-01	Bracket for flange mounting
RE-46-B-02	Bracket for flange mounting (Terminals with sensor connectors)
RE-46-DS	Seal kit for KF-46
RE-46-RSV	Check valve for dynamic exhaust pressure
RE-16-V-EP	Blind plate set
RE-46-V-EP	Blind plate set
21-KF-46-01	Mounting Kit (Seal, mounting clamp and screw for valve fixing)
28-ST-46-M1-25-105	Connector Multi-pin D-Sub, 25-pin with 5 m cable
28-ST-46-M1-25-110	Connector Multi-pin D-Sub, 25-pin with 10 m cable
28-ST-46-M1-44-105	Connector Multi-pin D-Sub, 44-pin with 5 m cable
28-ST-46-M1-44-110	Connector Multi-pin D-Sub, 44-pin with 10 m cable
28-ST-RE-46-01-B1	Connector kit RE-46, Profibus-DP, in and out
28-ST-RE-46-01-B6	Connector kit RE-46, CANopen, in and out
28-ST-RE-46-02-B1	Connector kit RE-46, Profibus-DP termination resistance
28-ST-RE-46-02-B6	Connector kit RE-46, CANopen termination resistance
54-RE-46-D	Operating manual for RE-46 – Multi-pin, AS-Interface, Profibus, German
54-RE-46-E	Operating manual for RE-46 – Multi-pin, AS-Interface, Profibus, English
54-RE-46-FR	Operating manual for RE-46 – Multi-pin, AS-Interface, Profibus, French
54-RE-46-D-CAN	CANopen supplementary instructions on operating manual, German

Valves KF-46 for valve terminal RE-46

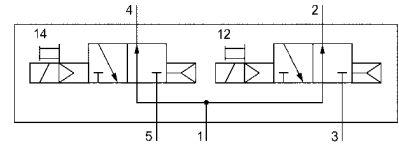
430 to 950 NI/min (0.437 to 0.965 Cv)



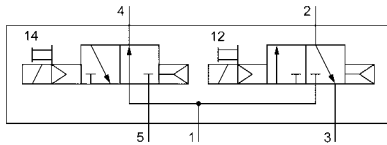
KF-46-210/2-HN-S12



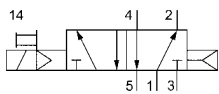
KF-46-310/2-HN-S12



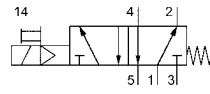
KF-46-312/2-HN-S12



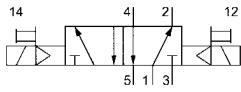
KF-46-314/2-HN-S12



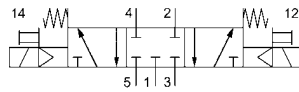
KF-46-510-HN-S12



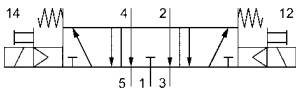
KF-46-511-HN-S12



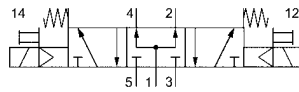
KF-46-520-HN-S12



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-46-210/2-...	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	2x2/2-way NC air spring return	2x3/2-way NC	2x3/2-way NO	2x3/2-way 1 x NO 1 x 1 x NC	5/2-way single solenoid air spring return	5/2-way single solenoid 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 geschl./630 NI/min offen (0.437 Cv) NC / (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 for external pilot supply									
External pilot supply	Valves are not suitable for external pilot supply				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		
Medium	Compressed air in accordance with ISO 8573-1:2010, Class 7:2:4 – and free of aggressive additives.									
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 %									
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 specify complete according to the order codes (see below circuit symbols).

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