Valve terminal RE-10 with Multi-pin, AS-Interface or bus connection 4 – 12 valve stations, 300 Nl/min (0.305 Cv)

Technical data for series

RE-10

Order code

RE-10/08-M-1-060

Series

Number of stations

Multi-pin: 4, 6, 8, 10, 12

Bus versions: 4, 8, 12

Electrical options

M-1 = Multi-pin D-Sub plug
AS3 = AS-Interface range of address 0-31
AS4 = AS-Interface range of address 0-62
AS5 = AS-Interface (for LF-10-510-HN-412 and LF-10-511-HN-412) range of address 0-31
B1 = Profibus-DP
B1-L = Profibus-DP with link interface
B6 = CANopen
B6-L = CANopen with link interface
L = Link-Slave

Pilot supply options

0 = internal pilot supply
E = external pilot supply

Tube connection options

40 = ø 4 mm on ports 2 and 4, G 1/4 on port 1
41 = ø 4 mm on ports 2 and 4, ø 8 mm on port 1
42 = ø 4 mm on ports 2 and 4, ø 10 mm on port 1
60 = ø 6 mm on ports 2 and 4, G 1/4 on port 1
61 = ø 6 mm on ports 2 and 4, ø 8 mm on port 1
62 = ø 6 mm on ports 2 and 4, ø 10 mm on port 1

Design and function

Manifold system with integrated electrical connection including LED indicators. Each station can accomodate 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).

Technical data	AS-Interface	Profibus-DP	Profibus-DP with Link	CANopen	CANopen with Link	Link-Slave	Multi-pin
Number of stations	4, 8, 12	4, 8, 12	4, 8, 12	4, 8, 12	4, 8, 12	4, 8, 12	4,6,8,10,12
Power range	see valve						
Temperature range	+ 5 °C … 50 °C (41 °F … + 122 °F)						
Voltage	24 V DC						
Voltage tolerance	– 5 % … + 10 %						
Voltage bus	18,5 … 31,6 V DC	–	–	–	–	–	–

Valve terminal RE-10 with Multi-pin, AS-Interface or bus connection 4 – 12 valve stations, 300 Nl/min (0.305 Cv)

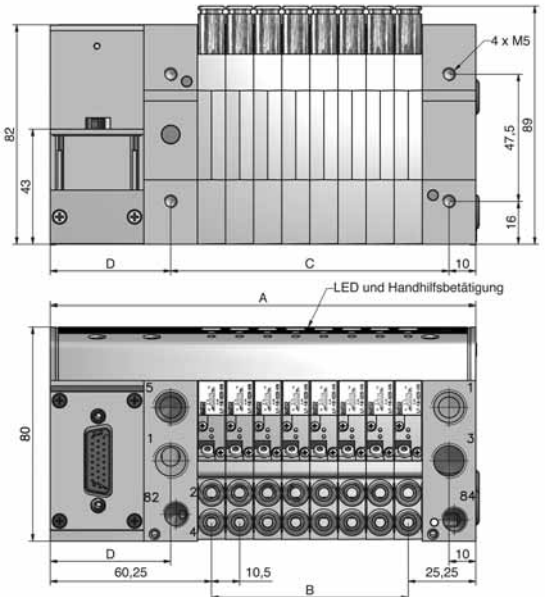
Technical data		AS-Interface	Profibus-DP	Profibus-DP with Link	CANopen	CANopen with Link	Link-Slave	Multi-pin
Power consumption								
each solenoid[1]		1,1 W	1,1 W	1,1 W	1,1 W	1,1 W	1,1 W	1,1 W
each bus system		–	4,3 W	4,3 W	4,3 W	4,3 W	1,5 W	–
each slave		1,1 W	–	–	–	–	–	–
Status indicator (LED):								
Solenoid	**active**	yellow	yellow	yellow	yellow	yellow	yellow	yellow
	error	red	red	red	red	red	red	–
Power valve	**active**	green (3 internal circuits)	green (3 internal circuits)	green (3 internal circuits)	green (3 internal circuits)	green (3 internal circuits)	green (3 internal circuits)	–
	error	off	off	off	off	off	off	–
Power fieldbus		–	green	green	green	green	green	–
Status fieldbus	**active**	green (1 x each Slave)	green	green	green	green	green	–
	error	red (1 x each Slave)	red	red	red	red	red	–
Fieldbus online		–	green	green	–	–	–	–
Fieldbus error		–	–	–	red	red	–	–
Status system	**active**	–	–	green	–	green	green	–
	error	–	–	red	–	red	red	–
EMC circuit		Power with Polarized circuit protection and built-in surge protection						
Electrical connection								
Power in		AS-Interface clamp	M12 socket 5-pin, A-code	M12 socket 5-pin, A-code	M12 socket 4-pin, A-code	M12 socket 4-pin, A-code	M12 socket 5-pin, A-code	D-Sub 26-pin (high density), common GND
Power out		–	–	–	–	–	M12-Buchse 5-pin, A-code	
Bus in		AS-Interface clamp	M12 socket 5-pin, B-code	M12 socket 5-pin, B-code	M12 socket 5-pin, A-code	M12 socket 5-pin, A-code	–	–
Bus out		–	M12-plug 5-pin, B-code	M12-plug 5-pin, B-code	M12-plug 5-pin, A-code	M12-plug 5-pin, A-code	–	–
Link in		–	–	–	–	–	M8 socket 4-pin	
Link out		–	–	M8-plug 4-pin	–	M8-plug 4-pin	M8-plug 4-pin	–
Address selection		Low voltage switch plug Ø 1.3 mm and Slave selection by DIP-switch	Bus by 2 rotary switches (Adr. 1 … 99)	Bus by 2 rotary switches (Adr. 1 … 99) Link over 2 rotary switches (no. of Slaves 1 … 10)	Bus by 2 rotary switches (Adr. 1 … 99)	Bus by 2 rotary switches (Adr. 1 … 99) Link over 2 rotary switches (no. of Slaves 1 … 10)	Link over 2 rotary switches (no. of bus addresses 1 … 10)	–
Baud-rate	**Bus**	–	9,6 kbit/s … 12 Mbit/s	9,6 kbit/s … 12 Mbit/s	10 kbit/s … 1 Mbit/s	10 kbit/s 1 Mbit/s		–
	Link		–	250 kbit/s	–	250 kbit/s	250 kbit/s	
max. cable length depends on Baud-rate	**Bus**	–	50…1200 m	50…1600 m	50…1600 m	50…1600 m	–	–
	Link	–	–	max. 100 m	–	max. 100 m	max. 100 m	
Service-Interface			RS232	RS232	RS232	RS232	RS232	–
Bus terminator			over external Profibus-Terminator[2]		over external CANopen-Terminator[2]		internal Terminator over DIP switch	
Protection		IP 65 acc. EN 60529 in connection with the AIRTEC cable 28-ST-10-M1-26-…						

[1] The status display consumes 0.25 W of the 1.3 W power consumption.
[2] Bus termination resistance is available for Profibus-DP and DeviceNet as an accessory (see page 6.056).

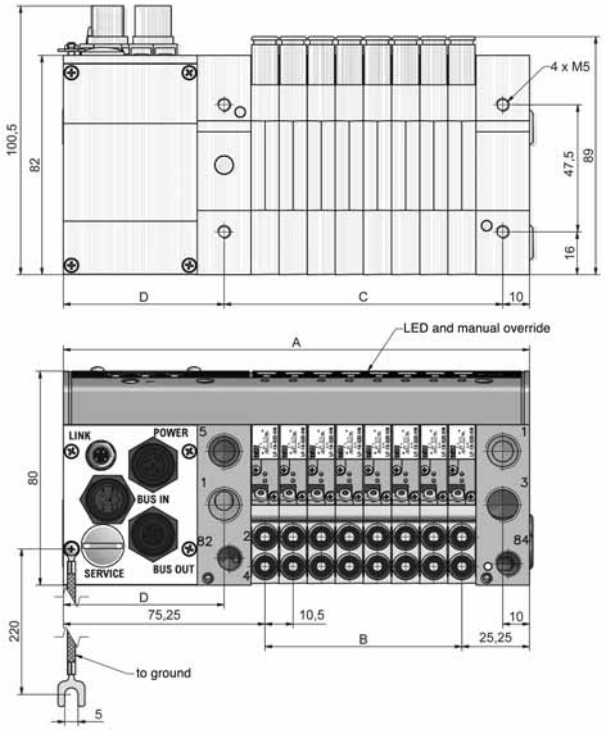
Dimensions for series

RE-10

Multi-pin



Bus-Terminal



1 = pressure supply, G 1/4
2, 4 = outlets, fitting for tube ⌀ 6 mm
3, 5 = exhausts, G 1/4
82, 84 = solenoid exhaust, G 1/8

Manual override – spring return: press down
detent: press and turn

Order number	A	B	C ± 0,3	D
RE-10/04-M-1-040 or -060	117	31,5	62	45
RE-10/06-M-1-040 or -060	138	52,5	83	45
RE-10/08-M-1-040 or -060	159	73,5	104	45
RE-10/10-M-1-040 or -060	180	94,5	125	45
RE-10/12-M-1-040 or -060	201	115,5	146	45
RE-10/04-B1-040 or -060 **RE-10/04-B1-L-040 or -060** **RE-10/04-B6-040 or -060** **RE-10/04-B6-L-040 or -060** **RE-10/04-L-040 or -060** **RE-10/04-ASx-040 or -060**[1]	132	31,5	62	60
RE-10/08-B1-040 or -060 **RE-10/08-B1-L-040 or -060** **RE-10/08-B6-040 or -060** **RE-10/08-B6-L-040 or -060** **RE-10/08-L-040 or -060** **RE-10/08-ASx-040 or -060**[1]	174	73,5	104	60
RE-10/12-B1-040 or -060 **RE-10/12-B1-L-040 or -060** **RE-10/12-B6-040 or -060** **RE-10/12-B6-L-040 or -060** **RE-10/12-L-040 or -060** **RE-10/12-ASx-040 or -060**[1]	216	115,5	146	60

[1] ASx stays for the versions AS3, AS4 and AS5 according to the order code, see page 6.050.

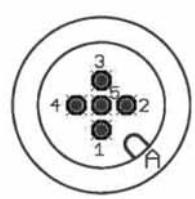
Pin assignment fieldbus-connection for series

RE-10

Profibus DP

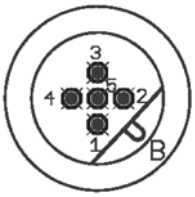
POWER IN Plug M12 5-pin A-code (POWER 24V)[1)]

Pin	Name	Description
1	+24V	Power supply-terminal
2	n. c.	not connected
3	GND	Ground for 24 V DC
4	n. c.	not connected
5	n. c.	not connected



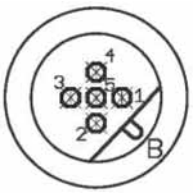
BUS IN Plug M12 5-pin B-code

Pin	Name	Description
1	n. c.	not connected
2	A	RS485A (Tx/Rx-N)
3	n. c.	not connected
4	B	RS485B (Tx/Rx-P)
5	Shield[2)]	Shield



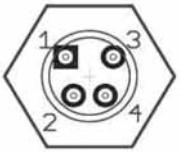
BUS OUT Socket M12 5-pin B-code[3)]

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



LINK OUT Socket M8 4-pin (only for Link Master)

Pin	Name	Description
1	LINK H	Data cable high
2	LINK GND	Data cable GND
3	LINK L	Data cable low
4	LINK SHLD	Data cable shield



[1)] The pin assignment is according DESINA-Norm Rev. 2.0 for M12 actuators. The pins 2, 4 and 5 are not connected.
[2)] The shield can be connected to the metal collar of the plug (improves the shield and is recommended) or at pin 5.
[3)] An unused socket connection must be terminated with the termination resistance.

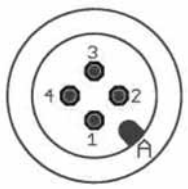
Pin assignment fieldbus-connection for series

RE-10

CANopen

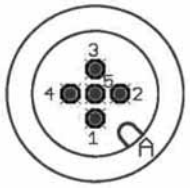
POWER IN Plug M12 4-pin A-code (POWER 24V)[1)]

Pin	Name	Description
1	+24V	Power supply-terminal
2	n. c.	not connected
3	GND	Ground for 24 V DC
4	n. c.	not connected



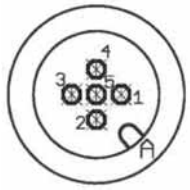
BUS IN Plug M12 5-pin A-code

Pin	Name	Description
1	SHLD	Shield[2)]
2	CAN V+	CAN Supply
3	GND	CAN Ground
4	CAN H	CAN high
5	CAN L	CAN low



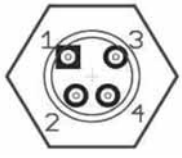
BUS OUT Socket M12 5-pin A-code[3)]

Pin	Name	Description
1	SHLD	Shield[2)]
2	CAN V+	CAN Supply
3	GND	CAN Ground
4	CAN H	CAN high
5	CAN L	CAN low



LINK OUT Socket M8 4-pin (only for Link Master)

Pin	Name	Description
1	LINK H	Data cable high
2	LINK GND	Data cable GND
3	LINK L	Data cable low
4	LINK SHLD	Data cable shield



[1)] The pin assignment is according DESINA-Norm Rev. 2.0 for M12 actuators. The pins 2, 4 and 5 are not connected.
[2)] The shield can be connected to the metal collar of the plug (improves the shield and is recommended) or at pin 5.
[3)] An unused socket connection must be terminated with the termination resistance.

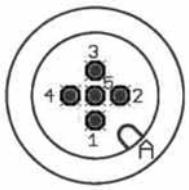
Pin assignment fieldbus-connection for series

RE-10

Link Slave

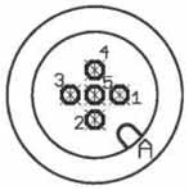
POWER IN Plug M12 5-pin A-code (POWER 24V)[1)]

Pin	Name	Description
1	+24V	Power supply-terminal
2	n. c.	not connected
3	GND	Ground for 24 V
4	n. c.	not connected
5	n. c.	not connected



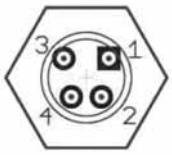
POWER OUT Socket M12 5-pin A-code (POWER 24V)[1)]

Pin	Name	Description
1	+24V	Power supply-terminal
2	n. c.	not connected
3	GND	Ground for 24 V
4	n. c.	not connected
5	n. c.	not connected



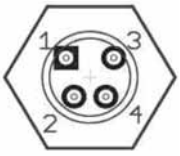
LINK IN Plug M8 4-pin

Pin	Name	Description
1	LINK H	Data cable high
2	LINK GND	Data cable GND
3	LINK L	Data cable low
4	LINK SHLD	Data cable shield



LINK OUT Socket M8 4-pin

Pin	Name	Description
1	LINK H	Data cable high
2	LINK GND	Data cable GND
3	LINK L	Data cable low
4	LINK SHLD	Data cable shield



[1)] The pin assignment is according DESINA-Norm Rev. 2.0 for M12 actuators. The pins 2, 4 and 5 are not connected.

Valve terminal RE-10 with Multi-pin, AS-Interface or bus connection 4 – 12 valve stations, 300 Nl/min (0.305 Cv)

Technical data for series

RE-10

Pin assignment

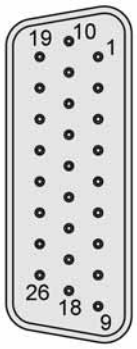
Connector cable 28-ST-10-M1-26-...
For valve terminals with 4 ... 12 stations.

Pin	Solenoid	Wire colour	Pin	Solenoid	Wire colour
1	1	white	**14**	14	brown/green
2	2	brown	**15**	15	white/yellow
3	3	green	**16**	16	yellow/brown
4	4	yellow	**17**	17	white/grey
5	5	grey	**18**	18	grey/brown
6	6	pink	**19**	19	white/pink
7	7	blue	**20**	20	pink/brown
8	8	red	**21**	21	white/blue
9	9	black	**22**	22	brown/blue
10	10	violet	**23**	23	white/red
11	11	grey/pink	**24**	24	brown/red
12	12	red/blue	**25**	0V	white/black
13	13	white/green	**26**	0V	(brown/black)

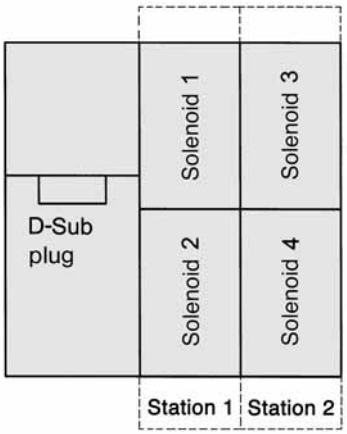
Wiring colour acc. to DIN 47100 (coloured or assigned with numbers).

View on valve terminal (Plug)

D-Sub 26-pin



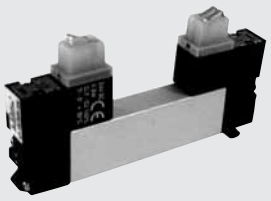
Solenoid layout



Valve and accessories for series RE-10

Valves

LF-10-310/2-HN-412	2 x 3/2-way closed
LF-10-312/2-HN-412	2 x 3/2-way open
LF-10-314/2-HN-412	2 x 3/2-way open/closed
LF-10-510-HN-412	5/2-way with air spring
LF-10-511-HN-412	5/2-way with mech. spring
LF-10-520-HN-412	5/2-way double solenoid
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



Single elements

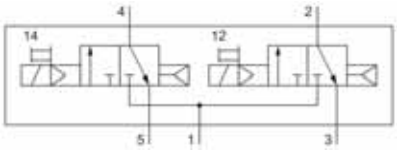
RE-10-DT-01	Dividing plate for P-chanel
RE-10-DT-02	Dividing plate for R + S-chanel
RE-10-ES	Element for external pilot supply
RE-10-P-01	Element for additional air supply
RE-10-V-EP	Blind plate for valve and solenoid position
RE-10-B-01	Bracket for flange mounting
RE-10-MS-01	Kit for DIN rail mounting
28-ST-10-M1-26-105	Multi-pin connector, D-Sub 26-pin, 5 m cable
28-ST-10-M1-26-110	Multi-pin connector, D-Sub 26-pin, 10 m cable

Cable for fieldbus on request.

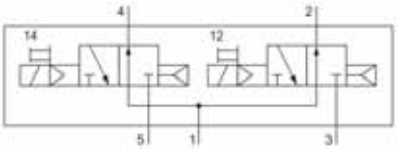
Valve for
Valve terminal RE-10
300 Nl/min (0.305 Cv)

Technical data for valve

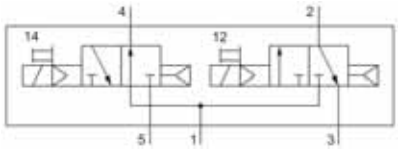
LF-10



LF-10-310/2-HN-412

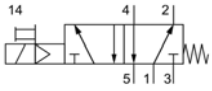


LF-10-312/2-HN-412

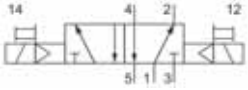


LF-10-314/2-HN-412

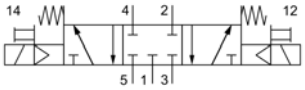
LF-10-510-HN-412



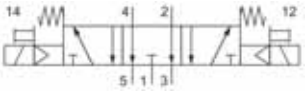
LF-10-511-HN-412



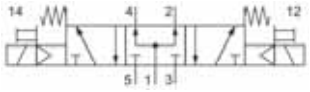
LF-10-520-HN-412



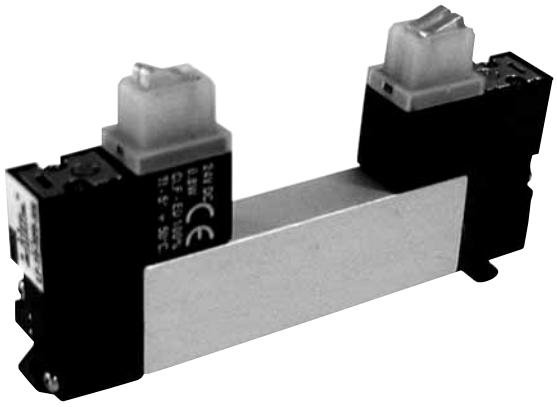
LF-10-530-HN-412



LF-10-533-HN-412



LF-10-534-HN-412



Design and function

Spool valve actuated by an electrical signal.

Order number[1]	LF-10-310/2-...	LF-10-312/2-...	LF-10-314/2-...	LF-10-510-...	LF-10-511-...	LF-10-520-...	LF-10-530-...	LF-10-533-...	LF-10-534-...
Function	2 x 3/2-way closed	2 x 3/2-way open	2 x 3/2-way open/closed	5/2-way air spring	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 mm								
Nominal flow Qv[2]	300 (0.305 Cv)	220 (0.224 Cv)	220 / 300 (0.224/0.305 Cv)	300 (0.305 Cv)	300 (0.305 Cv)	300 (0.305 Cv)	280 (0.285 Cv)		300 (0.305 Cv)
Pressure range[3]	1,5 … 8 bar (21.75 … 116 psi)			1,5…8 bar (21.75…116 psi)	3… 8 bar (43.5…116 psi)	1,5…8 bar (21.75…116 psi)	3,5 … 8 bar (50.75…116 psi)		
Pressure range[4]	1,5 … 8 bar (21.75 … 116 psi)								
External pilot pressure	1,5 … 8 bar (21.75 … 116 psi)			1,5…8 bar (21.75…116 psi)	3… 8 bar (43.5…116 psi)	1,5…8 bar (21.75…116 psi)	3,5 … 8 bar (50.75…116 psi)		
Response on time[5] off	14 ms 22 ms			18 ms 28 ms	14 ms 30 ms	15 ms	20 ms 30 ms	16 ms 30 ms	
Temperature range	– 5 °C … + 50 °C (+ 23 °F … + 122 °F)								
Materials	Body: Al (anodized), plastic, Seals: NBR, plastic, Inner parts: Al, POM, stainless steel and brass								
Operating voltage	24 V DC – 5 % / + 10 % (22,8 V … 26,4 V)								
Power consumption	0,8 W je Pilotventil								
Degree of protection	IP 65 according to EN 60529, when assembled on RE-10								
Weight	0,050 kg (0.10 lb.)			0,044 kg (0.09 lb.)	0,042 kg (0.092 lb.)	0,052 kg (0.11 lb.)	0,050 kg (0.115 lb.		

[1] Please complete according to order code (see circuit symbols).
[2] Flow Qy from 1 to 2 (1 to 4) in Nl/min.
[3] For internal pilot pressure.
[4] For external pilot pressure.
[5] Response time at 6 bar acc. CETOP 111 P.