

- High flow rate**
- Small volumetric size**
- Proven sealing system**
- Manual override option**
- Maintenance-free**
- Low power consumption**
- Application oriented pilot controls**
- Manifold system for easy assembly**
- Multiple pressure options**

#### Technical data

Medium:  
Compressed air, filtered to 50 µm, lubricated\* or non lubricated.

Operation:  
Electromagnetically or pneumatically controlled

Mounting position:  
Optional

Connection:  
G 1/8 up to G 1/2

Operating pressure:  
1,5/2 up to 8/10 bar

Flow direction:  
Internal pilot supply: fixed  
External pilot supply: optional

Flow:

Size	3/2, 5/2	2 x 3/2, 5/3
G1/8	750	500
G1/4	1300	950
G3/8	2600	1900
G1/2	4200	

Ambient temperature:  
-10°C to +50°C

Fluid temperature:  
-10°C to +50°C

Consult our Technical Service for use below +2°C.

#### Materials

Housing and base plate: aluminium  
Spindle: stainless steel,  
Piston, spacers and cover: synthetic material  
Static and dynamic seals: NBR,  
Screws: zinc plated  
Springs: stainless steel.

\* Oil recommendation: Shell Hydrol DO 32, ESSO Febis K 32 (as of 07/92) or comparable oils with DVI values < 8 (DIN 53521) and ISO viscosity class 32 to 46 (DIN 51519)



#### Ordering information

To place an order, choose the valve design and add coil and voltage codes from solenoid variant tables, e.g. **V61B513A-A213L** for a 5/2 valve, solenoid actuated, air spring return, manual override push & lock, 24 V d.c. solenoid according to DIN EN 175 301-803 (DIN 43650 B).

#### Connector types

Standard see data sheet	7.7.002
AS-i see data sheet	7.7.003

#### Alternative models

NPT ports.



3/2 directional control valves, solenoid actuated

Symbol	Model	Port size	Pilot supply	Pilot exhaust	Solenoid variant	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
	V60A413A-Ax***	G1/8	Internal	Not collected	1	750	2 ... 8	-	0,22	1
	V60A423A-Ax***	G1/8	External	Not collected	1	750	-0,9 ... 8	3 ... 8	0,22	1
	V60A413D-Cx13A	G1/8	Internal	Collected	2	750	2 ... 10	-	0,21	4
	V60A423D-Cx13A	G1/8	External	Collected	2	750	-0,9 ... 10	3 ... 10	0,21	4
	V61B413A-Ax***	G1/4	Internal	Not collected	1	1300	2 ... 8	-	0,29	1
	V61B423A-Ax***	G1/4	External	Not collected	1	1300	-0,9 ... 8	3 ... 8	0,29	1
	V61B413D-Cx13A	G1/4	Internal	Collected	2	1300	2 ... 10	-	0,27	4
	V61B423D-Cx13A	G1/4	External	Collected	2	1300	-0,9 ... 10	3 ... 10	0,27	4
	V62C413A-Ax***	G3/8	Internal	Not collected	1	2600	2 ... 8	-	0,52	1
	V62C423A-Ax***	G3/8	External	Not collected	1	2600	-0,9 ... 8	3 ... 8	0,52	1
	V62C413D-Cx13A	G3/8	Internal	Collected	2	2600	2 ... 10	-	0,50	4
	V62C423D-Cx13A	G3/8	External	Collected	2	2600	-0,9 ... 10	3 ... 10	0,50	4
	V63D413A-Ax***	G1/2	Internal	Not collected	1	4200	2 ... 8	-	0,78	5
	V63D423A-Ax***	G1/2	External	Not collected	1	4200	-0,9 ... 8	3 ... 8	0,78	5
	V60A313A-Ax***	G1/8	Internal	Not collected	1	750	2 ... 8	-	0,22	2
	V60A323A-Ax***	G1/8	External	Not collected	1	750	-0,9 ... 8	3 ... 8	0,22	2
	V60A313D-Cx13A	G1/8	Internal	Collected	2	750	2 ... 10	-	0,21	4
	V60A323D-Cx13A	G1/8	External	Collected	2	750	-0,9 ... 10	3 ... 10	0,21	4
	V61B313A-Ax***	G1/4	Internal	Not collected	1	1300	2 ... 8	-	0,29	2
	V61B323A-Ax***	G1/4	External	Not collected	1	1300	-0,9 ... 8	3 ... 8	0,29	2
	V61B313D-Cx13A	G1/4	Internal	Collected	2	1300	2 ... 10	-	0,27	4
	V61B323D-Cx13A	G1/4	External	Collected	2	1300	-0,9 ... 10	3 ... 10	0,27	4
	V62C313A-Ax***	G3/8	Internal	Not collected	1	2600	2 ... 8	-	0,52	2
	V62C323A-Ax***	G3/8	External	Not collected	1	2600	-0,9 ... 8	3 ... 8	0,52	2
	V62C313D-Cx13A	G3/8	Internal	Collected	2	2600	2 ... 10	-	0,50	4
	V62C323D-Cx13A	G3/8	External	Collected	2	2600	-0,9 ... 10	3 ... 10	0,50	4
	V63D313A-Ax***	G1/2	Internal	Not collected	1	4200	2 ... 8	-	0,78	5
	V63D323A-Ax***	G1/2	External	Not collected	1	4200	-0,9 ... 8	3 ... 8	0,78	5
	V60A411A-Ax***	G1/8	Internal	Not collected	1	750	1,5 ... 8	-	0,30	3
	V60A422A-Ax***	G1/8	External	Not collected	1	750	-0,9 ... 8	3 ... 8	0,30	3
	V60A411D-Cx13A	G1/8	Internal	Collected	2	750	1,5 ... 10	-	0,20	4
	V60A422D-Cx13A	G1/8	External	Collected	2	750	-0,9 ... 10	3 ... 10	0,20	4
	V61B411A-Ax***	G1/4	Internal	Not collected	1	1300	1,5 ... 8	-	0,38	3
	V61B422A-Ax***	G1/4	External	Not collected	1	1300	-0,9 ... 8	3 ... 8	0,38	3
	V61B411D-Cx13A	G1/4	Internal	Collected	2	1300	1,5 ... 10	-	0,27	4
	V61B422D-Cx13A	G1/4	External	Collected	2	1300	-0,9 ... 10	3 ... 10	0,27	4
	V62C411A-Ax***	G3/8	Internal	Not collected	1	2600	1,5 ... 8	-	0,61	3
	V62C422A-Ax***	G3/8	External	Not collected	1	2600	-0,9 ... 8	3 ... 8	0,61	3
	V62C411D-Cx13A	G3/8	Internal	Collected	2	2600	1,5 ... 10	-	0,50	4
	V62C422D-Cx13A	G3/8	External	Collected	2	2600	-0,9 ... 10	3 ... 10	0,50	4
	V63D411A-Ax***	G1/2	Internal	Not collected	1	4200	1,5 ... 8	-	0,87	6
	V63D422A-Ax***	G1/2	External	Not collected	1	4200	-0,9 ... 8	3 ... 8	0,87	6

\*\*\* Insert coil code from table below or 000 for version without solenoid. For manual override options, substitute 'x' as follows: 1 = without manual override, 2 = push and lock, 3 = push only  
 NC = Normally closed, NO = Normally open

Coil & voltage codes

Solenoid variant 1 (solenoid rotates 4 x 90°)  
 22 mm coil DIN EN 175 301-803 (DIN 43650 B)

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12L	2 W	V10626-A12L
24 V d.c.	13L	2 W	V10626-A13L
24 V 50/60 Hz	14L	4/2,5 VA	V10626-A14L
48 V 50/60 Hz	16L	4/2,5 VA	V10626-A16L
110/120 V 50/60 Hz	18L	4/2,5 VA	V10626-A18L
220/240 V 50/60 Hz	19L	6/5 VA	V10626-A19L

22 mm coil industrial standard

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12J	2 W	QM/48/12J/21
24 V d.c.	13J	2 W	QM/48/13J/21
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21
48 V 50/60 Hz	16J	4/2,5 VA	QM/48/16J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21

Solenoid variant 2

Double solenoid DIN EN 175 301-803 (DIN 43650 type C) 4 pin

Voltage	Coil code	Power inrush/hold	Manual override	Model
24 V d.c.	13 A	2 W	Push only	9031703900002400
24 V d.c.	13 A	2 W	Turn & lock	9031704900002400
24 V d.c.	13 A	2 W	Without	9031705900002400

Connection plugs must be ordered separately – see page 16

Electrical details

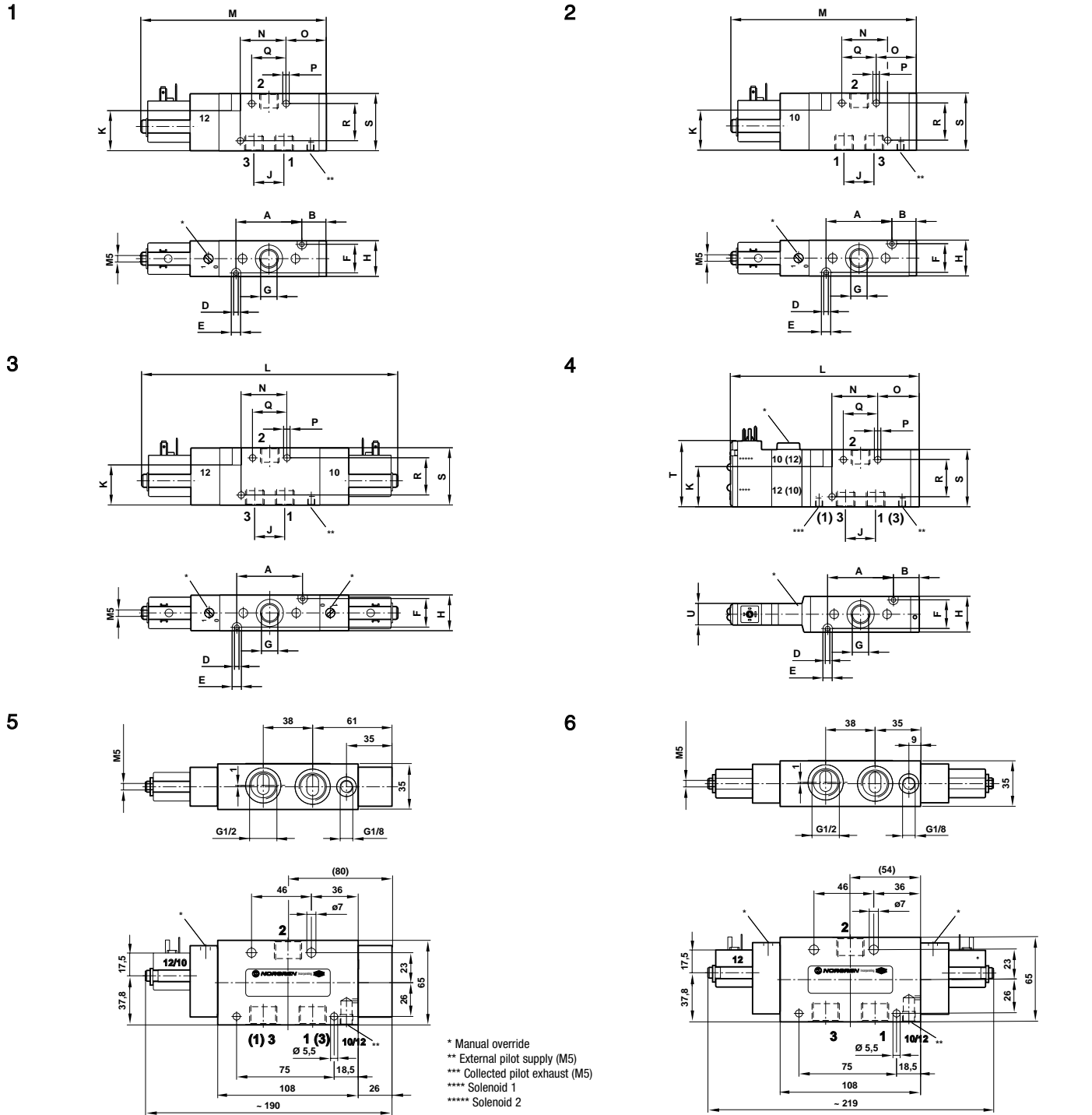
Voltage tolerance:	±10%
Rating:	100% E.D.
Protection class:	IP 65 with sealed plugs (ISO 6952)

Plug configuration, valve side/twin pilot

Symbol	Plug no.	Function	Actuation
	1	(+)	12 (Solenoid 2)
	2	(-)	12 + 14
	3	(+)	14 (Solenoid 1)



Drawing dimensions



Dimensional drawing no.	Type	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
1	V60	35	17	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	-	114	25	25	4,5	18	26	35	-	-
1	V61	46	18	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	-	130	32	29	4,5	24	26	40	-	-
1	V62	54	21	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	-	145	12	36	4,5	26	36	55	-	-
2	V60	35	17	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	-	114	25	25	4,5	18	26	35	-	-
2	V61	46	18	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	-	130	32	29	4,5	24	26	40	-	-
2	V62	54	21	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	-	145	12	34	4,5	26	36	55	-	-
3	V60	35	-	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	160	-	25	-	4,5	18	26	35	-	-
3	V61	46	-	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	179	-	32	-	4,5	24	26	40	-	-
3	V62	54	-	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	194	-	12	-	4,5	26	36	55	-	-
4	V60	35	17	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	119	-	25	25	4,5	18	26	35	46	15
4	V61	46	18	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	133	-	32	29	4,5	24	26	40	46	15
4	V62	54	21	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	147	-	12	36	4,5	26	36	55	54	15



2 x 3/2 directional control valves, solenoid actuated

Symbol	Model	Port size	Pilot supply	Pilot exhaust	Solenoid variant	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
	V60AA11A-Ax***	G1/8	Internal	Not collected	1	500	2 ... 8	–	0,34	7
	V60AA11D-Cx13A	G1/8	Internal	Collected	2	500	2 ... 10	–	0,24	8
	V61BA11A-Ax***	G1/4	Internal	Not collected	1	950	2 ... 8	–	0,43	7
	V61BA11D-Cx13A	G1/4	Internal	Collected	2	950	2 ... 10	–	0,33	8
	V62CA11A-Ax***	G3/8	Internal	Not collected	1	1900	2 ... 8	–	0,73	7
	V62CA11D-Cx13A	G3/8	Internal	Collected	2	1900	2 ... 10	–	0,63	8
	V60AB11A-Ax***	G1/8	Internal	Not collected	1	500	2 ... 8	–	0,34	7
	V60AB11D-Cx13A	G1/8	Internal	Collected	2	500	2 ... 10	–	0,24	8
	V61BB11A-Ax***	G1/4	Internal	Not collected	1	950	2 ... 8	–	0,43	7
	V61BB11D-Cx13A	G1/4	Internal	Collected	2	950	2 ... 10	–	0,33	8
	V62CB11A-Ax***	G3/8	Internal	Not collected	1	1900	2 ... 8	–	0,73	7
	V62CB11D-Cx13A	G3/8	Internal	Collected	2	1900	2 ... 10	–	0,63	8
	V60AC11A-Ax***	G1/8	Internal	Not collected	1	500	2 ... 8	–	0,34	7
	V60AC11D-Cx13A	G1/8	Internal	Collected	2	500	2 ... 10	–	0,24	8
	V61BC11A-Ax***	G1/4	Internal	Not collected	1	950	2 ... 8	–	0,43	7
	V61BC11D-Cx13A	G1/4	Internal	Collected	2	950	2 ... 10	–	0,33	8
	V62CC11A-Ax***	G3/8	Internal	Not collected	1	1900	2 ... 8	–	0,73	7
	V62CC11D-Cx13A	G3/8	Internal	Collected	2	1900	2 ... 10	–	0,63	8

\*\*\* Insert coil code from table below or 000 for version without solenoid. For manual override options, substitute 'x' as follows: 1 = without manual override, 2 = push and lock, 3 = push only  
 NC/NC = Both valves normally closed (port P) NO/NO = Both valves normally open (port P) NO/NC = 1 valve normally open, 1 valve normally closed (port P)

Coil & voltage codes

Solenoid variant 1 (solenoid rotates 4 x 90°)  
 22 mm coil DIN EN 175 301-803 (DIN 43650 B)

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12L	2 W	V10626-A12L
24 V d.c.	13L	2 W	V10626-A13L
24 V 50/60 Hz	14L	4/2,5 VA	V10626-A14L
48 V 50/60 Hz	16L	4/2,5 VA	V10626-A16L
110/120 V 50/60 Hz	18L	4/2,5 VA	V10626-A18L
220/240 V 50/60 Hz	19L	6/5 VA	V10626-A19L

22 mm coil industrial standard

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12J	2 W	QM/48/12J/21
24 V d.c.	13J	2 W	QM/48/13J/21
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21
48 V 50/60 Hz	16J	4/2,5 VA	QM/48/16J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21

Solenoid variant 2

Double solenoid DIN EN 175 301-803 (DIN 43650 type C) 4 pin

Voltage	Coil code	Power inrush/hold	Manual override	Model
24 V d.c.	13 A	2 W	Push only	9031703900002400
24 V d.c.	13 A	2 W	Turn & lock	9031704900002400
24 V d.c.	13 A	2 W	Without	9031705900002400

Connector plugs must be ordered separately – see page 16

Electrical details

Voltage tolerance:	±10%
Rating:	100% E.D.
Protection class:	IP 65 with sealed plugs (ISO 6952)

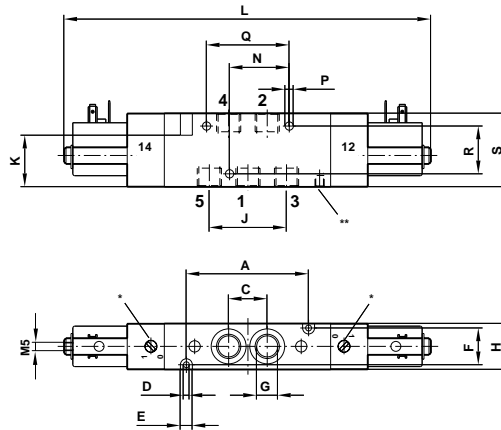
Plug configuration, valve side/twin pilot

Symbol	Plug no.	Function	Actuation
	1	(+)	12 (Solenoid 2)
	2	(-)	12 + 14
	3	(+)	14 (Solenoid 1)

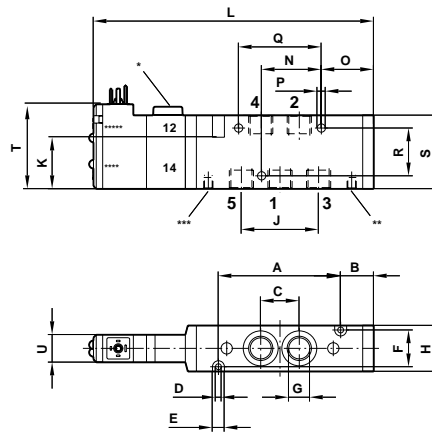


Drawing dimensions

7



8



- \* Manual override
- \*\* External pilot supply (M5)
- \*\*\* Collected pilot exhaust (M5)
- \*\*\*\* Solenoid 1
- \*\*\*\*\* Solenoid 2

Dimensional drawing no.	Type	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
7	V60	50	-	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	175	-	25	-	4,5	33,6	26	35	-	-
7	V61	66	-	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	199	-	32	-	4,5	44	26	40	-	-
7	V62	78	-	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	218	-	12	-	4,5	26	36	55	-	-
8	V60	50	17	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	134	-	25	25	4,5	33,6	26	35	46	15
8	V61	66	18	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	153	-	32	29	4,5	44	26	40	46	15
8	V62	78	22	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	172	-	12	61	4,5	26	36	55	54	15



5/2 directional control valves, solenoid actuated

Symbol	Model	Port size	Pilot supply	Pilot exhaust	Solenoid variant	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
	V60A513A-Ax***	G1/8	Internal	Not collected	1	750	2 ... 8	-	0,24	9
	V60A523A-Ax***	G1/8	External	Not collected	1	750	-0,9 ... 8	3 ... 8	0,24	9
	V60A513D-Cx13A	G1/8	Internal	Collected	2	750	2 ... 10	-	0,23	11
	V60A523D-Cx13A	G1/8	External	Collected	2	750	-0,9 ... 10	3 ... 10	0,23	11
	V61B513A-Ax***	G1/4	Internal	Not collected	1	1300	2 ... 8	-	0,33	9
	V61B523A-Ax***	G1/4	External	Not collected	1	1300	-0,9 ... 8	3 ... 8	0,33	9
	V61B513D-Cx13A	G1/4	Internal	Collected	2	1300	2 ... 10	-	0,32	11
	V61B523D-Cx13A	G1/4	External	Collected	2	1300	-0,9 ... 10	3 ... 10	0,32	11
	V62C513A-Ax***	G3/8	Internal	Not collected	1	2600	2 ... 8	-	0,62	9
	V62C523A-Ax***	G3/8	External	Not collected	1	2600	-0,9 ... 8	3 ... 8	0,62	9
	V62C513D-Cx13A	G3/8	Internal	Collected	2	2600	2 ... 10	-	0,61	11
	V62C523D-Cx13A	G3/8	External	Collected	2	2600	-0,9 ... 10	3 ... 10	0,61	11
	V63D513A-Ax***	G1/8	Internal	Not collected	1	4200	2 ... 8	-	0,96	12
	V63D523A-Ax***	G1/8	External	Not collected	1	4200	-0,9 ... 8	3 ... 8	0,96	12
	V60A511A-Ax***	G1/8	Internal	Not collected	1	750	2 ... 8	-	0,33	10
	V60A522A-Ax***	G1/8	External	Not collected	1	750	-0,9 ... 8	3 ... 8	0,33	10
	V60A511D-Cx13A	G1/8	Internal	Collected	2	750	2 ... 10	-	0,23	11
	V60A522D-Cx13A	G1/8	External	Collected	2	750	-0,9 ... 10	3 ... 10	0,23	11
	V61B511A-Ax***	G1/4	Internal	Not collected	1	1300	2 ... 8	-	0,42	10
	V61B522A-Ax***	G1/4	External	Not collected	1	1300	-0,9 ... 8	3 ... 8	0,42	10
	V61B511D-Cx13A	G1/4	Internal	Collected	2	1300	2 ... 10	-	0,32	11
	V61B522D-Cx13A	G1/4	External	Collected	2	1300	-0,9 ... 10	3 ... 10	0,32	11
	V62C511A-Ax***	G3/8	Internal	Not collected	1	2600	2 ... 8	-	0,72	10
	V62C522A-Ax***	G3/8	External	Not collected	1	2600	-0,9 ... 8	3 ... 8	0,72	10
	V62C511D-Cx13A	G3/8	Internal	Collected	2	2600	2 ... 10	-	0,62	11
	V62C522D-Cx13A	G3/8	External	Collected	2	2600	-0,9 ... 10	3 ... 10	0,62	11
	V63D511A-Ax***	G1/8	Internal	Not collected	1	4200	2 ... 8	-	0,98	13
	V63D522A-Ax***	G1/8	External	Not collected	1	4200	-0,9 ... 8	3 ... 8	0,98	13

\*\*\* Insert coil code from table below or 000 for version without solenoid. For manual override options, substitute 'x' as follows: 1 = without manual override, 2 = push and lock, 3 = push only

Coil & voltage codes

Solenoid variant 1 (solenoid rotates 4 x 90°)  
22 mm coil DIN EN 175 301-803 (DIN 43650 B)

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12L	2 W	V10626-A12L
24 V d.c.	13L	2 W	V10626-A13L
24 V 50/60 Hz	14L	4/2,5 VA	V10626-A14L
48 V 50/60 Hz	16L	4/2,5 VA	V10626-A16L
110/120 V 50/60 Hz	18L	4/2,5 VA	V10626-A18L
220/240 V 50/60 Hz	19L	6/5 VA	V10626-A19L

22 mm coil industrial standard

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12J	2 W	QM/48/12J/21
24 V d.c.	13J	2 W	QM/48/13J/21
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21
48 V 50/60 Hz	16J	4/2,5 VA	QM/48/16J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21

Solenoid variant 2

Double solenoid DIN EN 175 301-803 (DIN 43650 type C) 4 pin

Voltage	Coil code	Power inrush/hold	Manual override	Model
24 V d.c.	13 A	2 W	Push only	9031703900002400
24 V d.c.	13 A	2 W	Turn & lock	9031704900002400
24 V d.c.	13 A	2 W	Without	9031705900002400

Connector plugs must be ordered separately – see page 16

Electrical details

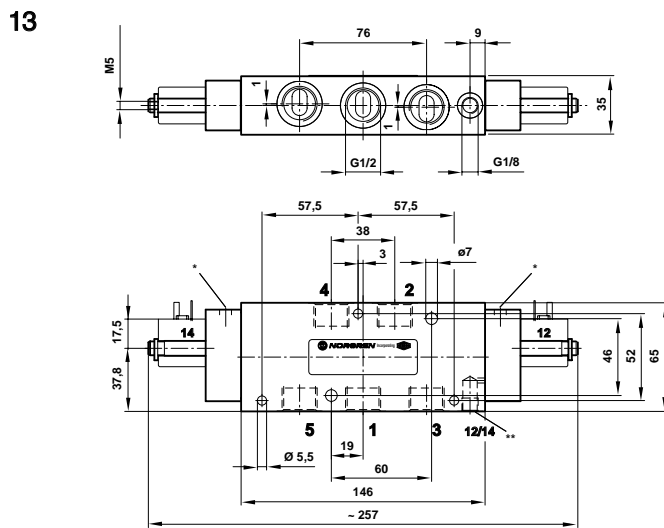
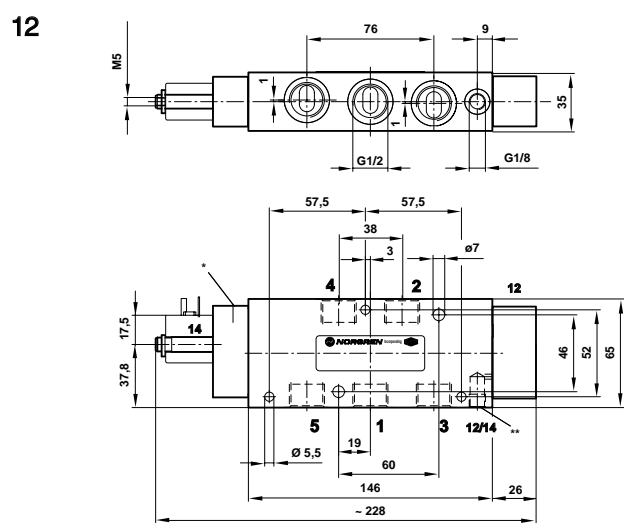
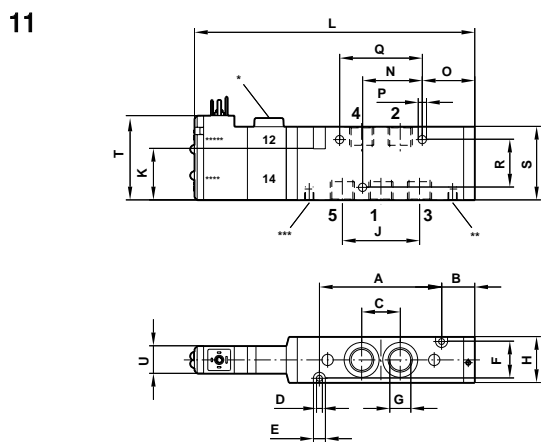
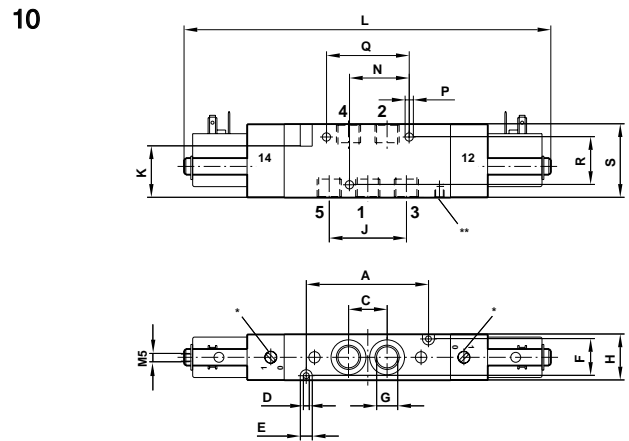
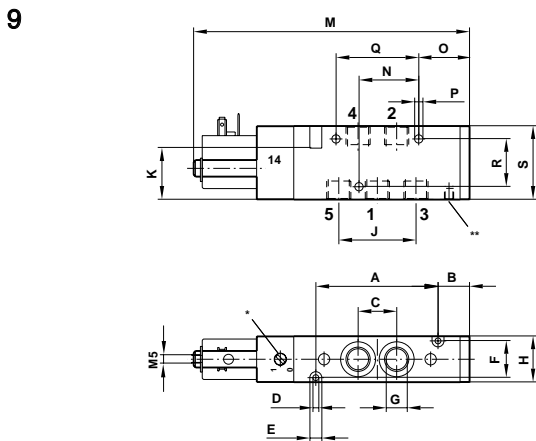
Voltage tolerance:	±10%
Rating:	100% E.D.
Protection class:	IP 65 with sealed plugs (ISO 6952)

Plug configuration, valve side/twin pilot

Symbol	Plug no.	Function	Actuation
	1	(+)	12 (Solenoid 2)
	2	(-)	12 + 14
	3	(+)	14 (Solenoid 1)



Drawing dimensions



- \* Manual override
- \*\* External pilot supply (M5)
- \*\*\* Collected pilot exhaust (M5)
- \*\*\*\* Solenoid 1
- \*\*\*\*\* Solenoid 2

Dimensional drawing no.	Type	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
9	V60	50	17	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	-	129	25	25	4,5	33,6	26	35	-	-
9	V61	66	18	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	-	150	32	29	4,5	44	26	40	-	-
9	V62	78	21	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	-	170	12	60	4,5	26	36	55	-	-
10	V60	50	-	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	175	-	25	-	4,5	33,6	26	35	-	-
10	V61	66	-	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	199	-	32	-	4,5	44	26	40	-	-
10	V62	78	-	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	218	-	12	-	4,5	26	36	55	-	-
11	V60	50	17	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	134	-	25	25	4,5	33,6	26	35	46	15
11	V61	66	18	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	153	-	32	29	4,5	44	26	40	46	15
11	V62	78	22	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	172	-	12	61	4,5	26	36	55	54	15



5/3 directional control valves, solenoid actuated

Symbol	Model	Port size	Pilot supply	Pilot exhaust	Solenoid variant	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
 APB	V60A611A-Ax***	G1/8	Internal	Not collected	1	500	3 ... 8	–	0,35	14
	V60A622A-Ax***	G1/8	External	Not collected	1	500	-0,9 ... 8	3 ... 8	0,35	14
	V60A611D-Cx13A	G1/8	Internal	Collected	2	500	3 ... 10	–	0,25	15
	V60A622D-Cx13A	G1/8	External	Collected	2	500	-0,9 ... 10	3 ... 10	0,25	15
	V61B611A-Ax***	G1/4	Internal	Not collected	1	950	3 ... 8	–	0,47	14
	V61B622A-Ax***	G1/4	External	Not collected	1	950	-0,9 ... 8	3 ... 8	0,47	14
	V61B611D-Cx13A	G1/4	Internal	Collected	2	950	3 ... 10	–	0,37	15
	V61B622D-Cx13A	G1/4	External	Collected	2	950	-0,9 ... 10	3 ... 10	0,37	15
	V62C611A-Ax***	G3/8	Internal	Not collected	1	1900	3 ... 8	–	0,81	14
	V62C622A-Ax***	G3/8	External	Not collected	1	1900	-0,9 ... 8	3 ... 8	0,81	14
 COE	V62C611D-Cx13A	G3/8	Internal	Collected	2	1900	-0,9 ... 10	3 ... 10	0,71	15
	V62C622D-Cx13A	G3/8	External	Collected	2	1900	-0,9 ... 10	3 ... 10	0,71	15
	V60A711A-Ax***	G1/8	Internal	Not collected	1	500	3 ... 8	–	0,35	14
	V60A722A-Ax***	G1/8	External	Not collected	1	500	-0,9 ... 8	3 ... 8	0,35	14
	V60A711D-Cx13A	G1/8	Internal	Collected	2	500	3 ... 10	–	0,25	15
	V60A722D-Cx13A	G1/8	External	Collected	2	500	-0,9 ... 10	3 ... 10	0,25	15
	V61B711A-Ax***	G1/4	Internal	Not collected	1	950	3 ... 8	–	0,47	14
	V61B722A-Ax***	G1/4	External	Not collected	1	950	-0,9 ... 8	3 ... 8	0,47	14
	V61B711D-Cx13A	G1/4	Internal	Collected	2	950	3 ... 10	–	0,37	15
	V61B722D-Cx13A	G1/4	External	Collected	2	950	-0,9 ... 10	3 ... 10	0,37	15
 COP	V62C711A-Ax***	G3/8	Internal	Not collected	1	1900	3 ... 8	–	0,81	14
	V62C722A-Ax***	G3/8	External	Not collected	1	1900	-0,9 ... 8	3 ... 8	0,81	14
	V62C711D-Cx13A	G3/8	Internal	Collected	2	1900	3 ... 10	–	0,71	15
	V62C722D-Cx13A	G3/8	External	Collected	2	1900	-0,9 ... 10	3 ... 10	0,71	15
	V60A811A-Ax***	G1/8	Internal	Not collected	1	500	3 ... 8	–	0,35	14
	V60A822A-Ax***	G1/8	External	Not collected	1	500	-0,9 ... 8	3 ... 8	0,35	14
	V60A811D-Cx13A	G1/8	Internal	Collected	2	500	3 ... 10	–	0,25	15
	V60A822D-Cx13A	G1/8	External	Collected	2	500	-0,9 ... 10	3 ... 10	0,25	15
	V61B811A-Ax***	G1/4	Internal	Not collected	1	950	3 ... 8	–	0,47	14
	V61B822A-Ax***	G1/4	External	Not collected	1	950	-0,9 ... 8	3 ... 8	0,47	14
 COP	V61B811D-Cx13A	G1/4	Internal	Collected	2	950	3 ... 10	–	0,37	15
	V61B822D-Cx13A	G1/4	External	Collected	2	950	-0,9 ... 10	3 ... 10	0,37	15
	V62C811A-Ax***	G3/8	Internal	Not collected	1	1900	3 ... 8	–	0,81	14
	V62C822A-Ax***	G3/8	External	Not collected	1	1900	-0,9 ... 8	3 ... 8	0,81	14
	V62C811D-Cx13A	G3/8	Internal	Collected	2	1900	3 ... 10	–	0,71	15
	V62C822D-Cx13A	G3/8	External	Collected	2	1900	-0,9 ... 10	3 ... 10	0,71	15

\*\*\* Insert coil code from table below or 000 for version without solenoid. For manual override options, substitute 'x' as follows: 1 = without manual override, 2 = push and lock, 3 = push only  
 APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

Coil & voltage codes

Solenoid variant 1 (solenoid rotates 4 x 90°)  
 22 mm coil DIN EN 175 301-803 (DIN 43650 B)

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12L	2 W	V10626-A12L
24 V d.c.	13L	2 W	V10626-A13L
24 V 50/60 Hz	14L	4/2,5 VA	V10626-A14L
48 V 50/60 Hz	16L	4/2,5 VA	V10626-A16L
110/120 V 50/60 Hz	18L	4/2,5 VA	V10626-A18L
220/240 V 50/60 Hz	19L	6/5 VA	V10626-A19L

22 mm coil industrial standard

Voltage	Coil code	Power inrush/hold	Model
12 V d.c.	12J	2 W	QM/48/12J/21
24 V d.c.	13J	2 W	QM/48/13J/21
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21
48 V 50/60 Hz	16J	4/2,5 VA	QM/48/16J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21

Solenoid variant 2

Double solenoid DIN EN 175 301-803 (DIN 43650 type C) 4 pin

Voltage	Coil code	Power inrush/hold	Manual override	Model
24 V d.c.	13 A	2 W	Push only	9031703900002400
24 V d.c.	13 A	2 W	Turn & lock	9031704900002400
24 V d.c.	13 A	2 W	Without	9031705900002400

Connector plugs must be ordered separately – see page 16

Electrical details

Voltage tolerance: ±10%  
 Rating: 100% E.D.  
 Protection class: IP 65 with sealed plugs (ISO 6952)

Plug configuration, valve side/twin pilot

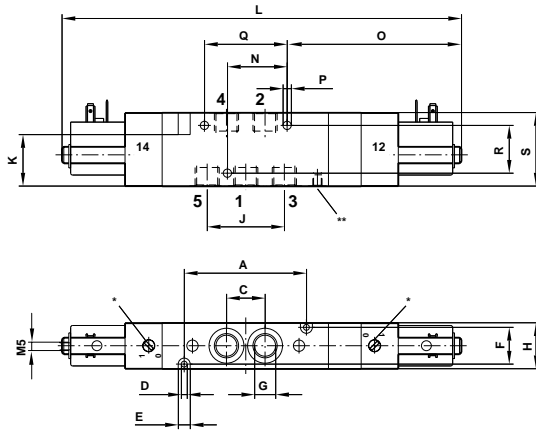
Symbol	Plug no.	Function	Actuation
	1	(+)	12 (Solenoid 2)
	2	(-)	12 + 14
	3	(+)	14 (Solenoid 1)



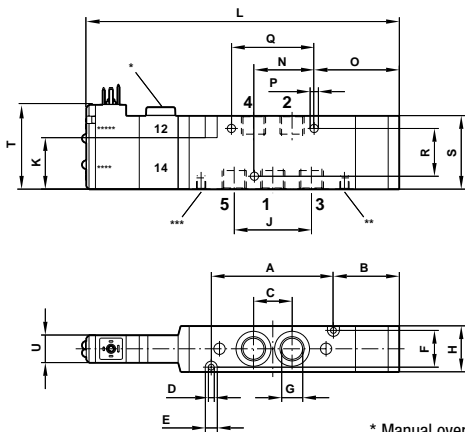


Drawing dimensions

14



15



- \* Manual override
- \*\* External pilot supply (M5)
- \*\*\* Collected pilot exhaust (M5)
- \*\*\*\* Solenoid 1
- \*\*\*\*\* Solenoid 2

Dimensional drawing no.	Type	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
14	V60	50	-	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	189	-	25	84,5	4,5	33,6	26	35	-	-
14	V61	66	-	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	217	-	32	-	4,5	44	26	40	-	-
14	V62	78	-	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	241	-	12	132	4,5	26	36	55	-	-
15	V60	50	31	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	148	-	25	39	4,5	33,6	26	35	46	15
15	V61	66	36	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	171	-	32	47	4,5	44	26	40	46	15
15	V62	78	44,5	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	195	-	12	84	4,5	26	36	55	54	15



3/2 directional control valves, pilot actuated

Symbol	Model	Port size	Operator 12	Operator 10	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
 NC	V60A4D7A-X5090	G1/8	Air	Spring	750	-0,9 ... 10	2,5 ... 10	0,13	16
	V61B4D7A-X5090	G1/4	Air	Spring	1300	-0,9 ... 10	2,5 ... 10	0,21	16
	V62C4D7A-X5090	G3/8	Air	Spring	2600	-0,9 ... 10	2,5 ... 10	0,43	16
	V63D4D7A-XA090	G1/2	Air	Spring	4200	-0,9 ... 10	2,5 ... 10	0,75	20
 NO	V60A3D7A-X5090	G1/8	Spring	Air	750	-0,9 ... 10	2,5 ... 10	0,13	17
	V61B3D7A-X5090	G1/4	Spring	Air	1300	-0,9 ... 10	2,5 ... 10	0,21	17
	V62C3D7A-X5090	G3/8	Spring	Air	2600	-0,9 ... 10	2,5 ... 10	0,43	17
	V63D3D7A-XA090	G1/2	Spring	Air	4200	-0,9 ... 10	2,5 ... 10	0,75	20
	V60A4DDA-X5020	G1/8	Air	Air	750	-0,9 ... 10	1,5 ... 10	0,13	18
	V61B4DDA-X5020	G1/4	Air	Air	1300	-0,9 ... 10	1,5 ... 10	0,21	18
	V62C4DDA-X5020	G3/8	Air	Air	2600	-0,9 ... 10	1,5 ... 10	0,43	18
	V63D4DDA-XA020	G1/2	Air	Air	4200	-0,9 ... 10	1,5 ... 10	0,68	21

NC = Normally closed, NO = Normally open

2 x 3/2 directional control valves, pilot actuated

Symbol	Model	Port size	Operator 14	Operator 12	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
 NC/NC	V60AADDA-X5020	G1/8	Air	Air	500	2 ... 10	2 ... 10	0,18	19
	V61BADDA-X5020	G1/4	Air	Air	950	2 ... 10	2 ... 10	0,28	19
	V62CADDA-X5020	G3/8	Air	Air	1900	2 ... 10	2 ... 10	0,60	19
 NO/NO	V60ABDDA-X5020	G1/8	Air	Air	500	2 ... 10	2 ... 10	0,18	19
	V61BBDDA-X5020	G1/4	Air	Air	950	2 ... 10	2 ... 10	0,28	19
	V62CBDDA-X5020	G3/8	Air	Air	1900	2 ... 10	2 ... 10	0,60	19
 NO/NC	V60ACDDA-X5020	G1/8	Air	Air	500	2 ... 10	2 ... 10	0,18	19
	V61BCDDA-X5020	G1/4	Air	Air	950	2 ... 10	2 ... 10	0,28	19
	V62CCDDA-X5020	G3/8	Air	Air	1900	2 ... 10	2 ... 10	0,60	19

Note: Internal switching in middle position via spring.

NC/NC = Both valves normally closed (port P)

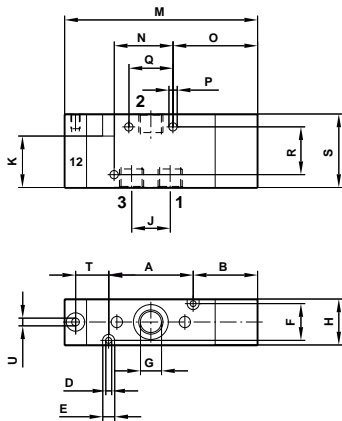
NO/NO = Both valves normally open (port P)

NO/NC = 1 valve normally open, 1 valve normally closed (port P)

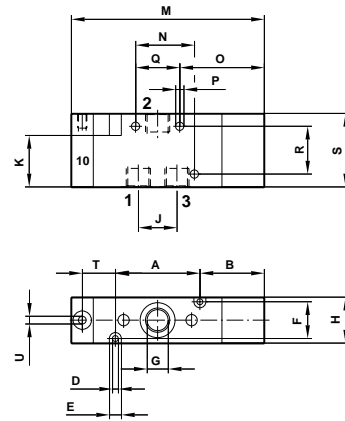


Drawing dimensions

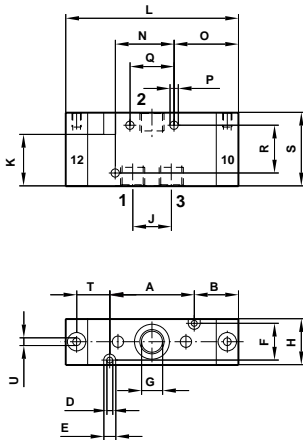
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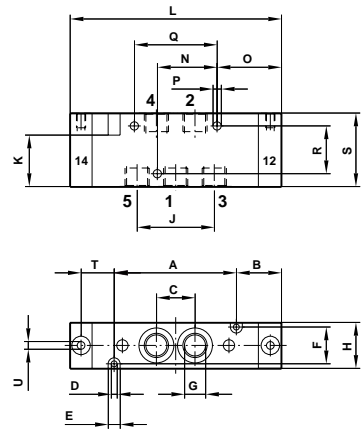
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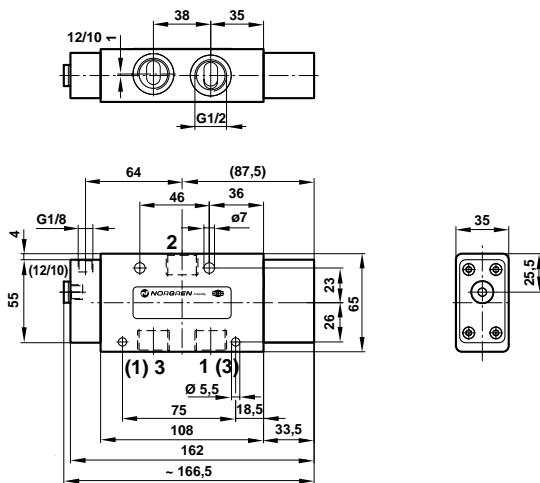
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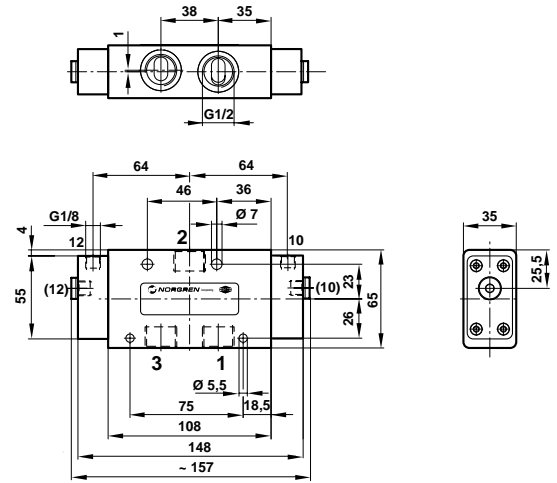
19



20



21



Dimensional drawing no.	Type	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
16	V60	35	29	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	-	86	25	37	4,5	18	26	35	17	M 5
16	V61	46	35	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	-	105	32	46	4,5	24	26	40	18	M 5
16	V62	54	43	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	-	124	12	58	4,5	26	36	55	21	M 5
17	V60	35	29	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	-	86	25	37	4,5	18	26	35	17	M 5
17	V61	46	35	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	-	105	32	46	4,5	24	26	40	18	M 5
17	V62	54	43	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	-	124	12	56	4,5	26	36	55	21	M 5
18	V60	35	23	-	3,2	6,5	17	G1/8; 8 deep	22	16,2	28	80	-	25	31	4,5	18	26	35	17	M 5
18	V61	46	24	-	3,2	6,5	20	G1/4; 10 deep	25	21	28	94	-	32	35	4,5	24	26	40	18	M 5
18	V62	54	27	-	4,5	8	28	G3/8; 11,5 deep	34	24,4	44	108	-	12	42	4,5	26	36	55	21	M 5
19	V60	50	23	16,2	3,2	6,5	17	G1/8; 8 deep	22	32,4	28	95	-	25	31	4,5	33,6	26	35	17	M 5
19	V61	66	24	21	3,2	6,5	20	G1/4; 10 deep	25	42	28	114	-	32	35	4,5	44	26	40	18	M 5
19	V62	78	27	24,4	4,5	8	28	G3/8; 11,5 deep	34	48,8	44	132	-	12	66	4,5	26	36	55	21	M 5



5/2 directional control valves, pilot actuated

Symbol	Model	Port size	Operator 12	Operator 10	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
	V60A5D7A-X5090	G1/8	Air	Spring	750	-0,9 ... 10	2,5 ... 10	0,16	22
	V61B5D7A-X5090	G1/4	Air	Spring	1300	-0,9 ... 10	2,5 ... 10	0,26	22
	V62C5D7A-X5090	G3/8	Air	Spring	2600	-0,9 ... 10	2,5 ... 10	0,56	22
	V63D5D7A-XA090	G1/2	Air	Spring	4200	-0,9 ... 10	2,5 ... 10	0,92	25
	V60A5DDA-X5020	G1/8	Air	Air	750	-0,9 ... 10	1,5 ... 10	0,17	23
	V61B5DDA-X5020	G1/4	Air	Air	1300	-0,9 ... 10	1,5 ... 10	0,27	23
	V62C5DDA-X5020	G3/8	Air	Air	2600	-0,9 ... 10	1,5 ... 10	0,58	23
	V63D5DDA-XA020	G1/2	Air	Air	4200	-0,9 ... 10	1,5 ... 10	0,87	26

5/3 directional control valves, pilot actuated

Symbol	Model	Port size	Operator 14	Operator 12	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	kg	Dimensional drawing no.
	V60A6DDA-X5020	G1/8	Air	Air	500	-0,9 ... 10	3 ... 10	0,2	24
	V61B6DDA-X5020	G1/4	Air	Air	950	-0,9 ... 10	3 ... 10	0,32	24
	V62C6DDA-X5020	G3/8	Air	Air	1900	-0,9 ... 10	3 ... 10	0,67	24
	V60A7DDA-X5020	G1/8	Air	Air	500	-0,9 ... 10	3 ... 10	0,2	24
	V61B7DDA-X5020	G1/4	Air	Air	950	-0,9 ... 10	3 ... 10	0,32	24
	V62C7DDA-X5020	G3/8	Air	Air	1900	-0,9 ... 10	3 ... 10	0,67	24
	V60A8DDA-X5020	G1/8	Air	Air	500	-0,9 ... 10	3 ... 10	0,2	24
	V61B8DDA-X5020	G1/4	Air	Air	9500	-0,9 ... 10	3 ... 10	0,32	24
	V62C8DDA-X5020	G3/8	Air	Air	1900	-0,9 ... 10	3 ... 10	0,67	24

Note: Internal switching in middle position via spring.

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.





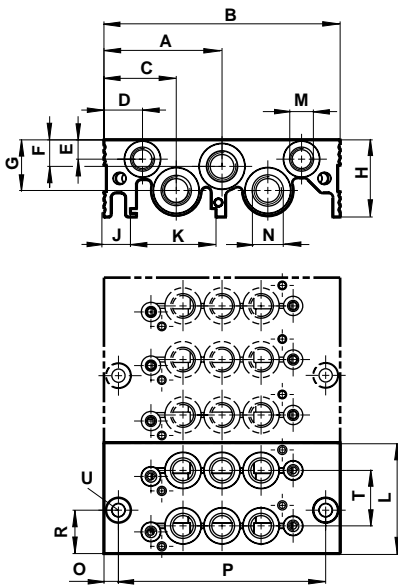
## Manifold system

### Manifold plate

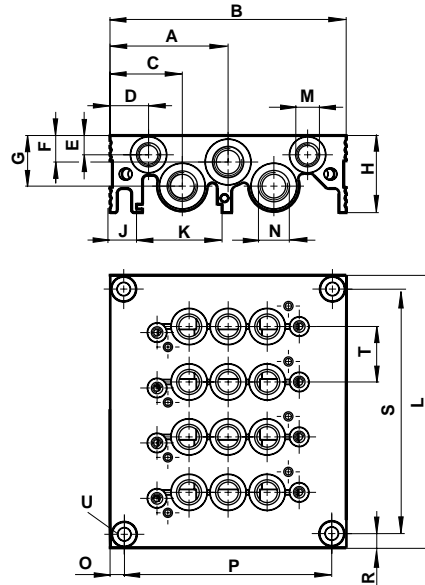
Valve ports	V60 Model	kg	V61 Model	kg	V62 Model	kg
2	2221002 0000 00000	0,23	2221102 0000 00000	0,28	2221202 0000 00000	0,50
3	2221003 0000 00000	0,28	2221103 0000 00000	0,45	2221203 0000 00000	0,85
4	2221004 0000 00000	0,61	2221104 0000 00000	0,72	2221204 0000 00000	1,25
6	2221006 0000 00000	0,86	2221106 0000 00000	1,02	2221206 0000 00000	1,79
8	2221008 0000 00000	1,11	2221108 0000 00000	1,32	2221208 0000 00000	2,33
10	2221010 0000 00000	1,36	2221110 0000 00000	1,62	2221210 0000 00000	2,87
12	2221012 0000 00000	1,61	2221112 0000 00000	1,92	2221212 0000 00000	3,41
14	2221014 0000 00000	1,86	2221114 0000 00000	2,22	2221214 0000 00000	3,95
16	2221016 0000 00000	2,11	2221116 0000 00000	2,52	2221216 0000 00000	4,49
18	2221018 0000 00000	2,36	2221118 0000 00000	2,82	2221218 0000 00000	5,03
20	2221020 0000 00000	2,61	2221120 0000 00000	3,12	2221220 0000 00000	5,57

### Drawing dimensions

Manifold plate 2 stations + 3 stations



Manifold plate 4 stations – 20 stations





Type		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
V60	2 stations	49	98	30	16	8	11	21	32	11	35,5	46	G 1/8	G 1/4	6	86	28	-	23	for M5
V60	3 stations	49	98	30	16	8	11	21	32	11	35,5	69	G 1/8	G 1/4	6	86	28	-	23	for M5
V60	4-20 stations	49	98	30	16	8	11	21	32	11	35,5	(x-23)+23	G 1/8	G 1/4	6	86	6,5	(x-23)+10	23	for M5
V61	2 stations	52	104	26	9	8	13	21	33	10	35,5	52	G 1/8	G 3/8	40	24	26	-	26	for M5
V61	3 stations	52	104	26	9	8	13	20	33	10	35,5	78	G 1/8	G 3/8	40	24	52	-	26	for M5
V61	4-20 stations	52	104	26	9	8	13	20	33	10	35,5	(x-26)+23	G 1/8	G 3/8	40	24	6,5	(x-26)+10	26	for M5
V62	2 stations	60	120	29	9	8	15	22	38	13	35,5	70	G 1/8	G 1/2	44	32	35	-	35	for M6
V62	3 stations	60	120	29	9	8	15	22	38	13	35,5	105	G 1/8	G 1/2	44	32	70	-	35	for M6
V62	4-20 stations	60	120	29	9	8	15	22	38	13	35,5	(x-35)+26	G 1/8	G 1/2	44	32	7	(x-35)+12	35	for M6

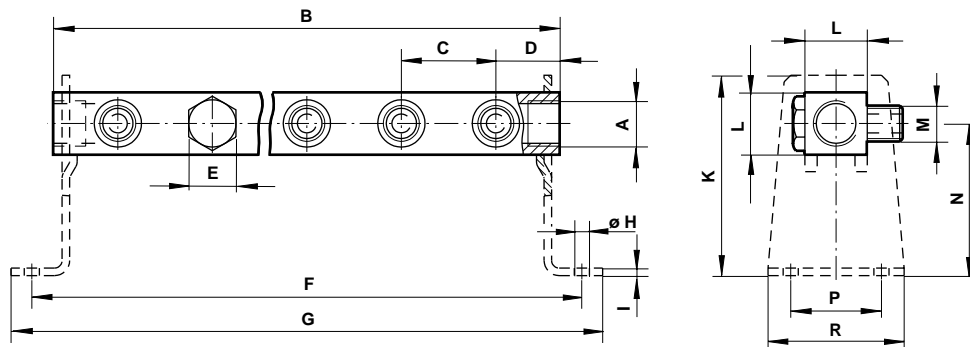


## Manifold system

For common pressure supply

	<b>Bracket for manifold</b>																		
Types see table below	0555485	(V60)	0,080 kg		0491586	(V60)	0,010 kg												
	0555484	(V61)	0,150 kg		0491587	(V61)	0,020 kg												

## Drawing dimensions



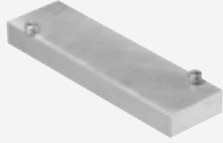








Pressure supply on both sides if 4 or more valves are to operate at the same time.

Type	No. of stations	A	B	C	D	E	F	G	Ø H	I	K	L	M	N	P	R	kg
V60																	
2639622	2	G1/4	76	32	22	14	90	106	6,5	2,5	60	16	G1/8	48	28	42	0,053
2639623	3	G1/4	108	32	22	14	122	138	6,5	2,5	60	16	G1/8	48	28	42	0,075
2639624	4	G1/4	140	32	22	14	154	170	6,5	2,5	60	16	G1/8	48	28	42	0,099
2639625	5	G1/4	172	32	22	14	186	202	6,5	2,5	60	16	G1/8	48	28	42	0,123
2639626	6	G1/4	204	32	22	14	218	234	6,5	2,5	60	16	G1/8	48	28	42	0,147
2639627	7	G1/4	236	32	22	14	250	266	6,5	2,5	60	16	G1/8	48	28	42	0,174
2639628	8	G1/4	268	32	22	14	282	298	6,5	2,5	60	16	G1/8	48	28	42	0,194
2639629	9	G1/4	300	32	22	14	314	330	6,5	2,5	60	16	G1/8	48	28	42	0,209
2639630	10	G1/4	332	32	22	14	346	362	6,5	2,5	60	16	G1/8	48	28	42	0,230
2639632	12	G1/4	396	32	22	14	410	426	6,5	2,5	60	16	G1/8	48	28	42	0,280
V61																	
2639422	2	G3/8	85	35	25	19	100	116	6,5	3	75	23	G1/4	57	35	50	0,130
2639423	3	G3/8	120	35	25	19	135	151	6,5	3	75	23	G1/4	57	35	50	0,192
2639424	4	G3/8	155	35	25	19	170	186	6,5	3	75	23	G1/4	57	35	50	0,250
2639425	5	G3/8	190	35	25	19	205	221	6,5	3	75	23	G1/4	57	35	50	0,309
2639426	6	G3/8	225	35	25	19	240	256	6,5	3	75	23	G1/4	57	35	50	0,367
2639427	7	G3/8	260	35	25	19	275	291	6,5	3	75	23	G1/4	57	35	50	0,421
2639428	8	G3/8	295	35	25	19	310	326	6,5	3	75	23	G1/4	57	35	50	0,482
2639429	9	G3/8	330	35	25	19	345	361	6,5	3	75	23	G1/4	57	35	50	0,537
2639430	10	G3/8	365	35	25	19	380	396	6,5	3	75	23	G1/4	57	35	50	0,595
2639432	12	G3/8	435	35	25	19	450	466	6,5	3	75	23	G1/4	57	35	50	0,642








## Accessories






### Manifolds

														
<b>Blanking plate</b>			<b>Blanking plug for 2 station and 3 station manifolds</b>			<b>Pressure shut-off part for 4 station up to 20 station manifolds</b>			<b>Intermediate supply/exhaust plate (instead of a valve)</b>			<b>Adapter plate to connect different manifold sizes</b>		
0100561	(V60)	0,050 kg	0701208	(V60)	0,006 kg	0100567	(V60)	0,010 kg	0101808	(V60)	0,110 kg	0102158	(V60→V61)	on request
0100563	(V61)	0,060 kg	0701209	(V61)	0,012 kg	0100569	(V61)	0,015 kg	0101797	(V61)	0,220 kg	0102160	(V61→V62)	on request
0100565	(V62)	0,100 kg	0701210	(V62)	0,020 kg	0100571	(V62)	0,020 kg	0101809	(V62)	0,390 kg	0102162	(V60→V62)	on request
														
<b>Pressure switch adapter plate</b>			<b>DIN Rail fixing kit</b>			<b>Blanking plug for port 12/14 and 82/84</b>			<b>Blanking plug for port 1, 3, 5</b>					
0102146	(V60)	0,130 kg	0101796	(V60→V62)	0,010 kg	160050018	(V60→V62)	0,008 kg	160050028	(V60)	0,015 kg			
0102148	(V61)	0,160 kg							160050038	(V61)	0,020 kg			
0102150	(V62)	0,260 kg							160050048	(V62)	0,035 kg			

### Valves

														
<b>Silencer sintered bronze</b>			<b>Exhaust flow regulator without silencer</b>			<b>Exhaust flow regulator with silencer</b>			<b>Diffusor for pilot exhaust</b>			<b>Circlip for coil fixing</b>		
0014400	M5	0,025 kg	4048004	G1/8	0,025 kg	4048005	G1/8	0,025 kg	81110800		0,002 kg	81021600		0,001 kg
0014510	G1/8	0,008 kg	4048104	G1/4	0,060 kg	4048105	G1/4	0,060 kg						
0014610	G1/4	0,010 kg	(G3/8 on request)			(G3/8 on request)								
0014710	G3/8	0,025 kg												
0014810	G1/2	0,060 kg												

### Connectors

														
<b>Industrial standard 22 mm 2-pole + PE</b>			<b>DIN EN 175301-803 (DIN 43650 B) 2-pole + PE</b>			<b>DIN EN 175301-803 (DIN 43650 C) 3-pole + PE</b>			<b>DIN EN 175301-803 (DIN 43650 B) with AS-i Interface</b>			<b>DIN EN 175301-803 (DIN 43650 B) with AS-i Interface</b>		
0657868		0,005 kg	0680003		0,005 kg	0588666		0,002 kg	0101033		0,030 kg	0101032		0,030 kg
12...250 V a.c./d.c.			12...250 V a.c./d.c.			12...250 V a.c./d.c.			1 output			1 output + 2 inputs with M12 x 1		
0680000		0,005 kg	0664811		0,005 kg	0102144		0,200 kg						
15...30 V d.c.; LED, surge suppression			15...30 V d.c.; LED, surge suppression			12...250 V a.c./d.c.; cable 3 m								
0680001		0,005 kg	0664812		0,005 kg									
150...250 V a.c.; glim lamp			150...250 V a.c.; glim lamp											

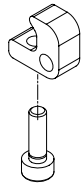




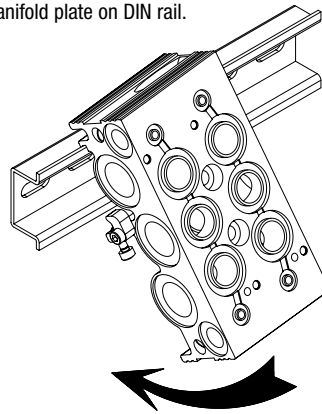
## Mounting instructions

DIN Rail

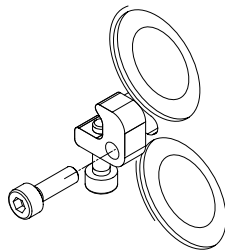
1. Mount screw in rod



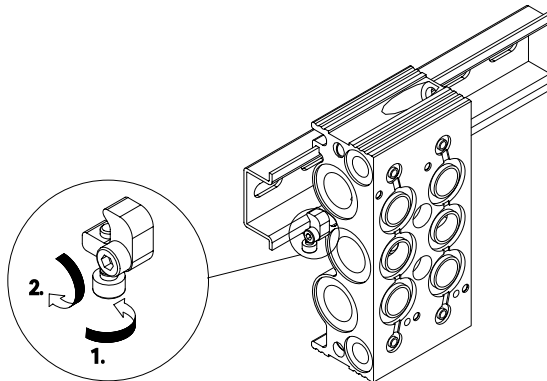
3. Position manifold plate on DIN rail.



2. Fix rod on manifold plate with screw.

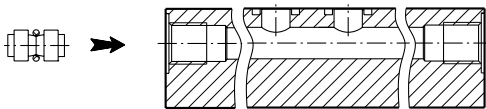


4. Tighten screws in steps as shown on picture

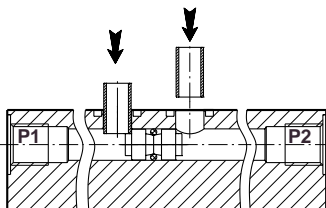


## Mounting instructions

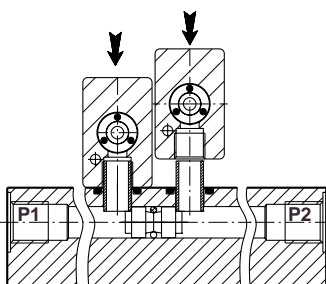
Pressure shut-off part



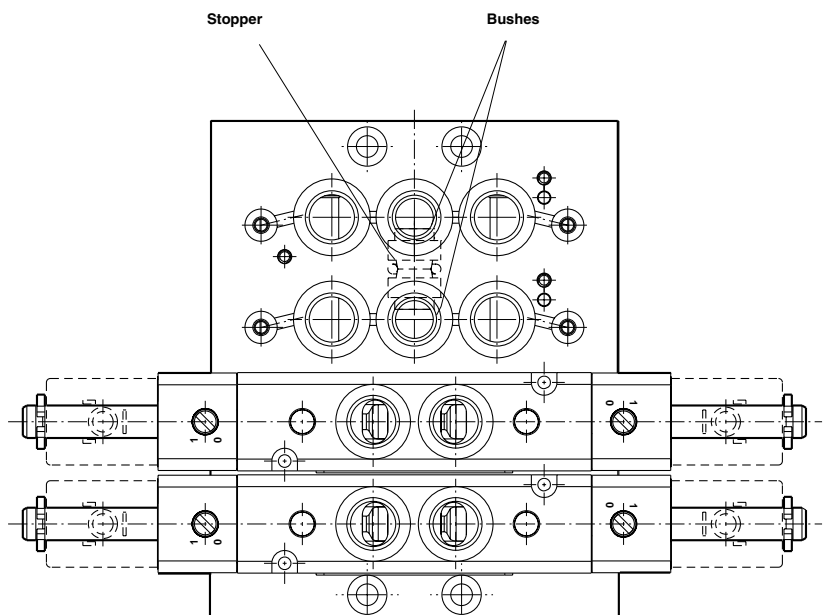
1. Set stopper at required position (in main pressure line).



2. Plug-in two bushes to lock stopper in position.

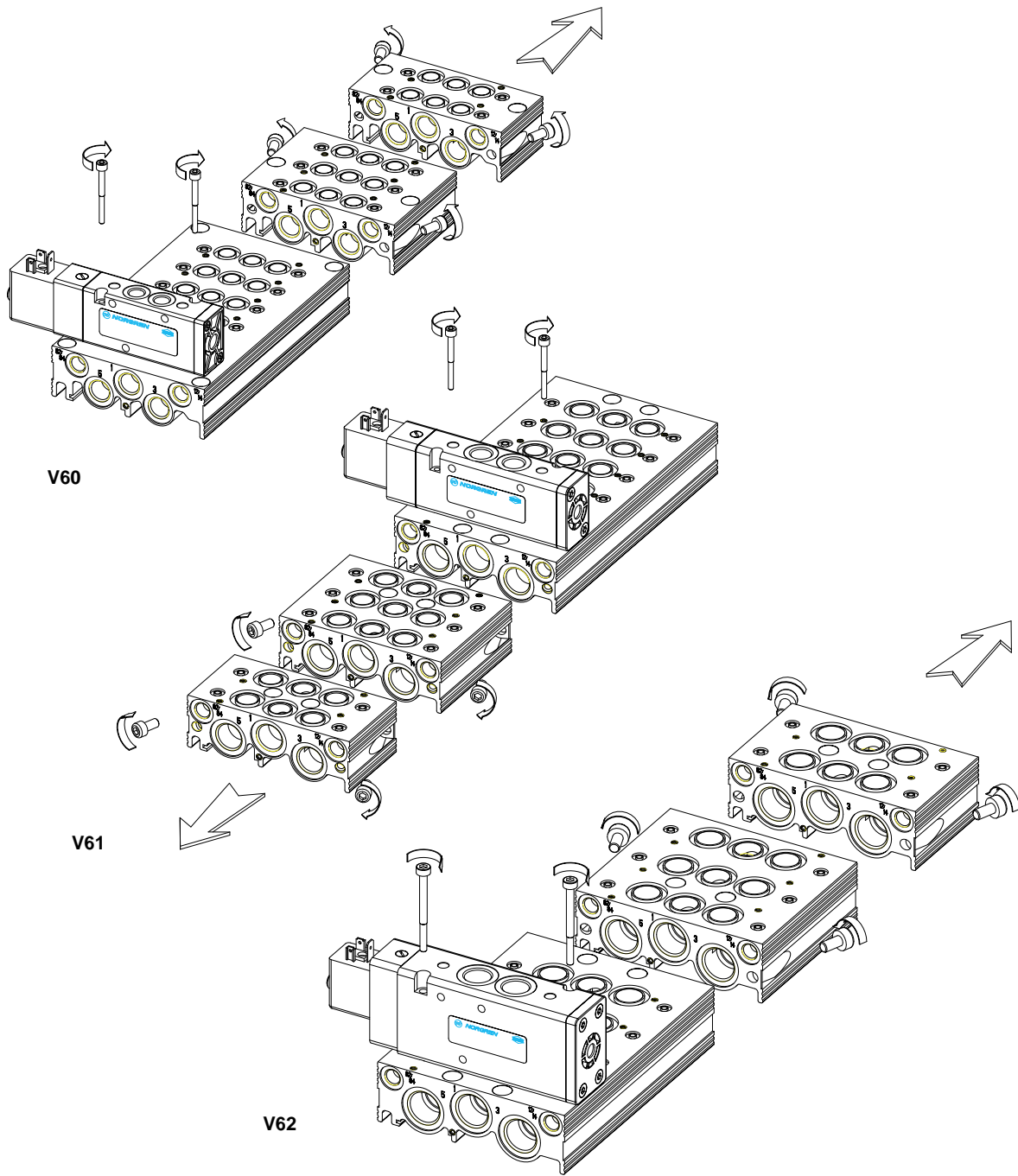


3. Mount valves on manifold plate (bushes rise into P port of valves).








### Extension possibilities with manifold plates





## Pneumatic pressure switch and sensors with flange connection – ideal for sub-base mounting

Series	Technical data	Pressure ranges/versions	Type	Data sheet
<b>33D</b> 	<b>Electronic pressure switch/sensor</b> <b>1 x PNP; 2 x PNP; 1 x PNP / 4 ... 20 mA</b>  For applications with high accuracy Lubricated or unlubricated air and neutral gases Electrical connection M12 x 1 $U_B = 10 \dots 32 \text{ V d.c. (15 ... 32 V DC with 4 ... 20 mA)}$ Permanent indication of system pressure and unit are indicated Easy programming due to display informations LCD-Display illuminated Piezo-resistant silicon-sensor Unit is programmable (bar, psi, kpa) Adjustments can be protected by code Set-/resetpoint, window or hysteresis mode programmable Time functions 0 to 20 s programmable	-1 ... +1 bar, 1 x PNP -1 ... +1 bar, 2 x PNP -1 ... +1 bar, 1 x PNP / 4 ... 20 mA 0 ... 16 bar, 1 x PNP 0 ... 16 bar, 2 x PNP 0 ... 16 bar, 1 x PNP / 4 ... 20 mA	0863016 0863026 0863046 0863216 0863226 0863246	5.11.027
<b>18S</b> 	<b>Electronic pressure sensor</b> <b>4 ... 20 mA, 2-wire technology</b>  For all standard applications with permanent pressure control Lubricated or unlubricated air and neutral gases Electrical connection M12 x 1 or DIN 43650 A $U_B = 10 \dots 32 \text{ V d.c.}$ Output signal 4 ... 20 mA ( $R_{\text{max}} = 1100 \text{ ohm}$ ) Linearity 0,5 % FS Piezo-resistant silicon-sensor	-1 ... +1 bar (M12 x 1) 0 ... 10 bar (M12 x 1) -1 ... +1 bar (DIN 43650 A) 0 ... 10 bar (DIN 43650 A)	0862085 0862185 0862086 0862186	5.11.026
<b>18D</b> 	<b>Electromechanical pressure switch</b>  For all standard applications with medium accuracy (+/- 3 % repeatability) Lubricated or unlubricated air and neutral gases Electrical connection M12 x 1 or DIN 43650 A Microswitch with goldplated contacts (SPDT) Approved by UL and CSA	-1 ... 0 bar (DIN 43650 A) 0,5 ... 8 bar (DIN 43650 A) -1 ... 0 bar (M12 x 1) 0,5 ... 8 bar (M12 x 1)	0881100 0881300 0881160 0881360	5.11.021

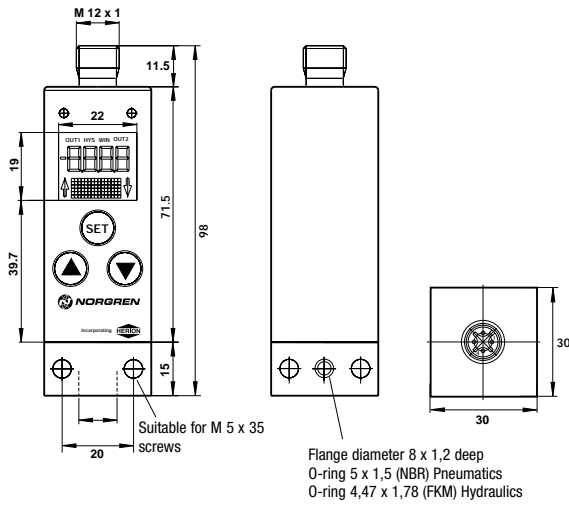


### Drawing dimensions

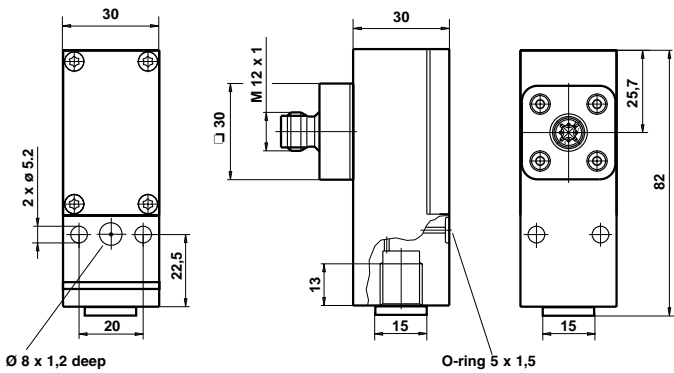
33D

Front view

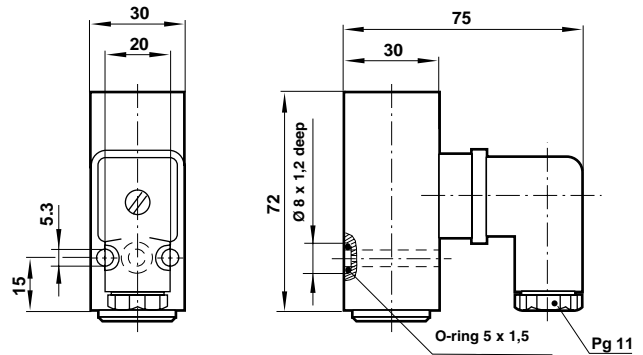
Rear view (flange version)



18S



18D



### Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power

systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

**System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.