

Valve Islands, VM10 Series

Valve slices 2 x 3/2, 5/2, and 5/3 with integral push-in fittings



Multipole or individually wired for installation flexibility

Interchangeable Fieldbus compatible modules

Compact and lightweight

Standard or checked exhaust paths

Quick disconnect base (Pneumapole)

High flow from 10 mm valve width

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operation:

Solenoid pilot spool valve

Port sizes:

Push-in fittings of 1/8, 5/32, 1/4, 3 mm, 4 mm, 6 mm

Operating pressure:

Maximum 116 psig (8 bar)

Flow:

Function	Cv	l/min
5/2 port 1 to 2, 4	0.44	430
5/2 ports 2 to 3, 4 to 5	0.41	400
2 x 3/2 ports 1 to 2, 1 to 4	0.36	350
2 x 3/2 ports 2 to 3, 4 to 5	0.36	350
5/3 ports 1 to 2, 4	0.36	350
5/3 ports 2 to 3, 4 to 5	0.36	350

Degree of protection:

NEMA 4 and IP65

Ambient temperature:

4°F to 122°F (-20°C to +50°C)

For use below 36°F (+2°C) consult our Technical Service

Materials

Aluminum spool with nitrile rubber seals

Body, end plates: engineered PPA co-polymer

Electrical details

Voltage:	24 V d.c. 0.6 W
Surge suppression:	Flywheel diode
Indication:	Yellow LED

Solenoids

Voltage tolerance:	± 10%
Rating:	100% ED

2 x 3/2 Double solenoid actuated	Manual override	Function	Pilot Supply	Actuation	Operating Pressure (psig)	Pilot Pressure (psig)	Weight (lbs)
VM10*A11AB213B	Turn & lock	NC	Internal	Sol/Spring	43.5 to 116	—	0.12
VM10*A11AB313B	Push only	NC	Internal	Sol/Spring	43.5 to 116	—	0.12
VM10*A22AB213B	Turn & lock	NC	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.12
VM10*A22AB313B	Push only	NC	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.12
VM10*B11AB213B	Turn & lock	NO	Internal	Sol/Spring	43.5 to 116	—	0.12
VM10*B11AB313B	Push only	NO	Internal	Sol/Spring	43.5 to 116	—	0.12
VM10*B22AB213B	Turn & lock	NO	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.12
VM10*B22AB313B	Push only	NO	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.12
VM10*C11AB213B	Turn & lock	NC/NO	Internal	Sol/Spring	43.5 to 116	—	0.12
VM10*C11AB313B	Push only	NC/NO	Internal	Sol/Spring	43.5 to 116	—	0.12
VM10*C22AB213B	Turn & lock	NC/NO	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.12
VM10*C22AB313B	Push only	NC/NO	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.12
5/2 Single and double solenoid actuated valves							
VM10*517AB213B	Turn & lock	5/2	Internal	Sol/Spring	43.5 to 116	—	0.10
VM10*517AB313B	Push only	5/2	Internal	Sol/Spring	43.5 to 116	—	0.10
VM10*527AB213B	Turn & lock	5/2	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.10
VM10*527AB313B	Push only	5/2	External	Sol/Spring	26" Hg to 116	43.5 to 116	0.10
VM10*511AB213B	Turn & lock	5/2	Internal	Sol/Sol	29 to 116	—	0.12
VM10*511AB313B	Push only	5/2	Internal	Sol/Sol	29 to 116	—	0.12
VM10*522AB213B	Turn & lock	5/2	External	Sol/Sol	26" Hg to 116	29 to 116	0.12
VM10*522AB313B	Push only	5/2	External	Sol/Sol	26" Hg to 116	29 to 116	0.12
5/3 Double solenoid actuated valves							
VM10*611AB213B	Turn & lock	5/3 APB	Internal	Sol/Sol	43.5 to 116	—	0.12
VM10*611AB313B	Push only	5/3 APB	Internal	Sol/Sol	43.5 to 116	—	0.12
VM10*622AB213B	Turn & lock	5/3 APB	External	Sol/Sol	26" Hg to 116	43.5 to 116	0.12
VM10*622AB313B	Push only	5/3 APB	External	Sol/Sol	26" Hg to 116	43.5 to 116	0.12

Options selector

VM109517AB313A

Tube size	Substitute
3 mm PIF	3
4 mm PIF	4
6 mm PIF	6
1/8" PIF	A
1/4" PIF	1
5/32" PIF	9
No PIF (for use with Pneumapole)	7

Valve function	Substitute
5/2	5
5/3 APB	6
2 x 3/2 NC and 5/3 COE	A
2 x 3/2 NO and 5/3 COP	B
2 x 3/2 NC and NO	C

Manual override	Substitute
Turn to lock manual override	2
Push only manual override	3

Exhaust	Substitute
Standard open exhaust	A
Checked exhaust (integral non return valve)	U

Actuation/pilot supply	Substitute
Solenoid/solenoid internal pilot	11
Solenoid/spring internal pilot **	17
Solenoid/solenoid external pilot	22
Solenoid/spring external pilot **	27

Note: For 5/3 COE please use 2 x 3/2 NC. For 5/3 COP please use 2 x 3/2 NO
APB = All Ports Blocked COE = Center Open Exhaust COP = Center Open Pressure
Use our configurator under www.norgren.com (also available on CD)

* Requires Pneumapole sub-base ** Can only be used with 5/2 valve

Valve Islands, VM10 Series

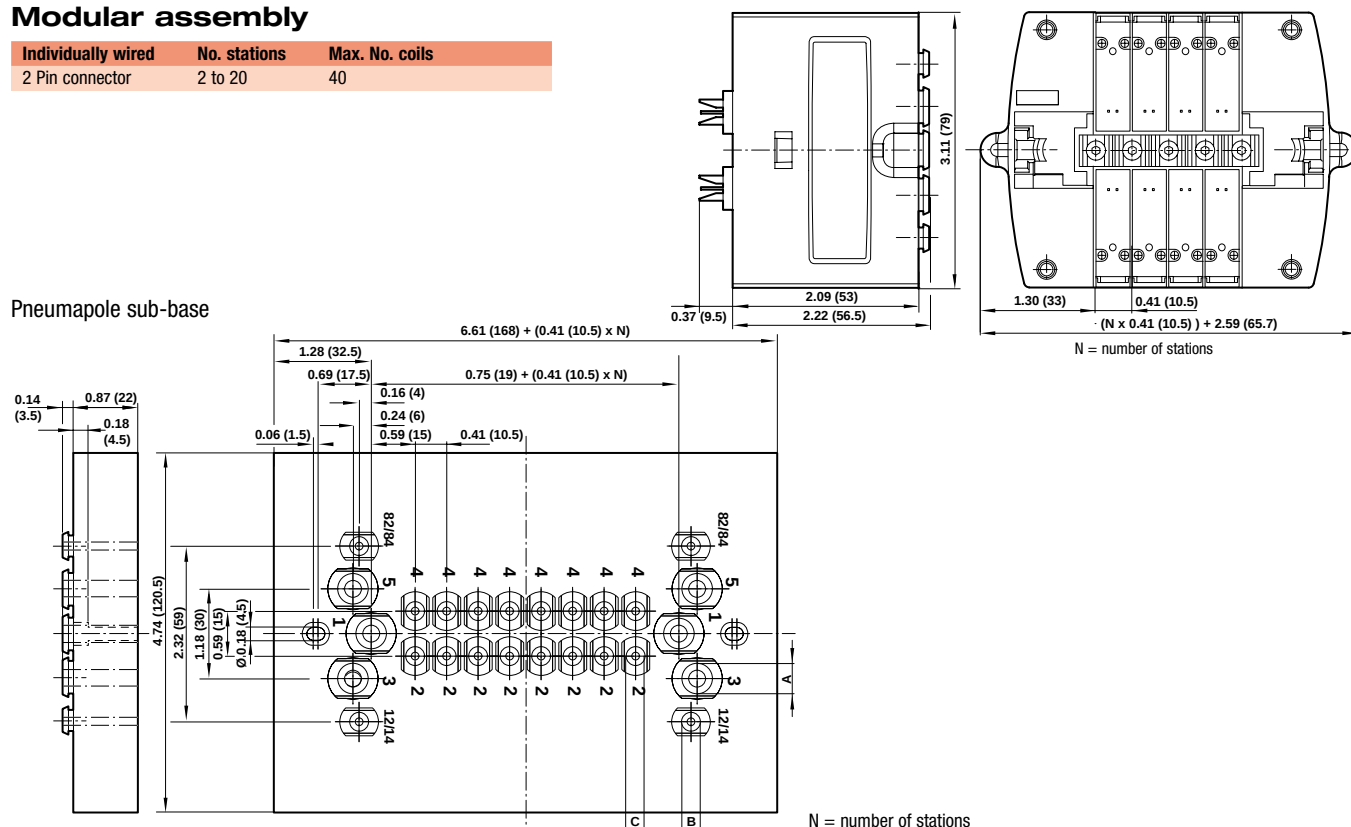
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Dimensions in inches (mm)

Modular assembly

Individually wired	No. stations	Max. No. coils
2 Pin connector	2 to 20	40

Pneumapole sub-base



Model	Description	A, Ports 1, 3, 5	B, Ports 12/14, 82/84	C, Ports 2, 4	Exhaust type	Short code
VM106517AQ1604	4 station Pneumapole	3/8	1/4	1/4	Standard	4C
VM106517AQ1606	6 station Pneumapole	3/8	1/4	1/4	Standard	4F
VM106517AQ1608	8 station Pneumapole	3/8	1/4	1/4	Standard	4J
VM106517AQ1610	10 station Pneumapole	3/8	1/4	1/4	Standard	4C
VM106517AQ1612	12 station Pneumapole	3/8	1/4	1/4	Standard	4F
VM106517AQ1616	16 station Pneumapole	3/8	1/4	1/4	Standard	4J
VM106517UQ1804*	4 station Pneumapole	3/8	1/4	1/4	Checked exhaust	6C
VM106517UQ1806*	6 station Pneumapole	3/8	1/4	1/4	Checked exhaust	6F
VM106517UQ1808*	8 station Pneumapole	3/8	1/4	1/4	Checked exhaust	6J
VM106517UQ1810*	10 station Pneumapole	3/8	1/4	1/4	Checked exhaust	6C
VM106517UQ1812*	12 station Pneumapole	3/8	1/4	1/4	Checked exhaust	6F
VM106517UQ1816*	16 station Pneumapole	3/8	1/4	1/4	Checked exhaust	6J
VM106517AQ6604	4 station Pneumapole	10 mm	6 mm	6 mm	Standard	3C
VM106517AQ6606	6 station Pneumapole	10 mm	6 mm	6 mm	Standard	3F
VM106517AQ6608	8 station Pneumapole	10 mm	6 mm	6 mm	Standard	3J
VM106517AQ6610	10 station Pneumapole	10 mm	6 mm	6 mm	Standard	3C
VM106517AQ6612	12 station Pneumapole	10 mm	6 mm	6 mm	Standard	3F
VM106517AQ6616	16 station Pneumapole	10 mm	6 mm	6 mm	Standard	3J
VM106517UQ6804*	4 station Pneumapole	10 mm	6 mm	6 mm	Checked exhaust	5C
VM106517UQ6806*	6 station Pneumapole	10 mm	6 mm	6 mm	Checked exhaust	5F
VM106517UQ6808*	8 station Pneumapole	10 mm	6 mm	6 mm	Checked exhaust	5J
VM106517UQ6810*	10 station Pneumapole	10 mm	6 mm	6 mm	Checked exhaust	5C
VM106517UQ6812*	12 station Pneumapole	10 mm	6 mm	6 mm	Checked exhaust	5F
VM106517UQ6816*	16 station Pneumapole	10 mm	6 mm	6 mm	Checked exhaust	5J

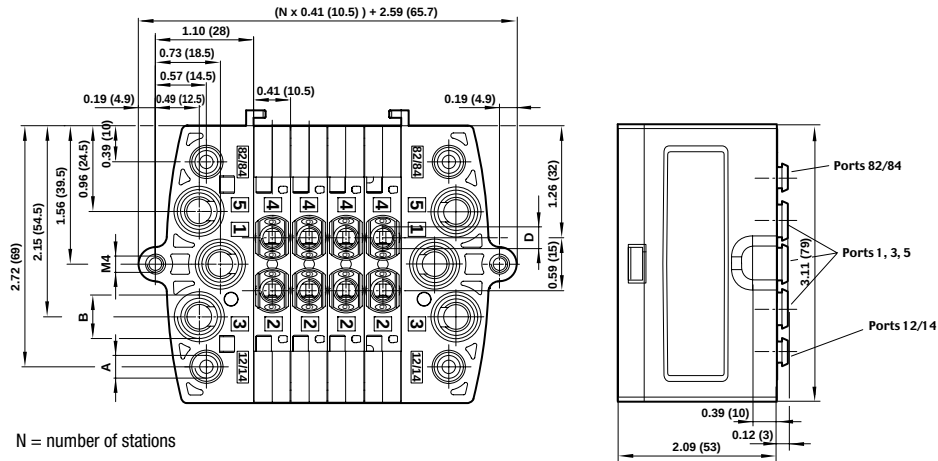
*Currently under development. Consult technical service.

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Dimensions in inches (mm)

Port connections

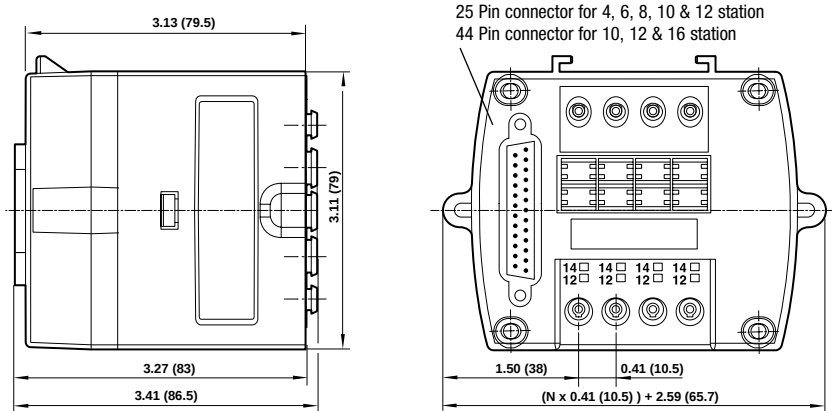


End Plate Kit Model Number	Description	B Ports 1, 3, 5	A Ports 12/14 & 82/84	Short code
VM106517AQ0202	End plate kit - feed both ends	3/8"	1/4"	1G
VM106517AQ020X	End plate kit - feed both ends	5/16"	5/32"	1H
VM106517AQ0212	End plate kit - feed left, right blocked	3/8"	1/4"	1J
VM106517AQ021X	End plate kit - feed left, right blocked	5/16"	5/32"	1K
VM106517AQ0222	End plate kit - feed right, left blocked	3/8"	1/4"	1L
VM106517AQ022X	End plate kit - feed right, left blocked	5/16"	5/32"	1M
VM106517AQ010Y	End plate kit - feed both ends	10 mm	6 mm	1A
VM106517AQ0108	End plate kit - feed both ends	8 mm	4 mm	1B
VM106517AQ011Y	End plate kit - feed left, right blocked	10 mm	6 mm	1C
VM106517AQ0118	End plate kit - feed left, right blocked	8 mm	4 mm	1D
VM106517AQ012Y	End plate kit - feed right, left blocked	10 mm	6 mm	1E
VM106517AQ0128	End plate kit - feed right, left blocked	8 mm	4 mm	1F
VM106517AQ0131	End plate kit - feed both ends	No PIF*	No PIF*	1N
VM106517AQ0132	End plate kit - feed left, right blocked	No PIF*	No PIF*	1P
VM106517AQ0133	End plate kit - feed right, left blocked	No PIF*	No PIF*	1R

Available valve port sizes – Ø 1/8, 5/32, 1/4, 3 mm, 4 mm, 6 mm

* No push in fitting for use with pneumapole sub-base

Multipole



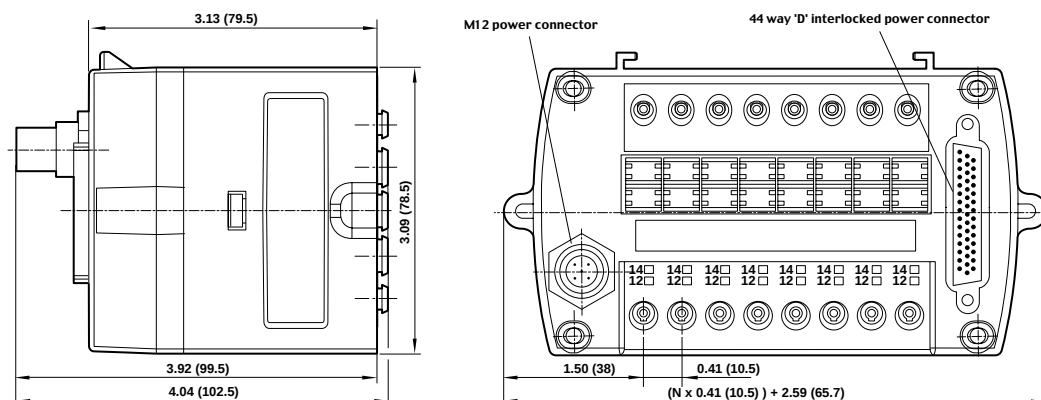
Multipole	No. stations	Model	Max. no. coils	Short code
25 Pin connector	04	VM106517AQ0404	8	A1
25 Pin connector	06	VM106517AQ0406	12	A2
25 Pin connector	08	VM106517AQ0408	16	A3
25 Pin connector	10	VM106517AQ0410	20	A4
25 Pin connector	12	VM106517AQ0412	24	A5
44 Pin connector	10	VM106517AQ0510	20	B1
44 Pin connector	12	VM106517AQ0512	24	B2
44 Pin connector	16	VM106517AQ0516	32	B3

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Dimensions in inches (mm)

Fieldbus connections with interlocks

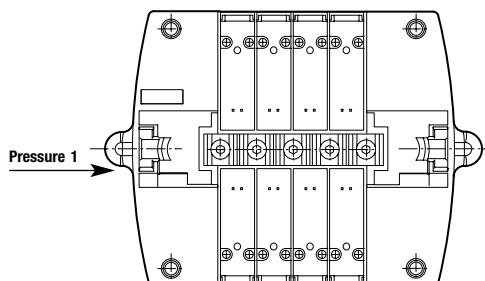


N = number of stations

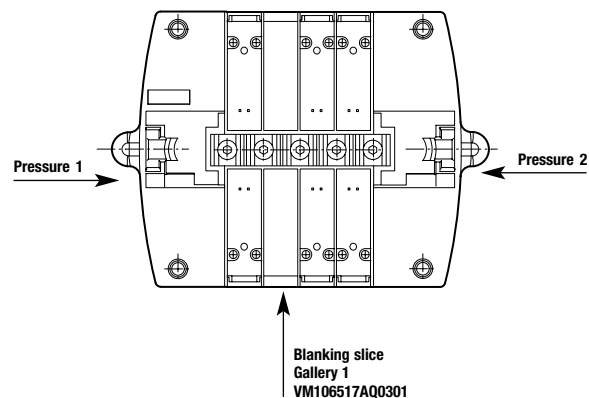
Standard fieldbus - (available protocols)	Number stations	Node part numbers	Maximum number coils	Short code
DeviceNet	08	VM10DNFNB-00081	16	C5
DeviceNet	10	VM10DNFNB-00101	20	C6
DeviceNet	12	VM10DNFNB-00121	24	C7
DeviceNet	16	VM10DNFNB-00161	32	C8
CANopen	08	VM10CAFNB-00081	16	D5
CANopen	10	VM10CAFNB-00101	20	D6
CANopen	12	VM10CAFNB-00121	24	D7
CANopen	16	VM10CAFNB-00161	32	D8



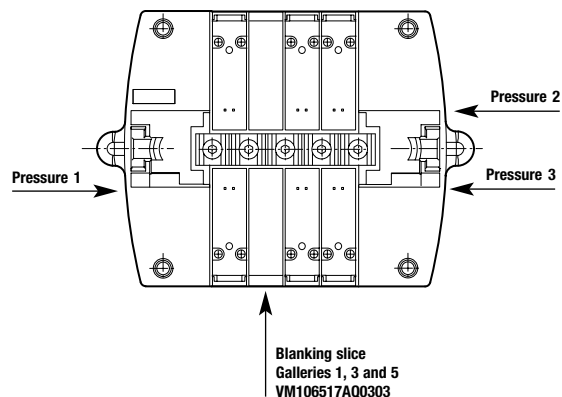
Single pressure



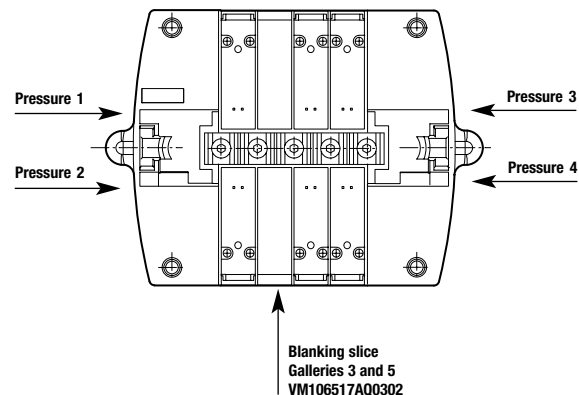
Dual pressure



Three pressure



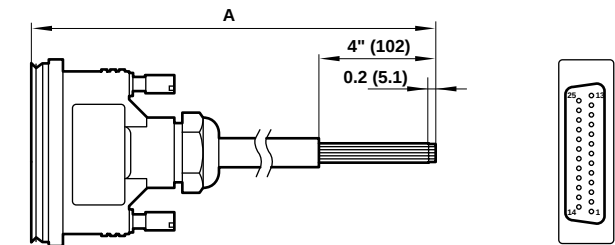
Four pressure



Valves

Multi-pressure options

25 pin D sub-connector



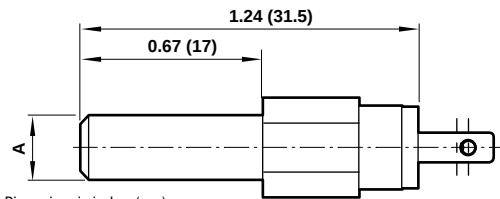
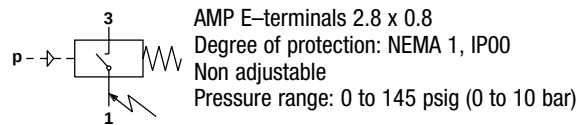
Model	A	Short code	lbs	(kg)
V11569-E01	3' (1 m)	L1	0.61	(0.276)
V11569-E03	10' (3 m)	L2	1.49	(0.676)
V11569-E05	16' (5 m)	L3	2.37	(1.076)

PIN No.	Wire color	Socket	Station
1	White	Solenoid 1-a	1
2	Brown	Solenoid 2-a	2
3	Green	Solenoid 3-a	3
4	Yellow	Solenoid 4-a	4
5	Grey	Solenoid 5-a	5
6	Pink	Solenoid 6-a	6
7	Blue	Solenoid 7-a	7
8	Red	Solenoid 8-a	8
9	Black	Solenoid 9-a	9
10	Violet	Solenoid 10-a	10
11	Grey/Pink	Solenoid 11-a	11
12	Red/Blue	Solenoid 12-a	12
13	White/Green	Common-Ve	-
14	Brown/Green	Solenoid 1-b	1
15	White/Yellow	Solenoid 2-b	2
16	Yellow/Brown	Solenoid 3-b	3
17	White/Grey	Solenoid 4-b	4
18	Grey/Brown	Solenoid 5-b	5
19	White/Pink	Solenoid 6-b	6
20	Pink/Brown	Solenoid 7-b	7
21	White/Blue	Solenoid 8-b	8
22	Brown/Blue	Solenoid 9-b	9
23	White/Red	Solenoid 10-b	10
24	Brown/Red	Solenoid 11-b	11
25	White/Black	Solenoid 12-b	12

Note: Conforms to DIN 47100

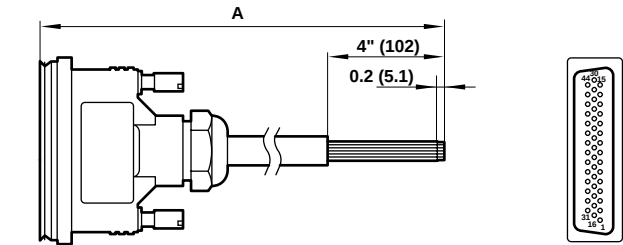
Pressure switch

Model	A	Short code	lbs	(kg)
VM106517AQ0804	0.16 (4)	7A	0.009	(0.004)
VM106517AQ0806	0.24 (6)	7B	0.009	(0.004)
VM106517AQ0801	0.25 (6.5)	7C	0.009	(0.004)



Dimensions in inches (mm)

44 pin D Sub-connector



Model	A	Short code	lbs	(kg)
V11570-E01	3' (1 m)	M1	0.62	(0.280)
V11570-E03	10' (3 m)	M2	1.50	(0.680)
V11570-E05	16' (5 m)	M3	2.38	(1.080)

PIN No.	Wire color	Socket	Station
1	White	Solenoid 1-a	1
2	Brown	Solenoid 2-a	2
3	Green	Solenoid 3-a	3
4	Yellow	Solenoid 4-a	4
5	Grey	Solenoid 5-a	5
6	Pink	Solenoid 6-a	6
7	Blue	Solenoid 7-a	7
8	Red	Solenoid 8-a	8
9	Black	Solenoid 9-a	9
10	Violet	Solenoid 10-a	10
11	Grey/Pink	Solenoid 11-a	11
12	Red/Blue	Solenoid 12-a	12
13	White/Green	Solenoid 13-a	13
14	Brown/Green	Solenoid 14-a	14
15	White/Yellow	Solenoid 15-a	15
16	Yellow/Brown	Solenoid 1-b	1
17	White/Grey	Solenoid 2-b	2
18	Grey/Brown	Solenoid 3-b	3
19	White/Pink	Solenoid 4-b	4
20	Pink/Brown	Solenoid 5-b	5
21	White/Blue	Solenoid 6-b	6
22	Brown/Blue	Solenoid 7-b	7
23	White/Red	Solenoid 8-b	8
24	Brown/Red	Solenoid 9-b	9
25	White/Black	Solenoid 10-b	10
26	Brown/Black	Solenoid 11-b	11
27	Grey/Green	Solenoid 12-b	12
28	Yellow/Grey	Solenoid 13-b	13
29	Pink/Green	Solenoid 14-b	14
30	Yellow/Pink	Solenoid 15-b	15
31	Green/Blue	Solenoid 16-a	16
32	Yellow/Blue	Solenoid 16-b	16
33	Green/Red	NOT USED	-
34	Yellow/Red	NOT USED	-
35	Green/Black	NOT USED	-
36	Yellow/Black	NOT USED	-
37	Grey/Blue	NOT USED	-
38	Pink/Blue	NOT USED	-
39	Grey/Red	NOT USED	-
40	Pink/Red	NOT USED	-
41	Grey/Black	NOT USED	-
42	Pink/Black	NOT USED	-
43	Blue/Black	NOT USED	-
44	Red/Black	Common -Ve	-

Accessories for individually wired and multipole valve islands

D Sub-connector 25 pin			D Sub-connector 44 pin			2 Pin connector		Valve blanking station		Port blocking station				
														
V11569-E01	3 ft (1m)	L1	V11570-E01	3 ft (1m)	M4	V11556-E03	1 ft (300mm)	K1	VM106517AQ0300	2A	VM106517AQ0301	Port 1 blocked	2B	
V11569-E03	10 ft (3m)	L2	V11570-E03	10 ft (3m)	M5	V11556-E10	3 ft (1m)	K2			VM106517AQ0302	Ports 3 & 5 blocked	2C	
V11569-E05	16 ft (5m)	L3	V11570-E05	16 ft (5m)	M6						VM106517AQ0303	Ports 1, 3 & 5 blocked	2D	
Pressure switch		DIN Rail	DIN Rail fixing kit					Manual override kit		Pneumapole sub-base				
														
VM106517AQ0804	4 mm	7A	V10009-C00	3 ft (1m)	A17	V11554-K30	8D		V11574-K30	Push only	N1	See previous pages		
VM106517AQ0806	6 mm	7B												
VM106517AQ0801	1/4"	7C												

Fieldbus accessories

Description	Connection	Cable length	Model	Short Code
DeviceNet (4 pin, female) CANopen (4 pin, female) AB RIO (4 pin, female) Profibus-DP (4 pin, female) Interbus-S (4 pin, female)	M12	Wireable	V11588-E01	R1
DeviceNet or CANopen (44 pin, female)	D-Sub	3' 10' 16'	V11570-E01 V11570-E03 V11570-E05	M1 M2 M3
DeviceNet (5 pin, female) CANopen (5 pin, female) AB RIO (5 pin, female)	M12	Wireable	V11589-E01	R2
Profibus-DP, reverse keyway (5 pin, female)	M12	Wireable	V11590-E01	R3
Profibus-DP, tee connector (5 pin)	M12	—	V11591-E01	R4
Profibus - DP terminating resistor	M12	—	V11592-E01	R6
AS-interface power or communications (4 pin)	M12	—	VE1ASCN1-M1200	R5
Interbus-S (9 pin)	D-sub	3' 10' 16'	VE2FBC9P-9S010 VE2FBC9P-9S030 VE2FBC9P-9S050	F21 F22 F23
Interbus-S (9 pin, male)	D-sub	Wireable	VE2FBC9P-00000	F24
Interbus-S (9 pin, female)	D-sub	Wireable	VE2FBC9S-00000	F25
Interbus-S terminating connector (9 pin male)	D-sub	—	V11340-E03	R9
Norgren Fieldbus II (9 pin, male terminating D connector)	D-sub	—	V11599-E01	R8
Norgren Fieldbus II (9 pin, female terminating D connector)	D-sub	—	V11598-E01	R7

For pin information on wiring connections please refer to Fieldbus manual

Stem Silencers

Port Size	Part Number
3/8"	T45Y0006
6mm	T45P0006
5/16"/8mm	T45P0008
10mm	T45P0010

Gaskets

Integral Pilot gasket	
Black	11540-C95
External Pilot Gasket	
Red	11540-C96

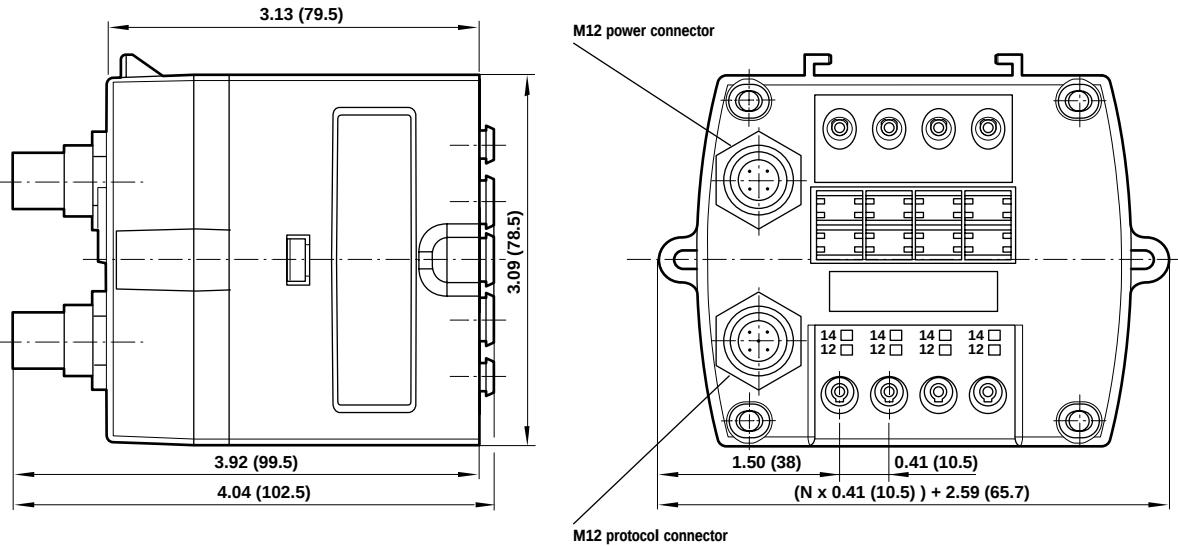
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Fieldbus connections (M12 connector types)

Standard fieldbus - available protocols	No. stations	Node part numbers	Max. No. coils	Short code
DeviceNet	08	VM10DNFNB-00080	16	C1
DeviceNet	10	VM10DNFNB-00100	20	C2
DeviceNet	12	VM10DNFNB-00120	24	C3
DeviceNet	16	VM10DNFNB-00160	32	C4
CANopen	08	VM10CAFNB-00080	16	D1
CANopen	10	VM10CAFNB-00100	20	D2
CANopen	12	VM10CAFNB-00120	24	D3
CANopen	16	VM10CAFNB-00160	32	D4
AS – interface*	04	VM10AS10A-00410**	4	J1
AS – interface*	08	VM10AS10A-00810**	8	J2
AS – interface*	04	VM10AS10A-00820**	8	J3
AS – interface*	06	VM10AS10A-00830**	8	J4
AB RIO	08	VM10RIFNB-00080	16	G1
AB RIO	10	VM10RIFNB-00100	20	G2
AB RIO	12	VM10RIFNB-00120	24	G3
AB RIO	16	VM10RIFNB-00160	32	G4

* Use 2 x M12 protocol connectors
**Node part number = 410 (4 x sol/spring), 810 (8 x sol/spring), 820 (4 x sol/sol), 830 (4 x sol/spring, 2 x sol/sol)



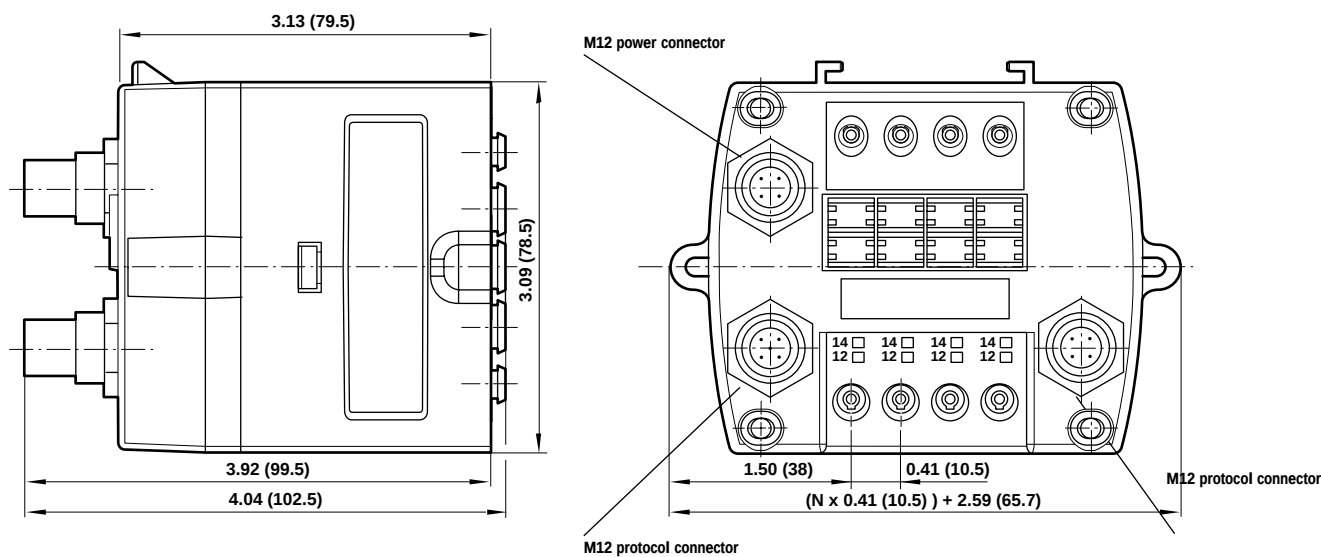
All dimensions in inches (mm)

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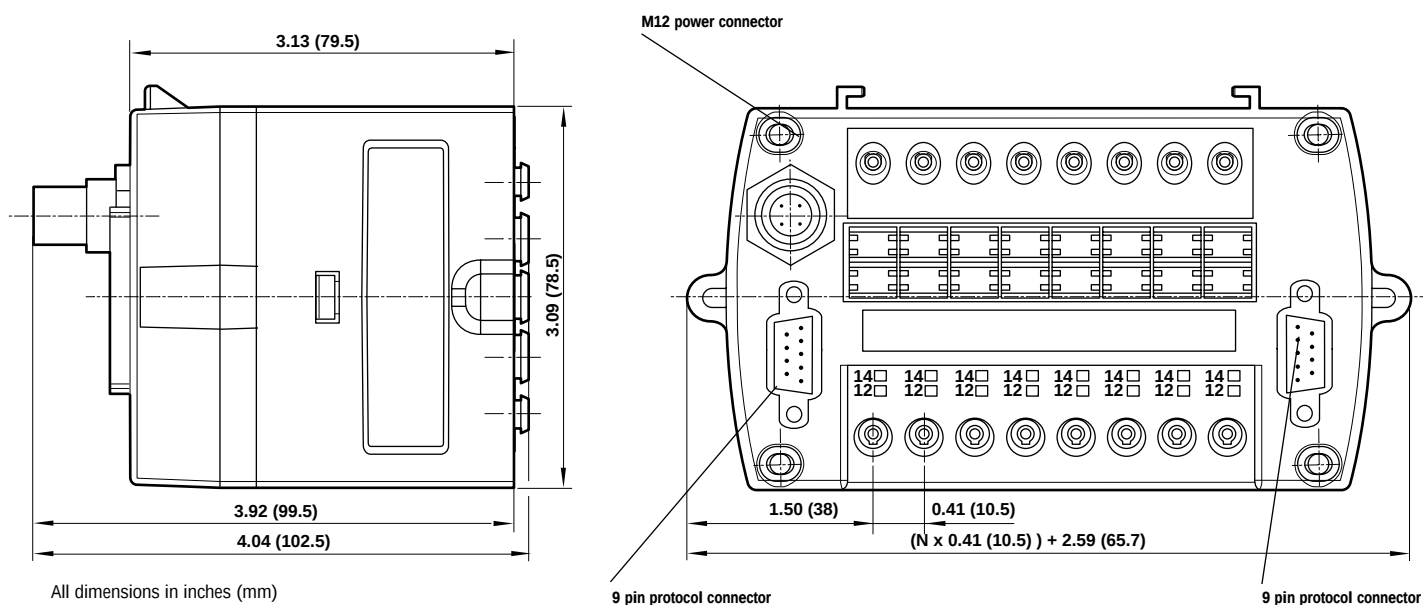
Fieldbus connections with (M12 connector types)

Standard fieldbus - available protocols	No. stations	Node part numbers	Max. no. coils	Short code
Profibus-DP	08	VM10DPFNB-00080	16	E1
Profibus-DP	10	VM10DPFNB-00100	20	E2
Profibus-DP	12	VM10DPFNB-00120	24	E3
Profibus-DP	16	VM10DPFNB-00160	32	E4



Fieldbus connections - (9 pin D-type connector)

Standard fieldbus - available protocols	No. stations	Node part numbers	Max. no. coils	Short code
Interbus-S	08	VM10IBFNB-00080	16	F1
Interbus-S	10	VM10IBFNB-00100	20	F2
Interbus-S	12	VM10IBFNB-00120	24	F3
Interbus-S	16	VM10IBFNB-00160	32	F4



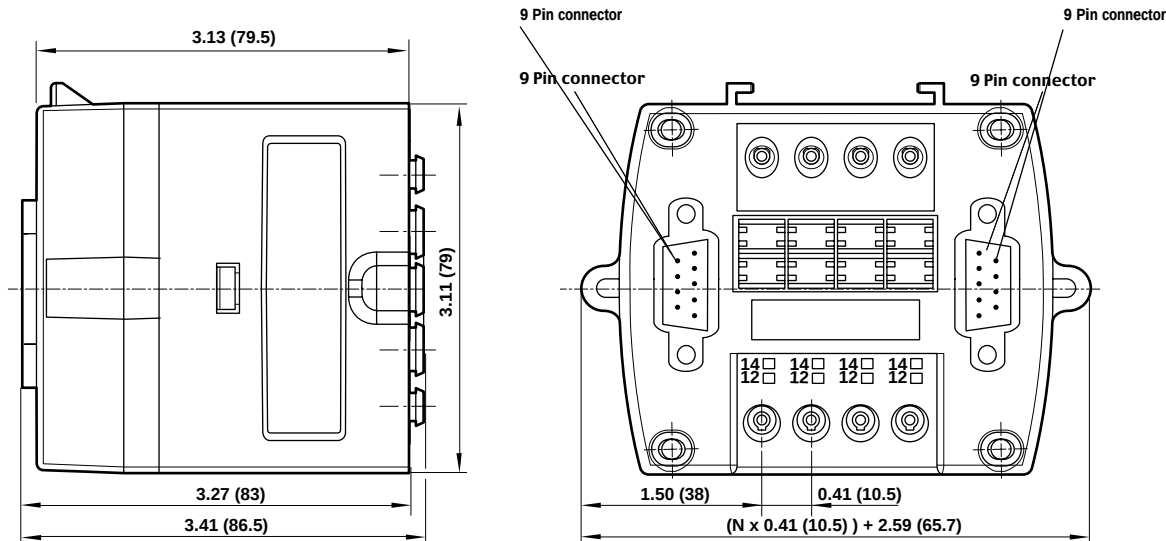
All dimensions in inches (mm)

Valve Islands, VM10 Series

Valve slices 2 x 3/2, 5/2, and 5/3 with integral push-in fittings

Fieldbus connections - Norgren Bus (Fieldbus II)

Standard fieldbus - available protocols	No. stations	Node part numbers	Max. no. coils	Short code
Norgren fieldbus II	04	VM10LBFNB-00041	08	H1
Norgren fieldbus II	06	VM10LBFNB-00061	12	H2
Norgren fieldbus II	08	VM10LBFNB-00081	16	H3
Norgren fieldbus II	10	VM10LBFNB-00101	20	H4
Norgren fieldbus II	12	VM10LBFNB-00121	24	H5
Norgren fieldbus II	16	VM10LBFNB-00161	32	H6



N = number of stations
All dimensions in inches (mm)

Rotary switch addressing

Part numbers	No. stations	Short code
VM10DNFNB00082	8	S1
VM10DNFNB00102	10	S2
VM10DNFNB00122	12	S3
VM10DNFNB00162	16	S4

Rotary switch addressing with interlocks

Part numbers	No. stations	Short code
VM10DNFNB00083	8	S5
VM10DNFNB00103	10	S6
VM10DNFNB00123	12	S7
VM10DNFNB00163	16	S8