

• Modular system clips together

IORGREN

- 64 inputs and 64 outputs per node
- Distributed configuration option
- Interchangeable protocols
- Standard Fieldbus Control
- Advanced diagnostic features



Technical Data

Operating Temperature: +0°C to 50°C Vibration Tests: To IEC 68-2-6 Degree of protection: IP65 EMC Standards: Generic emission standard EN50081-2 Generic immunity standard EN50082-2 Materials: Main enclosure mouldings – glass fibre reinforced polyester (PBT) Clips – Acetal Copolymer (POM)

Ordering Information

To order, complete the System Specification Form on page **6.4.040.15** and fax to your local IMI Norgren office for your free consultation service.

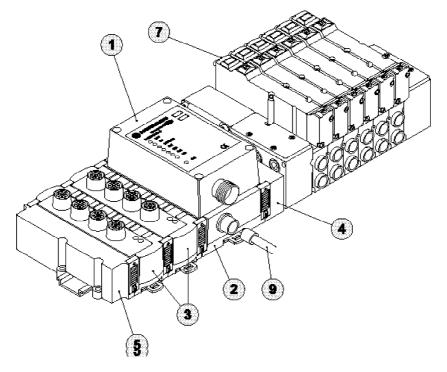


DeviceNet.

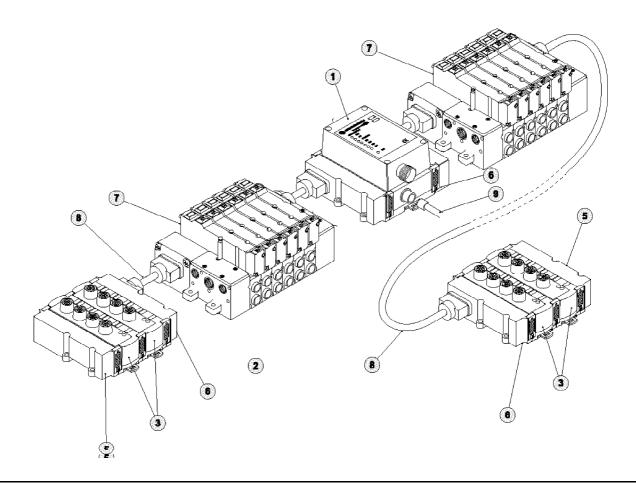




Centralised Configuration



Distributed Configuration



Key to Illustration

Fieldbus II VE2 Series



Symbol	Description	Part Number		Short Code					
	Fieldbus Node								
1	Profibus-DP	VE2DPFNB-64640	See data sheet 6.4.040.07	F1					
	Profibus-DP D-type Connector	VE2DPFND-64640	See data sheet 6.4.040.07	F1D					
	Profibus-DP M12 Connector	VE2DPFNR-64640	See data sheet 6.4.040.07	F1R					
	Profibus-DP 2 x M12 Connectors	VE2DPFNT-64640	See data sheet 6.4.040.07	F1T					
	Interbus-S	VE2IBFNC-64640	See data sheet 6.4.040.08	F2					
	Interbus-S D-type Connector	VE2IBFND-64640	See data sheet 6.4.040.08	F2D					
	Devicenet M12 Micro Connector	VE2DNFNB-64640	See data sheet 6.4.040.09	F3					
	CANOpen M12 Micro Connector	VE2CAFNB-64640	See data sheet 6.4.040.09	F4					
2	Common Node Sub-base								
	Sub-base Plastic Connector	VE2FBSBA-00000	See data sheet 6.4.040.10	F5					
v	Sub-base Metal Connector	VE2FBSBA-00000M		F5M					
3	Input/Output Modules	Input/Output Modules							
	4 outputs	VE2FBOMA-00040	See data sheet 6.4.040.11	F6					
Käsas.	8 outputs	VE2FBOMA-00080		F7					
<u> </u>	4 NPN inputs	VE2FBIMF-04000		F8					
	8 NPN inputs	VE2FBIMF-08000		F9					
	4 PNP inputs	VE2FBIMG-04000		F10					
	8 PNP inputs	VE2FBIMG-08000		F11					
	VEZEBING-00000 FIT								
4	Left Hand Side	VE2FBVPL-00000	See data sheet 6.4.040.12	F12					
1990	Right Hand Side (shown)	VE2FBVPR-00000	See data sheet 0.4.040.12	F13					
	Additional V20 kit	V10075-K32		F14					
		V10075-K32		F14					
5 6.	End Cover (for Fieldbus Node or Input/Output Mod	End Cover (for Fieldbus Node or Input/Output Modules)							
	Left Hand Side (shown)	VE2FBECL-00000	See data sheet 6.4.040.13	F15					
- 1 0	Right Hand Side	VE2FBECR-00000		F16					
6	IDEE 0 nin Cable Interfece Diste (fer Fieldbur Nede								
	IP65 9-pin Cable Interface Plate (for Fieldbus Node	VE2FBCPL-00000	Coo data abaat 6 4 040 14	F17					
ା ଅନ୍ୟର୍ଭ	Left Hand Side (shown)		See data sheet 6.4.040.14						
	Right Hand Side	VE2FBCPR-00000		F18					
	Valve Island								
	V20		See data sheet 5.4.113	F19					
	V22		See data sheet 5.4.157	F20					
	Cable with 9-pin D-type Connectors								
⁸ 🕵 🕯	. 1 metre length	VE2FBC9P-9S010	See data sheet 6.4.040.16	F21					
	3 metre length	VE2FBC9P-9S030	000 data sheet 0.4.040.10	F22					
		VE2FBC9P-9S050		F23					
	5 metre length								
	Wireable 9-pin D-type Connector (male)	VE2FBC9P-00000		F24					
	Wireable 9-pin D-type Connector (female)	VE2FBC9S-00000		F25					
0	Power Cable and Connector								
9	1 metre length	VE2FBCPS-M1810	See data sheet 6.4.040.16	F26					
	3 metre length	VE2FBCPS-M1830		F27					
	5 metre length	VE2FBCPS-M1850		F28					
	Wireable Power Connector (plastic)	VE2FBCPS-M1800		F29					
-	Wire able Power Connector (plastic)	VE2FBCPS-IN1800		F29					

Input and Output Modules

Wireable Power Connector (plastic) Wireable Power Connector (metal)

Technical Specification

Description		4 Inputs NPN	4 Inputs PNP	8 Inputs NPN	8 Inputs PNP	4 Outputs	8 Outputs
Part Number		VE2FBIMF-04000	VE2FBIMG-04000	VE2FBIMF-08000	VE2FBIMG-08000	VE2FBOMA-00040	VE2FBOMA-00080
Connections		4 pin M12 female 1 input/connection	4 pin M12 female 1 input/connection	4 pin M12 female 2 inputs/connection	4 pin M12 female 2 inputs/connection	4 pin M12 female 1 output/connection	4 pin M12 female 2 outputs/connection
Inputs	Supply voltage Input On Input Off Max current load for all inputs Short circuit protected Opto isolated circuits	24V ± 10% 10V-24V/3mA <1,5mA 750mA Yes Yes	24V ± 10% 10V-24V/3mA <1,5mA 750mA Yes Yes	24V ± 10% 10V-24V/3mA <1,5mA 750mA Yes Yes	24V ± 10% 10V-24V/3mA <1,5mA 750mA Yes Yes		
Outputs	Output voltage Max current each output Max current all outputs Short circuit protected Opto isolated outputs					24V ± 10% 500mA 750mA Yes Yes	24V ± 10% 500mA 750mA Yes Yes

V11156-E02

F29M





Accessories

Symbol		Connection Size	Straight/Elbow	Cable Length (Mtrs)	Part Number	Page		
	Input M12 connecting plug and cable assemblies for sensors							
	3 pin plug to 3 pin socket	M12/Ø8	Straight/Straight	1	VE1FBC8S-M1210	6.4.040.17	F30	
	3 pin plug to 3 pin socket	M12/Ø8	Straight/Straight	3	VE1FBC8S-M1230	6.4.040.17	F31	
and a cost of the	3 pin plug to 3 pin socket	M12/Ø8	Straight/Straight	5	VE1FBC8S-M1250	6.4.040.17	F32	
auxuur	3 pin plug to 3 pin socket	M12/Ø8	Straight/Elbow	1	VE1FBC8E-M1210	6.4.040.17	F33	
	3 pin plug to 3 pin socket	M12/Ø8	Straight/Elbow	3	VE1FBC8E-M1230	6.4.040.17	F34	
	3 pin plug to 3 pin socket	M12/Ø8	Straight/Elbow	5	VE1FBC8E-M1250	6.4.040.17	F35	
	4 pin plug to 4 pin socket	M12/M12	Straight/Straight	1	VE1FBC0S-M1210	6.4.040.17	F36	
	4 pin plug to 4 pin socket	M12/M12	Straight/Straight	3	VE1FBC0S-M1230	6.4.040.17	F37	
	4 pin plug to 4 pin socket	M12/M12	Straight/Straight	5	VE1FBC0S-M1250	6.4.040.17	F38	
	4 pin plug to 2x3 pin socket	M12/Ø8	Straight/Straight	1	VE1FBC8S-M121D	6.4.040.17	F39	
	4 pin plug to 2x3 pin socket	M12/Ø8	Straight/Straight	3	VE1FBC8S-M123D	6.4.040.17	F40	
	4 pin plug to 2x3 pin socket	M12/Ø8	Straight/Straight	5	VE1FBC8S-M125D	6.4.040.17	F41	
	4 pin plug to 2x3 pin socket	M12/Ø8	Straight/Elbow	1	VE1FBC8E-M121D	6.4.040.17	F42	
	4 pin plug to 2x3 pin socket	M12/Ø8	Straight/Elbow	3	VE1FBC8E-M123D	6.4.040.17	F43	
	4 pin plug to 2x3 pin socket	M12/Ø8	Straight/Elbow	5	VE1FBC8E-M125D	6.4.040.17	F44	
T	4 pin plug to 2x3 pin socket	M12/M12	Straight/Straight	1	VE1FBC0S-M121D	6.4.040.17	F45	
	4 pin plug to 2x3 pin socket	M12/M12	Straight/Straight	3	VE1FBC0S-M123D	6.4.040.17	F46	
	4 pin plug to 2x3 pin socket	M12/M12	Straight/Straight	5	VE1FBC0S-M125D	6.4.040.17	F47	
	Input or Output M12 plug							
	Wireable 5 pin male – screw termination	M12	Straight	-	VE1FBCRS-M125P	6.4.040.18	F48	
	Output M12 plug and connecting cables for solenoid	coils*					-	
	3 pin plug to valve connection – Type C (15mm coil)	M12	Straight	0,3	VE1FBCSC-M1203	6.4.040.18	F49	
	3 pin plug to valve connection – Type C (15mm coil)	M12	Straight	1,0	VE1FBCSC-M1210	6.4.040.18	F50	
	3 pin plug to valve connection - Industrial (22mm coil)	M12	Straight	0,3	VE1FBCSB-M1203	6.4.040.18	F51	
	3 pin plug to valve connection – Industrial (22mm coil)	M12	Straight	1,0	VE1FBCSB-M1210	6.4.040.18	F52	
	3 pin plug to valve connection – Type A (32mm coil)	M12	Straight	0,3	VE1FBCSA-M1203	6.4.040.18	F53	
	3 pin plug to valve connection – Type A (32mm coil)	M12	Straight	1,0	VE1FBCSA-M1210	6.4.040.18	F54	
	4 pin plug to 2 valve connections – Type C (15mm coil)	M12	Straight	0,3	VE1FBCTC-M1203	6.4.040.18	F55	
.	4 pin plug to 2 valve connections – Type C (15mm coil)	M12	Straight	1,0	VE1FBCTC-M1210	6.4.040.18	F56	
	4 pin plug to 2 valve connections – Industrial (22mm coil)	M12	Straight	0,3	VE1FBCTB-M1203	6.4.040.18	F57	
<u></u>	4 pin plug to 2 valve connections - Industrial (22mm coil)	M12	Straight	1,0	VE1FBCTB-M1210	6.4.040.18	F58	
	4 pin plug to 2 valve connections - Type A (32mm coil)	M12	Straight	0,3	VE1FBCTA-M1203	6.4.040.18	F59	
	4 pin plug to 2 valve connections – Type A (32mm coil)	M12	Straight	1,0	VE1FBCTA-M1210	6.4.040.18	F60	
	Wireable communication cable connectors							
	Profibus-DP 12 pin Coninver male	ø22mm	Straight	N/A	VE1DPCRS-CN12P		F61	
	Interbus-S 9 pin Coninver female	ø22mm	Straight	N/A	VE1IBCRS-CN09S		F62	
	Interbus-S 9 pin Coninver male	ø22mm	Straight	N/A	VE1IBCRS-CN09P		F63	
	Micro Connector (DeviceNet, Canopen)	M12	Straight	N/A	VE2DNCRS-CN05S		F64	
	Micro Connector (Profibus DP) Female	M12	Straight	N/A	VE2DPCRS-CN05S		F65	
	Micro Connector (Profibus DP) Male	M12	Straight	N/A	VE2DPCRS-CN05P		F66	
	Micro 'T' Connector (Profibus DP)	M12	Tee	N/A	VE2DPCMT-M1200		F67	
	IP65 'D' Connector (Profibus or Interbus) Male	9 Pin	Straight	N/A	VE2FBC9P-00000	6.4.040.16	F24	
	IP65 'D' Connector (Profibus or Interbus) Female	9 Pin	Straight	N/A	VE2FBC9S-00000	6.4.040.16	F25	

* Each coil plug has LED and suppression as standard.

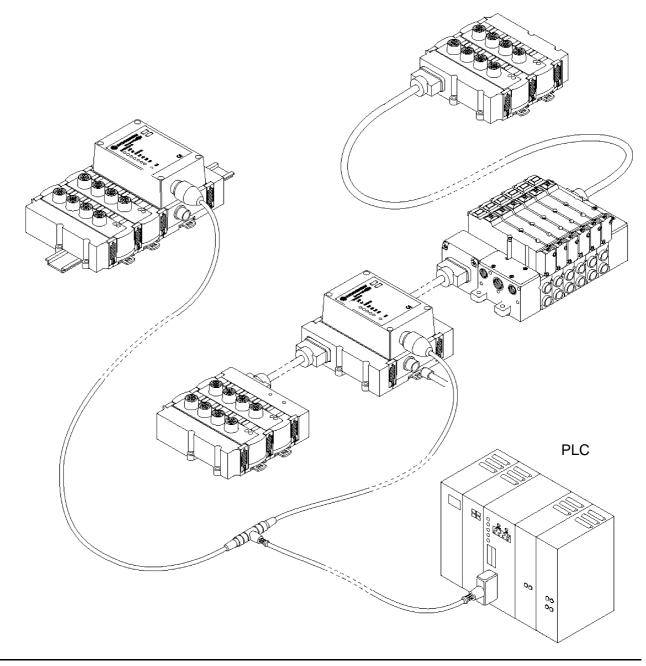




Network Data

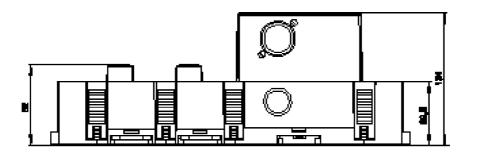
Protocol	Connector Type(s)	Node Part Number	Communication	Max Baud Rate	Node Details
Standard Products					
Profibus-DP	1xConinver (IP65)	VE2DPFNB-64640	RS485	12Mb/s	6.4.040.00
Interbus-S	2xConinver (IP65)	VE2IBFNC-64640	RS422	500Kb/s	6.4.040.00
Devicenet	1x Micro-Change (IP65)	VE2DNFNB-64640	CAN	500Kb/s	6.4.040.00
CANopen	1xMicro-Change (IP65)	VE2CAFNB-64640	CAN	1Mb/s	6.4.040.00
Alternative Connection Optic	ons				
Profibus-DP	1xD-Type (IP65)	VE2DPFND-64640	RS485	12Mb/s	6.4.040.00
Profibus-DP M12 Connector	1 or 2 x M12Type (IP65)	VE2DPFNR-64640	RS485	12Mb/s	6.4.040.00
Interbus-S	2xD-Type (IP65)	VE2IBFNE-64640	RS422	500Kb/s	6.4.040.00

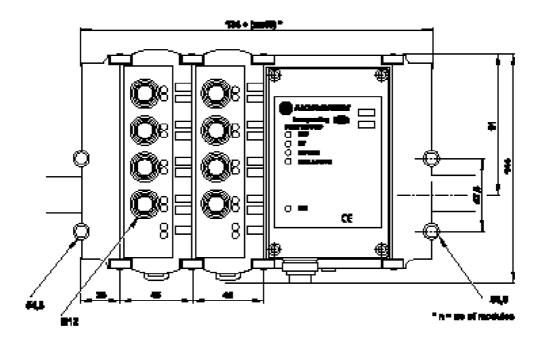
Typical Distributed System





Assembly Dimensions





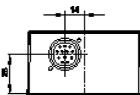
Profibus-DP Fieldbus Node

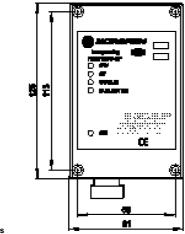
Single D-Type Connector VE2DPFND-64640



Profibus-DP Fieldbus Node

Single Coninver Connector (standard) VE2DPFNB-64640





44 **Profibus Node Accessories**

Wireable 12 pin coninver type connector (IP65)

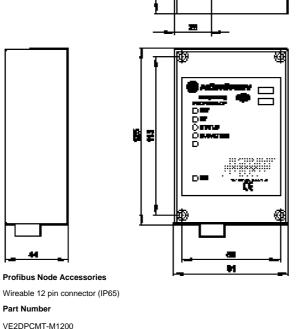
Part Number

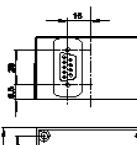
VE1DPCRS-CN12P

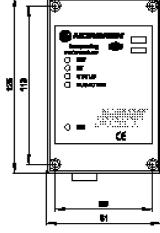
Profibus-DP Fieldbus Node

Male

Single M12 Connector VE2DPFNR-64640







Profibus Node Accessories Wireable 9 pin connector (IP65)

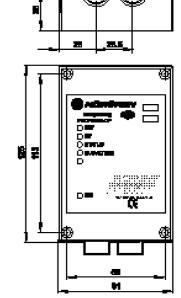
Part Number

VE2FBC9P-00000

44

Profibus-DP Fieldbus Node

Double M12 Connector VE2DPFNT-64640



Profibus Node Accessories

Wireable M12 connectors (IP65)

44

Part Numbers

VE2DPCRS-CN05P (Male)

20

Part Number

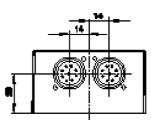
Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document.

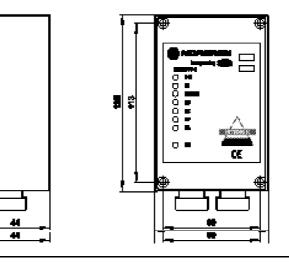
VE2DPCRS-CN05S (Female)



Interbus-S Fieldbus Node

Double Coninver Type Connectors (standard) VE2IBFNC-64640





Interbus-S Node Accessories

Wireable Interbus-S 9-pin connector (IP65)

Part Number VE1IBCRS-CN09P Male VE1IBCRS-CN09S Female

Interbus-S Fieldbus Node

Double D-Type Connectors VE2IBFNE-64640



Interbus-S Node Accessories

Wireable D-Type IP65 connector Part Number VE2FBC9P-00000 Male VE2FBC9S-00000 Female

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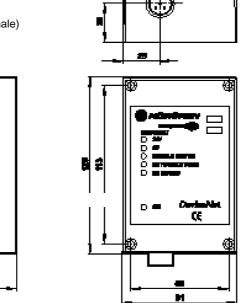


DeviceNet Fieldbus Node

Single Micro Change Type Connector VE2DNFNB-64640

Accessories:

Wireable M12 Connector (IP65) Part No: VE2DNCRS-CN05S (Female)



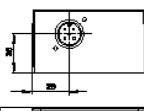
CANopen Fieldbus Node

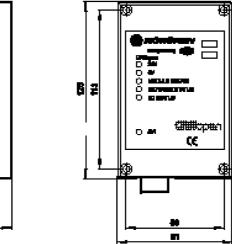
Single Micro Change Type Connector VE2CAFNB-64640

Accessories:

Wireable M12 Connector (IP65) Part No: VE2DNCRS-CN05S (Female)

44

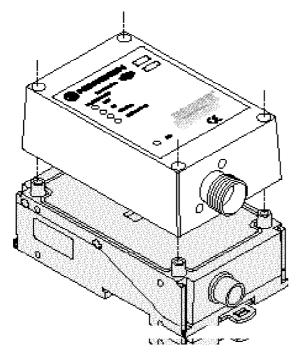


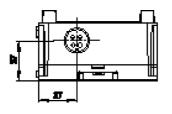


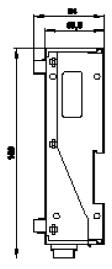


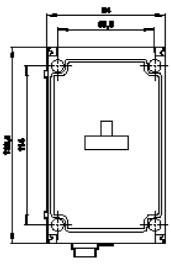
Common Node Sub-base

Plastic Connector - VE2FBSBA-00000 Metal Connector - VE2FBSBA-00000M









Sub-Base Pin Out Detail

Part Number VE2FBSBA-00000 Plastic



VE2FBSBA-00000M Metal

Common Node Accessories

Power cable with 4 pole female connector and hood

Part Number VE2FBCPS-M1810 1 metre VE2FBCPS-M1830 3 metres VE2FBCPS-M1850 5 metres

Wireable 4 pole female connector and hood

Part Number VE2FBCPS-M1800 Plastic V11156-E02 Metal

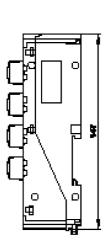


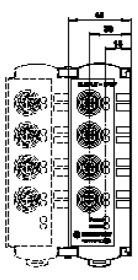
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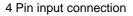
Input and Output Modules

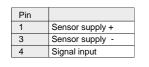


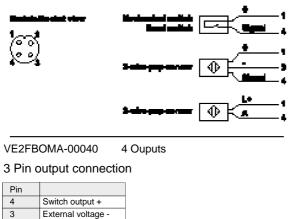




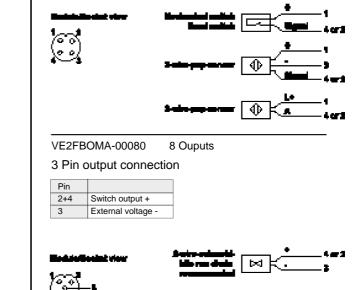
VE2FBIMF-04000 VE2FBIMG-04000 4 Inputs NPN 4 Inputs PNP







网



8 Inputs NPN

8 Inputs PNP

VE2FBIMF-08000

VE2FBIMG-08000

Pin

1

3

2+4

4 Pin input connection

Sensor supply +

Sensor supply -

Signal input

5/01

Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document.

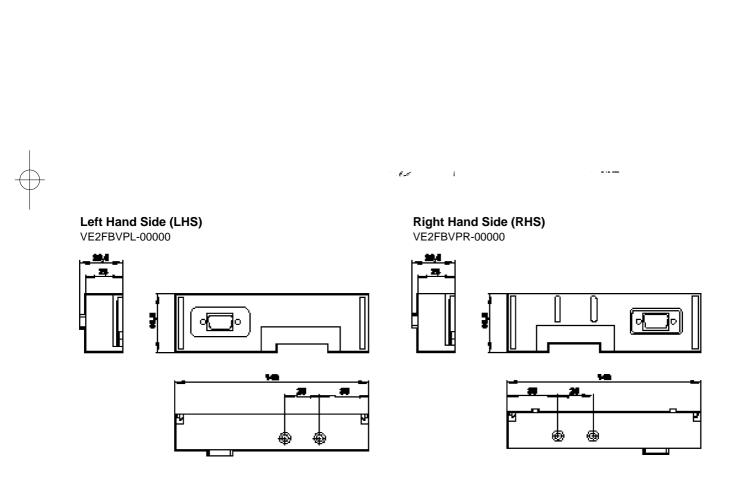
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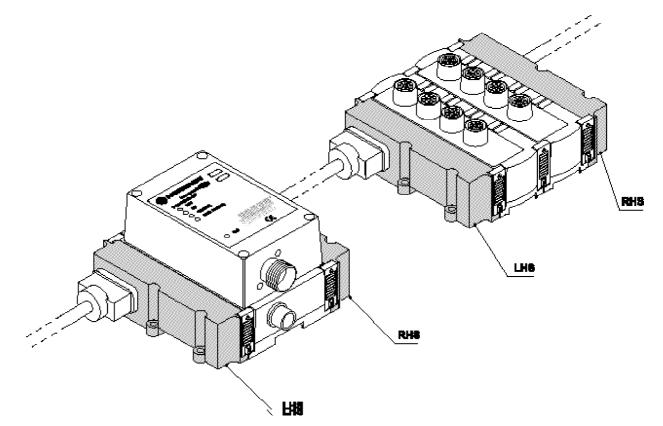
Valve Island Interface Plate

For connection between Common Node Sub-base or Input/Output Module and Valve Island

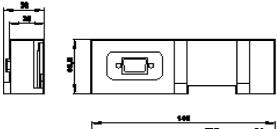
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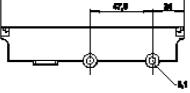


End Covers for Common Node Sub-base and Input/Output Modules

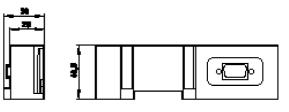


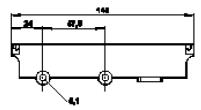
Left Hand Side (LHS) VE2FBECL-00000





Right Hand Side (RHS) VE2FBECR-00000

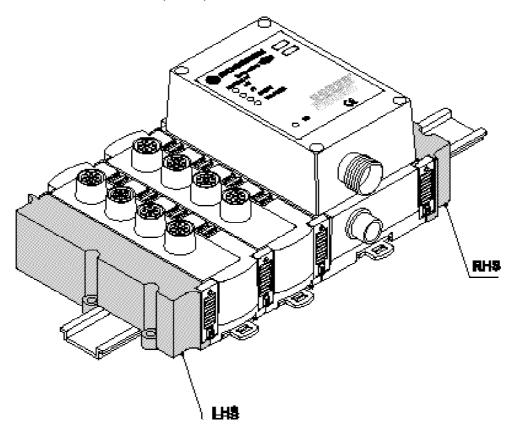




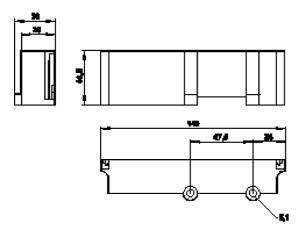


9-pin Cable Interface Plate

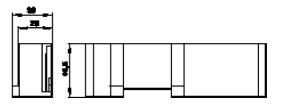
For Common Node Sub-base and Input/Output Modules

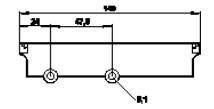


Left Hand Side (LHS) VE2FBCPL-00000



Right Hand Side (RHS) VE2FBCPR-00000





NORGREN

Fieldbus II VE2 Series

Fieldbus specification

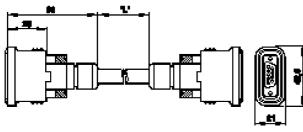
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Company name.	Contectmente
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Using the short order codes provided complete the build model b Conservations such as the state of the	
	DNx Isnia apadiy
Diagnostic features Yes No No No	Accessories
Contailand configuration No. of unite required	Code Carrily
	(1pernotii)
	Comunitation connection
LHS Cupit Ingul Richard Bib-base Interface analysis module module wide	
	Mind Velve Island
	Specification form
Distributed configuration No. of units required	Remote inpute and outpute Na.of units required
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LHB Culpt Input Radbus Sub-bases Culput and plate models models models	ingut RHB LHB Quiput Ingut RHB motion Brighten - endphile motion and phile
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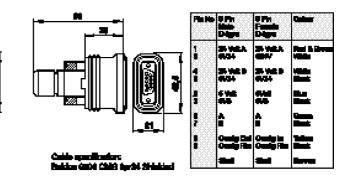
Accessories

Distributed Systems

Cable with 9-pin D-Type Connectors (IP65) VE2FBC9P-9S010 L = 1 metre VE2FBC9P-9S030 L = 3 metres VE2FBC9P-9S050 L = 5 metres



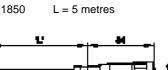
Wireable 9-pin D-Type Connectors (IP65) VE2FBC9P-00000 male VE2FBC9S-00000 female



Power supply cables and connectors (For common node sub-base)

Cable and connector assemblies (IP65)

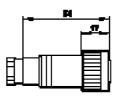
VE2FBCPS-M1810 L = 1 metre VE2FBCPS-M1830 L = 3 metres VE2FBCPS-M1850



M.S.

Wireable Power Supply Connector (IP65) Plastic

VE2FBCPS-M1800 -

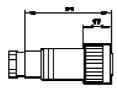




V11156-E02

Metal

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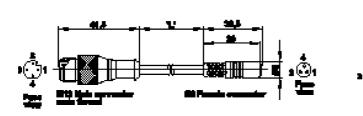


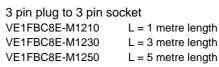


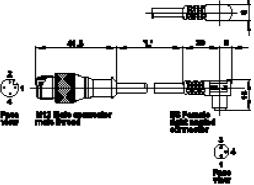
Accessories

Input M12 plug and cable assemblies for sensors

3 pin plug to 3 pin	socket – straight connectors
VE1FBC8S-M1210	L = 1 metre length
VE1FBC8S-M1230	L = 3 metre length
VE1FBC8S-M1250	L = 5 metre length







Input M12 plug and cable assemblies for sensors

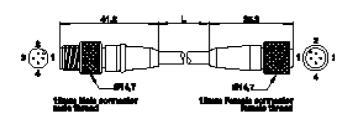
4 pin plug to 4 pin so
VE1FBC0S-M1210
VE1FBC0S-M1230
VE1FBC0S-M1250

VE1FBC8E-M121D

VE1FBC8E-M123D

VE1FBC8E-M125D

bocket straight connector L = 1 metre length L = 3 metre length L = 5 metre length $\begin{array}{ll} \mbox{4 pin plug to } 2x3 \mbox{ pin socket straight connector} \\ \mbox{VE1FBC8S-M121D} & \mbox{L} = 1 \mbox{ metre length} \\ \mbox{VE1FBC8S-M123D} & \mbox{L} = 3 \mbox{ metre length} \\ \mbox{VE1FBC8S-M125D} & \mbox{L} = 5 \mbox{ metre length} \\ \end{array}$



4 pin plug to 2x3 pin socket right angle connector

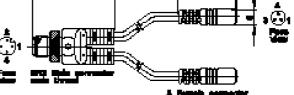
41.0

L = 1 metre length

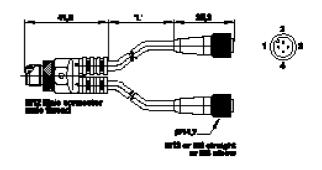
L = 3 metre length

L = 5 metre length

VE1FBC8S-M125D L = 5 metre length



4 pin plug to 2x3 pin socket straight connectorVE1FBC0S-M121DL = 1 metre lengthVE1FBC0S-M123DL = 3 metre lengthVE1FBC0S-M125DL = 5 metre length



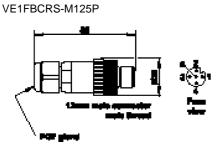
N/** **6.4.**040.17



Accessories

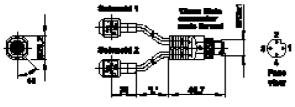
Input and Output M12 plug and cable assemblies for solenoid coils

Wireable Input or output 5 pin male plug – screw termination



4 pin plug to 2 valve connections

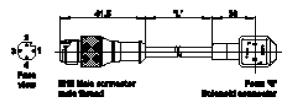
VE1FBCTC-M1203	L = 0,3 cable, Type 'C' connector
VE1FBCTC-M1210	L = 1m cable, Type 'C' connector
VE1FBCTB-M1203	L = 0,3 cable, Industrial connector
VE1FBCTB-M1210	L = 1m cable, Industrial connector
VE1FBCTA-M1203	L = 0,3 cable, Type 'A' connector
VE1FBCTA-M1210	L = 1m cable, Type 'A' connector



Perm 🖓 actionate examples shows

3 pin plug to valve connection

 $\begin{array}{lll} VE1FBCSC-M1203 & L=0,3 \mbox{ cable, Type 'C' connector} \\ VE1FBCSC-M1210 & L=1m \mbox{ cable, Type 'C' connector} \\ VE1FBCSB-M1203 & L=0,3 \mbox{ cable, Industrial connector} \\ VE1FBCSB-M1210 & L=1m \mbox{ cable, Type 'A' connector} \\ VE1FBCSA-M1203 & L=0,3 \mbox{ cable, Type 'A' connector} \\ VE1FBCSA-M1210 & L=1m \mbox{ cable, Type 'A' connector} \\ \end{array}$



Coil plugs are fitted with LED and supression as standard

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

I hrough 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.