



- Modular system clips together
- 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.



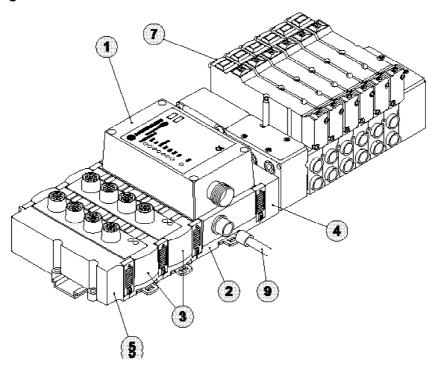




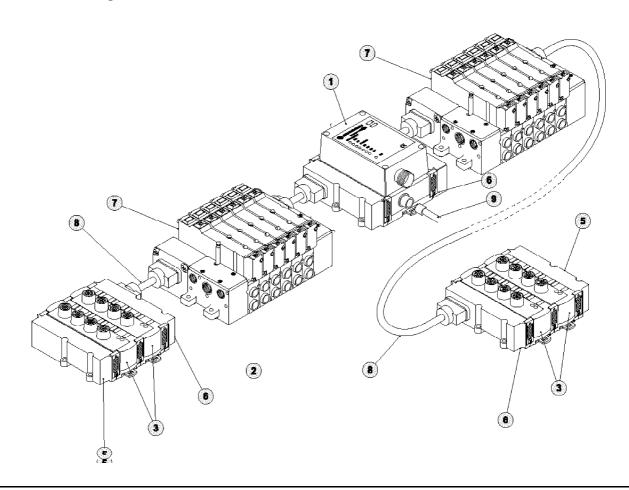
DeviceNet.



Centralised Configuration



Distributed Configuration









Key to Illustration

Symbol	Description	Part Number		Short Code					
7	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					
\^ * ≈21	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					
	Common Node Sub-base	1 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2							
	Sub-base Pleatic Connector	VE3EB6B4 00000	Con data about 0.4.040.40	F5					
45.A.3	Sub-base Plastic Connector	VE2FBSBA-00000	See data sheet 6.4.040.10	F5M					
√ B*.	Sub-base Metal Connector	VE2FBSBA-00000M		FOIN					
	Input/Output Modules								
	4 outputs	VE2FBOMA-00040	See data sheet 6.4.040.11	F6					
	8 outputs	VE2FBOMA-00080		F7					
- 200	4 NPN inputs	VE2FBIMF-04000		F8					
-35-	8 NPN inputs	VE2FBIMF-08000		F9					
	4 PNP inputs	VE2FBIMG-04000		F10					
	8 PNP inputs	VE2FBIMG-08000		F11					
	Valve Island Interface Plates (for Fieldbus Node or Input/Output modules)								
	Left Hand Side	VE2FBVPL-00000	See data sheet 6.4.040.12	F12					
	Right Hand Side (shown)	VE2FBVPR-00000	000 data 5/1001 0.4.040.12	F13					
	Additional V20 kit	V10075-K32		F14					
	End Cover (for Fieldbus Node or Input/Output Modules)								
	Left Hand Side (shown)	VE2FBECL-00000	See data sheet 6.4.040.13	F15					
100	Right Hand Side	VE2FBECR-00000	Oce data sheet 0.4.040.15	F16					
40	Night Hand Side	VE21 BECK-00000		1 10					
€~	IP65 9-pin Cable Interface Plate (for Fieldbus Node or Input/Output Modules)								
Em.	Left Hand Side (shown)	VE2FBCPL-00000	See data sheet 6.4.040.14	F17					
AM.	Right Hand Side	VE2FBCPR-00000		F18					
		I							
	Valve Island V20		See data sheet 5.4.113	F19					
	V20 V22		See data sheet 5.4.113	F20					
(I)	Cable with 9-pin D-type Connectors		See data sheet 5.4.157	F20					
A 6	1 metre length	VE2FBC9P-9S010	See data sheet 6.4.040.16	F21					
GA M	3 metre length	VE2FBC9P-9S030		F22					
78	5 metre length	VE2FBC9P-9S050		F23					
(\bigcirc)	Wireable 9-pin D-type Connector (male)	VE2FBC9P-00000		F24					
~~~	Wireable 9-pin D-type Connector (female)	VE2FBC9S-00000		F25					
	Power Cable and Connector								
	1 metre length	VE2FBCPS-M1810	See data sheet 6.4.040.16	F26					
	3 metre length	VE2FBCPS-M1830		F27					
				F28					
The same of the sa	5 metre length	VE2FBCPS-M1850		F20					
TO TO	5 metre length Wireable Power Connector (plastic)	VE2FBCPS-M1850 VE2FBCPS-M1800		F29					

# Input and Output Modules

# **Technical Specification**

Descrip	tion	4 Inputs NPN	4 Inputs PNP	8 Inputs NPN	8 Inputs PNP	4 Outputs	8 Outputs
Part Nu	mber	VE2FBIMF-04000	VE2FBIMG-04000	VE2FBIMF-08000	VE2FBIMG-08000	VE2FBOMA-00040	VE2FBOMA-00080
Connec	tions	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	s 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





# 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
	3 pin plug to 3 pin socket	M12/Ø8	Straight/Straight	5	VE1FBC8S-M1250	6.4.040.17	F32
	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
∠π. H	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*	ı				
	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
Zon	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				1		
	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



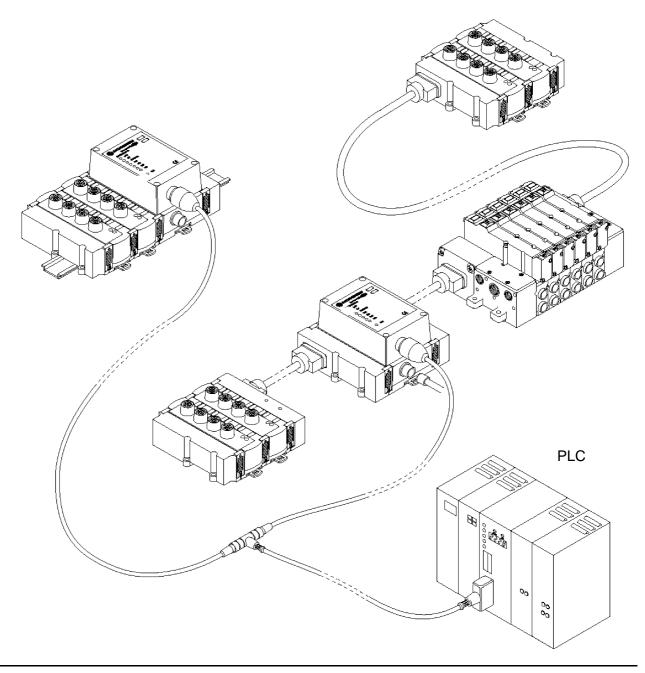
 $[\]ensuremath{^*}$  Each coil plug has LED and suppression as standard.



# **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

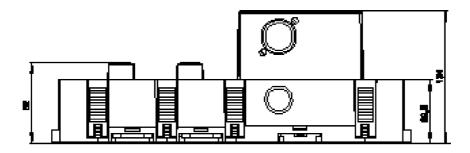
# **Typical Distributed System**

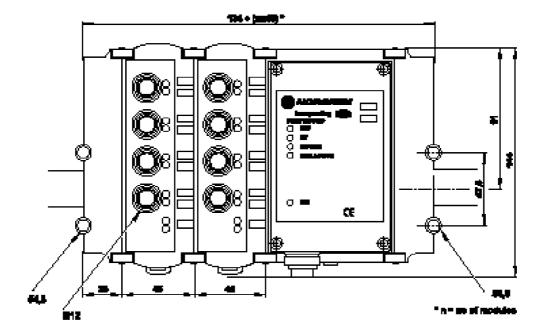






# **Assembly Dimensions**



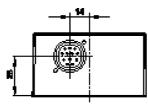






#### **Profibus-DP Fieldbus Node**

Single Coninver Connector (standard) VE2DPFNB-64640





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**Profibus Node Accessories** 

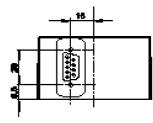
Wireable 12 pin coninver type connector (IP65)

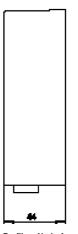
Part Number

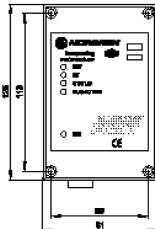
VE1DPCRS-CN12P

#### **Profibus-DP Fieldbus Node**

Single D-Type Connector VE2DPFND-64640







**Profibus Node Accessories** 

Wireable 9 pin connector (IP65)

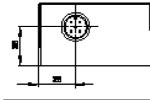
Part Number

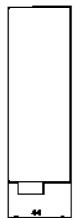
VE2FBC9P-00000

# **Profibus-DP Fieldbus Node**

Male

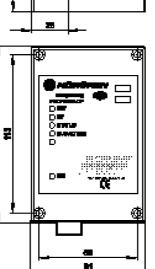
Single M12 Connector VE2DPFNR-64640





**Profibus Node Accessories** Wireable 12 pin connector (IP65)

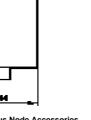
Part Number VE2DPCMT-M1200



# **Profibus-DP Fieldbus Node** Double M12 Connector

VE2DPFNT-64640





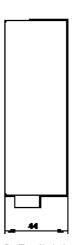
**Profibus Node Accessories** Wireable M12 connectors (IP65)

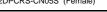
Part Numbers

VE2DPCRS-CN05P (Male)

VE2DPCRS-CN05S (Female)

2

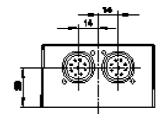


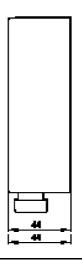


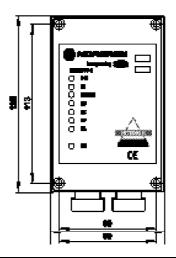


#### **Interbus-S Fieldbus Node**

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

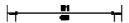


# **Interbus-S Node Accessories**

Wireable D-Type IP65 connector

Part Number

VE2FBC9P-00000 Male VE2FBC9S-00000 Female







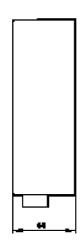
#### **DeviceNet Fieldbus Node**

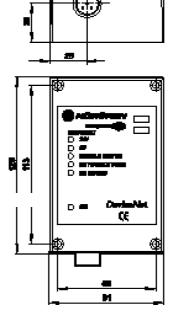
Single Micro Change Type Connector VE2DNFNB-64640

Accessories:

Wireable M12 Connector (IP65)

Part No: VE2DNCRS-CN05S (Female)





# **CANopen Fieldbus Node**

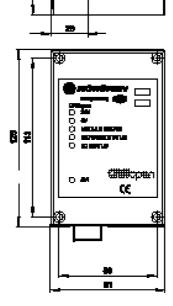
Single Micro Change Type Connector VE2CAFNB-64640

Accessories:

Wireable M12 Connector (IP65)

Part No: VE2DNCRS-CN05S (Female)





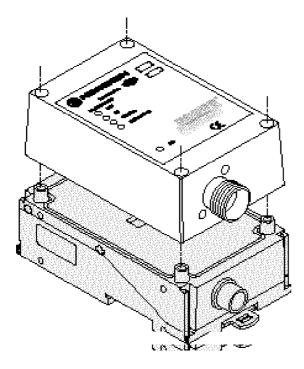


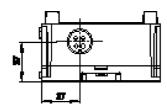


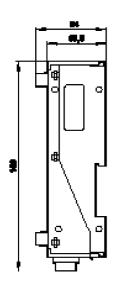


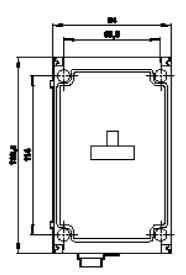
#### **Common Node Sub-base**

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

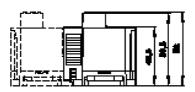


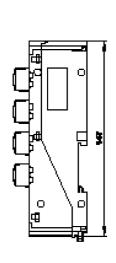


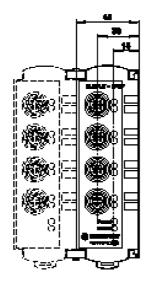




# **Input and Output Modules**





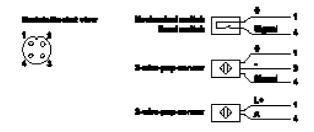


VE2FBIMF-04000 VE2FBIMG-04000 4 Inputs NPN

4 Inputs PNP

#### 4 Pin input connection

Pin	
1	Sensor supply +
3	Sensor supply -
4	Signal input



VE2FBOMA-00040 4 Ouputs

## 3 Pin output connection

Pin	
4	Switch output +
3	External voltage -





VE2FBIMF-08000 8 Inputs NPN VE2FBIMG-08000 8 Inputs PNP

#### 4 Pin input connection

Pin	
1	Sensor supply +
3	Sensor supply -
2+4	Signal input



VE2FBOMA-00080 8 Ouputs

# 3 Pin output connection

Pin	
2+4	Switch output +
3	External voltage -







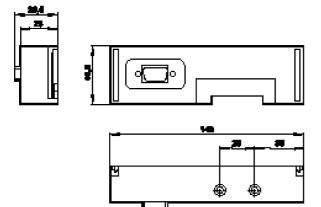


#### **Valve Island Interface Plate**

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

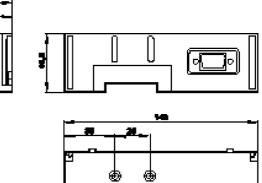






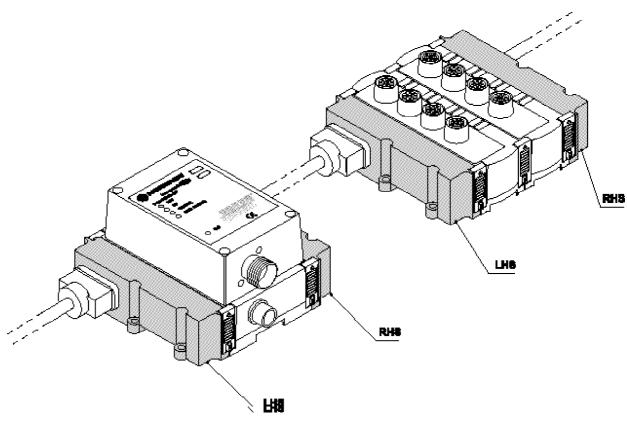
#### Right Hand Side (RHS) VE2FBVPR-00000

VE2FBVPR-00000



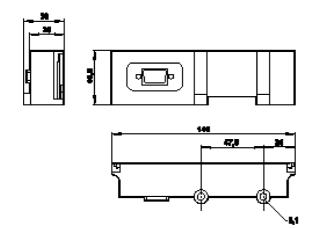






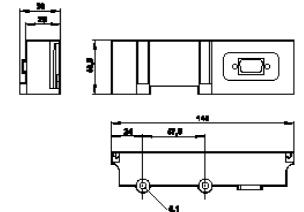
# Left Hand Side (LHS)

VE2FBECL-00000



Right Hand Side (RHS)

VE2FBECR-00000

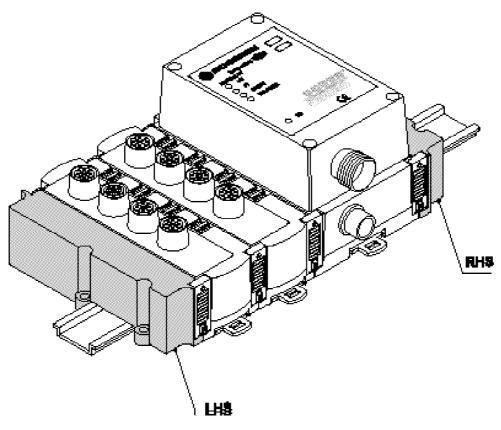






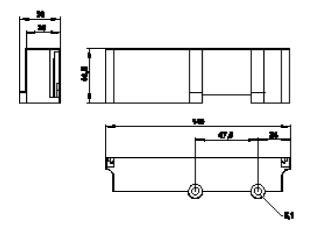
## 9-pin Cable Interface Plate

For Common Node Sub-base and Input/Output Modules



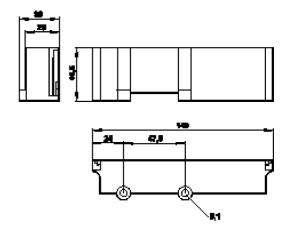
# Left Hand Side (LHS)

VE2FBCPL-00000



# Right Hand Side (RHS)

VE2FBCPR-00000









# Fieldbus specification

•						
Relicitus system specification form VIE/		•••				
Сапринульны		Contact name				
Address		Tel no				
		Fex no				
		E-mell				
Using the short order codes provided complete the build m	odel belov	K.				
One unit per cheet only	Uni IDNA Margranii	o specify		••••		
Diagnodicfeatures Yes				Accessories		
Controlled configuration No. of unite required				P4 - 1 - 1 - 1 - 1	Code	Carrier
				Childrend cables Provercebies		
				(1 pernode)		
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#### Accessories =

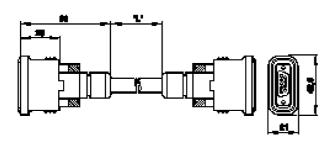
#### **Distributed Systems**

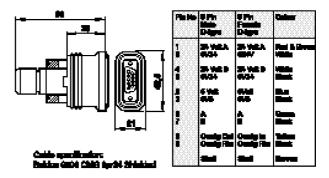
Cable with 9-pin D-Type Connectors (IP65)

 $\begin{array}{lll} \text{VE2FBC9P-9S010} & \text{L} = 1 \text{ metre} \\ \text{VE2FBC9P-9S030} & \text{L} = 3 \text{ metres} \\ \text{VE2FBC9P-9S050} & \text{L} = 5 \text{ metres} \\ \end{array}$ 

Wireable 9-pin D-Type Connectors (IP65)

VE2FBC9P-00000 male VE2FBC9S-00000 female

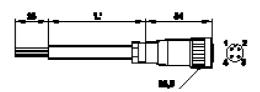




#### Power supply cables and connectors (For common node sub-base)

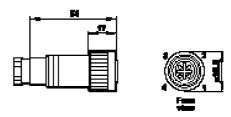
# Cable and connector assemblies (IP65)

 $\begin{array}{lll} \text{VE2FBCPS-M1810} & \text{L} = 1 \text{ metre} \\ \text{VE2FBCPS-M1830} & \text{L} = 3 \text{ metres} \\ \text{VE2FBCPS-M1850} & \text{L} = 5 \text{ metres} \\ \end{array}$ 

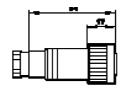


# Wireable Power Supply Connector (IP65)

VE2FBCPS-M1800 - Plastic



V11156-E02 - Metal







#### **Accessories**

#### Fieldbus II VE2 Series



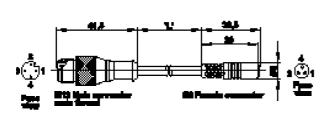
#### Input M12 plug and cable assemblies for sensors

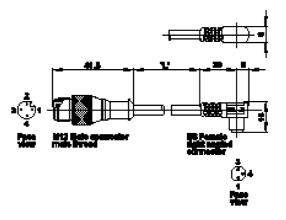
3 pin plug to 3 pin socket – straight connectors

 $\begin{array}{ll} \text{VE1FBC8S-M1210} & \text{L} = 1 \text{ metre length} \\ \text{VE1FBC8S-M1230} & \text{L} = 3 \text{ metre length} \\ \text{VE1FBC8S-M1250} & \text{L} = 5 \text{ metre length} \\ \end{array}$ 

3 pin plug to 3 pin socket

 $\begin{array}{lll} \mbox{VE1FBC8E-M1210} & \mbox{L} = 1 \mbox{ metre length} \\ \mbox{VE1FBC8E-M1230} & \mbox{L} = 3 \mbox{ metre length} \\ \mbox{VE1FBC8E-M1250} & \mbox{L} = 5 \mbox{ metre length} \\ \end{array}$ 





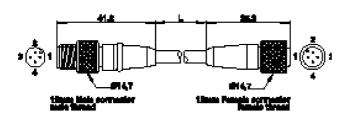
#### Input M12 plug and cable assemblies for sensors

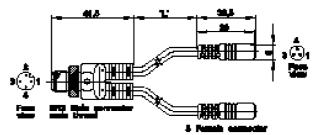
4 pin plug to 4 pin socket straight connector

 $\begin{array}{lll} \mbox{VE1FBC0S-M1210} & \mbox{$L=1$ metre length} \\ \mbox{VE1FBC0S-M1230} & \mbox{$L=3$ metre length} \\ \mbox{VE1FBC0S-M1250} & \mbox{$L=5$ metre length} \\ \end{array}$ 

4 pin plug to 2x3 pin socket straight connector

 $\begin{array}{lll} \mbox{VE1FBC8S-M121D} & \mbox{L} = 1 \mbox{ metre length} \\ \mbox{VE1FBC8S-M123D} & \mbox{L} = 3 \mbox{ metre length} \\ \mbox{VE1FBC8S-M125D} & \mbox{L} = 5 \mbox{ metre length} \\ \end{array}$ 



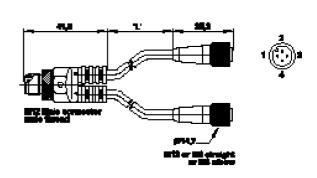


4 pin plug to 2x3 pin socket right angle connector

 $\begin{array}{lll} \text{VE1FBC8E-M121D} & \text{L} = 1 \text{ metre length} \\ \text{VE1FBC8E-M123D} & \text{L} = 3 \text{ metre length} \\ \text{VE1FBC8E-M125D} & \text{L} = 5 \text{ metre length} \\ \end{array}$ 

4 pin plug to 2x3 pin socket straight connector

 $\begin{array}{ll} \mbox{VE1FBC0S-M121D} & \mbox{$L=1$ metre length} \\ \mbox{VE1FBC0S-M123D} & \mbox{$L=3$ metre length} \\ \mbox{VE1FBC0S-M125D} & \mbox{$L=5$ metre length} \\ \end{array}$ 





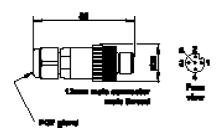
#### **Accessories**

#### Input and Output M12 plug and cable assemblies for solenoid coils

Wireable Input or output 5 pin male plug – screw termination

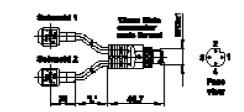
VE1FBCRS-M125P

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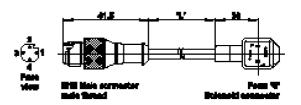
4 pin plug to 2 valve connections

 $\begin{tabular}{llll} 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 \\ VE1FBCTA-M1203 & $L=1m$ cable, Type 'A' connector \\ VE1FBCTA-M1210 & $L=1m$ cable, Type 'A' connector \\ \end{tabular}$ 



3 pin plug to valve connection

VE1FBCSC-M1203	L = 0,3 cable, Type 'C' connector
VE1FBCSC-M1210	L = 1m cable, Type 'C' connector
VE1FBCSB-M1203	L = 0,3 cable, Industrial connector
VE1FBCSB-M1210	L = 1m cable, Industrial connector
VE1FBCSA-M1203	L = 0,3 cable, Type 'A' connector
VE1FBCSA-M1210	L = 1m cable, Type 'A' connector



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

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.

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