

Life Is On

eliwell[™]
by Schneider Electric

FREE Way

The programmable platform



www.eliwell.com

FREE Way

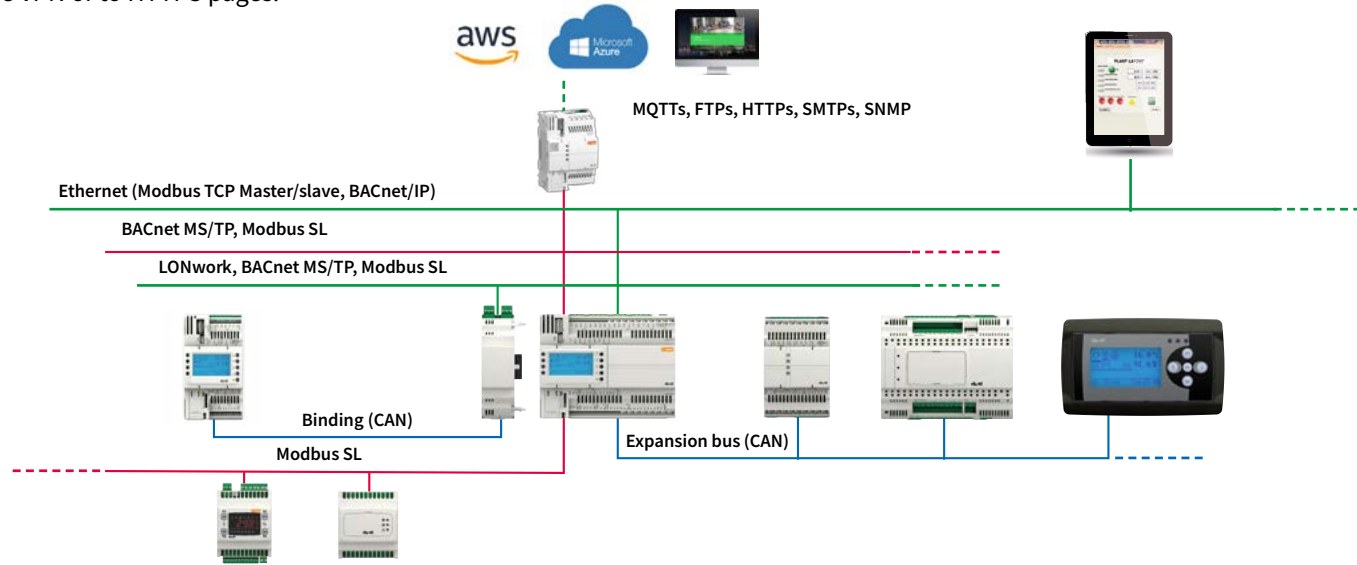
The programmable platform



FREE Advance connectivity

The **FREE Advance** models are equipped with an Ethernet port, two RS-485 serial ports and a CANbus port. They can therefore be integrated locally into industrial automation systems and BMS and through the range of plug-ins and 2DIN modules that connect quickly and intuitively to the main AVD/AVC module.

The Secure Interface raises the connection of FREE Advance PLCs to the highest level of IIoT, providing connection to the cloud, the VPN or to HTTPS pages.



Connectivity and web functions

FREE Advance, FREE Evolution and FREE Panel are WEB-enabled, giving machine manufacturers and system integrators integral remote access, incorporating Ethernet, BACnet protocols as well as optional LON protocol via plug-in. Furthermore, via the Secure Interface, the protocols FTPs, SMTPs, MQTTs and SNMP, used especially in datacenters, are also available. If the cloud is not necessary, the FREE Advance range in any case has an integrated WebServer and can be completely configured for an economic yet effective remote access solution.

With a wide range of remote access possibilities, even end users have many benefits for their own systems, depending on their needs:

- Integrated WebServer
- Local and remote system control, including alarms management and e-mail notifications.
- Preventive and predictive maintenance via cloud and related analytics
- Next generation system interface on PC, Tablet and Smartphone
- VPN for a safe connection

AVD3000/C/L/U, AVC3000/C/L/U



AVD3000

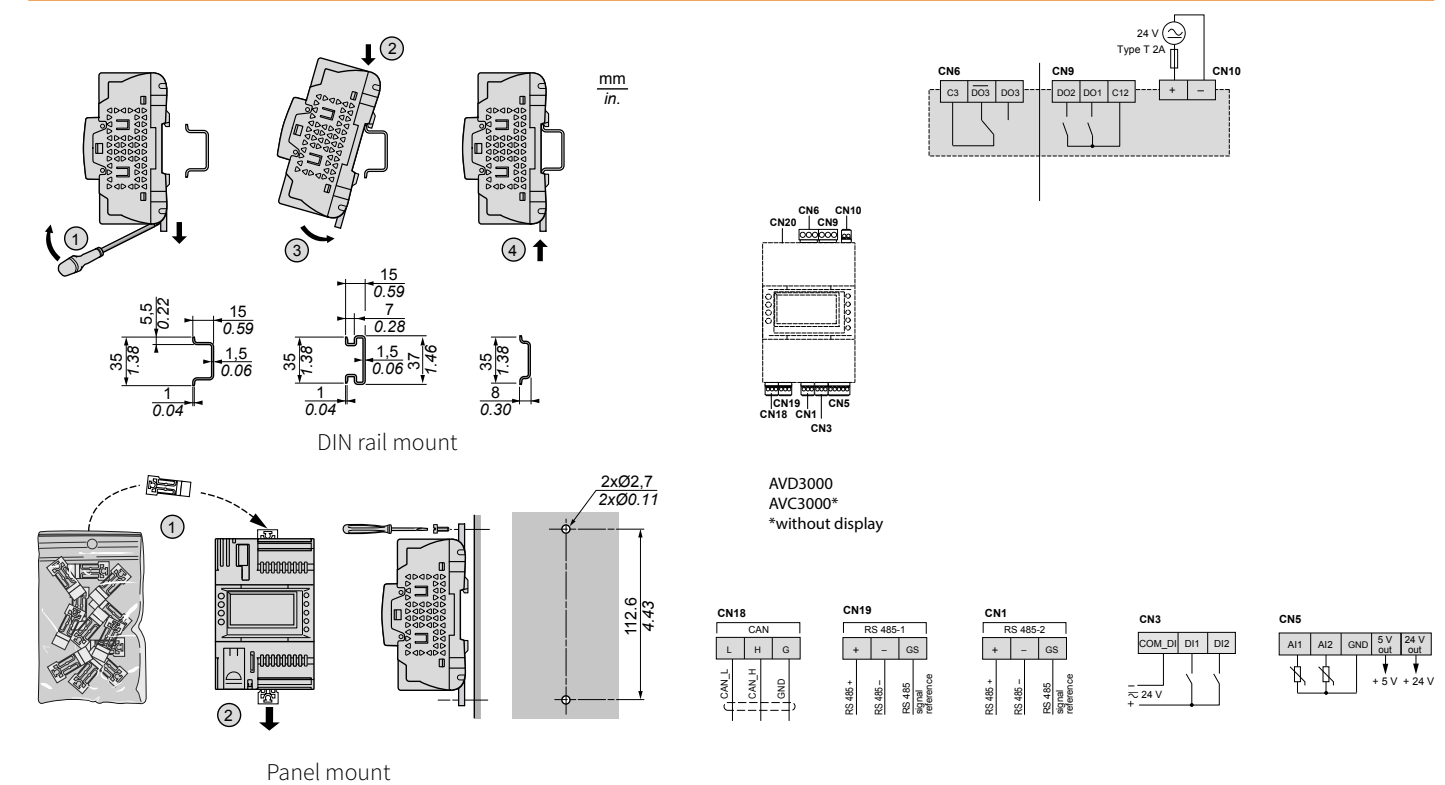


AVC3000

Technical data

	AVD3000	AVC3000
size	4 DIN	
display	backlit LCD 128x64 pixel graphic display	
power supply	24 Vac isolated 20...38 Vdc isolated	
digital outputs	3: 3 x 3 A 250 Vac	3: 3 x 3 A 250 Vac
digital inputs	2 x SELV can operate as pulse/frequency counters up to 2 kHz	
analog inputs	2 x NTC 103AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V	
connectivity	Ethernet: Bacnet IP, Modbus TCP Master/Slave, Webserver, Ftp Client/Server, SNTp CANBus: CANopen 2 x RS485: Modbus RTU (of which 1 x RS485: also BACnet MS/TP) USB (type A); USB (type mini-B)	
operating temperature	-20...+60°C	

Electric and mount diagrams



SD card Datalogging

SD card → ← FREE

USB Host

PC → ← FREE

Ethernet / USB Device / RS485

PC → ← FREE

FREE Advance

Data download direction	→	←
Parameter map	-	-
IEC application		
HMI application		✓
Data files		
BIOS	-	-

FREE Advance

Data download direction	→	←
Parameter map	✓	✓
IEC application	✓	✓
HMI application	✓	✓
Data files	✓	✓
BIOS	✓	-

FREE Advance

Data download direction	→	←
Parameter map	✓	✓
IEC application	✓	-
HMI application	✓	-
Data files	✓	✓
BIOS	✓	-

AVD6200/C, AVC6200/C



AVD6200/C

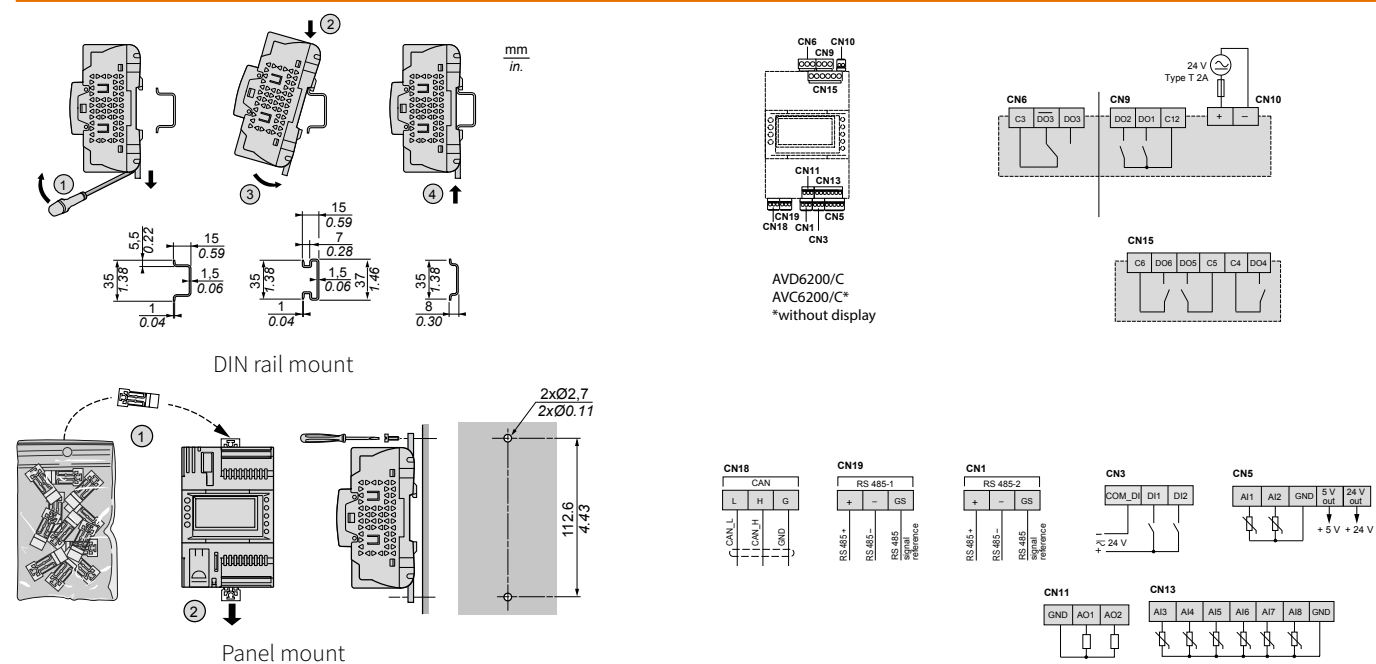


AVC6200/C

Technical data

	AVD6200/C	AVC6200/C
size	4 DIN	
display	backlit LCD 128x64 pixel graphic display	-
power supply	24 Vac isolated 20...38 Vdc isolated	
digital outputs	6: 6 x 3 A 250 Vac	6: 6 x 3 A 250 Vac
analog outputs	2: 2 x 0-10 V, 2 x 0-10 V / 4...20 mA / ON-OFF / PWM / O.C. 24 Vdc 50 mA max	
digital inputs	2 x SELV can operate as pulse/frequency counters up to 2 kHz	
analog inputs	8 x NTC C 103 AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V	
connectivity	CANBus: CANopen 2 x RS485: Modbus RTU (of which 1 x RS485: also BACnet MS/TP) USB (type mini-B); 1 x plug-in EVS: Ethernet: BACnet IP, Modbus TCP Master/Slave, Webserver, Ftp Client/Server, SNTP via specific EVS ETH plug-in module	
operating temperature	-20...+60 °C	

Electric and mount diagrams



AVD6200/C/L/U, AVD6200/C/L/U SSR, AVC6200/C/L/U



AVD6200/C/L/U



AVD6200/C/L/U SSR

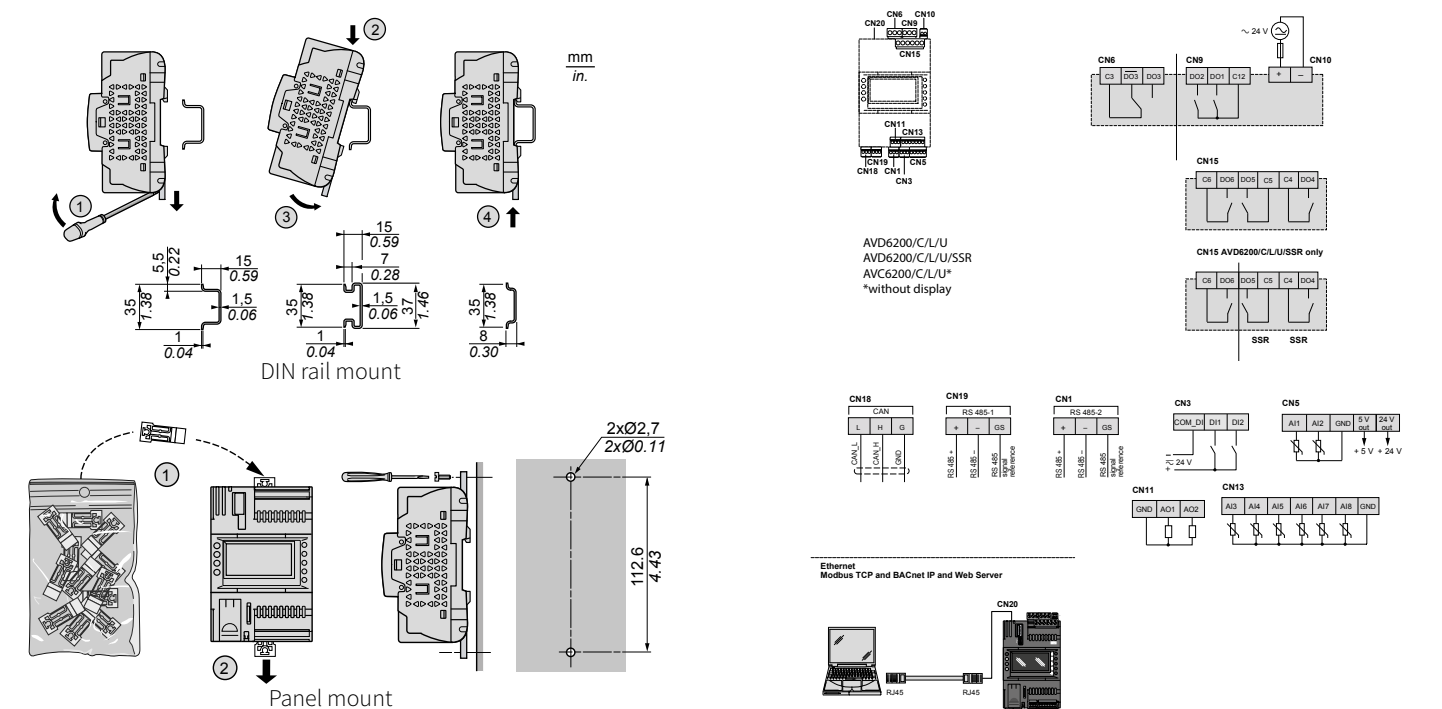


AVC6200/C/L/U

Technical data

	AVD6200/C/L/U	AVD6200/C/L/U SSR	AVC6200/C/L/U
size	4 DIN		
display	backlit LCD 128x64 pixel graphic display		
power supply	24 Vac isolated 20...38 Vdc isolated		
digital outputs	6: 6 x 3 A 250 Vac	4: 4 x 3 A 250 Vac SSR: 2 x 0.2A 240 Vac	6: 6 x 3 A 250 Vac
analog outputs	2: 2 x 0-10 V, 2 x 0-10 V / 4...20 mA / ON-OFF / PWM / O.C. 24 Vdc 50 mA max		
digital inputs	2 x SELV can operate as pulse/frequency counters up to 2 kHz		
analog inputs	12 x NTC 103 AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V		
connectivity	Ethernet: Bacnet IP, Modbus TCP Master/Slave, Webserver, Ftp Client/Server, SNTP CANBus: CANopen 2 x RS485: Modbus RTU (of which 1 x RS485: also BACnet MS/TP) USB (type A); USB (type mini-B); 1 x plug-in EVS		
operating temperature	-20...+60 °C	-20...+55 °C	-20...+60 °C

Electric and mount diagrams



AVD8400, AVD8400 SSR, AVC8400 /C /L /U (/I)models



AVD8400



AVD8400 SSR

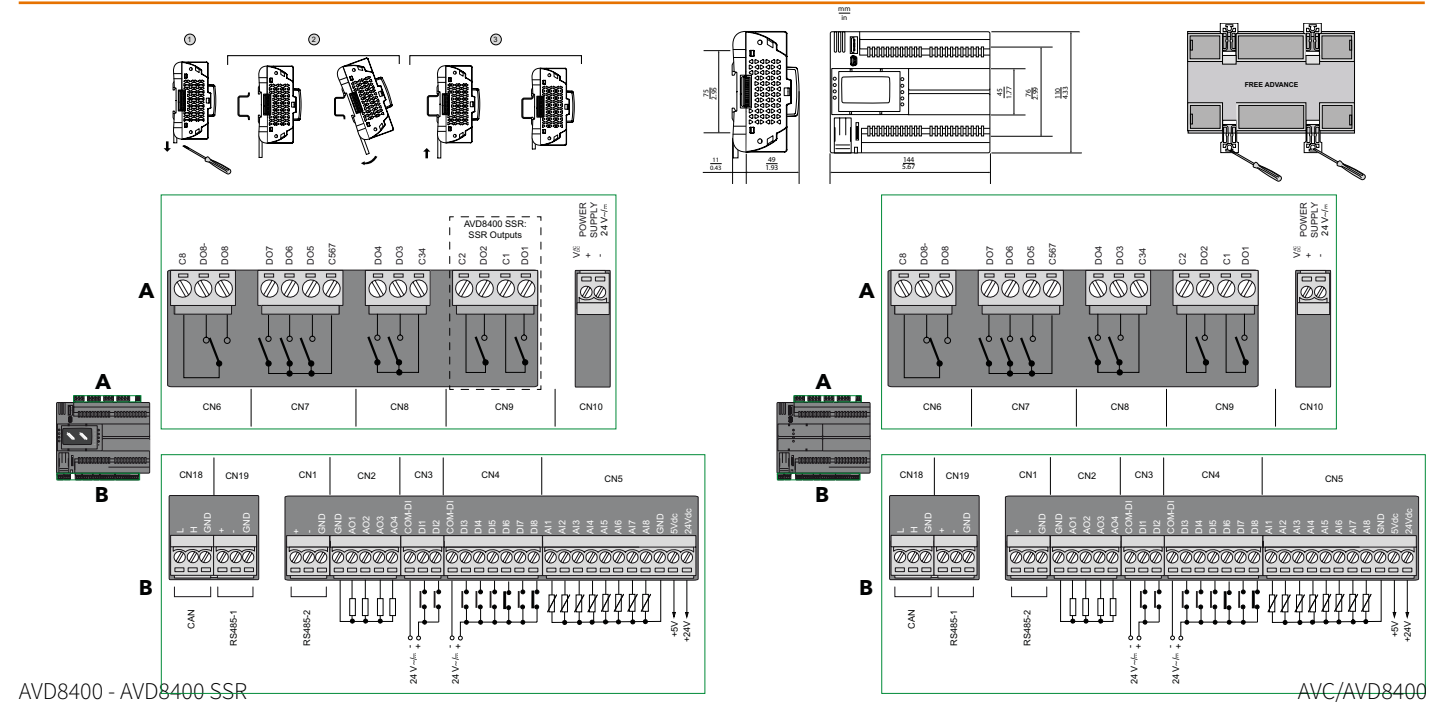


AVC8400

Technical data

	AVD8400	AVD8400 SSR	AVC8400
size	8 DIN		
display	backlit LCD 128x64 pixel graphic display		
power supply	24 Vac (isolated, /I models only) 20...38 Vdc (isolated, /I models only)		
digital outputs	8: 7 x 3 A, 1 x 1 A 250 Vac	6: 5 x 3 A, 1 x 1 A 250 Vac SSR: 2 x 0.5 A 240 Vac	8: 7 x 3 A, 1 x 1 A 250 Vac
analog outputs	4: 2 x 0-10 V, 2 x 0-10 V / 4...20 mA / ON-OFF / PWM / O.C. 24 Vdc 30 mA max		
digital inputs	6 x SELV 2 x pulse/frequency counters up to 2 kHz		
analog inputs	8 x NTC 103AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V		
connectivity	Ethernet: BACnet IP, Modbus TCP Master/Slave, Webserver, Ftp Client/Server, SNMP CANBus: CANopen 2 x RS485: Modbus RTU (of which 1 x RS485: also BACnet MS/TP) USB (type A); USB (type mini-B); 1 x plug-in EVS		
operating temperature	-20...+60 °C -20...+65 °C (/I models)		

Electric and mount diagrams



AVD12600, AVD12600 SSR, AVC12600 /C /L /U (/I)models



AVD12600



AVD12600 SSR

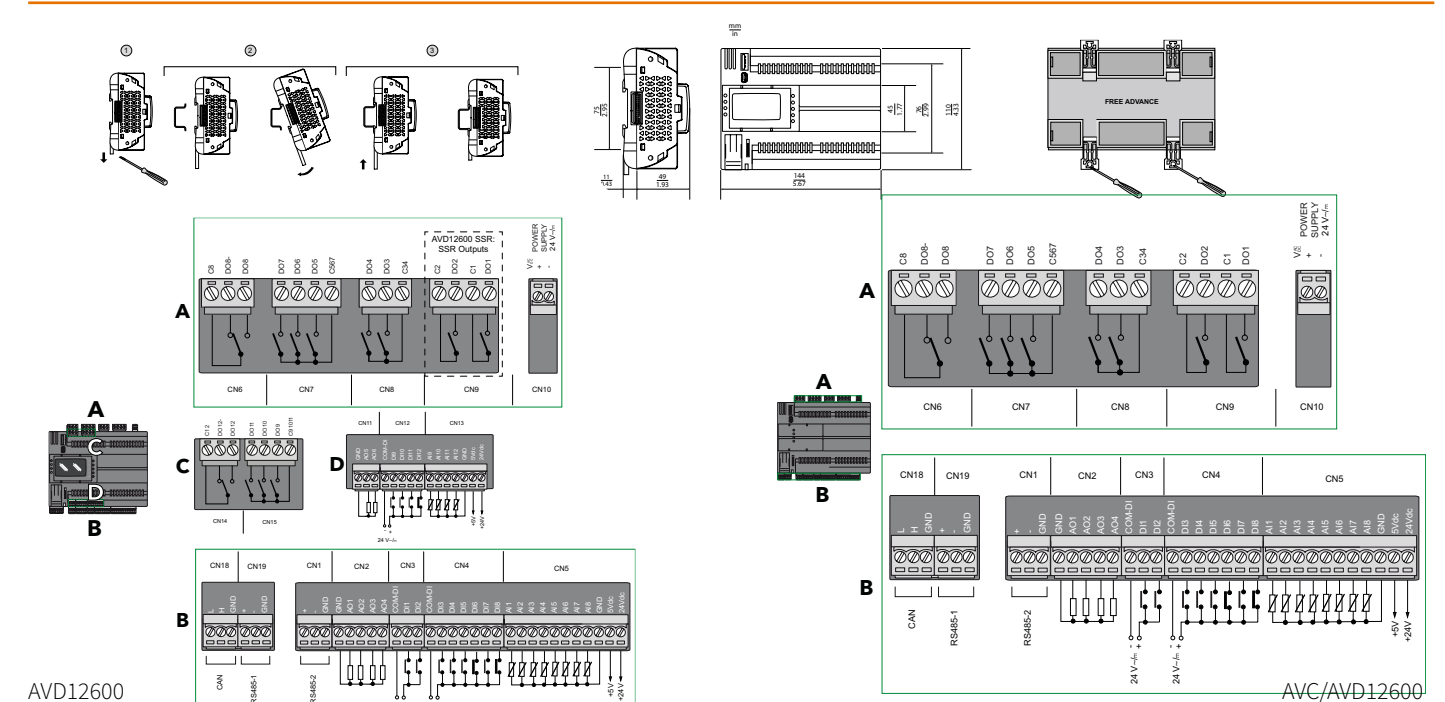


AVC12600

Technical data

	AVD12600	AVD12600 SSR	AVC12600
size	8 DIN		
display	backlit LCD 128x64 pixel graphic display		
power supply	24 Vac (isolated, /I models only) 20...38 Vdc (isolated, /I models only)		
digital outputs	12: 10 x 3 A, 2 x 1 A 250 Vac	10: 8 x 3 A, 2 x 1 A 250 Vac SSR: 2 x 0.5 A 240 Vac	12: 10 x 3 A, 2 x 1 A 250 Vac
analog outputs	6: 4 x 0-10 V, 2 x 0-10 V / 4...20 mA / ON-OFF / PWM / O.C. 24 Vdc 30 mA max		
digital inputs	10 x SELV 2 x pulse/frequency counters up to 2 kHz		
analog inputs	12 x NTC 103 AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V		
connectivity	Ethernet: Bacnet IP, Modbus TCP Master/Slave, Webserver, Ftp Client/Server, SNMP CANBus: CANopen 2 x RS485: Modbus RTU (of which 1 x RS485: also BACnet MS/TP) USB (type A); USB (type mini-B); 1 x plug-in EVS		
operating temperature	-20...+60 °C -20...+65 °C (/I models)		

Electric and mount diagrams



AVD / AVC 8400, AVD / AVC 12600 /C /I models



AVD8400

AVC8400

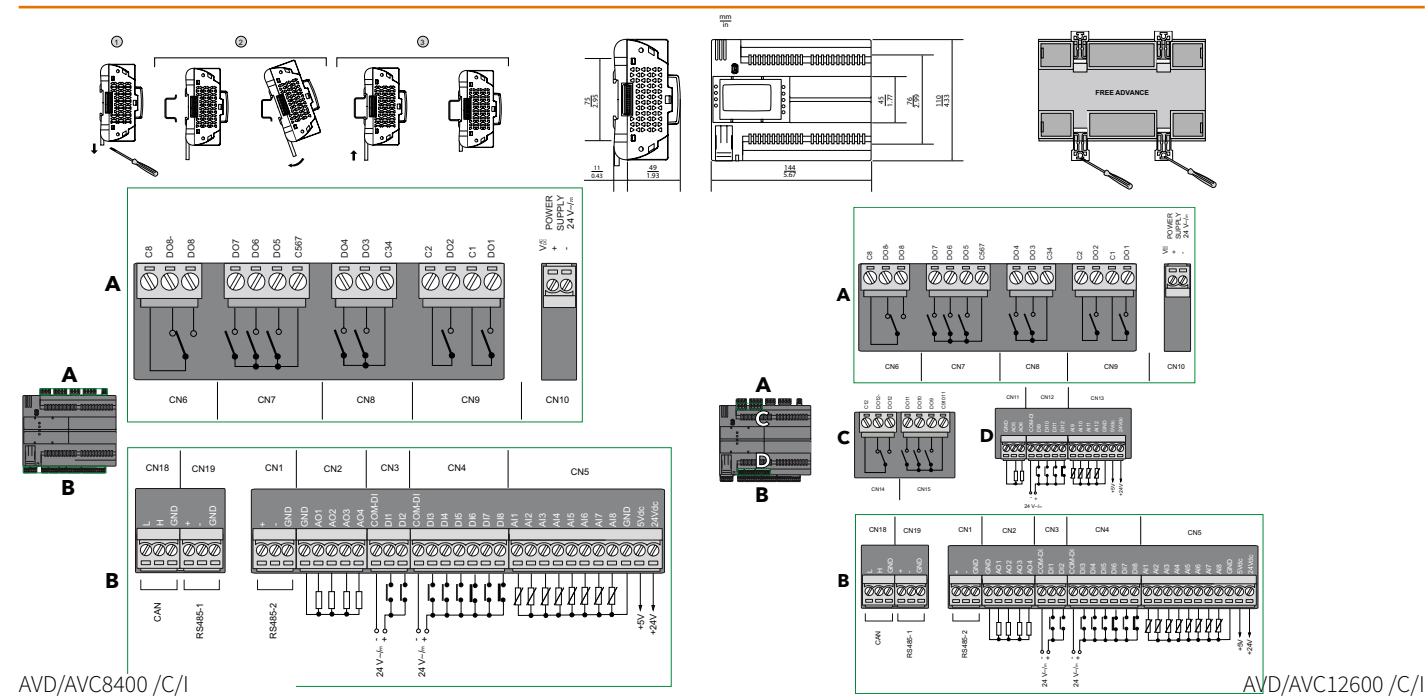
AVD12600

AVC12600

Technical data

	AVC8400	AVD8400	AVC12600	AVD12600
size	8 DIN			
display	-	backlit LCD 128x64 pixel graphic display	-	backlit LCD 128x64 pixel graphic display
power supply	24 Vac isolated 20...38 Vdc isolated			
digital outputs	8: 7 x 3 A, 1 x 1A 250 Vac		12: 10 x 3 A, 2 x 1 A 250 Vac	
analog outputs	6: 4 x 0-10 V, 2 x 0-10 V/4...20 mA / ON-OFF / PWM / O.C. 24 Vdc 30 mA max			
digital inputs	6 x SELV 2 x pulse/frequency counters up to 2 kHz			
analog inputs	8 x NTC 103AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V		12 x NTC 103 AT / NTC NK103 / D.I. / PTC KTY81 / Pt1000 / 0...20 mA / 4...20 mA / 0-10 V / 0-5 V	
connectivity	CANBus: CANopen 2 x RS485: Modbus RTU (of which 1 x RS485: also BACnet MS/TP) USB (type mini-B); 1 x plug-in EVS: Ethernet: BACnet IP, Modbus TCP Master/Slave, Webserver, Ftp Client/Server, SNTP via specific EVS ETH plug-in module			
operating temperature	-20...+65 °C			

Electric and mount diagrams



FREE Evolution models



FREE Evolution

FREE Evolution models (**EVD** with display, **EVC** without display) are available in versions for assembly on 8 DIN rail, with disconnectable screw terminal blocks for quick, easy installation.

Every EVD or EVC is expandable via CANbus (field) up to 7 expansions and 2 terminals (EVK). Up to 10 controllers can also be connected together via CANbus (network).

Up to 127 devices can be controlled with Modbus Master, via RS485.

FREE Evolution with or without display /C indicates units with RTC - Real Time Clock; built-in RS485 and CANbus as standard							
Model	Code	Relay outputs at hazardous voltage	SSR outputs	Analog outputs (SELV) AO4/AO5 configurable as Open Collector 12 Vdc 100 mA max each	Digital inputs at safety extra low voltage (SELV)	Digital inputs voltage free	Analog inputs at safety extra low voltage (SELV)
EVD7500/C/U	EVD7500060B00	7	-	5	8	1*	6
EVD75SS/C/U	EVD75SS060B00	5	2	5	8	1*	6
EVC7500/C/U	EVC7500060B00	7	-	5	8	1*	6

*Fast counter 1 kHz

** Also compatible with EVE4200 and EVE10200

Expansions RS485 (EVE7500 only) and built-in CANbus as standard							
Model	Code	Relay outputs at hazardous voltage	SSR outputs	Analog outputs (SELV) AO4/AO5 configurable as Open Collector 12 Vdc 100 mA max each	Digital inputs at safety extra low voltage (SELV)	Digital inputs voltage free	Analog inputs at safety extra low voltage (SELV)
EVE7500	EVE7500000B00	7	-	5	8	1*	6
EVE4200	EVE4200000500	4	-	2	4	-	4

*Fast counter 1 kHz

USB Host USB → ← FREE



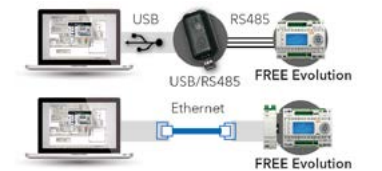
	→	←
Data download direction	→	←
Parameter map	✓	✓
IEC application	✓	✓
HMI application	✓	✓
Data files	✓	✓
BIOS	✓	-

USB Device PC → ← FREE



	→	←
Data download direction	→	←
Parameter map	-	-
IEC application	✓	✓
HMI application	✓	✓
Data files	✓	✓
BIOS	✓	-

USB-RS485 / Ethernet + Plugin PC → ← FREE



	→	←
Data download direction	→	←
Parameter map	✓	✓
IEC application	✓	-
HMI application	✓	-
Data files	✓	✓
BIOS	✓	-

FREE Advance, FREE Evolution and FREE Panel accessories

Converters, interfaces, programming keys

Code	Description	Details
SAR0RA00X701	USB/485 MINI KIT converter	-
EVA00USCA0000	USB/CAN converter	-

Base plates

Code	Description	Details
EVA00WMRC0000	Kit (4 Pcs) White base plate for wall mount	For EVP/AVK/EVK
EVA00WMRC0001	Kit (4 Pcs) Black base plate for wall mount	For EVP/AVK/EVK
AVA00WMRC0000	White base plate for wall mount	For AVP1000
AVA00WMRC0001	Grey base plate for wall mount	For AVP1000

Demo Case

Code	Description	Details
VAL00033K	Demo Case for FREE Evolution	-
VAL00034	Demo Case for FREE Advance	-

Temperature probes*

Code	Description	Details
SN8DED11502C0	NTC 103 AT 5X20 1.5 m TP IP68	-
SN8DAE11502C0	NTC 103 AT 6X20 1.5 m TP IP68	-
SN9DAE11502C6	Pt1000 6X20 1.5 m IP68	FREE Evolution / FREE Advance
SN9DED11502C6	Pt1000 5X20 1.5 m IP68	-

Transformers

Code	Description	Details
TF111202	Transformer 230V~/24 V 25 VA	For FREE Evolution only
TF111205	Transformer 230V~/24 V 35 VA DIN rail mount	FREE Evolution / FREE Advance

FREE range accessories

Pressure transducers

Code	Description	Details
TD220050	EWPA050 4...20 mA / 0...667 psi / 0..50 bar IP54** 2 m cable	1/4 SAE MALE
TD220007	EWPA007 4...20 mA / -7...101.5 psi / -0.5..7 bar IP54** 2 m cable	1/4 SAE MALE
TD320050	EWPA050 4...20 mA / 0...667 psi / 0..50 bar IP54** 2 m cable	1/4 SAE FEMALE
TD320007	EWPA007 4...20 mA / -7...101.5 psi / -0.5..7 bar IP54** 2 m cable	1/4 SAE FEMALE

Ratiometric transducers

Code	Description	Details
TD420010	EWPA 010 R 0...145 psi / 0...10 bar IP67 2 m cable (packard connector)	Female connection
TD420030	EWPA 030 R 0...508 psi / 0...30 bar IP67 2 m cable (packard connector)	Female connection
TD420050	EWPA 050 R 0...667 psi / 0...50 bar IP67 2 m cable (packard connector)	Female connection

Expansions, fan modules

Code	Description	Details
MW320100	EXP11 250 V 10 A expansion with DIN rail mount base	Open Collector Output
MW991012	CFS05 TANDEM TRIAC 5+5 A 250 V	-
CFS Modules	CFS - Single-phase speed regulators for currents from 2 A to 9 A	Various articles available

KEY: SELV = Safety Extra Low Voltage

*different cable lengths available on request **optional IP67 version with packard connector

Code tables

FREE Smart

SMD5500050400		SM	D	5	5	00	05	0	4	00
Product family	FREE Smart series									
Physical feature	D = Built-in Display, DIN-rail mounting C = Blind, DIN-rail mounting P = Panel mounting 32x74 E = I/O Expansion module, DIN-rail mounting									
Number of digital outputs	5 4 3 2									
Number of analog outputs	6 5 2									
Not relevant	00									
Embedded Communication & Real Time Clock	05 = RTC and RS-485 01 = RTC									
Not relevant	0									
Power supply	4 = 12...24 Vac, 24 Vdc H = 100...240 Vac ⁽¹⁾									
Customization	00 = standard other values = variants & customization on demand									

⁽¹⁾ Only for SMD, SMC and SME models

FREE Advance

AVD1260060500		AV	D	12	6	0	06	0	5	00
Product family	FREE Advance series									
Physical feature	D = Built-in Display C = Blind									
Number of digital outputs	3 6 8 12									
Number of analog outputs	0 2 4 6									
Digital output type	00: The digital outputs are relay SS: 2 digital outputs are SSR NOTE: Only one digit in case of 12 digital outputs									
Embedded Communication	06 = RS-485 and Ethernet based communication protocols 05 = RS-485 based communication protocols									
Power supply isolation⁽¹⁾	0 1: Power Supply Isolated									
Power supply	5 = 24 Vac/dc									
Not relevant	00									

⁽¹⁾ Only for 28 and 42 I/O

