

OPEN 3100 EMS series designed as freely programmable *Direct Digital Controllers (DDCs)*



DS-OPEN 3100 EMS Cx



Variant with 2 CAN interfaces

- CAN-HSB safety ring bus is a further development of the CAN-Bus, proven throughout the world
- Fast activation and configuration via the OPEN EMS web server
- Easy expandability – DEOS IO modules at the field level are networked via a CAN-bus ring topology
- **Advantage:** If the ring is interrupted, the connected field devices can still be controlled from the other ring side

Software equipment & system integration ¹⁾	DS-OPEN 3100/x EMS	
	C1x	C2x
OPENview text	■	■
OPENview graphics	□	□
Service & Security Center	■	■
Alarm management	□	□
CAN-HSB	–	■
Redundancy	–	–
BACnet objects	–	–
M-Bus meters	–	–
External level converters	250 ³⁾	250 ³⁾
KNX data points	0 1000 ⁴⁾	0 1000 ⁴⁾
MODBUS data points		
MODBUS slave	□	□
MODBUS master	0 1000 ⁴⁾	0 1000 ⁴⁾
DALI addresses	–	–
CAN devices		
IO modules, drives ⁵⁾	99	198
IO7, CORA, CODI	96	192
Total	99	198
Physical data points	4000	4000

Highlights at a glance

- ✓ Designed for control and regulation of larger equipment systems, where a high fail-safe level must be ensured
- ✓ Fail-safe through the High Safety Bus function
- ✓ Integrated Onboard BMS OPENview
- ✓ Alarm management – DEOS Secure AlarmApp (optional)
- ✓ Trend recording and trend export
- ✓ Service & Security Center (SSC) for IT security
- ✓ Expandable with modules
- ✓ Maintenance-free
- ✓ Extensive libraries, incl. graphics for efficient engineering

Hardware equipment & technical data ¹⁾	DS-OPEN 3100/x EMS	
	C1x	C2x
Fast Ethernet	2x 10/100 BaseT	
CAN-bus	1x CAN 2.0B	2x CAN 2.0B
RS232	2x RS232	
RS485	1x RS485	
USB	2x USB 2.0	
DALI interface	–	–
Assembly	on standard mounting rail 35 mm	
Dimensions (WxDxH)	161 mm x 35 mm x 105 mm	
Material	Aluminum	
Protection standard	IP 20	
Cooling	no fan; by convection	
Ambient temperature	0 ... 50°C	
Ambient humidity	5 ... 90% without condensation	
Installation position	Freely selectable	
Input voltage	24 V DC (19 ... 30 V DC)	
Input current	180 mA	
Power consumption	4.3 W	
max. back-up fuse	2 A	
Connection	Pull-off spring-loaded terminals	

- Standard
- Optional expandability
- Cannot be expanded

¹⁾ Additional product information is provided in the data sheet (see DEOS Portal at portal.deos-ag.com/...)

²⁾ Only for variants with redundancy DS-OPEN 4100 EMS C1/R and DS-OPEN 4100 EMS C2/R nutzbar

³⁾ Standard activation: The number of M-Bus meters depends on the type of M-Bus level converter (see page 41 as well as page 67)

⁴⁾ Maximum expansion (optional, surcharge)

⁵⁾ Only drive types DWH, PLD, and PWD

OPEN 3100 EMS	Type	Art. no.
With 1 CAN interface	DS-OPEN 3100 EMS C1	DS-360097
With 2 CAN interfaces, CAN-HSB	DS-OPEN 3100 EMS C2	DS-360098

Expansion modules – functions		Type	Art. no.
OPENview graphics	For OPEN ... EMS C1	DS-OVC1	DS-371190
	For OPEN ... EMS C2	DS-OVC2	DS-371191
Alarm management	DEOS Secure AlarmApp ^{1), 2)}	DS-N-Alarm	DS-360410
	AlarmApp Reporter OPEN EMS ²⁾	DS-N-Reporter EMS	DS-360438
	AlarmApp user package 5 ³⁾ – monthly	DS-N-USER5	DS-360412
	AlarmApp user package 25 ³⁾ – monthly	DS-N-USER25	DS-360413
	AlarmApp user package 50 ³⁾ – monthly	DS-N-USER50	DS-360414

Expansion modules – system integration		Type	Art. no.
KNX	50 KNX data points	DS-KNX50	DS-371198
	100 KNX data points	DS-KNX100	DS-371193
	250 KNX data points	DS-KNX250	DS-371121
	500 KNX data points	DS-KNX500	DS-371197
	1000 KNX data points	DS-KNX1000	DS-371123
MODBUS master	25 MODBUS data points	DS-MOD MA25	DS-371220
	50 MODBUS data points	DS-MOD MA50	DS-371170
	100 MODBUS data points	DS-MOD MA100	DS-371264
	250 MODBUS data points	DS-MOD MA250	DS-371171
	500 MODBUS data points	DS-MOD MA500	DS-371194
MODBUS slave	1000 MODBUS data points	DS-MOD MA1000	DS-371195
		DS-MOD SL	DS-371169
ebm-papst ^{4), 6)}	7 ebm-papst data points (= 1 fan)	DS-EBM-PST	DS-371206
Grundfos ^{5), 6)}	7 Grundfos data points (= 1 pump)	DS-GR-PU	DS-371207

¹⁾ End customers need at least a user package (DS-360412, DS-360413, DS-360414) to be able to use the DEOS Secure AlarmApp. The use of the DEOS Secure AlarmApp is free of charge for employees of DEOS system partners.

²⁾ Minimum prerequisite OPEN EMS firmware version 1,064

³⁾ The user packages can be combined as required to achieve the desired number of users

⁴⁾ Up to 128 fans can be connected via RS485

⁵⁾ Up to 31 pumps can be connected via RS485

⁶⁾ DS-EBM-PST and DS-GR-PU cannot be used simultaneously on one controller