

VLT® DeviceNet MCA 104

High performance DeviceNet fieldbus interface option for VLT® AutomationDrive, VLT® HVAC Drive and VLT® AQUA Drive.



Ordering number
 Uncoated 130B1102
 Coated 130B1202

DeviceNet is one of the world's leading device-level networks for industrial automation.

DeviceNet offers robust, efficient data handling because it is based on Producer/Consumer technology. This modern communications model offers key capabilities that allow the user to effectively determine which information is needed and when. Users also benefit from ODVA's strong conformance testing policies, which ensure that products are interoperable.

Flexible

- DeviceNet supports three Control Modes:
 - Polled I/O
 - Change-Of-State (COS)
 - Explicit Messaging
- Four different Assembly Instances:
 - ODVA: 20/70 and 21/71
 - Danfoss: 100/150 and 101/151, featuring the standard Danfoss FC control profile
- Access to MCO 305 control data



Feature	Benefit
Open standard developed by Rockwell, Cutler, Hammer, etc.	World-wide acceptance
Access control: Master/slave, peer-to-peer bit-arbitration (CSMA/CA)	Corrupted telegram will be rejected by all participants. No risk that illegal data is used
Bus powered, multidrop network	Cable with 24V power supply to sensors
Baudrate from 125 Kbps to 500 Kbps	Cable length from 100 m to 500 m
Configuration Drive parameters via EDS-file	Basic drive setting is stored in the PLC tool. No need for a second configuration tool
Colour-coded bus connectors	Fast installation of communication cables. Fewer faults during installation
Access & control all I/O terminals	Use the drive as remote I/O Block and the need for additional equipment

The VLT® DeviceNet MCA 104,
integrates seamlessly into leading PLC
programming tools.

The screenshot displays a multi-window software interface for configuring a Danfoss VLT drive. The top window, titled 'FC302 EDS', shows a table of parameters for configuration:

ID	Parameter	Current Value
1	001 Language	English
2	004 Operating St	Forced stop, ref
3	100 Configuratio	Speed open loop
4	101 Motor Contro	VVC-
5	102 Flux Motor F	24V encoder
6	103 Torque Chara	Variable torque
7	104 Overload Mod	High torque
8	110 Motor Constr	Asynchron
9	120 Motor Power	550 W
10	122 Motor Voltag	400 V
11	123 Motor Freque	50 Hz
12	124 Motor Curren	1.60 A
13	125 Motor Nomina	1400 1/s
14	130 Automatic Mo	Off

The middle window shows a hardware tree structure under 'DeviceNet', listing various drive models such as FC-102, FC-302, and VLT 5000 FLUX. The bottom-left window displays a ladder logic diagram with a callout box for 'MCA 121, Ethernet/IP Option for FC 10x, FC 20x, & FC 30x Drives'. The bottom-right window, 'Controller Tags - Newe_test(controller)', lists the following tags and their values:

Name	Value
FC302	{...}
FC302.EnableIn	1
FC302.EnableOut	0
FC302.Control_Ready	0
FC302.Drive_Ready	0
FC302.Coasting_EN	0
FC302.Trip	0
FC302.Error	0
FC302.Reserved	0
FC302.Trip_Lock	0
FC302.Warning	0
FC302.At_Reference	0
FC302.Bus_Control	0
FC302.In_Freq_Limits	0
FC302.In_Operation	0
FC302.User_Defined_1	0