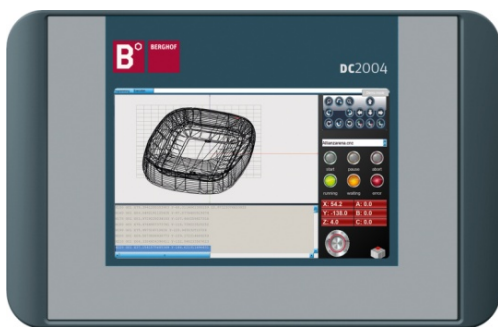


# DC2004 Dialog Controller

## High-performance display controller

The new, compact DC2004 display controller with 4.3" display is configured for short PLC cycle times with hard real-time. This has been made possible by using a powerful and scalable 800 MHz Arm® CPU with a Cortex™-A9 core. The display controller is also provided with the current CODESYS V3 programming language. In combination with the CODESYS SoftMotion package technologically sophisticated multi-axis drive applications can be exploited. An extensive range of communication interfaces is integrated in it: Ethernet, EtherCAT, CAN Bus, RS232 and RS485. Additional protocols such as PROFINET, BACnet and Modbus are also available. Digital and analogue I/Os as well as optional expansion cards complement the functions. The touchscreen device is furnished either with a continuous CLEAN protective membrane or with an easy-use capacitive multitouch glass front.



- Short cycle and rapid reaction times
- Consistent CODESYS V3 (programming, visualisation, communication and SoftMotion)
- 4.3" LED display with resistive touch
- CLEAN front with continuous protective membrane
- EtherCAT Master, CANopen Master
- Serial interfaces
- Onboard digital and analogue I/Os

### Improved performance at reduced cost

The 800 MHz Arm® CPU with Cortex™ A9 core brings the efficiency of PCs to small display controllers. This means substantial saving potential (e.g. due to the fact that expensive additional components are not required). The scalable single core CPU may be deployed as a pin-compatible dual or quad core version in the DC2004.

### Comprehensive communication options

EtherCAT and CANopen masters are the most important interfaces for field communication. Powerful and modern EtherCAT I/O and drive components can be combined with tried and trusted CANopen devices. The Ethernet interface remains in the foreground when the controller communicates with the control level via TCP/IP. For industrial plants the PROFINET device library is available. In building technology the controller can also communicate as BACnet controller. Serial interfaces round off the range of communication options.

### Storage media and onboard I/Os

The gathering, processing and the storing of data using the Micro SD slot and USB interface belong among the most essential PLC controller functions. The unit has four digital inputs and four digital outputs onboard, permitting the direct control of (for example) switches and signal lamps. These are complemented by four analogue inputs.

Data	
Description / Article no.	DC2004 / 27005800
Display diagonals /resolution	4.3" display / 480 x 272 (WQVGA)
Touch operation	Resistive
Colour resolution	18 bit (3 x 6 RGB)
Dimensions W x H x D [mm]	~161 x 103 x 57
Mounting	Integrated holding clips (IP20, with turning bolt IP65)
Certification	CE in compliance with EN 61131-2 / cUL (61010-2-201) product norm; in preparation
Development environment	CODESYS V3 (IEC61131-3)
CPU	800 MHz ARM® CPU with Cortex™ A9 single core (optional: dual or quad core)
RAM / Flash memory / Retain storage	256 MB RAM / 256 MB Flash / 100 kB FRAM (not including buffer battery)
Communication interfaces	1 x Ethernet, 10/100 base, RJ45 (protocols: e.g. TCPI/IP, Modbus TCP, BACnet, PROFINET) 1 x EtherCAT, RJ45 (EtherCAT master) 1 x CAN bus (protocols: CAN bus and / or CANopen master) 1 x RS485 (protocols: Modbus RTU) 1 x RS232 (CAN Bus, RS485, RS232 interface combined Potential isolation with optocoupler)
Further functions and additional storage	1 x USB 2.0 host / USB plug WR-COM Port A 1 x Micro SD card slot 1 x onboard expansion e.g. for communication card or additional I/Os 1 x real-time clock, battery buffered
Onboard I/Os	4 x digital In), 4 x digital Out (0.5 A) 2 x Analog In (-10..+10V, PT100/PT1000 (2-wire)) 2 x Analog In (-10..+10V, can use as return conductor PT100/1000 3-wire)
Supply voltage	+24 VDC (-15% / +20%) SELV max. AC voltage component 5% with reverse voltage protection
Current consumption	Typ. 0.3 A, max. 3.0 A at +24 VDC fuse protection according to I/O load
Operating conditions Transport / storage	Ambient temperature: 0°C to 55°C / Transport -20°C to +70°C Relative humidity: max. 85 %, non-condensing

**Your contact partner can be reached under:**

Sales team | T +49.7121.894-112 | controls@berghof.com