

DDC2001-8642 DDC Controller Manual

Model	Support Points	Support Devices	Support Protocols	Interface
DDC2001-8642	256	32	300+	2 ethernet 1 RS485 8 DI、6 DO 4 AI、2 AO

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OneFex Industrial IoT

Notice

- ❖ Please read this manual carefully before use and save it for reference.
- ❖ Please follow to the operating procedures and precautions in this manual.
- ❖ Please open the package carefully and check whether the device and accessories have been damaged due to transportation when you receive the device.

Please contact us for return processing once damage occurs.

- ❖ Please do not repair it yourself, and contact our technical support department directly if the device fails.

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1 Description

DDC supports graphic, JS and PLC mixed programming, convenient for users to realize the logic function of different applications. At the same time, the built-in WEB server supports the HTML5 configuration page, so that users do not need to buy configuration software, just use PC, mobile phone, iPad or products with browser function to log in the configuration screen for monitoring. It also supports Mail alarm, MQTT service, project upload Cloud sever and other functions; It can also be forwarded to BACnet server, Modbus server and OPC UA server, and the open data interface can be integrated by the third-party system.

2 Support register type and number

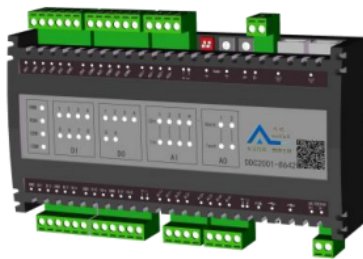
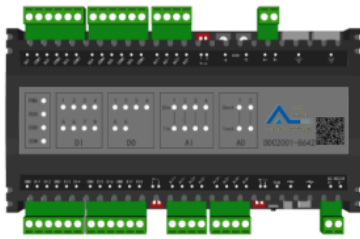
Note: Register points are dynamically supported and the total number of points cannot exceed 256.

The BACnet/Modbus register types and maximum number of points supported are shown in the table below.

BACnet Register Module	BACnet Register Number	Modbus Register Module	Modbus Register Number
AI (Read only no writing)	256 (0~255)	0X(Coil Status)Read and Write	256 (1~256)
AO (Read and Write)	256 (0~255)	1X(Input Status)Read only	256 (1~256)
AV (Read and Write)	256 (0~255)	4X(Holding Register)Read and Write	256 (1~512)
BI (Read only no writing)	256 (0~255)	3X(Input Register)Read only	256 (1~512)
BO (Read and Write)	256 (0~255)		
BV (Read and Write)	256 (0~255)		
MI (Read only no writing)	256 (0~255)		
MO (Read and Write)	256 (0~255)		
MV (Read and Write)	256 (0~255)		

Note:
 4X and 3X register addresses = the register addresses of BACnet *2+1
 Register address of 0X and 1X = register address of BACnet +1

3 Software Features

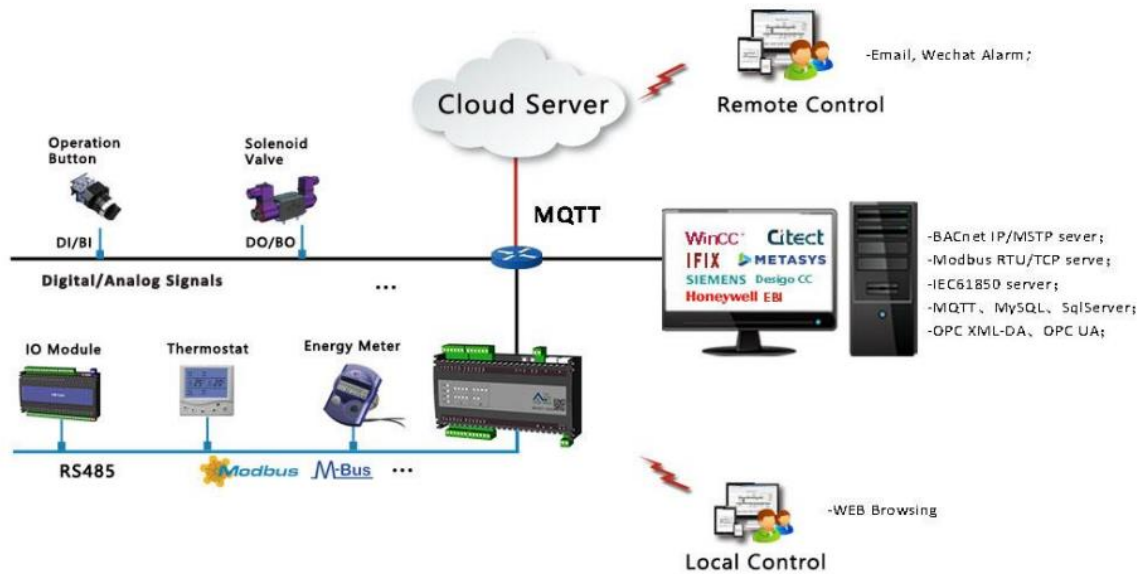


- Support graphic, JS and PLC mixed programming, PID control function
- Two ethernet ports support the switch function, facilitating onsite cabling
- DDC is also a gateway that supporting nearly communication protocols, easy to expand
- Supports BACnet, Modbus, OPC UA, HTTP, and MQTT cloud servers
- Support SMS alarm, Wechat alarm, DingTalk alarm, Email alarm
- Supports timer which can realize RUN and STOP the device regularly and setting the value
- Supports external storage of MySQL and SQLServer databases
- Support view the offline and online status of the device
- Supports cloud configuration, which facilitates remote monitoring of terminal devices by mobile phones, ipads, and PC
- Support internal variable function, you can use JS script to achieve complex logic operations
- Supports trigger to realize the conversion between any two protocols

4 Hardware Features

Processor: 1core 300MHz	Power Supply: DC 24V
Memory: 64M	Size(L×W×H): 185*119*42mm
System: LINUX	Flash: 256M
Material: Plastic Shell	Weight: 350g
Interface: 2x Ethernet、1x RS485	Installation: DIN-RAIL
Digital signal: 8 DI(support dry contact input)、6 DO(support dry contact output, maximum 220V/8A)	
Analog signal: 4 AI(0-10V, 4-20mA input)、2 AO(0-10V, 4-20mA output)	

5 Application Schematic Diagram



6 Support Protocols List

Common

- 1 BACnet IP
- 2 BACnet MS/TP
- 3 Modbus RTU
- 4 Modbus ASCII
- 5 Modbus TCP
- 6 Modbus UDP
- 7 Modbus RTU_TCP
- 8 Modbus RTU_UDP
- 9 Modbus ASCII_TCP
- 10 Modbus ASCII_UDP
- 11 Modbus RTU Server ModbusRTU
- 12 OPC XML-DA OPC
- 13 OPC UA Client OPC UA Client
- 14 SNMP
- 15 Simulator

Calorimeter For EU

- 16 MBus_EnergyMeter_EN
- 17 MBus_EnergyMeter_EN_ABB_FCU
- 18 MBus_EnergyMeter_EN_ATLAS

Calorimeter for CN

- 19 MBus_XinTuo_XTR
- 20 MBus_MaiTuo_MTW
- 21 MBus_AKE
- 22 MBus_YongGang

- 23 MBus_Zenner
- 24 MBus_EnergerMeter Mbus
- 25 MBus_EnergyMeter_HaiLin
- 26 Modbus_HaiLin_EnergyMeter Modbus
- 27 MBus_Zenner_WR3

Water Meter

- 28 MBus_WaterMeter Mbus
- 29 MBus_lyglhsb
- 30 ModbusRTU_Zenner Modbus
- 31 MBus_WaterMeter_LXSGY_15E
- 32 JiangYin_LiXin_WaterMeter
Flow Meter
- 33 Modbus Kent
- 34 Spirax SARCO M841
- 35 SC_FlowMeter
- 36 Modbus_CNM
- 37 MODBUS_LCD LCD
- 38 Modbus_LDZ_6_GuangHua
- 39 Modbus_BiaoYi_WL
- 40 ModbusRTU_D08_8C
- 41 LCM_2000DF LCM_2000DF
- 42 LJS_ZLJS LJS-ZLJS
- 43 Tancy_FlowmeterV1_3

Elevator

- 44 Hitachi Elevator BA Iterface
- 45 Mitsubishi Elevator SMOS-PS2
- 46 Mitsubishi Elevator KLR-F485
- 47 Otis Elevator BA Interface
- 48 ModbusRTU_Otis_BAS
- 49 Otis_Elevator_BA_Jen2
- 50 ModbusTCP_Thyssenkrupp_Elevator
- 51 ModbusRTU_Thyssenkrupp_Elevator
- 52 Mitsubishi Elevator SMOS-PS2_TCP
- 53 Modbus_Otis_Elevator
- 54 Modbus_Kone elevator
- 55 Modbus_Kone elevator ASCII
- 56 Mitsubishi Elevator MAXIEZ
- 57 Modbus_XIOLIFT_Elevator
- 58 XIOLIFT_Escalator
- 59 Elevator_3_Map

Electricity Meter

- 60 IEC104
- 61 DLT645-1997
- 62 DLT645-2007

- 63 Modbus PM800
- 64 Modbus IEM3000
- 65 CDT
- 66 DLT645-CHINT
- 67 Modbus_woyat

Aircondition

- 68 Toshiba_Airconditioning
- 69 EMERSON_ACM03U1
- 70 Hisense_Airconditioning
- 71 Joton Tmaster
- 72 Modbus_DAIKIN_IRACC
- 73 DAIKIN_DRCH-R5
- 74 VotonThermostat
- 75 SysGreen_Airconditioning
- 76 Hitachi_Chiller
- 77 SANYO_DG-52GHT
- 78 Gree_BaseStationAirconditioning
- 79 RC_Com
- 80 ZHONGHONG_VRVGateway
- 81 Modbus_YORK_YCOH120HSEM
- 82 Modbus_York
- 83 Panasonic_Inverter
- 84 SamSung_DVM_Protocol
- 85 SHWARM_AIR SHWARM_AIR
- 86 Elsonic_AC331
- 87 Bandary_NC301
- 88 York_ISN
- 89 YAIR_Airconditioning
- 90 RKC_CH402
- 91 BIGBANIAN_AIRC800
- 92 MITSUBISHI_HEAVY_Haier_QMS
- 93 Mitsubishi_VRV_ABWG_CCM10
- 94 SINOCLEAN485

PLC Series

- 95 Mitsubishi FX1S
- 96 Mitsubishi FX2N
- 97 Mitsubishi FX3U
- 98 Mitsubishi FX_485ADP_485BD
- 99 Mitsubishi Melsec_Q_Serial
- 100 Mitsubishi Melsec_Q_TCP
- 101 MEGMEET_MC200
- 102 Haiwell E/S PLC
- 103 Haiwell H/N PLC
- 104 Panasonic FP

105 XINJE PLC
106 DELTA_DVP
107 FATEK_FB
108 OMRON_FINS_UDP
109 OMRON_FINS_Serial
110 OMRON_CP1H
111 Saia_SBus_UDP
112 Toshiba_PROVISOR_TC200
113 LS_GM_GLOFA_Enet LG GLOFA-GM PLC
114 Siemens_IPC_PLC
115 AB_EthernetIP AB CompactLogix
116 AB_DF1_FullDuplex ABLogix_DF1

Siemen PLC

117 Siemens S7-200 PPI
118 Siemens S7-200 Network
119 Siemens S7-300 Network
120 Siemens S7-1200 Network
121 XT55 GPS SERVER
122 Siemens_MicroMaster430

Lighting Control

123 KNXnetIP_MultiCast KNX
124 DyNet
125 Modbus LDS LDS
126 MicroPara_DR0816
127 MicroPara_DR1220
128 MicroPara_DH0416
129 LitePuter_DP_105E
130 LitePuter_PLNET
131 MicroPara
132 ULaiDe
133 LDS
134 E_Linkers_ECWG485
135 Lutron_Telnet
136 DALITEK_DigitalHotelInterface
137 Gfilcs_GF_LCS6008_NCC
138 CRESTRON_DIN_AP3_TCP
139 EastSun_UDP

UPS

140 SANTAK UPS
141 DELTA UPS ES3000
142 LEGRAND UPS
143 EMERSON_HIPULSE
144 EMERSON_Liebert_UPS
145 ModbusRTU_GE_UPS

146 EKSI_UPS
147 EMERSON_NXL
148 EMERSON_ITA40k_UPS
149 EMERSON_UH31 UH31
150 EMERSON_UL33 UL33
151 Voltronic_Power_UPS Voltronic Power UP
152 Envicool_CyberMate
153 VERTIV_PEX_CW_YDN32
154 Hisense_YDT
155 MenTech_MEC048_H53A0

Fire Alarm

156 JB-3208 CRT
157 Siemens Cerberus FS18
158 BOSCH_DS7400XI_TCP
159 BOSCH_DS7400XI
160 BOSCH_MTSW_UDPServer
161 VESDA_Open_HLI_Protocol VESDA
162 YANRONG_YR_LC_TXAH
163 NOTIFIRE_NFS2_3030_CRT
164 TYCO_Simplex_4100ZHU
165 LEADER_LD128E_CRT
166 EST3_CRT EST3_CRT
167 JADE_BIRD_JBF_193K_CRT
168 saj110 _AlarmSystem
169 Forsafe_CRT

Lumi Gateway

170 Lumi_Gateway
171 Lumi_Aqara

Injection Machine

172 SUMITOMO_SE_D
173 LK_POTENZA_200
174 LK_POTENZA_PT320

Environment

175 SC_HuangMei
176 FRT_AQM1000
177 JiangSu_LYHB_COD
178 TSI_PM25 TSI PM2.5
179 WXT520 WXT520
180 LD2_PHRH_RS485 LD2
181 TSI_DustTrakII_TCP TSI DustTrakII
182 BHHB_212Serial
183 Modbus_TGCS TGCS-60 及 TGCS-100
184 SJINT
185 Condair_PH

186 ChengDu_Weather
187 NowAPI_Weather NowAPI

Weight

188 Buhler_MEAF
189 METTLER_TOLEDO_SICS
190 YAOHUA_XK3190_A9
191 XPBalance_ES_20KTS
192 GriffithElder_ContainerTilt GriffithElder
193 SH_ShenHao_465D
194 WXRL_SLC

MQTT

195 MQTT_Lora_TL_ACQ1
196 MQTT_Eastsoft
197 MQTT_NOVUS_LogBoxWiFi NOVUS_LogBoxWiFi

Date Acquisition

198 MySQL
199 MicroSoft_SQL_Server

Other protocols

200 FFU
201 Panasonic MINAS A5
202 SINOLY JINE_JA05
203 SAUTER_CASE_VAV
204 EMEC_LDPH
205 YuDian_AI_Single_loop
206 Modbus_GreenDaoFenMuJi
207 SOLIN
208 ACTI_SignalSelector
209 N2_VMA N2_VMA
210 Modbus_TG01W
211 Ebara_Densan_S-BCS
212 Modbus_HOLTOP_HDK_09S_BA
213 YeeFung_Parking_System
214 Projector
215 HeFei_Ahhfat
216 BoosterBoiler_NEURON_NXQ
217 Epson_PJLink
218 AAF_EBMBUS_EC
219 Arspas_FFU
220 SW_5
221 BMS_RICHPOWER
222 BMS_PACE
223 XiAn_XinRiAuto_MT_CN
224 XiAn_XinRiAuto_Water_HTTP
225 KONZESYS_RMCS_HTTP

226 Newell_Technologies_iControl_System Newell
227 Newell_Technologies_HarborGreen Newell
228 Modbus_Maxonic
229 TOA_VX2000_V3 TOA_VX2000_V3
230 LTM9662_485NET
231 Lance_LTM8000
232 JJ_GyuKaku
233 CHANG_AI_CI_PC56 昶艾 CI-PC56
234 XZ_DS01_TH2C
235 FCU_485 FCU485
236 MICROSENSOR
237 IBT_ModbusRTUClient IBT
238 Systec_SerialProtocol
239 Cibsolar_CA
240 Kaseman GRC TNC-6
241 Hypersee_Radar
242 Hypersee_Alarm_Radar
243 JinXiang_PowerModule
244 AOK_Motor_Control
245 Hotel_CheckIn_System
246 ESPEC_A_Series
247 LeiyoukejiAPI_HTTP
248 SHCanYu_485

7 After-sale Service

7.1 Commitment

OneFex provides after-sales service of the device within 2 years from the date of sale. But for damage caused by improper use, you need to send it back and take the freight for repair or adjust. Make sure that the package is in good condition to avoid damage during transportation. Repair the damage of device instrument is free.

7.2 Disclaimer

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