


CHAIN2GATE



ENERGY AWARE

	<h2>CHAIN2GATE DIN</h2>	<p>12/10/2023 Rel.2.0</p>
<p>GENERAL INFO</p>	<p>Size: 36.3 mm (L) x 90.5 mm (H) x 62 mm (D) (2 DIN Modules) Weight: 120g Protection grade: IP20 Flammability: UL94-V0 Case: PC/ABS</p>	
<p>OPERATING CONDITION</p>	<p>INDOOR USE Operating Temperature: -20 °C ÷ +50 °C Storage Temperature: -30 °C ÷ +70 °C Humidity Percentage: 5% ÷ 95% Altitude: <= 2000 m Over voltage category: II Pollution Degree: 2 <input type="checkbox"/> Insulation Class: II <input type="checkbox"/></p>	
<p>POWER SUPPLY</p>	<p>Voltage: 230Vac Operating voltage range: -20%/+15% of the nominal voltage Frequency: 50Hz Consumption: 50 mA</p>	
<p>USER INTERFACE</p>	<p>LED: status visual indicator (red) BUTTON: Starting Configuration and reset</p>	
<p>CONNECTION</p>	<p>Screw terminal: 2 poles (Line, Neutral) Wire section (min ÷ max): 0.5 -2.5 mm²</p>	
<p>SHORT RANGE CONNECTIVITY</p>	<p>Wi-Fi: 802.11 b/g/n (802.11n up to 150 Mbps) IoT Protocols: MQTT, WebSocket, REST Cloud Security: Client Certificate on TLS Bluetooth: Bluetooth v5.0 Antenna: integrated Frequency: 2.4 GHz</p>	
<p>CHAIN2 CONNECTIVITY</p>	<p>Modem C-Band, B-PSK Modulation Application: DLMS/COSEM IEC (IEC 62056-5-3), Data Model: COSEM Data Model (IEC 62056-6-1, IEC 62056-6-2) Compliant with Italian Standard Chain2full: TS CEI 13-82:2020-04, TS CEI 13-83:2020-04, TS CEI 13-84:2020-04</p>	
<p>CERTIFICATIONS</p>	<p>CE Marking: RED DIRECTIVE 2014/53/UE CE Art. 3.1(a) – Safety: EN 62368-1 <ul style="list-style-type: none"> • Art. 3.1(a) – Health: EN 62311 • Art. 3.1(b) – EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 55035, ETSI EN 301 489 -1; ETSI EN 301 489-17 • Art. 3.2 – Radio: ETSI EN 300328 </p>	
<p>APPLICATION SW</p>	<p>The Chain2Gate family of devices is based on the JCD Peer to Peer IOT Protocol Architecture. JCD is a message-oriented architecture in Json format for Peer To Peer communication on local and Cloud networks based on MQTT or WebSocket transport.</p> <p>The JCD architecture is also supported by the UCD Universal Cloud Downloader (Update FOTA) technology. UCD is a Cloud Architecture for the notification and distribution of new release files or software modules. The Universal Cloud Downloader service allows the firmware update of the devices remotely through a Cloud connection even if installed and operational in the field. The architecture supports forwarding the Cloud Certificates Upgrade for downloading certificates. The connection configuration to the MQTT broker is activated in a secure and authenticated way by exploiting the use of Server and Client certificates, as also required by the AWS IOT platform.</p>	

CHAIN2GATE

ENERGY AWARE


MANUFACTURER	The CHAIN2GATE DIN is produced and distributed by MAC srl. Via XX Settembre, 23 62019 Recanati (MC) – Italy
--------------	---

	<h2>CHAIN2GATE DIN MODBUS</h2>	<p>13/12/2023 Rel.6.0</p>
<p>GENERAL INFO</p>	<p>Size: 36.3 mm (L) x 90.5 mm (H) x 62 mm (D) (2 DIN Modules) Weight: 120g Protection grade: IP20 Flammability: UL94-V0 Case: PC/ABS</p>	
<p>OPERATING CONDITION</p>	<p>INDOOR USE Operating Temperature: -20 °C ÷ +50 °C Storage Temperature: -30 °C ÷ +70 °C Humidity Percentage: 5% ÷ 95% Altitude: <= 2000 m Over voltage category: II Pollution Degree: 2 <input type="checkbox"/> Insulation Class: II <input type="checkbox"/></p>	
<p>POWER SUPPLY</p>	<p>Voltage: 230Vac Operating voltage range: -20%/+15% of the nominal voltage Frequency: 50Hz Consumption: 50 mA</p>	
<p>USER INTERFACE</p>	<p>LED: status visual indicator (red) BUTTON: Starting Configuration and reset</p>	
<p>CONNECTION</p>	<p>POWER SUPPLY</p> <ul style="list-style-type: none"> Screw terminal: 2 poles (Line, Neutral) Wire section (min ÷ max): 0.5 -2.5 mm² <p>BUS485</p> <ul style="list-style-type: none"> Screw terminal: 5-pole disconnectable (GND, B, A, nc, nc) Accepted cable section: 0.2 ÷ 1 mm²; 24 ÷ 16 AWG 	
<p>WIRED CONNECTIVITY</p>	<p>RS485 Communication</p> <ul style="list-style-type: none"> RS485 Interface ModBUS RS485 RTU Protocol slave 5-way pluggable terminal (GND, B, A, nc, nc) Communication speed up to 115.200 bps Compact Frame Chain 2 memory map 	
<p>WIRELESS CONNECTIVITY</p>	<p>TCP-IP Communication</p> <ul style="list-style-type: none"> Wi-Fi Interface ModBUS RTU TCP SERVER Compact Frame Chain 2 memory map <p>Short Range Communication</p> <p>Wi-Fi: 802.11 b/g/n (802.11n up to 150 Mbps) Bluetooth: Bluetooth 5.0 Antenna: integrated Frequency: 2.4 GHz</p>	
<p>CHAIN2 CONNECTIVITY</p>	<p>Modem C-Band, B-PSK Modulation Application: DLMS/COSEM IEC (IEC 62056-5-3), Data Model: COSEM Data Model (IEC 62056-6-1, IEC 62056-6-2) Compliant with Italian Standard Chain2full: TS CEI 13-82:2020-04, TS CEI 13-83:2020-04, TS CEI 13-84:2020-04</p>	
<p>CERTIFICATIONS</p>	<p>CE Marking: RED DIRECTIVE 2014/53/UE Art. 3.1(a) – Safety: EN 62368-1</p> <ul style="list-style-type: none"> Art. 3.1(a) – Health: EN 62311 Art. 3.1(b) – EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 55035, ETSI EN 301 489 -1; ETSI EN 301 489-17 	

CHAIN2GATE

ENERGY AWARE


	<ul style="list-style-type: none">• Art. 3.2 – Radio: ETSI EN 300328
MANUFACTURER	The CHAIN2GATE DIN MODBUS is produced and distributed by MAC srl. Via XX Settembre, 23 62019 Recanati (MC) – Italy

	<h2>CHAIN2GATE DIN ETHERNET</h2>	<p>12/10/2023 Rel.1.0</p>
<p>GENERAL INFO</p>	<p>Size: 36.3 mm (L) x 90.5 mm (H) x 62 mm (D) (2 DIN Modules) Weight: 120g Protection grade: IP20 Flammability: UL94-V0 Case: PC/ABS</p>	
<p>OPERATING CONDITION</p>	<p>INDOOR USE Operating Temperature: -20 °C ÷ +50 °C Storage Temperature: -30 °C ÷ +70 °C Humidity Percentage: 5% ÷ 95% Altitude: <= 2000 m Over voltage category: II Pollution Degree: 2 <input type="checkbox"/> Insulation Class: II <input type="checkbox"/></p>	
<p>POWER SUPPLY</p>	<p>Voltage: 230Vac Operating voltage range: -20%/+15% of the nominal voltage Frequency: 50Hz Consumption: 50 mA</p>	
<p>USER INTERFACE</p>	<p>LED: status visual indicator (red) BUTTON: Starting Configuration and reset</p>	
<p>CONNECTION</p>	<p>POWER SUPPLY</p> <ul style="list-style-type: none"> • Screw terminal: 2 poles (Line, Neutral) • Wire section (min ÷ max): 0.5 -2.5 mm² <p>ETHERNET</p> <ul style="list-style-type: none"> • RJ45 	
<p>WIRED CONNECTIVITY</p>	<p>Ethernet Communication</p> <ul style="list-style-type: none"> • RJ45 Ethernet • Speed up to 10/100 Mbps (IEEE 802.3 and IEEE 802.3u) <p>IoT Protocols: MQTT, WebSocket, REST Security: Client Certificate on TLS Bluetooth: Bluetooth 5.0 Antenna: integrated Frequency: 2.4 GHz</p>	
<p>CHAIN2 CONNECTIVITY</p>	<p>Modem C-Band, B-PSK Modulation Application: DLMS/COSEM IEC (IEC 62056-5-3), Data Model: COSEM Data Model (IEC 62056-6-1, IEC 62056-6-2) Compliant with Italian Standard Chain2full: TS CEI 13-82:2020-04, TS CEI 13-83:2020-04, TS CEI 13-84:2020-04</p>	
<p>CERTIFICATIONS</p>	<p>CE Marking: RED DIRECTIVE 2014/53/UE CE Art. 3.1(a) – Safety: EN 62368-1</p> <ul style="list-style-type: none"> • Art. 3.1(a) – Health: EN 62311 • Art. 3.1(b) – EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 55035, ETSI EN 301 489 -1; ETSI EN 301 489-17 • Art. 3.2 – Radio: ETSI EN 300328 	
<p>APPLICATION SW</p>	<p>The Chain2Gate family of devices is based on the JCD Peer to Peer IOT Protocol Architecture. JCD is a message-oriented architecture in Json format for Peer To Peer communication on local and Cloud networks based on MQTT or WebSocket transport.</p> <p>The JCD architecture is also supported by the UCD Universal Cloud Downloader (Update FOTA) technology. UCD is a Cloud Architecture for the notification and distribution of new release files or software modules. The Universal Cloud Downloader service allows the firmware update of the devices remotely through a Cloud connection even if installed and operational in</p>	

CHAIN2GATE

ENERGY AWARE

	the field. The architecture supports forwarding the Cloud Certificates Upgrade for downloading certificates . The connection configuration to the MQTT broker is activated in a secure and authenticated way by exploiting the use of Server and Client certificates, as also required by the AWS IOT platform.
MANUFACTURER	The CHAIN2GATE DIN ETHERNET is produced and distributed by MAC srl. Via XX Settembre, 23 62019 Recanati (MC) – Italy

	<h2>CHAIN2GATE DIN MODBUS-ETHERNET</h2>	<p>12/10/2023 Rel.3.0</p>
<p>GENERAL INFO</p>	<p>Size: 53.5 mm (L) x 90.5 mm (H) x 62 mm (D) (3 DIN Modules) Weight: 150g Protection grade: IP20 Flammability: UL94-V0 Case: PC/ABS</p>	
<p>OPERATING CONDITION</p>	<p>INDOOR USE Operating Temperature: -20 °C ÷ +50 °C Storage Temperature: -30 °C ÷ +70 °C Humidity Percentage: 5% ÷ 95% Altitude: <= 2000 m Over voltage category: II Pollution Degree: 2 <input type="checkbox"/> Insulation Class: II <input type="checkbox"/></p>	
<p>POWER SUPPLY</p>	<p>Voltage: 230Vac Operating voltage range: -20%/+15% of the nominal voltage Frequency: 50Hz Consumption: 50 mA</p>	
<p>USER INTERFACE</p>	<p>LED: status visual indicator (red) BUTTON: Starting Configuration and reset</p>	
<p>CONNECTION</p>	<p>POWER SUPPLY</p> <ul style="list-style-type: none"> • Screw terminal: 2 poles (Line, Neutral) • Wire section (min ÷ max): 0.5 -2.5 mm² <p>BUS485</p> <ul style="list-style-type: none"> • Screw terminal: 5-pole disconnectable (GND, B, A, nc, nc) • Accepted cable section: 0.2 ÷ 1 mm²; 24 ÷ 16 AWG <p>ETHERNET</p> <ul style="list-style-type: none"> • RJ45 	
<p>WIRED CONNECTIVITY</p>	<p>RS485 MODBUS PROTOCOL</p> <ul style="list-style-type: none"> • RS485 Interface • ModBUS RTU Protocol slave • 3-way pluggable terminal (A, B, GND) • Communication speed up to 115.200 bps • Compact Frame Chain 2 memory map <hr/> <p>RJ45 ETHERNET MODBUS PROTOCOL</p> <ul style="list-style-type: none"> • RJ45 Ethernet • ModBUS RTU TCP SERVER • Speed up to 10/100 Mbps (IEEE 802.3 and IEEE 802.3u) <p>Mappa memoria Trame Chain2</p>	
<p>WIRELESS CONNECTIVITY</p>	<p>TCP MODBUS SERVER</p> <ul style="list-style-type: none"> • WI-FI Interface • ModBUS RTU TCP SERVER • Compact Frame Chain 2 memory map <p>Wi-Fi: 802.11 b/g/n (802.11n up to 150 Mbps) Bluetooth: Bluetooth 5.0 Antenna: integrated Frequency: 2.4 GHz</p>	

CHAIN2GATE

ENERGY AWARE

CHAIN2 CONNECTIVITY	Modem C-Band, B-PSK Modulation Application: DLMS/COSEM IEC (IEC 62056-5-3), Data Model: COSEM Data Model (IEC 62056-6-1, IEC 62056-6-2) Compliant with Italian Standard Chain2full: TS CEI 13-82:2020-04, TS CEI 13-83:2020-04, TS CEI 13-84:2020-04
CERTIFICATIONS	CE Marking: RED DIRECTIVE 2014/53/UE CE Art. 3.1(a) – Safety: EN 62368-1 <ul style="list-style-type: none"> • Art. 3.1(a) – Health: EN 62311 • Art. 3.1(b) – EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 55035, ETSI EN 301 489 -1; ETSI EN 301 489-17 • Art. 3.2 – Radio: ETSI EN 300328
MANUFACTURER	The CHAIN2GATE DIN MODBUS ETHERNET is produced and distributed by MAC srl. Via XX Settembre, 23 62019 Recanati (MC) – Italy