# **SIEMENS**

#### **Data sheet**

## 6GK7142-7EX00-0AX0

#### product type designation



### LOGO! CMR2040

LOGO! CMR2040 communication module for connection LOGO! 8 to LTE network; 1 RJ45 port for Ind. Ethernet connection to LOGO! 8; 2xDI; 2xDQ; Write/read access to LOGO! tags; Text message sending/ receipt; E-mail sending; Position detection GPS; Time synchronization/ forwarding with real-time clock; Configuration/diagnostics via web interface; Remote access via OpenVPN/HTTPs, DynDNS, observe national approval! Manual available as a download

transfer rate	
transfer rate	
at the 1st interface	10 100 Mbit/s
<ul> <li>for GPRS transmission</li> </ul>	
— with downlink / maximum	85.6 kbit/s
— with uplink / maximum	85.6 kbit/s
<ul> <li>for LTE transmission</li> </ul>	
— with downlink / maximum	100 Mbit/s
— with uplink / maximum	50 Mbit/s
interfaces	
number of interfaces / acc. to Industrial Ethernet	1
number of electrical connections	
<ul> <li>at the 1st interface / acc. to Industrial Ethernet</li> </ul>	1
<ul><li>for external antenna(s)</li></ul>	2
for power supply	1
number of slots	
• for SIM cards	1
for memory cards	1
type of electrical connection	
at the 1st interface / acc. to Industrial Ethernet	RJ45 port
type of electrical connection	
<ul><li>for external antenna(s)</li></ul>	SMA socket (50 ohms)
for power supply	3-pole terminal block
type of antenna	
<ul> <li>at connection 1 / connectable</li> </ul>	GPS Antenna
at connection 2 / connectable	Mobile radio antenna (GPRS/GSM, UMTS, LTE)
wire length / of antenna wire / maximum	15 m
slot version	
for SIM card	Standard
of the memory card	microSD
storage capacity / of the memory card / maximum	32 Gibyte
performance class of the memory card / minimum necessary	Class 6
type of file system / type of file system	FAT32
signal inputs/outputs	
number of electrical connections / for digital input signals	2
type of electrical connection / for digital input signals	3 pole terminal block

digital input version	not galvanically isolated, not debounced
digital input version	not galvanically isolated, not debounced
input voltage / at digital input	0 51/
• with signal <0> / at DC	0 5 V
• for signal <1> / at DC	8.5 24 V
input current / at digital input / for signal <1> / maximum	5.5 mA
number of electrical connections / for digital output signals	2
type of electrical connection / for digital output signals	3 pole terminal block
digital output version	transistor, not potential seperated
output voltage / at digital output	40 0417
• for signal <1> 1)	12 24 V
• for signal <0>	0 5 V
output current / at digital output / for signal <1> / maximum	0.3 A
wireless technology	
type of mobile wireless service	
• is supported / SMS	Yes
• is supported / GPRS	Yes
• note	LTE
type of wireless network / is supported	
• GSM	Yes
• UMTS	Yes
● LTE	Yes
operating frequency / for GSM transmission	900 MHz, 1800 MHz
operating frequency / with UMTS transmission	850 MHz, 900 MHz, 2100 MHz
operating frequency / for LTE transmission	800 MHz, 1800 MHz, 2600 MHz
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage / external	12 24 V
supply voltage / external / at DC	12 24 V
supply voltage / for GPS antenna / maximum	3.8 V; at 5 mA: 3,575 V / at 10 mA: 3,35 V / at 15 mA: 3,125 V
relative positive tolerance / at DC / at 24 V	20 %
relative negative tolerance / at DC / at 12 V	10 %
consumed current	
<ul> <li>from external supply voltage / at DC / at 12 V / maximum</li> </ul>	0.25 A
from external supply voltage / at DC / at 24 V / maximum	0.125 A
output current / for GPS antenna / maximum	15 mA
power loss [W]	3 W
ambient conditions	
ambient temperature	
during operation	-20 +70 °C
during storage	-40 +85 °C
during transport	-40 +85 °C
relative humidity	
at 25 °C / without condensation / during operation / maximum	95 %
maximum protection class IP	IP20
design, dimensions and weights	11 20
module format	Compact module for rail mounting
width	Compact module, for rail mounting 71.5 mm
	90 mm
height depth	58.2 mm
•	
net weight fastening method	0.16 kg
	Yes
	100
35 mm top hat DIN rail mounting     wall mounting	Voc
wall mounting	Yes
	**

DynDNS client	Yes
no-ip.com client	Yes
performance data	
number of possible connections / to the LOGO! logic	1
module	
number of users/telephone numbers/email addresses / definable / maximum	20
number of user groups / definable / maximum	10
number of signals / for monitoring or device control / definable / maximum	32
number of events / for monitoring / definable / maximum	32
number of actions / definable / maximum	32
number of assignments / definable / maximum	32
number of alias SMS commands / definable / maximum	20
number of constants / definable / maximum	10
performance data / IT functions	
number of possible connections	
<ul><li>as server / by means of HTTP / maximum</li></ul>	2
as server / by means of HTTPS / maximum	2; http and https can be combined (max. number of 2 connections cannot be exceeded). Max. one connection via https is possible on the mobile wireless interface.
as email client / maximum	1
number of free texts / for emails and SMS / maximum	20
number of characters / per free text for emails or SMS / maximum	160
performance data / teleservice	
product function  • remote firmware update	Yes
remote configuration	Yes
	***
product functions / management, configuration, engineeri	ing .
configuration software	Wah interface
• required	Web interface
• required product functions / diagnostics	
required  product functions / diagnostics  product function / web-based diagnostics	Web interface Yes
required  product functions / diagnostics  product function / web-based diagnostics  product functions / security	Yes
• required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)	Yes; Open VPN Server in PSK mode
• required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection	Yes; Open VPN Server in PSK mode OpenVPN PSK
● required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC
● required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes
● required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256
● required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function	Yes  Yes; Open VPN Server in PSK mode  OpenVPN PSK  AES-128 CBC  Yes  SHA-256  1
	Yes  Yes; Open VPN Server in PSK mode  OpenVPN PSK  AES-128 CBC  Yes  SHA-256  1  Yes
	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes
	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes Yes
required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  password protection for Web applications  password protection for VPN  encrypted data transmission  switch-off of non-required services	Yes  Yes; Open VPN Server in PSK mode  OpenVPN PSK  AES-128 CBC  Yes  SHA-256  1  Yes  Yes  Yes  Yes  Yes
● required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  ● password protection for Web applications  ● password protection for VPN  ● encrypted data transmission  ● switch-off of non-required services  ● log file for unauthorized access	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes Yes
● required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  ● password protection for Web applications  ● password protection for VPN  ● encrypted data transmission  ● switch-off of non-required services  ● log file for unauthorized access  product functions / time	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes Yes Yes Yes Yes Yes
● required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  ● password protection for Web applications  ● password protection for VPN  ● encrypted data transmission  ● switch-off of non-required services  ● log file for unauthorized access  product function / pass on time synchronization	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes Yes Yes Yes Yes
• required  product functions / diagnostics  product function / web-based diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  • password protection for Web applications  • password protection for VPN  • encrypted data transmission  • switch-off of non-required services  • log file for unauthorized access  product functions / time  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes Yes Yes Yes Yes Yes
● required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  ● password protection for Web applications  ● password protection for VPN  ● encrypted data transmission  ● switch-off of non-required services  ● log file for unauthorized access  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes Yes Yes Yes Yes Yes Yes Yes
● required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  ● password protection for Web applications  ● password protection for VPN  ● encrypted data transmission  ● switch-off of non-required services  ● log file for unauthorized access  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization  ● from NTP-server	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes
• required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  • password protection for Web applications  • password protection for VPN  • encrypted data transmission  • switch-off of non-required services  • log file for unauthorized access  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization  • from NTP-server  • from GPS-signal	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes
• required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  • password protection for Web applications  • password protection for VPN  • encrypted data transmission  • switch-off of non-required services  • log file for unauthorized access  product functions / time  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization  • from NTP-server  • from GPS-signal  • from mobile network provider	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes
• required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with VPN connection  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  • password protection for Web applications  • password protection for VPN  • encrypted data transmission  • switch-off of non-required services  • log file for unauthorized access  product functions / time  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization  • from NTP-server  • from GPS-signal  • from mobile network provider  • PC	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes
• required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with Virtual Private Network / PSK  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  • password protection for Web applications  • password protection for VPN  • encrypted data transmission  • switch-off of non-required services  • log file for unauthorized access  product functions / time  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization  • from NTP-server  • from GPS-signal  • from mobile network provider  • PC  • manual setting	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes
• required  product functions / diagnostics  product functions / security  operating mode / Virtual Private Network (VPN)  product function / with VPN connection  type of encryption algorithms / with VPN connection  type of authentication / with VPN connection  type of hashing algorithms / with VPN connection  number of possible connections / with VPN connection  product function  • password protection for Web applications  • password protection for VPN  • encrypted data transmission  • switch-off of non-required services  • log file for unauthorized access  product functions / time  product function / pass on time synchronization  accuracy / of the hardware real time clock / per day / maximum  time synchronization  • from NTP-server  • from GPS-signal  • from mobile network provider  • PC	Yes; Open VPN Server in PSK mode OpenVPN PSK AES-128 CBC Yes SHA-256 1 Yes

• position detection with GPS Yes pass on position data Yes standards, specifications, approvals / hazardous environments certificate of suitability / CCC / for hazardous zone Yes according to GB standard further information / internet-Links Internet-Link • to web page: selection aid TIA Selection Tool http://www.siemens.com/tia-selection-tool • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industry Mall https://mall.industry.siemens.com • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Image database http://automation.siemens.com/bilddb • to website: CAx-Download-Manager http://www.siemens.com/cax • to website: Industry Online Support https://support.industry.siemens.com security information Siemens provides products and solutions with industrial security security information functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit http://support.automation.siemens.com. (V3.4)

<sup>1</sup>) Value of the actual supply voltage

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