SIEMENS

Product type designation

Data sheet

6GK7142-7BX00-0AX0



LOGO! CMR2020

LOGO! CMR2020 communication Module for connection LOGO! 8 to GSM/GPRS network; 1 RJ45 port for Ind. Ethernet connection to LOGO! 8; 2xDI; 2xDO; Write/read access to LOGO! tags; sending/ receiving of text messages; E-mail sending; position detection GPS; Time synchronization/ forwarding with real time clock; configuration/diagnostics via web interface; Remote Access via OpenVPN/HTTP, DYNDNS; Observe national approval! Manual available as a download

Transmission rate	
Transfer rate	
• at the 1st interface	10 100 Mbit/s
 for GPRS transmission 	
— with downlink / maximum	80 kbit/s
— with uplink / maximum	40 kbit/s
Interfaces	
Number of interfaces / acc. to Industrial Ethernet	1
Number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	1
 for external antenna(s) 	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

 for external antenna(s) 	SMA socket (50 ohms)
• for power supply	3-pole terminal block
Type of antenna	
at port 1 / connectable	GPS Antenna
at port 2 / connectable	Mobile radio antenna (GPRS/GSM)
Wire length / of antenna cable / maximum	15 m
Slot version	
for SIM card	Standard
	microSD
of the memory card	
Storage capacity / of the memory card / maximum Performance class of the memory card / minimum	32 Gibyte Class 6
necessary	
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
Input voltage / at digital input	
● 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	
• 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	GPRS (Multislot Class 10, Mobile Station Class B)
Type of mobile network / is supported	
• GSM	Yes
• UMTS	No
• LTE	No
Operating frequency	

 for GSM transmission / 850 MHz 	Yes
 for GSM transmission / 900 MHz 	Yes
 for GSM transmission / 1800 MHz 	Yes
 for GSM transmission / 1900 MHz 	Yes
 with UMTS transmission / 850 MHz 	No
 with UMTS transmission / 900 MHz 	No
 with UMTS transmission / 2100 MHz 	No
 for LTE transmission / 800 MHz 	No
 for LTE transmission / 1800 MHz 	No
 for LTE transmission / 2600 MHz 	No

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	
 from external supply voltage / at DC / at 12 V / maximum 	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

Permitted 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 %
Protection class IP	IP20

Design, dimensions and weight	
Module format	Compact module, for rail mounting
Width	71.5 mm
Height	90 mm
Depth	58.2 mm
Net weight	0.16 kg
Mounting type	
 35 mm DIN rail mounting 	Yes
• wall mounting	Yes

Product properties, functions, components / genera		
Product function		
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	20	
addresses / definable / maximum		
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	32	
Performance data / IT functions		
Number of possible connections		
 as server / by means of HTTP / maximum 	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 e-mail client / maximum 	1	
Number of free texts for e-mails / definable by user	20; maximum of 160 characters per user defined text	
Performance data / Teleservice		
Product function		
 Remote firmware update 	Yes	
 remote configuration 	Yes	
Configuration software		
• required	No, configuration by using the integrated webserver	
Product functions / Diagnosis	Product functions / Diagnosis	
Product function / Web-based diagnostics	Yes	
Product functions / Security		
Suitability for operation / Virtual Private Network	Yes	
Operating mode Virtual Private Network / note	Open VPN server in PSK mode	
Product function / with VPN connection	OpenVPN PSK	
Type of encryption algorithms / with VPN connection	AES-128 CBC	
Type of authentication / with Virtual Private Network / PSK	Yes	

Number of possible connections / with VPN 1 connection 1 Product function Yes e password protection for Web applications Yes e password protection for VPN Yes e norypted data transmission Yes e switch-off of non-required services Yes roduct functions / Time Yes Product function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / 7.5 s maximum 7.5 s itime synchronization Yes e from NTP-server Yes e from mobile network provider Yes e position detection with GPS Yes roduct function Yes e pass on position data Yes e position detection with GPS Yes e pass on position data Yes e pass on position data Yes	Type of hashing algorithms / with VPN connection	SHA-256
connection Yes Product function Yes password protection for VPN Yes encrypted data transmission Yes encrypted data transmission Yes is witch-off of non-required services Yes roduct function / pass on time synchronization Yes roduct function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / Yes Accuracy / of the hardware real-time clock / per day / Yes Accuracy / of the hardware real-time clock / per day / Yes from NTP-server Yes if from NTP-server Yes if from GPS-signal Yes if from detection with GPS Yes if position detection with GPS Yes pass on position data Yes coessories Yes uther Information / Internet Links Integr/www.siemens.com/smst if to website: Selector SIMATIC NET http://www.siemens.com/smst selection roduct function Htp://www.siemens.com/smst if to website: Industry Mall http://www.siemens.com/smst		
• password protection for Web applicationsYes• password protection for VPNYes• encrypted data transmissionYes• switch-off of non-required servicesYes• log file for unauthorized accessYes• log file for unauthorized accessYesProduct function / pass on time synchronizationYesAccuracy / of the hardware real-time clock / per day / maximumYesProduct function / pass on time synchronizationYesAccuracy / of the hardware real-time clock / per day / maximumYes• from NTP-serverYes• from GPS-signalYes• from mobile network providerYes• from mobile network providerYes• per clock function / Position recognitionYes• position detection with GPSYes• pass on position dataYes• coessoriesYesccessoriesInternet-Link• to website: Selector SIMATIC NET SELECTION TOOLhttp://www.siemens.com/snst• to website: Industry dallhttp://www.siemens.com/snst• to website: Industry Mallhttp://www.siemens.com/snst• to website: Industry Mallhttp://www.siemens.com/dustry/infocenter• to website: Industry Mallhttp://www.siemens.com/dustry/infocenter• to website: Industry Mallhttp://www.siemens.com/acax• to website: Industry Online Supporthttp://www.siemens.com/acax• to website: Industry Online Supporthttp://www.siemens.com/acax	connection	
password protection for VPN Yes • password protection for VPN Yes • encrypted data transmission Yes • switch-off of non-required services Yes • log file for unauthorized access Yes Product function / Dass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / maximum Yes Accuracy / of the hardware real-time clock / per day / maximum from NTP-server Yes from MTP-server Yes from mobile network provider Yes encomposition PC manual setting Yes Yes roduct functions / Position recognition Product function / Yes • pass on position data Yes • pass on position data Yes • pass on position data Yes • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industry Mall http://www.siemens.com/industry.infocenter • to website: Industry Mall http://www.siemens.com/industry.infocente	Product function	
encrypted data transmission encrypted data transmission Yes encrypted data transmission Yes switch-off of non-required services Yes log file for unauthorized access Yes Yes Yes roduct function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / T.5 s To the hardware real-time clock / per day / T.5 s To the hardware real-time clock / per day / T.5 s To maximum Trom OPS-signal Yes Yes	 password protection for Web applications 	Yes
switch-off of non-required services Yes iog file for unauthorized access Yes Product function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / T.5 s Accuracy / of the hardware real-time clock / per day / T.5 s Accuracy / of the hardware real-time clock / per day / T.5 s Accuracy / of the hardware real-time clock / per day / T.5 s Accuracy / of the hardware real-time clock / per day / T.5 s Accuracy / of the hardware real-time clock / per day / T.5 s Accuracy / of the hardware real-time clock / per day / Tom XPI-server Yes From GPS-signal Yes From GPS-signal Yes From mobile network provider Yes FoC Yes manual setting Yes roduct functions / Position recognition Product function position detection with GPS Yes pass on position data Yes ccessories ccessories ccessories turber Information / Internet Links Internet-Link to website: Selector SIMATIC NET stelectTION TOOL to website: Industrial communication to website: Industrial communication to website: Industry Mall http://www.siemens.com/sinatio-net to website: Industry Mall http://www.siemens.com/industry/infocenter http://www.sieme	 password protection for VPN 	Yes
• log file for unauthorized access Yes roduct function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / maximum 7.5 s from NTP-server Yes • from OPS-signal Yes • from mobile network provider Yes • point function / pass on time synchronization Yes • from OPS-signal Yes • from mobile network provider Yes • point function / position recognition Yes Product function / position recognition Yes • position detection with GPS Yes • position detection with GPS Yes • position deta Yes • to website: Selector SIMATIC NET http://www.siemens.com/sinst SELECTION TOOL http://www.siemens.com/sinst • to website: Industrial communication http://www.siemens.com/sinst • to website: Industry Mall http://www.siemens.com/sinst • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Industry Mall http://www.siemens.com/industry/infocenter • to website: Industry Mall http://www.siemens.com/industry/infocenter •	 encrypted data transmission 	Yes
roduct functions / Time Product function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / maximum 7.5 s maximum 7.5 s etam structure Yes of the hardware real-time clock / per day / maximum 7.5 s etam structure Yes of the mobile network provider Yes etam oblic network provider Yes roduct function Yes roduct function Yes etam oblic network of the GPS Yes etam oblic network of the GPS Yes etam oblic network of the GPS Yes cccessories Internet-Link Internet-Link http://www.siemens.com/simatic-net it to website: Industrial communication http://www.siemens.com/simatic-net it to website: Industry Mall http://www.siemens.com/industry/infocenter it to website: Industry Mall http://www.si	 switch-off of non-required services 	Yes
Product function / pass on time synchronization Yes Accuracy / of the hardware real-time clock / per day / 7.5 s Accuracy / of the hardware real-time clock / per day / 7.5 s Maximum 7.5 s time synchronization * • from NTP-server Yes • from opS-signal Yes • from mobile network provider Yes • PC Yes • manual setting Yes roduct functions / Position recognition Yes Product function • position detection with GPS • pass on position data Yes cccessories Yes uther Information / Internet Links Internet-Link • to website: Selector SIMATIC NET http://www.siemens.com/smst SELECTION TOOL • to website: Industrial communication • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Industry O	 log file for unauthorized access 	Yes
Accuracy / of the hardware real-time clock / per day / maximum 7.5 s itime synchronization 7.5 s • from NTP-server Yes • from GPS-signal Yes • from mobile network provider Yes • PC Yes • manual setting Yes roduct functions / Position recognition Yes roduct function / Position recognition Yes roduct function / Position recognition Yes roduct function / Position data Yes roduct function / Internet Links Yes roter visual setting Yes roduct function / Internet Links http://www.siemens.com/snst roter visual setting // www.siemens.com/snst selector SIMATIC NET rote website: Industrial communication http://www.siemens.com/simatic-net rote website: Industry Mall http://www.siemens.com/simatic-net to website: Industry Mall http://www.siemens.com/biddb to website: Industry Online Support http://www.siemens.com/biddb	Product functions / Time	
maximum itime synchronization if from NTP-server Yes if from GPS-signal Yes if from mobile network provider Yes roduct function Yes if position detection with GPS Yes if position data Yes cccessories Internet-Link Internet-Link http://www.siemens.com/snst is to website: Industrial communication http://www.siemens.com/sinst SELECTION TOOL http://www.siemens.com/sinst is to website: Industry Mall http://www.siemens.com/sinst is to website: Information and Download Center http://www.siemens.com/sinst/infocenter is to website: Information and Download Center http://www.siemens.com/idustry.infocenter is to website: Information and Download Center http://www.siemens.com/idustry.infocenter is to website: CAx Download Manager http://www.siemens.com/cax<	Product function / pass on time synchronization	Yes
From NTP-serverYesfrom GPS-signalYesfrom mobile network providerYesPCYese manual settingYesroduct functions / Position recognitionYesProduct function s/ Position recognitionYesroduct function s/ Position recognitionYesroduct function s/ position dataYese position detection with GPSYese position dataYesccessoriesYesuther Information / Internet LinksInternet-Linkinternet-Linkhttp://www.siemens.com/snstSELECTION TOOLhttp://www.siemens.com/simatic-neti to website: Industrial communicationhttp://www.siemens.com/simatic-neti to website: Industrial communicationhttp://www.siemens.com/industry/infocenteri to website: Industry Mallhttp://www.siemens.com/industry/infocenteri to website: Industry Mallhttp://www.siemens.com/industry/infocenteri to website: Industry Online Supporthttp://www.siemens.com/industry.siemens.com/i to website: Industry Online Supporthttp://www.siemens.com/industry.siemens.com/	Accuracy / of the hardware real-time clock / per day / maximum	7.5 s
• Irom GPS-signal Yes • from mobile network provider Yes • PC Yes • manual setting Yes roduct functions / Position recognition Yes Product function Yes • position detection with GPS Yes • pass on position data Yes urther Information / Internet Links Yes Internet-Link http://www.siemens.com/snst SELECTION TOOL http://www.siemens.com/simatic-net • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industry Mall http://www.siemens.com/industry/infocenter • to website: Industry Online Support http://www.siemens.com/industry.siemens.com	time synchronization	
enderson of enderson of the second	● from NTP-server	Yes
• PC Yes • manual setting Yes roduct functions / Position recognition Yes Product function • position detection with GPS • position detection with GPS Yes • pass on position data Yes cccessories Yes urther Information / Internet Links Yes Internet-Link http://www.siemens.com/snst • to website: Selector SIMATIC NET http://www.siemens.com/sinatic-net • to website: Industrial communication http://www.siemens.com/sinatic-net • to website: Industrial communication http://www.siemens.com/sinatic-net • to website: Industry Mall http://www.siemens.com/industry/infocenter • to website: Industry Online Support http://www.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemens.com/industry.siemen	● from GPS-signal	Yes
• manual setting Yes roduct functions / Position recognition Product function • position detection with GPS • pass on position data Yes • pass on position data cccessories urther Information / Internet Links Internet-Link • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industry Mall • to website: Industry Online Support • to website: Industry Online Support	 from mobile network provider 	Yes
Interact county Interact county Product function Product function • position detection with GPS Yes • pass on position data Yes • cccessories Yes urther Information / Internet Links Internet-Link • to website: Selector SIMATIC NET http://www.siemens.com/snst SELECTION TOOL • to website: Industrial communication • to website: Industry Mall http://mall.industry.siemens.com/ • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Induger database http://www.siemens.com/industry/infocenter • to website: CAx Download Manager http://www.siemens.com/cax • to website: Industry Online Support http://support.industry.siemens.com	• PC	Yes
Product function • position detection with GPS Yes • pass on position data Yes • ccessories • to sebsite: Selector SIMATIC NET http://www.siemens.com/snst Internet-Link • to website: Selector SIMATIC NET http://www.siemens.com/snst SELECTION TOOL • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industry Mall • http://www.siemens.com • http://www.siemens.com • to website: Information and Download Center • http://www.siemens.com/industry/infocenter • to website: Image database • to website: CAx Download Manager • http://www.siemens.com/cax • http://www.siemens.com/cax • to website: Industry Online Support • http://support.industry.siemens.com	manual setting	Yes
• position detection with GPS Yes • pass on position data Yes • ccessories Yes urther Information / Internet Links Internet-Link • to website: Selector SIMATIC NET • to website: Selector SIMATIC NET http://www.siemens.com/snst SELECTION TOOL • http://www.siemens.com/simatic-net • to website: Industrial communication http://www.siemens.com/simatic-net • to website: Industry Mall http://www.siemens.com/industry/infocenter • to website: Information and Download Center http://www.siemens.com/industry/infocenter • to website: Inage database http://www.siemens.com/cax • to website: CAx Download Manager http://www.siemens.com/cax • to website: Industry Online Support https://support.industry.siemens.com	Product functions / Position recognition	
Internet-Link http://www.siemens.com/snst Internet-Link http://www.siemens.com/snst • to website: Selector SIMATIC NET http://www.siemens.com/snst SELECTION TOOL http://www.siemens.com/simatic-net • 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://www.siemens.com/bilddb • to website: CAx Download Manager http://www.siemens.com/cax • to website: Industry Online Support https://support.industry.siemens.com	 position detection with GPS 	
urther Information / Internet Links Internet-Link • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAx Download Manager • to website: Industry Online Support	 pass on position data 	Yes
Internet-Link http://www.siemens.com/snst • to website: Selector SIMATIC NET http://www.siemens.com/snst SELECTION TOOL http://www.siemens.com/simatic-net • 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	Accessories	
• to website: Selector SIMATIC NEThttp://www.siemens.com/snstSELECTION TOOLhttp://www.siemens.com/simatic-net• to website: Industrial communicationhttp://www.siemens.com/simatic-net• to website: Industry Mallhttp://mall.industry.siemens.com• to website: Information and Download Centerhttp://www.siemens.com/industry/infocenter• to website: Image databasehttp://automation.siemens.com/bilddb• to website: CAx Download Managerhttp://www.siemens.com/cax• to website: Industry Online Supporthttps://support.industry.siemens.com	Further Information / Internet Links	
SELECTION TOOLhttp://www.siemens.com/simatic-net• to website: Industrial communicationhttp://www.siemens.com/simatic-net• to website: Industry Mallhttps://mall.industry.siemens.com• to website: Information and Download Centerhttp://www.siemens.com/industry/infocenter• to website: Image databasehttp://automation.siemens.com/bilddb• to website: CAx Download Managerhttp://www.siemens.com/cax• to website: Industry Online Supporthttps://support.industry.siemens.com	Internet-Link	
• 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		http://www.siemens.com/snst
• 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 http://support.industry.siemens.com	 to website: Industrial communication 	http://www.siemens.com/simatic-net
• 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	• to website: Industry Mall	https://mall.industry.siemens.com
• to website: CAx Download Manager http://www.siemens.com/cax • to website: Industry Online Support https://support.industry.siemens.com	• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
to website: Industry Online Support <u>https://support.industry.siemens.com</u>	• to website: Image database	http://automation.siemens.com/bilddb
	• to website: CAx Download Manager	http://www.siemens.com/cax
ecurity information	• to website: Industry Online Support	https://support.industry.siemens.com

Siemens provides products and solutions with industrial security 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. Thirdparty 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)

¹) Value of the actual supply voltage

last modified:

08/30/2018