ISO 9001:2001

wireless communication ■ monitoring – control

Radio data modem CDA 70

Radio data equipment

- SCADA AND TELEMETRY APPLICATIONS
- INTERCONNECTION OF CONTROLLING MACHINES (PLC)
- DATA COLLECTION FROM METERS
- MOBILE APPLICATIONS

Description

Radio data modem CDA 70 is communication equipment for wireless data transmission. It is designed for creating large data networks in vast geographical areas mainly in industrial and mobile applications. The modem can be used for data collection and transmission in great number of technological processes. CDA 70 is also advantageous alternative for backing up of important points in cable networks.

CDA 70 main features

- Frequency bands 143 – 174 MHz or 336,8 – 380 MHz or 403 – 470 MHz
- Output power from 10 mW to 5W
- Communication rate up to 21600 bps
- On–line packet data transmission
- High level of data protection and compression
- Supports more than 50 communication protocols for industrial cntrolling systems, metering devices and other equipment (MODBUS, S-BUS, AT modem, MBUS etc.). It is also possible to implement new protocol on request of customer.

waterworks engineering

energetics

heating service

transport

CDA 70 modem network features

- Low operating costs – no matter on data volume
- Every radio data modem CDA 70 can work as an end point and relay station at the same time
- Data packet transmission by Store and Forward method
- Communication among random network points
- Fixed or automatic data packets routing in network – modems developing routing tables at the base of network traffic information. Network responds automatically while failure in transmission occurs or a new station is added.
- Possible integration into GPRS networks, Internet etc.

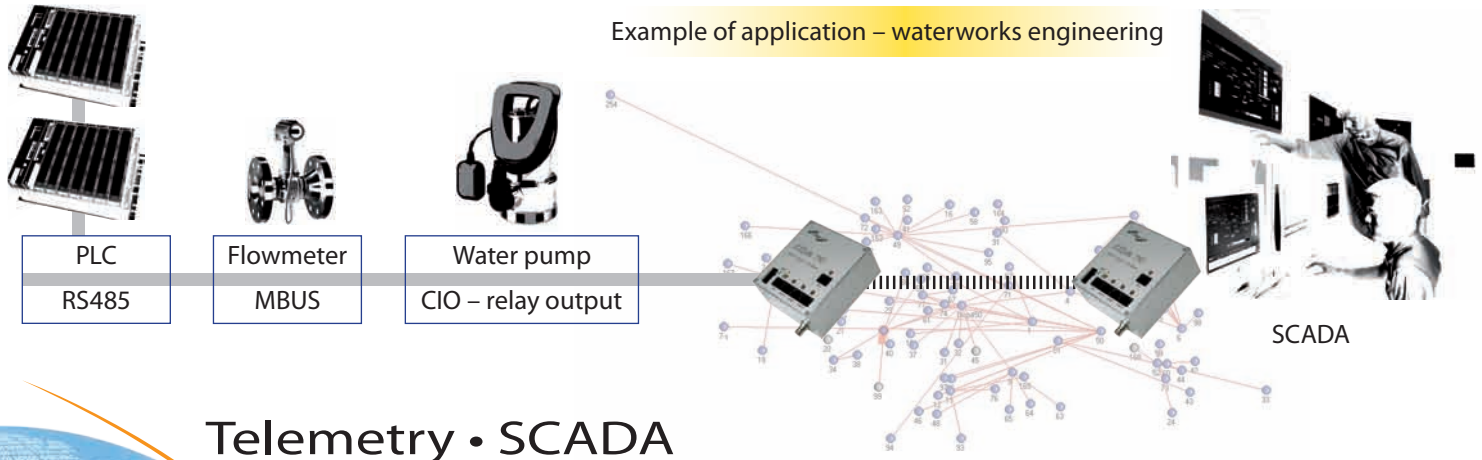
User interface

- Communication ports
  PORT 1 – RS232, optional MBUS
  PORT 2 – RS232, optional RS485
  PORT 3 – RS232
  PORT ETHERNET 10/100
  PORT CIO – five signals that is possible to configure as analogue inputs, binary inputs or binary outputs
- Every interface can communicate by different speed and different communication protocol

Diagnostics and service functions

- Full remote administration and configuration from any point of network
- Diagnostics on VF channel and communication interfaces – detailed records stored for last 4 days
- Event log (8000 records, cca 300 types of events)
- Software configuration of all CDA 70 modem parameters, radio channel signal level measuring, inner temperature and supply voltage measuring

Example of application – waterworks engineering



Telemetry • SCADA

• monitoring and dispatcher´s control of large technology in waterworks engineering, energetics, heating service, oil and gas industry, transport • etc.

Industrial automation

• interconnection of industrial control systems and information systems • remote inputs/outputs (I/O) • etc.

Data collection from measuring devices

• heating meters • electrometers • water meters • gas meters • meteorological sensors • etc.

Remote control and monitoring

• information boards (road signs, parking boards etc.) • streetlight • car park • camera handling • public lights • etc.

Mobile and transactional networks

• rail transport and road vehicles • public transport • boats • financial service terminals and online lottery terminals • etc.

TECHNICAL SPECIFICATION

Frequency range	143 – 174 MHz (version CDA 70V) 336,8 – 380 MHz (version CDA 70R) 403 – 470 MHz (version CDA 70U)
Adjustment of working frequency	programmable (step 1 Hz)
Adjustment of channel spacing	12,5 • 25 kHz (version CDA 70V) 12,5 • 20 • 25 kHz (version CDA 70U and CDA 70R)
Output power	0.5;1;2;3 W (version CDA 70V) 0,01;0,05;0,1;0,25;0,5;1;2;3;4;5 W (version CDA 70U and R)
Receiver sensitivity	<-111 dBm (12 dB SINAD) for channel 25/20 kHz <-117 dBm (12 dB SINAD) for channel 12,5 kHz
Reception/transmission switching time	< 4 msec
Maximal communication speed	21,6 kbit/sec for channel spacing 20 a 25 kHz (CDA 70 V and U) 19,2 kbit/sec for channel spacing 20 a 25 kHz (CDA 70R) 10,8 kbit/sec for channel spacing 12,5 kHz (CDA 70 V and U) 9,6 kbit /sec for channel spacing 12.5 kHz (CDA 70 R)
Type of modulation	FFSK, GMSK
Comply standards	EN 300 113-1: V1.5.1 • EN 300 113-2: V1.2.1 EN 301 489-5: V1.3.1 • EN 60 950-1:2001
Temperature range	storage from -40 °C to +85 °C • operation from -25 °C to +55 °C
Supply voltage	from +10,8 V to 15,6 V DC
Current	reception <200 mA, transmission 1 W <900 mA transmission 5 W <1500 mA
Dimensions	43 × 104 × 98 mm (fitting DIN35 mm ledge)
Weight	500g
Antennal connector	BNC – 50 Ohm
Interface	RS232, RS485, MBUS, ETHERNET 10/100, I/O (CIO)

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