



# GPRS 033 COMMUNICATION MODULE

## TECHNICAL DATA

ISO 9001:2000



### Connectors

Antenna / Antenna plug-in socket	External GSM antenna with impedance 50Ω on band GSM/DCS 900/1800 MHz, antenna plug-in socket; FME
Communication interface	RS232, helical connector
SIM card	Build-in SIM connector 5V/3V SIM
Power supply	helical connector

### Communication interface

Serial ports	RS232 (standard 12V (MAX232))
Data transfer	300 bps to 115200 bps
Signalization	LED diodes (modem state, device state)
RS232 protocol	9600 bps, 8 data bits, 1 stop bit, no parity
GSM protocol	Encoding schemes CS1–CS4, GPRS – class C, multislot class 1, 2 and 4, 1x (uplink)/2x (downlink) OR 1x (uplink)/3x (downlink)
Protocol of database server	TCP/IP protocol with use of private or public APN network and data transfer protocol

### Environmental conditions

Ambient temperature	-35 ... +50 °C (non – condensing)
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### Radio interface parameters

Cellular engine	Motorola G18 OEM GSM modem (the engine is subject to change without prior notice)
Frequency range	GSM 900MHz, DCS 1800MHz, PCS 1900MHz
Range of GSM power output	Levels of power from #19 to #5: 5dBm to 33dBm according to ETSI standard
Range of DCS power output	Levels of power from #15 to #0: 0dBm to 30dBm according to ETSI standard
Range of PCS power output	Levels of power from #15 to #0: 0dBm to 30dBm according to FCC standard

### Range of supply voltage

Supply voltage	9-18 VAC, 12-24 VDC
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### Power consumption

	voltage 5.6 V	voltage 12 V	voltage 24 V
Modem state: economical (solar batteries supply)	41 mA	22 mA	11 mA
Modem state: normal (without energy economizing)	83 mA	45 mA	23 mA
Modem state: sending and receiving data with assumption of the best environmental conditions (high level of GSM signal, low power output of transmitter, small distance to base station)	210 mA	115 mA	58 mA
Modem state: sending and receiving data with assumption of the worst environmental conditions (low level of GSM signal, high power output of transmitter, large distance to base station)	330 mA	180 mA	91 mA

### Mechanical

Width x height x depth	75 x 67,5 x 105 mm
Weight	275 g
Installation	35 mm DIN rail