

# CANgine

## No. 1

### Product Brief

CANgine No.1 is a smart RS232 to CAN converter for use on any serial port. CANgine No.1 'speaks' ASCII code, so controlling the device is easy. No special drivers are needed and with a few commands the CAN controller can be initialized (baud rate and filter mask) and CAN frames can be sent to the bus. Every incoming CAN frame can immediately be passed to the serial link, or entered in a receive buffer with 30 entries according to the user selected operation mode.

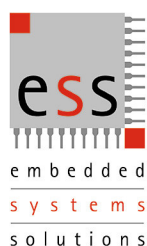
CANgine No.1 is a very small (only 53 x 34 x 16 mm<sup>3</sup>) device which is powered by two pins of the 9 pin D-Sub CAN connector. These pins are recommended by CiA (CAN in Automation) as optional power supply lines.

CANgine No.1 CAN message filters can be set to process simultaneously CAN 2.0A messages (with 11 bit identifiers) and CAN 2.0B messages (with 29 bit identifiers) or to only process CAN 2.0A or CAN 2.0B messages.

Technical Data	
Internal Microcontroller	40 MHz internal clock Full CAN 2.0B interface
CAN transceiver	ISO 11898-2 (high speed) compliant
CAN baudrates	10k, 20k, 100k, 125k, 250k, 500k, 800k, 1M
RS232 baudrates	2.400 to 115.200 baud
CAN connector	D-Sub 9 male
RS232 connector	D-Sub 9 female
Display	LED RUN (green) and LED ERR (red)
Power supply	7 ..30 VDC
Supply current	~ 35 mA / 12 V
Operating temperature	-40 .. 80 °C
Size	53 x 34 x 16 mm <sup>3</sup> 2.08 x 1.34 x 0.63 inch <sup>3</sup>
Weight	22 g

CANgine No.1 has two LEDs to signal status and errors like internal buffer overflow or CAN errors. Sophisticated CAN message filtering allows to adapt the throughput to the baud rate of the serial link.

Running the serial link with 115.200 baud, CANgine No.1 can process up to 250 CAN frames per second (extended frame with 8 data byte) or 350 CAN frames per second (standard frame with 8 data byte).



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### Command Overview

A[CR]	Poll receive buffer for all received CAN frames
C[CR]	Close CAN channel
F[CR]	Send error information
mxxxxxxx[CR]	Set acceptance mask register
Mxxxxxxx[CR]	Set acceptance register
O[CR]	Open CAN channel
P[CR]	Poll one received CAN frame
Sn[CR]	Set CAN baudrate
saabcde[CR]	Set CAN baudrate via controller register
tiiidd..[CR]	Send a standard CAN frame
Tiiiiiiidd..[CR]	Send an extended CAN frame
Un[CR]	Set serial baudrate
V[CR]	Send version information
X[CR]	Send CAN frame counter
Zn[CR]	Set or reset continuous CAN frame polling

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For more information about the whole CANgine product family or downloading the manual of CANgine No.1 see

[www.CANgine.com](http://www.CANgine.com)