

CANgate™

dataTaker®

CAN to ASCII Gateway

Collect CAN bus data with the *dataTaker DT80* range of data loggers.

- 2 high speed CAN bus ports
- Serial port for GPS
- Serial port for data logger or PC
- J1939, OBD, ISO and Raw CAN

Description

The *dataTaker CANgate* CAN to ASCII gateway filters and converts CAN (Controller Area Network) and GPS (Global Positioning System) data to serial ASCII data. It has been designed to capture the real-time data available on CAN and GPS networks (e.g. temperatures, RPM, brake/throttle settings, latitude, longitude, speed etc.) and pass that information on to either a *dataTaker* data logger or host computer system.



Specifications

PGN/SPN	Parameter	Units	B'cast
61444-512	Drivers Demand Engine	%	Yes
61444-190	Engine Speed	rpm	Yes
61444-1483	Source Address of Controlling Device for Engine currently co...	Adr	Yes
61443-974	Remote accelerator	%	Yes
61443-92	Percent Load at Current Speed	%	Yes
61443-91	Accelerator Pedal Position	%	Yes
61443-559	Accelerator Pedal Kickdown Switch	state	Yes
61443-558	Accelerator Pedal Low Idle Switch	state	Yes
61443-1437	Road Speed Limit Status	state	Yes
61442-607	Progressive Shift Disable	state	Yes
61442-606	Momentary Engine Overspeed Enable	state	Yes
61442-574	Shift in Process	state	Yes
61442-573	Retarder Enable, Shift Assist Switch, Torque Converter	state	Yes
61442-560	Driveline Engaged	state	Yes
61442-522	Percent Clutch Slip	%	Yes
61442-191	Output Shaft Speed	rpm	Yes
61442-161	Input Shaft Speed	rpm	Yes
61442-1482	Source Address of Controlling Device for Transmission Contr...	Adr	Yes
61441-973	Engine Retarder Selection	%	Yes
61441-972	Accelerator Interlock Switch	state	Yes

Two CAN interface ports are included, which allow connection of two independent CAN networks. *CANgate*'s versatile configuration options allow you to select the parameters of interest, apply statistical functions (average, minimum, maximum) and control the format in which data are returned. *CANgate* supports widely used protocols such as ISO-15765 and SAE-J1939, as well as raw CAN frames.

Many CAN networks are used in vehicle, transport and marine applications where positional information can be an important part of the data collected. *CANgate* includes a GPS interface to allow integration of the positional and other information available from GPS systems.

The *dataTaker DeLogger™* host software application supports the use of *CANgate* in conjunction with the *dataTaker DT80* range of data loggers. CAN and GPS parameters of interest may be selected from a predefined database of SAE J1939, OBD-II and NMEA-0183 (GPS) parameters. This database may be modified or extended by the user, allowing custom parameters and protocols to be supported. *DeLogger* allows easy integration of CAN and GPS data collected via *CANgate* with traditional analog and digital measurements.

When interfaced to a host computer system directly, *CANgate* can be configured by simple ASCII commands. This allows a terminal software application such as *dataTaker DeTransfer* or *HyperTerminal* to be used to configure and collect data from *CANgate*.

Applications Include:

Engine and Equipment development and diagnostics

- Automotive, Transport, Construction, Stationary
- Log real time data
- Log fault codes
- Sensor input/output control

Resource Management

- Monitor fleet vehicles, equipment and assets
- Log GPS information
- Historical operating conditions and behaviour

ECU development and testing

- Capture broadcast and requested CAN data
- Send arbitrary CAN frames

Remote Monitoring/Control

- Send/receive CAN messages over modem



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FREE
Software &
Technical
Support

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CAN Interfaces

2 independent CAN ports

Configurable Port Speeds: 10, 20, 50, 125, 250, 500 or 1000 kbit/s

Physical Layer Supported: ISO 11898-2 (High speed CAN, two wire)

Protocols Supported: Raw CAN; SAE-J1939; ISO-15765-2 based protocols e.g. J1979/ISO-15031-5 (Legislated OBD), ISO-14230-3 (manufacturer diagnostics)

Maximum broadcast parameters: 150

Maximum polled parameters: No Limit.

Statistical functions for broadcast parameters: Average, Minimum, Maximum.

GPS Interface

1 RS232 port

Configurable Port Speeds: 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 baud

Protocols Supported: NMEA-0183

Host (Data Logger/Computer) Interface

1 RS232 port

Configurable Port Speeds: 9600, 19200, 38400, 57600, 115200 baud

Flow Control: Hardware (RTS/CTS) or Software (XON/XOFF)

Protocols Supported: ASCII

LED indicators

Power

CAN1 Data Receive

CAN2 Data Receive

GPS Data Receive

HOST Data Receive

HOST Data Transmit

Connectors

1 DE9 male (Host) – standard PC/AT DTE pin-out

1 DE9 female (CAN1, CAN2, GPS, power)



Host Software

DeLogger supports use of *CANgate* with *dataTaker DT80* range of data loggers. Includes built in parameter databases for J1939, OBD, NMEA-0183 and supports user developed custom parameter databases.

Power Supply

External Input Range +10 to +30VDC

+5V power output (200mA max) is also provided, for powering GPS modules

Power Consumption

Idle: 0.75W (15V 50mA)

Maximum: 3.75W (15V 250mA)

Physical and Environment

Construction: Anodised Aluminium

Dimensions: 57x95x27mm

Weight: 110g

Temperature Range: -20+70°C

Humidity: 85% RH, non-condensing

Accessories Included

DE9 to Screw Terminal Adaptor

DT80 communications cable (DE9<->5 way screw terminal plug)

Host PC communication cable (DE9<->DE9)

DataTaker double-ended screwdriver

Resource CD: Includes User's Manual and Host Software Getting Started Guide.

For further information on *dataTaker* products, or for useful downloads, visit the DataTaker web site at www.datataker.com or contact your nearest DataTaker office or distributor.



For full technical specifications download the user's manual from our website.

www.datataker.com



Warranty: The *CANgate* is covered by a 3 year warranty on workmanship and parts.

Quality Statement: Datataker operates a Quality Management System complying with ISO9001:2000. It is Datataker's policy to supply customers with products which are fit for their intended purpose, safe in use, perform reliably to published specification and are backed by a fast and efficient customer support service.

Trademarks: *dataTaker* is a registered trademark of Datataker Pty Ltd. *CANgate* is a trademark of Datataker Pty Ltd.

Specifications: Datataker Pty Ltd reserves the right to change product specifications at any time without notice.

Manufactured and designed in Australia.

dataTaker®

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