Sheet

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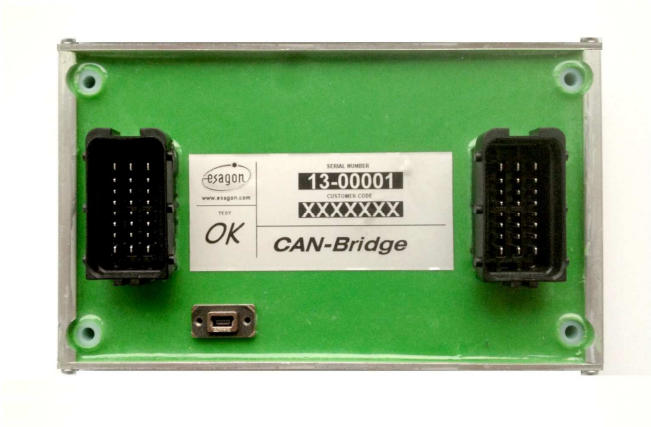
CanBridge

Electronic on-board control unit for medium dimension machines

CanBridge is an electronic on-board control unit for medium dimension machines, designed to grant a powerful and effective automation, along with reliability. The experience accumulated over the years on the automotive technologies has enabled to create a whole control which meets the requirements typical of the on-board automation : 8 digital on-off inputs, 6 multifunction digital or analogical inputs (analogical 0-5V / 0-36V / digital on-off), 8 power digital outputs with 5 A, 4 medium power digital outputs with 2 A and 4 analogical ratiometric outputs. Some of the inputs can operate as counting inputs or encoder inputs. The particular attention devoted to vehicles has led to integrate under the control also a set of 4 whole proportional channels, able to drive through the available outputs up to 4 proportional valves or 4 double-proportional sections. The 12 (8 + 4) power digital outputs can be used in on-off mode as well as in proportional mode, with pulse width modulation PWM. Futhermore the 4 analogical ratiometric outputs have been designed to meet the control needs of those hydraulic distributors which require an analogical ratiometric reference (i.e. Danfoss and others).



CAN-Bus and possible system expansions

The control unit is equipped with a CAN-Bus channel which enables the interfacing with the on-board automation and the system expansion or extension by adding some other CanBridges or CanExtenders as well as CAN-Bus Esagon's HMIs. In this way it is possible to meet any possible need of automation, by increasing at will the number of input/output resources and equipping them with a HMI for diagnostics and alarms. The CAN-Bus communication may take place through a proprietary protocol or through SAE J1939 standard.

Programming

Through the USB door and the programming language C it is possible to carry out the machine management program, simply by connecting the control unit to a Pc by means of a standard small wire.

Working conditions

Operational supply voltage:	**12-24 V**
Operational absorption logic circuit:	**< 0,5A**
Working temperature:	**-20°C - +60°C**
Dimensions:	**167x100x40 mm**

Inputs and outputs

Digital inputs:	**8**
Digital/analogical inputs:	**6**
Power digital outputs 5A:	**8**
Power digital outputs 2A:	**4**
Analogical ratiometric outputs:	**4**

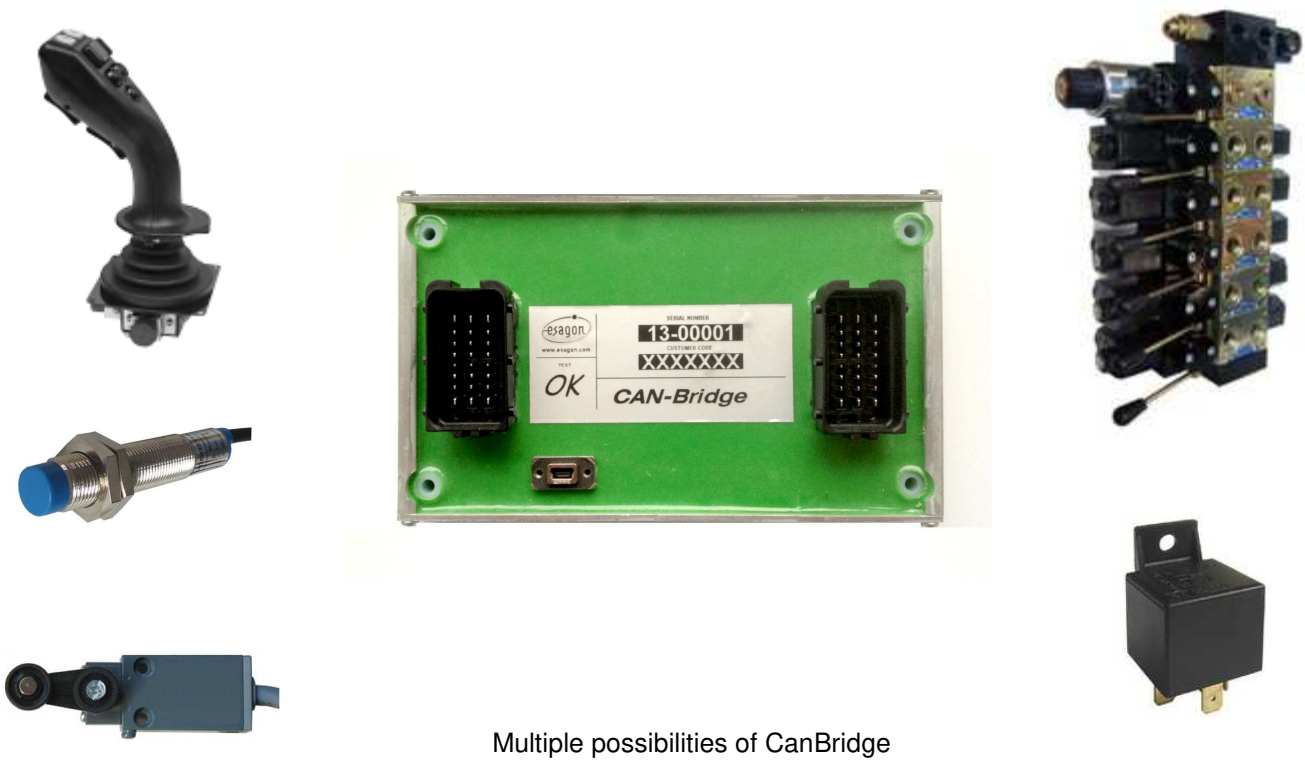
Digital/analogical inputs configurable via software:
4-20 mA / 0-5 V / 0-36 V on-off
Power digital outputs can be used in on-off mode and in PWM mode

CAN-Bus and communication door

CAN-Bus channel:	**FULL CAN 2.0 A e B**
Protocol standard:	**SAE J1939**
Maximum speed:	**500 Kbit/sec.**
Communication door:	**USB**
Electrical connections :	**2 x FCI 24 streets**

Processing

Microprocessor:	**16 bit**
Operational rate:	**24 MHz**
Flash memory program:	**288 Kbyte**



Multiple possibilities of CanBridge

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