



### Main features

- Simple networking solution
- Low cost digital communication
- Reduces the cost and time to wire and install industrial automation devices
- Interchangeability
- Transmission speed 500k baud (max. 1000M baud)
- Typical application: slave
- Easy configuration node

The "CAN Field Bus Adapter" (CFBA) development is for an easy configuration node. By software, or only with some electrical connections on the board, is possible establish: **Baud Rate, Node-Identifier, the direction of the signal in case of potentiometric sensor.**

The particular structure of CFBA, the small encumbrance and the connections, facilitates the converting of systems to this networking solution.

The type P of CFBA is suited of potentiometric displacement transducers and the supply voltage  $V_s(5V)$  of the transducer is ratiometric with  $V_{ref}$  of ADC. In the type V,  $V_s$  on analog port is the same of the  $V_{cc}$  on signal port. In this case the standard range for analog input  $V_{in}$  is 5V (2,5 or 10V if jumper WP1 on the board is set). Other values on request. The CFBA includes all hardware modules necessary to implement the CAN Transfer Layer, which represents the kernel of the CAN Bus protocol. Up to message level, the CFBA is totally compatible with the basic CAN and the full CAN implementation. Functional differences are related to the object layer only. Whereas a full CAN controller provides dedicated hardware for handling a set of messages, the CFBA is restricted to receiving and/or transmitting messages on a messages by message basis. It will never initiate an Overload Frame.

## TECHNICAL DATA

### General Characteristics

Symb.	Parameter	Condit.	Min	Typ.	Max	Unit
Vcc	Supply voltage		7,5		35	Vdc
Icc	Supply current		20			mA
	Resolution			12		bits
	No missing codes		12			bits
	Integral linearity			±1		LSB
	Differential linearity			±0,5		LSB
	Offset error			0,75		LSB
	Gain error			±2		LSB
	Conversion time		180			µsec
TAMB	Operating amb. temp.		-20		+80	°C
TAMB	Storage amb. temp.		-30		+85	°C

### Analog port

Symb.	Parameter	Condit.	Min	Typ.	Max	Unit
Vs	Supply output voltage	type P	4,8	5	5,2	Vdc
		type V		Vcc		Vdc
RLOAD	Load resistance		500			Ω
VIN	Analog input	no shunt			5	Vdc
		shunt			50	Vdc
RIN	Input resistance	no shunt		10		MΩ
		shunt	100			kΩ

### Digital port

Symb.	Parameter	Condit.	Min	Typ.	Max	Unit
1/tbit	Transmission speed	NRZ			1	Mbaud
VCAN	Input/Output voltage CANH, CANL		-8		+18	Vdc
ΔV	Differential bus voltage transmitter		1,5		3,0	Vdc
ISCH	Short-circuit CANH current	VH = 5			105	mA
ISCL	Short-circuit CANL current	VL = +18			160	mA
RI	CANH/CANL input res.		5		25	kΩ
Rdiff	Differential input res.		20		100	kΩ
CI	CANH, CANL input capacitance				20	pF
Cdiff	Differential input capacitance				10	pF

## MECHANICAL DIMENSIONS

