



Universal I/O Expansion Module HY-TTC 37XH

Description

The HY-TTC 37XH is a powerful I/O-expansion module for the off-highway market.

It is capable of controlling resistive power loads with up to 90 A total switch current and is typically used for controlling vehicle lights.

It is designed to be installed without a casing in confined spaces directly in the driver's cab.

The HY-TTC 37XH is a straight slave module and communicates with the controller which is configured as the bus master via the CAN J1939 protocol standardized for the automotive sector.

Special features

- Total switch current up to 90 A max.
- Electrical connection via push terminals
- 37 inputs and outputs:
 - 4 analogue inputs
 - 8 digital inputs
 - 25 power outputs
- Reduced installation space due to open construction

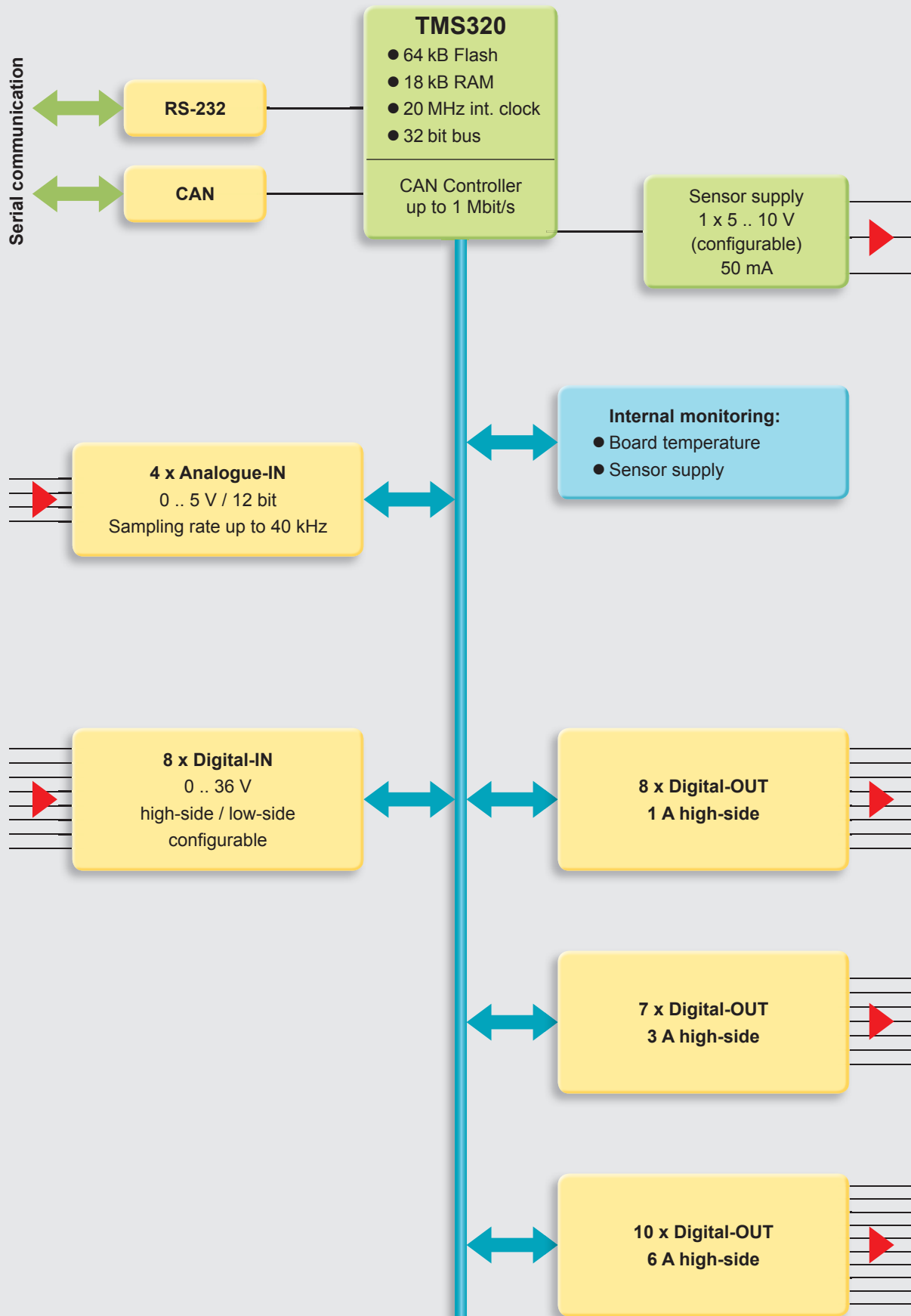
Technical data

Ambient conditions	
Operating temperature	-40 .. +70 °C (with full load) to EN 60068-2
Operating altitude	0 .. 4,000 m
Supply voltage	9 .. 36 V
Peak voltage	36 V max. (1 ms)
Idle current	0.1 A max. at 9 V
Current consumption	90 A max. (complete voltage and temperature range)
Fulfil the following standards	
EMC	ISO 13766 (up to 100 V/m, 20 MHz .. 1 GHz)
ESD	IEC 61000-4-2
Load dump	ISO 7637-2
Temperature	EN 60068-2-1; -14Nb; -2; -78; -30
Vibration, Shock, Bump	IEC 60068-2-29; -64; -27; -32
Communication profile	CAN J1939
Dimensions and weight	
Dimensions	230 x 115 x 30 mm
Weight	~ 320 g
Features	
32 bit DSP TMS320 microcontroller, 20 MHz, 64 kB int. Flash, 18 kB int. RAM	
1 x RS-232	
1 x CAN, up to 1 Mbit/s	
4 x Analogue-IN 0 .. 5 V / 12 bit, sampling rate up to 40 kHz	
8 x Digital-IN 0 .. 36 V, high-side / low-side configurable	
8 x Digital-OUT 1 A high-side, load detection, overload and short circuit protection	
7 x Digital-OUT 3 A high-side, load detection, overload and short circuit protection	
10 x Digital-OUT 6 A high-side, load detection, overload and short circuit protection	
Internal monitoring of circuit board temperature, sensor supply and battery voltage	
1 x sensor supply 5 .. 10 V configurable via software	

Note: All I/O's and interfaces mentioned below are protected against short circuit to GND and BAT+.

Block circuit diagram

HY-TTC 37XH



Model code

HY-TTC 37XH – 000

Modification Number

000 = standard

Note

On units with a different modification number, please read the label or the technical amendment details supplied with the unit.

Accessories

Appropriate accessories, such as cables and connectors, service tools, software etc. can be found in the Accessories section.

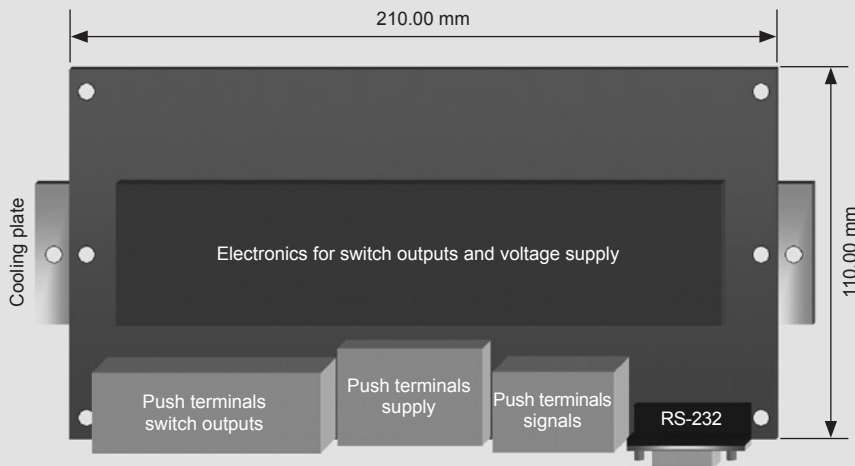
Note

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

Dimensions



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