

Programmed with Eaton CONTROL F(x)™ to IEC 61131-3 Standard

SFX 1000 Controller



EAT•N

Powering Business Worldwide

General Description

SFX 1000 Controller is a powerful electronic solution for the off-highway industry that relies on its equipment to function under the most difficult conditions.

SFX 1000 Controller was designed to comply with the IEC 61508 international standard, SIL 2 (Safety Integrity Level).

It is part of a complete and compatible product family and is protected by a robust housing suited to the off-highway industry.

Features

- MPC 555, 40 MHz, 448 kB int. Flash, 26 kB int. RAM, 512 kB ext. RAM, 2 MB ext. Flash
- 16 kbit EEPROM
- Watchdog CPU Freescale HC 908, including monitoring software
- 1 x RS-232 and 1 x LIN serial interfaces
- 2 x CAN, 125 to 500 kbit/s
- 8 x analog IN 0 to 5 V or 4 to 20 mA / 10 bit, configured by software
- 12 x analog / digital IN 0 to 10 V / 10 bit
- 8 x digital IN (counter 10 Hz to 10 kHz)

- 5 x digital IN for hardware identification
- 4 x digital OUT 2.35 A, PWM, current control loop, short to ground protection and open load detection
- 4 x digital OUT 4 A, PWM, short to ground protection and open load detection
- 4 x digital OUT 4 A, short to ground protection and open load detection
- 1 x digital OUT for external relays to switch off output for safely applications (fail-silent)
- Internal: monitoring of board temperature, sensor supply and battery

- 1 x sensor supply 10.5 V
- 1 x sensor supply 5 V
- Software: I/O Toolbox, Simulink®, C/C++, CoDeSys® 2.3

Outline Dimensions

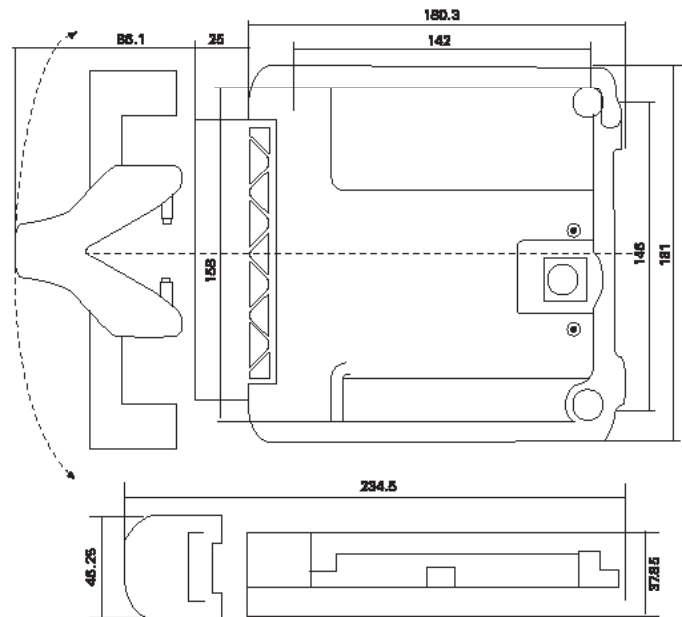
- Aluminium injection-molded housing
- Splash-proof 154 pin connector
- Pressure adjusting with water barrier
- Housing fins for optimal temperature deduction

Specifications

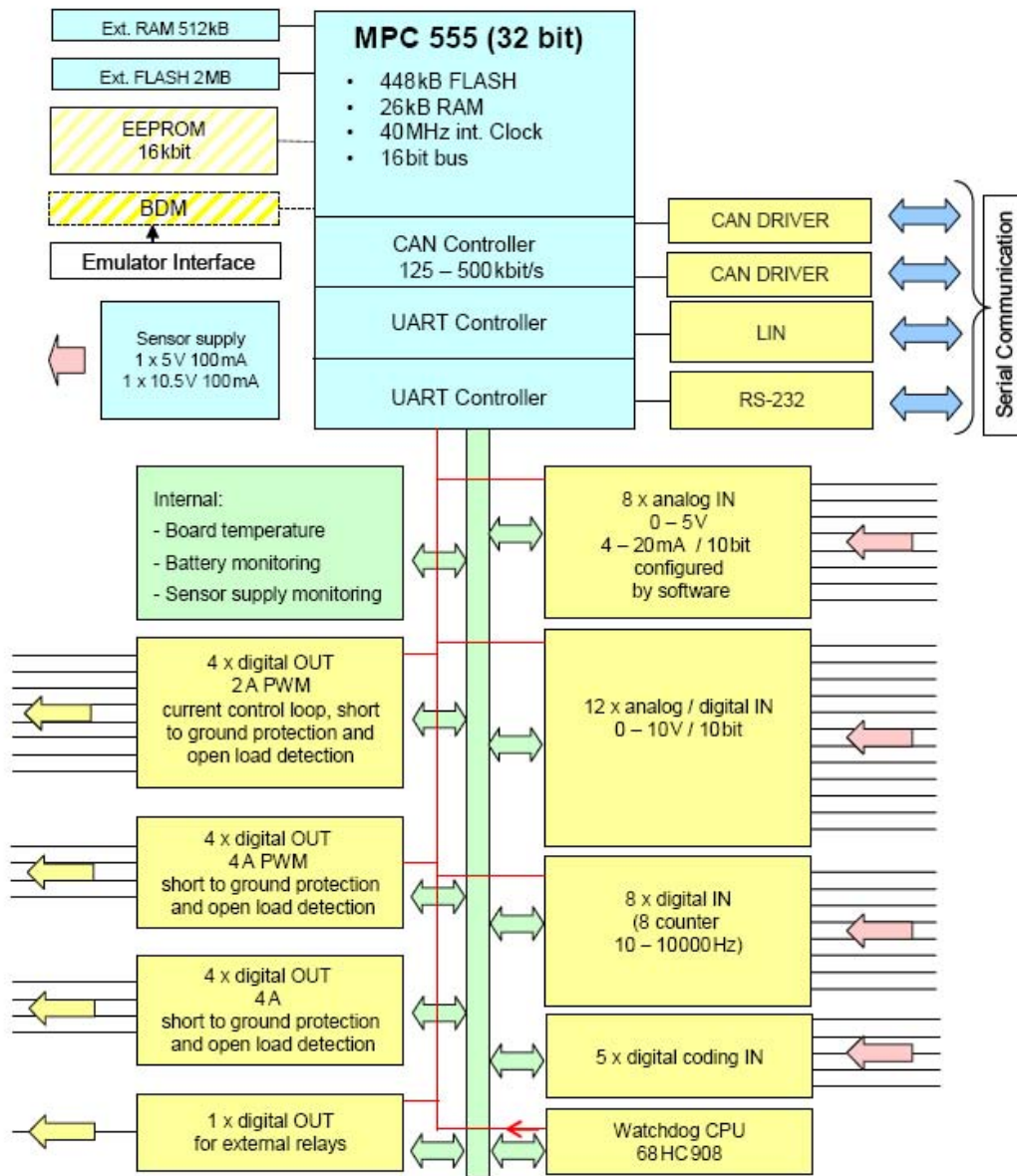
PARAMETER		UNIT
Dimensions	234 x 181 x 48	mm
Weight	790	g
Operating Temperature	- 40 to + 85 °C	
Operating Altitude	0 to 4 000	M
Supply Voltage	9 to 32	V
Peak Voltage	45	V _{max}
Current Consumption	1 at 9 V	A _{max}

ENVIRONMENTAL SPECIFICATIONS

Functional Safety	IEC 61508 SIL 2
Protection Degree	DIN 40050 IP65
Vibration, Shock, Bump	IEC 68-2-64, -27, -29, -6
EMC	ISO/DIS 13 766
ESD	IEC 61 000
Temperature Environment	IEC 68-2-1, -2, -3, -14, -30
Load Dump	ISO 7637



Block Diagram



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