



ACN MPU2 processor module

The ACN MPU2 is a fast, Coldfire™ architecture based processor module for ACN motion control systems.

It's an ideal choice for synchronization, position profiling and path control of electrical drives or hydraulics. The ACN MPU2 provides one of the most flexible concepts in motion control for automation of machinery and production lines on the market today by combining CNC, PLC and computer functions into a single, high-level programmable system. Modbus® fieldbus support further simplifies applications with compatible drives and controllers.

- Up to 100 servo axes
- Master/slave operation
- Low power consumption
- Fast ethernet port for easy system integration
- Modbus® fieldbus support
- Compatible with legacy Arlacon MC400 systems

Technical data

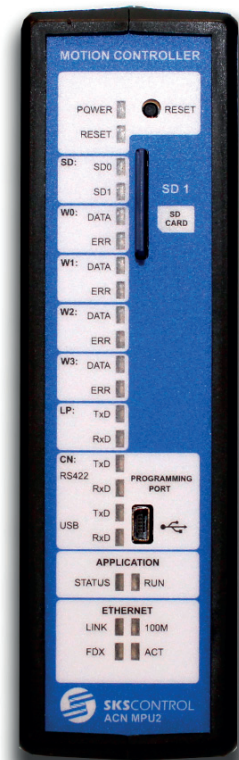
Construction	ACN processor module
Installation	ACN motion controller system
Dimensions	Module 190 x 125 x 50 mm, front panel 190 x 50 mm
Environment	Storage temp. -10...+65 °C
	Operating temp. 0...+40 °C
	Humidity <95 % RH, non-condensing
Operating voltage	20-28 VDC max. 200 mA

CPU

Processor	MCF5271 Coldfire™ 100 MHz MCU
System memory	16 Mbytes SDRAM
Mass memory	2 Gbytes internal FLASH, (1 Gbyte for user), 1 x external SDHC card slot
Real time clock	yymmddhhmmss, lithium battery

Software

Operating system	McDos
Programming language	McBasic
PC-software	McBench 2.0 for Windows XP and 7



I/O

Serial ports	2 x (6 x) RS232/ RS422/ RS485 134 bit/s...460 kbit/s, xon/xoff handshake.
McWay –loops	4 x RS485 1016 bit 1.25 Mbit/s master/slave via twisted pair or optical fiber with MPU-OCB -modules. Optionally each McWay loop can be configured as a serial port.
Fieldbus support	Modbus® (RTU/TCP/UDP)
Ethernet	1 x RJ45 10/100 BaseTx Full/Half duplex, autonegotiate, autopolarity, TCP/IP data transfer, NetBios client for Windows 98, NT4, 2000, XP and 7
USB	1 x USB 2.0 port for programming and monitoring



SKS Control Oy

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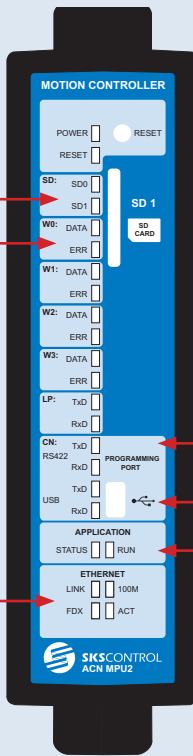
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MPU2 module front panel and indicators

SD cards	
LED	Function
SD0	SD card 0 (internal) and SD card 1 (external) read/write activity
SD1	

W0 to W3	
LED	Function
DATA	OFF= Bus Inactive Brief blink=Bus configured but not active Fast blink= Bus configured but loop error occurred Solid= Bus configured and active

ETHERNET	
LED	Function
LINK	Link established
100M	100M mode
FDX	Full duplex
ACT	Activity

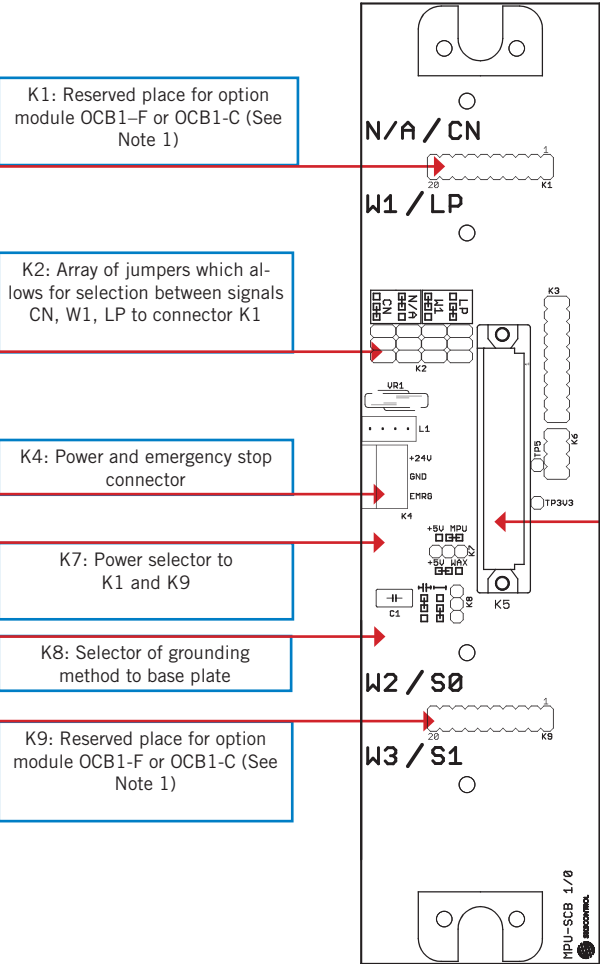


CN & LP	
LED	Function
RxD	Data reception
TxD	Data transmission

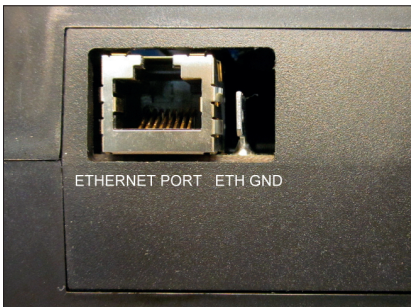
USB 2.0 port for programming and monitoring

APPLICATION	
LED	Function
RUN	Fast blink = Program error Slow blink = Program running Solid = McBasic prompt
STA-TUS	Not implemented

MPU2 back plate and configuration options



MPU2 module side connectors



Ethernet port and shield ground connector

K5: MPU2-module connector

Note 1:MPU2-OCB1-F and – OCB1-C are two option modules which can be fastened to the MPU2-SCB PCB board by two M3 hexagonal screws using connectors K1 and K9. The OCB:s provides serial communication (LP,CN,S0,S1 or MC-Way) through wire (RS422 for OCB1-C) or optical fibre (OCB1-F).