



**DESCRIPTION**

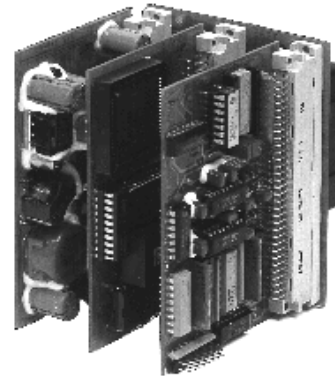
The SAUER-SUNDSTRAND Mobile Microcomputer Family SUSMIC 10 "SINGLE LOOP", SUSMIC 20 "CUBE" is a digital electronic series, which is designed for open loop and closed loop mobile off-highway system applications.

Modern day controls in mobile applications driving rotary and linear actuators (hydrostatic transmissions, hydraulic cylinders etc.) increasingly need more flexible and intelligent electronics. The rugged design of the SUSMIC 10, 20 digital electronic series provides the best option for this. The design provides the required performance for a mobile environment and the high performance, 16 bit microcontroller provides the capability for future expansion.

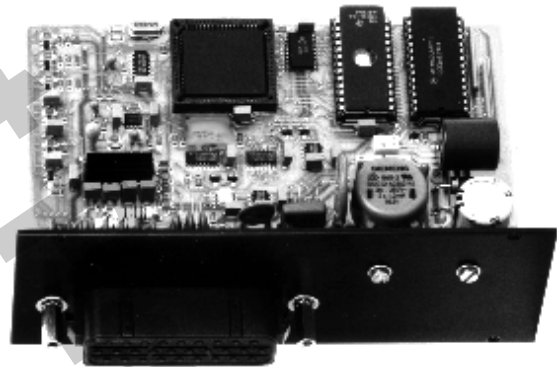
It is possible to load different software programs via the RS232 interface for the whole series without any hardware changes. This feature makes it possible for a non-electronically oriented user to use standard hardware for different applications if the appropriate software is selected.

The SUSMIC 10, 20 software and hardware have been developed so that communication between the controller and specially developed tools can be used to optimize the performance during production. This facility simplifies start-up, field service and stock.

Both computers are called also SUSMIC  CUBE for SUSMIC 20 and SUSMIC  SINGLE LOOP for SUSMIC 10. This terms are public established and helpfully used as slogan for this computers.



**SUSMIC  CUBE**



**SUSMIC  SINGLE LOOP**

**FEATURES: SUSMIC 20**

- Mobile off-highway microcomputer
- Modular, flexible design
- 16 bit microcontroller
- EEPROM
- Supply voltage 12V<sub>DC</sub> or 24V<sub>DC</sub> (one unit)
- RS232 interface
- CAN Bus network (optional)
- Software down load without hardware changes
- Easy service

## TECHNICAL DATA: SUSMIC 20

### ALUMINUM ENCLOSURE

IP 54

### SUPPLY VOLTAGE

12V<sub>DC</sub> or 24V<sub>DC</sub>

### SWITCHING INPUTS

4 (low side switching)

4 (high side switching)

8 (internal)

### ANALOG INPUTS

5 (0V<sub>DC</sub> to 5V<sub>DC</sub>)

### FREQUENCY INPUTS

3 (2- or 3-wire PPU)

### PROPORTIONAL OUTPUTS

2 bidirectional current sources (100mA in 60Ω)

Sensor voltage 5V<sub>DC</sub>

### SWITCHING OUTPUTS

4 (2A high side switching)

### LED OUTPUTS

2 LED's (internal supply voltage)

1 LED (internal under software control)

8 LED's (external status display)

### COMMUNICATION

RS232 (Printer, PC, memory card reader)

### DISPLAY

(Optional)

### NETWORK

(CAN, optional)

### CONTROLLER

Intel 80196 family

### MEMORY

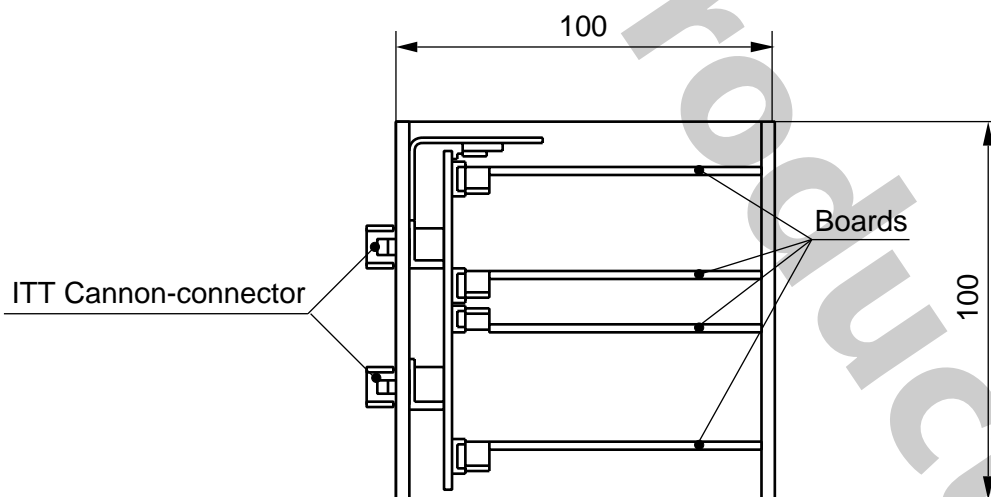
EEPROM: 32kByte

NVRAM: 28kByte

EPROM: 8kByte

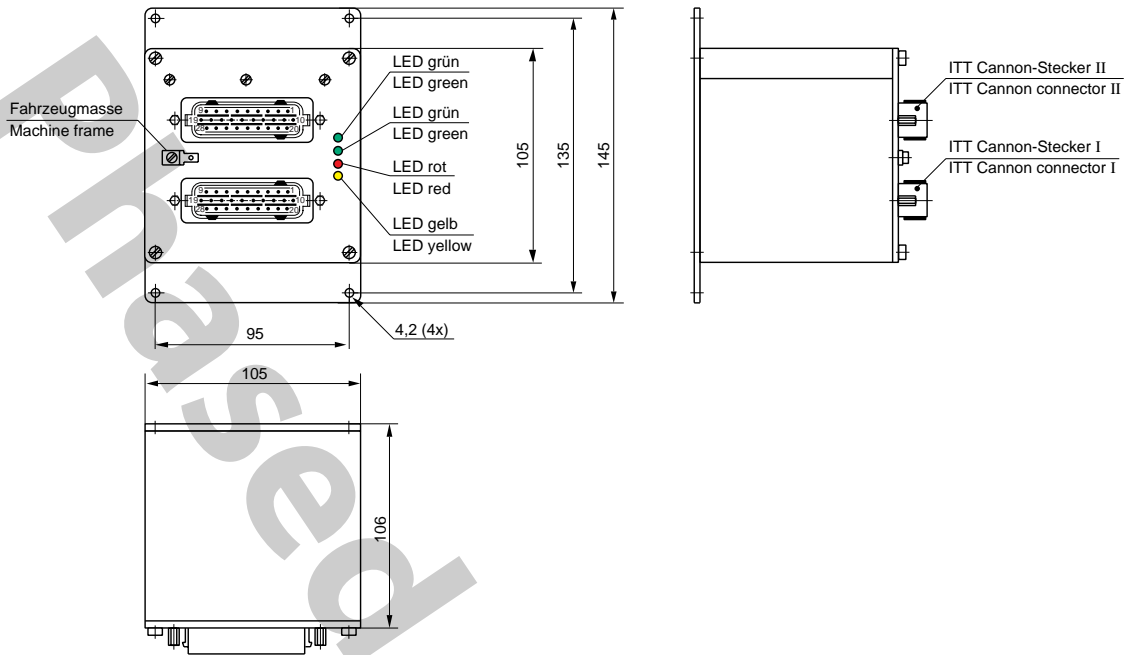
## INTERNAL HARDWARE DESIGN: SUSMIC 20

The SUSMIC 20 provides an excellent hardware flexibility based on 4 connected boards. I/O-board, power board, CPU-board and CAN-BUS board.



S00454

## DIMENSIONS: SUSMIC 20



508940

## FEATURES: SUSMIC 10

- Mobile off-highway microcomputer
- 16 bit microcontroller
- EEPROM
- Supply voltage  $12V_{DC}$  or  $24V_{DC}$  (one unit)
- RS232 interface
- Software load down without hardware changes
- Easy to service

## TECHNICAL DATA: SUSMIC 10

ALUMINUM ENCLOSURE  
IP 54

SUPPLY VOLTAGE  
 $12V_{DC}$  or  $24V_{DC}$

SWITCHING INPUTS  
3 (high side or ground side switching  $0V_{DC}$  to  $30V_{DC}$ )

ANALOG INPUTS  
2 ( $0V_{DC}$  to  $5V_{DC}$ ) supply voltage from SUSMIC  
2 ( $0V_{DC}$  to  $10V_{DC}$ )

FREQUENCY INPUTS  
2 (2- or 3-wire PPU)

SWITCHING OUTPUTS  
2 (2A high side switching)

### PROPORTIONAL OUTPUTS

2 unidirectional current sources (2x 100mA in  $30\Omega$  to  $60\Omega$ ) or  
1 bidirectional current source (160mA in  $30\Omega$  or 100mA in  $60\Omega$ ); (selection is under software control)  
Sensor voltage  $5V_{DC}$

### LED OUTPUTS

2 LED's software control  
1 LED supply voltage

COMMUNICATION  
RS232

CONTROLLER  
Intel 80196 family

### MEMORY

NVRAM: 8kByte  
Flash Eprom: 32kByte  
Eprom: 32kByte

**DIMENSIONS: SUSMIC 10**

