

# serial interface 5242



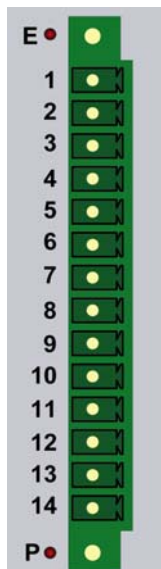
- 2 channel serial interface
- Galvanically isolated
- RS422 Interfaces (4-wire)
- 128 bytes FIFO for all channels
- Handles automatically handshake

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## Pinout

0	4	8	12
1	5	9	13
2	6	10	14
3	7	11	15

LED:	
0; (8)	reserved
1; (9)	reserved
4; (12)	reserved
5; (13)	reserved
E:	failure, red
P:	power supply, red



Pin	Signal
1	T1+
2	T1-
3	GND
4	R1+
5	R1-
6	GND
7	T2+
8	T2-
9	GND
10	R2+
11	R2-
12	GND
13	+24V
14	0V

## Attributes

**Dataformat:**  
 asynchron serial  
 1 start bit,  
 5,6,7 or 8 data bits,  
 parity none/even/odd  
 1 or 2 stop bits

### Available prints:

- @P5240L: 2 ch. serial. RS232, RTS, CTS left slot
- @P5240R: 2 ch. serial. RS232, RTS, CTS right slot
- @P5241L: 2 ch. serial. RS232/485, left slot
- @P5241R: 2 ch. serial. RS232/485, right slot
- @P5242L: 2 ch. serial. RS422, left slot
- @P5242R: 2 ch. serial. RS422, right slot
- @P5440L: 4 ch. serial. RS232, left slot
- @P5440R: 4 ch. serial. RS232, right slot
- @P5441L: 4 ch. serial. RS485, left slot
- @P5441R: 4 ch. serial. RS485, right slot

### Applications:

Connecting all kinds of devices with serial interfaces such as barcode reader, terminals, modems, data logger, text displays, serial keyboards and many others.

## Electrical Data

Power supply external ..... 24V DC +/-20%  
 Operating current..... 30mA at 24V, typical  
 Operating current @ctiveBus ..... 55mA at 3,3V, 0mA at 5V  
 Power supply protection..... 30V overvoltage, surge

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### System Information

System ID ..... 0x20E  
 System address space ..... 64 bit in, 64 bit out

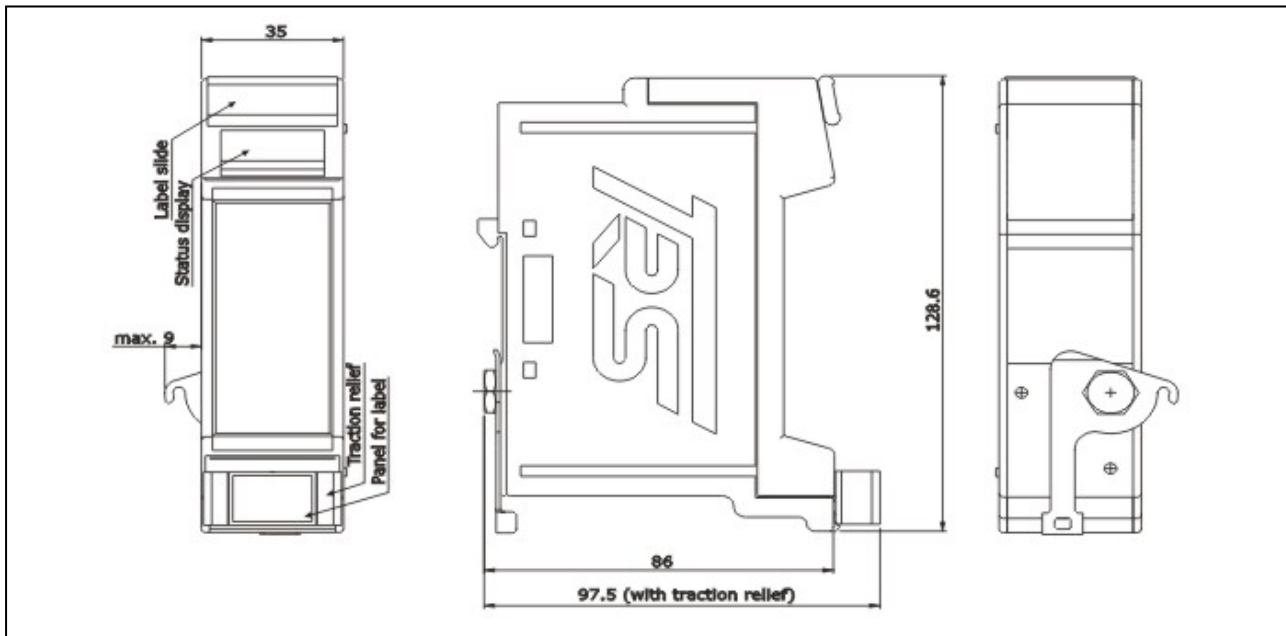
### Environmental Conditions

Electromagnetic compatibility (EMC) ..... EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)  
 Operating temperature [°C] ..... 0 .. +50  
 Storage temperature [°C] ..... -20 .. +70  
 Humidity (rel) ..... 98 % (non condensing)  
 Protection class\* ..... IP 20 (DIN 40 050)  
 \*The protection class is valid only with housing and connector installed

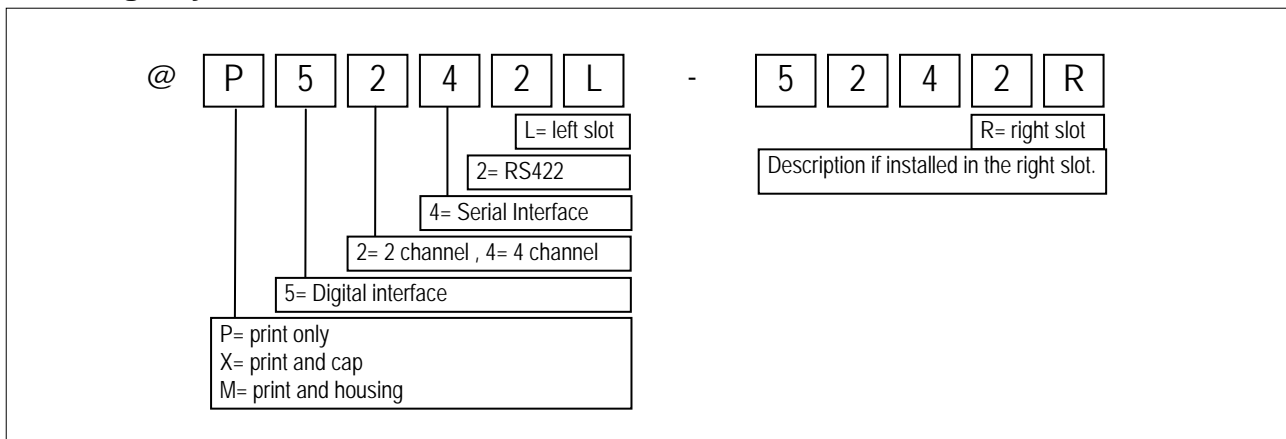
### Mechanical Data PCB

Weight ..... approx. 0.05 kg including connector  
 Dimension ..... 105mm x 80mm x 12mm

### Drawing (effective if mounted in @M housing)



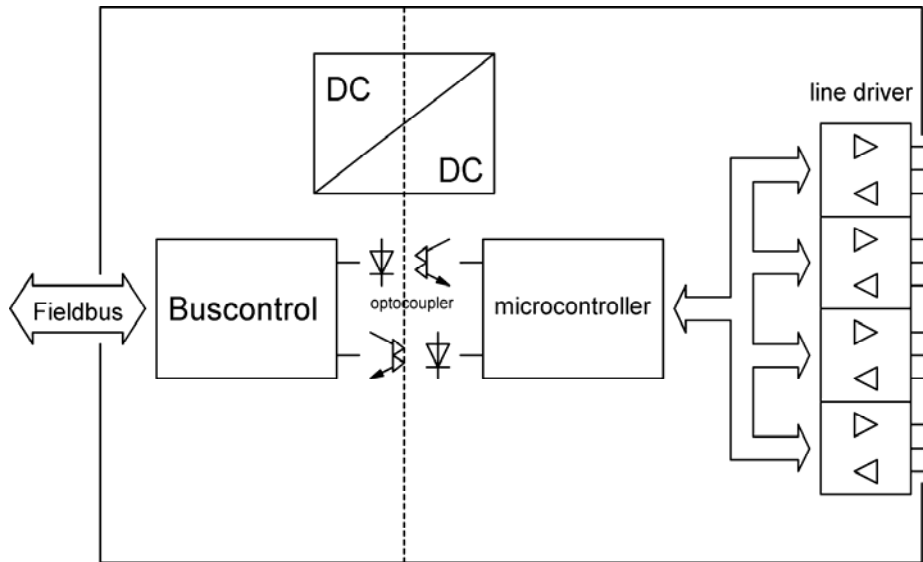
### Ordering Key



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**notes:**

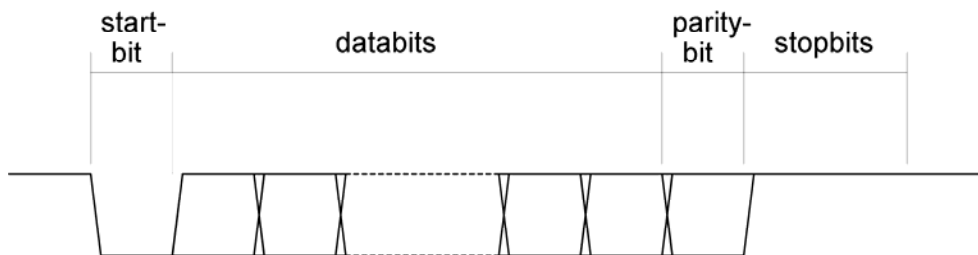
**Block diagram**



**Functional description**

The component connects different peripheral devices to the @ctive-IO-Bus. At the heart of the component is a microcontroller. All data from and to the serial interfaces passes over it. The microcontroller is connected to the bus controller using optocoupler. All serial interfaces are separated galvanically from the bus. The interfaces are not individually separated. Depending on the hardware configuration, RS232 or RS485/422 is available. As an option the microcontroller can use handshake-controls (RTS/CTS or XON/XOFF). The microcontroller controls the transmit direction when using RS485. The interface parameters are set by the host computer. Parameters like baud rate, data bits, stop bits and parity are selectable in a large range.

**Data format**



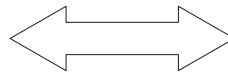
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### example of application:

Interface between different serial devices and @ctiveIO controller.  
For example connection to a serial modem.



Standardmodem (28,8k / 33,3k / 56k)



@P5242