

incremental interface master 5192



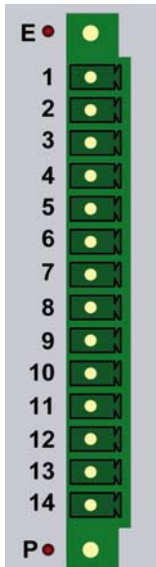
- Incremental interface master
- Data input voltage 5V RS485
- 1 interface
- Differential input / output

I/O

Pinout



LED:	0	A
	1	B
	4	Zero
	5	I 0
	6	I 1
E:	failure, red	
P:	power supply, red	



Pin	Signal
1	A Input
2	/A Input
3	B Input
4	/B Input
5	zero Input
6	/zero Input
7	I 0 Input
8	/I 0 Input
9	I 1 Input
10	/I 1 Input
11	Power +24V=
12	Power 0V
13	Power +24V=
14	Power 0V

All Power +24V= and Power 0V are internal connected

Attributes

Dataformat:
2 Byte Status
4 Byte Counter

Applications:

This print contains 2 programmable counters. According to the parametric representation the following operating modes are possible:

- 32-bit incremental counter with quadruple rejection of the incremental impulses (default)
- 2 independent 16-bit UP/DOWN impulse counters
- 32-bit UP/DOWN impulse counter with separate inputs for UP and DOWN
- through routing incremental signals to @P5191R virtual encoder repeater.

available prints :

- @P5192L: incremental interface master, 5V input/output

Related Applications:

The virtual encoder works together with the virtual encoder repeater.

- @P5191R: virtual encoder repeater, 5V output

digital

output

Electrical Data

Power supply external.....	GND required, 24V= ±20% optional
Operating current.....	< 100mA at 24 V
Input protection.....	30V overvoltage, surge
Counter.....	16 bit
Limiting frequency.....	0,65kHz-333,3kHz

incremental interface master 5192

System Information

System ID	0X281
System address space	48 bit in, 48 bit out

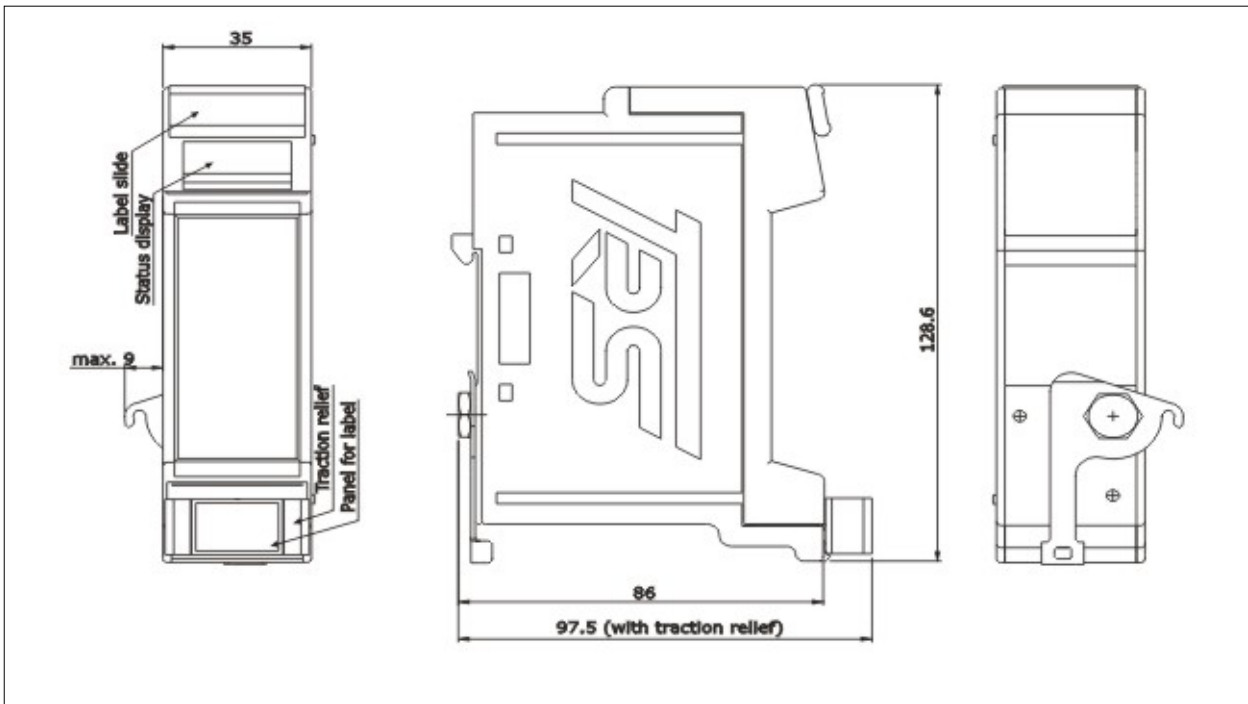
Environmental Conditions

Electromagnetic compatibility (EMC)	EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)
Operating temperature [°C]	0..+55
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 (effective if mounted in @M housing)

Weight	approx. 0.05 kg including connector (PCB only)
Dimension	105mm x 80mm x 12mm (PCB only)

Drawing (effective if mounted in @M housing)



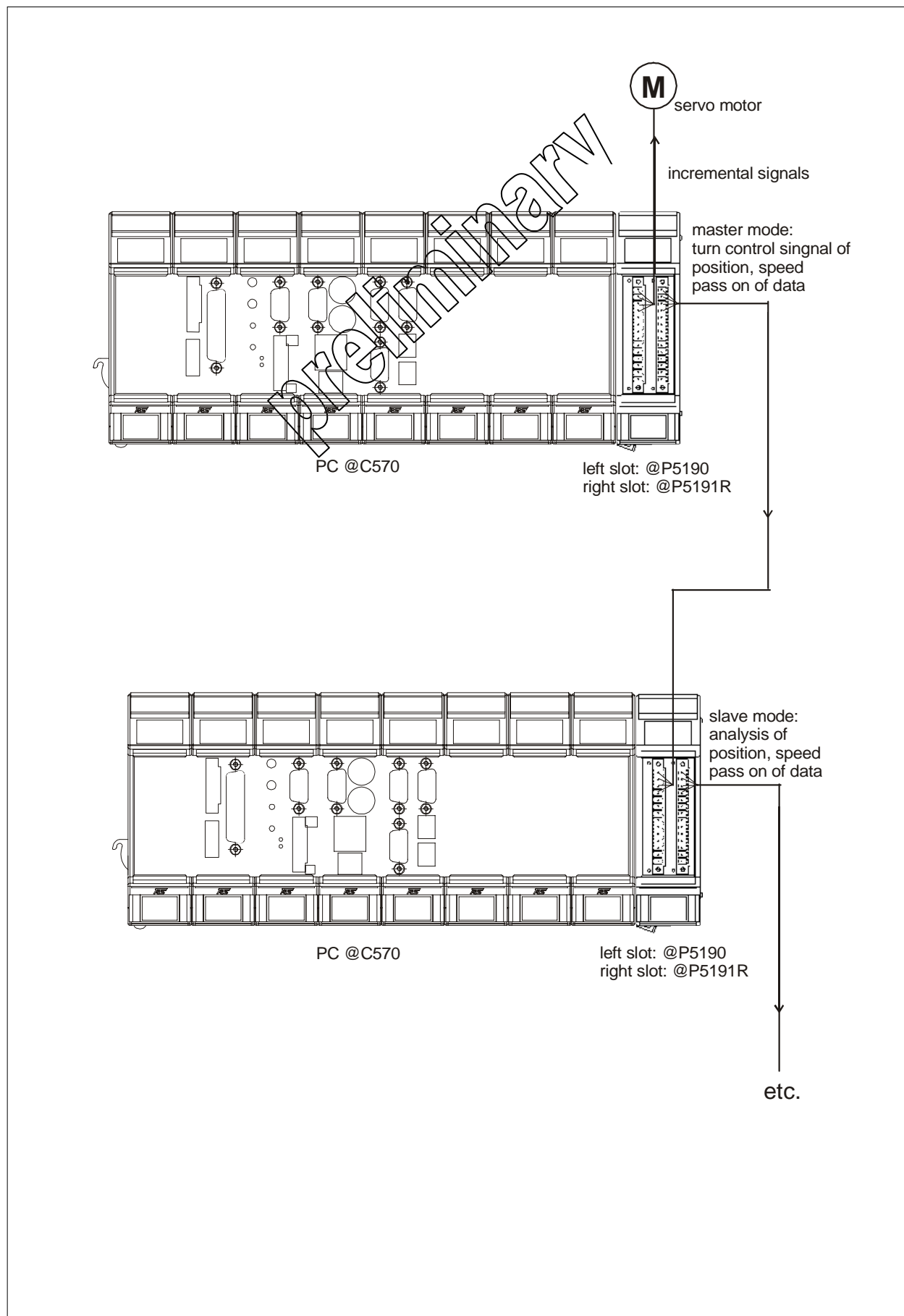
Ordering Key

@		5	1	9	0	L	-	5	1	9	1	R
						L= left slot						R= right slot
					0= Master						1= repeater	
				9= virtual encoder								
			1= 1 channel									
		5= digital interface										
	P= print only											
	X= print and cap											
	M= print and housing											

P5190L works only if used with P5191R (virtual encoder repeater). Single use is not possible.

TR-Systemtechnik GmbH, Eglisshalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de

Example of Application



I/O

digital

output

TR-Systemtechnik GmbH, Eglisshalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de

incremental interface master 5192

notes:

System bus data

Bit	Name	Description
0-15	Low Word 32bit Counter / Counter 1	Depending on operating mode this value is the 32bit-counter or the value of the independent 16bit-counters
16-31	High Word 32bit Counter / Counter 2	
32	E0 = REF_CAM	Value of input I0
33	E1 = Special	Value of input I1
34	ZERO	Value of Input zero
35	EN_ZERO	write 1: inputs 'I0' together with Input 'zero' set the counter to 0
		read: is set to 1 if the counter is set to 0
36	EN_LOAD_CNT	write 1: Copy bits 0-31 to counter
		read: is set to 1 if finished copying
37	not used	
38	not used	
39	WR_EN	must be set to one to use any function
40	STOP_Z1	stop counter1 or 32bit-counter
41	INV_Z1	change direction of counter 1 or 32bit-counter
42	OVER_Z1	write clear overflow-bit counter 1
		read read overflow-bit counter 1
43	STOP_Z2	stop counter 2
44	DOWN_Z2	set counter 2 countdirection to DOWN
45	OVER_Z2	write clear overflow-bit counter 2
		read read overflow-bit counter 2
46	not used	
47	not used	

Reset 32Bit Counter using inputs I0 /I0 and zero /zero

Set Bit35 and Bit 39 to 1
Signal I0 together with Signal zero set the counter to 0

To check if the counter has been reset, read bit 35. If bit 35 is 1 the counter has been reset. To reset the counter again first write 0 to bit 35 and then write 1 to bit 35.

Set 32Bit Counter

Set bit 0 – 31 to the new counter value
Set bit 36 and Bit 39 to 1

To check if the counter has been set, read bit 36. If bit 36 is 1 the counter has been set. To set the counter again first write 0 to bit 36 and then write 1 to bit 36.

Caution:
Power 0V has to be directly connected with power 0V of the interface partner and power 0V of the controller-module.

TR-Systemtechnik GmbH, Eglisshalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de