

Tehničke specifikacije

To the control of the			
Description	CPU 226M DC/DC/DC	CPU 226M AC/DC/Relay	
Order Number	CTS7 216-1AD33-0X24	CTS7 216-1BD33-0X24	
Physical Size			
Dimensions(W×H×D)	137×80×62mm	137×80×62mm	
Power loss(dissipation)	7W	10W	
Power Supply			
Line voltage-permissible	20.4 to 28.8VDC	85 to 264VAC,47 to 63Hz	
range			
Input current CPU only/max load	110/700 mA at 24 VDC	30/100 mA at 240 VAC 60/200 mA at 120 VAC	
In rush current(maximum)	10A at 28.8 VDC	20A at 264 VDC	
Isolation(input power to logic)	Not isolated	1500VAC	
Hold up time(from loss of input power)	10ms at 24VDC	80ms at 240VAC,20ms at 120VA	
Internal Fuse, not user- replaceable	2A,250V,Slow Blow	2A,250V,Slow Blow	
+5VDC power for Expansion I/O(max)	660mA	660mA	
24VDC Sensor Power Output	1		
Voltage range	15.4 to 28.8 VDC	20.4 to 28.8 VDC	
Maximum current	280 mA	280 mA	
Ripple noise(maximum)	Same as input line	Less than 1V peak to peak	
Current limit	600mA	600mA	
Isolation(sensorpower to logic circuit)	Not isolated	Not isolated	
CPU Features			
Onborad digital inputs	14 DC24V	14 DC24V	

Onborad digital outputs	10 DC24V	10 Relay
Program memory size	24KB base memory,can be expanded to 72KB	
Data block size	10KB base memory,can be expande to 110KB	
Stored permanently	10KB	
Backed by super	10KB	
capacitor or battery		
High-speed counters(32 bit valu	ie)	
Total	6 High-speed counters	
Single phase counters	6,each at 30KHz clock rate	
Two phase counters	4,each at 30KHz clock rate	
Pulse outputs	2 at 20KHz pulse rate	
Analog adjustments	2 with 8 bit resolution	
Timed interrupts	2 with 1ms resolution	
Edge interrupts	4 edge up and/or 4 edge down	
Selectable input filter times	7 ranges from 0.2ms to 12.8ms	
Pulse catch	14 pulse catch inputs	
Number of expansion I/O	7 modules	
Modules		
Maximum digital I/O	256 points(128 inputs / 128 outputs)	
Maximum analog I/O	64 points(32 inputs / 32 outputs)	
Internal memory bits	256 bits	
Stored permanently on power	ly on power 112 bits	
down		
Backed by super	256 bits	
capacitor or battery		
Timers Total	256 timers	
Backed by super	64 timers	
capacitor or battery	04 timers	
1ms	4 timers	
10ms	16 timers	
100ms	236 timers	
Counters total	256 counters	
Backed by super	256 counters	
capacitor or battery		

Boolean execution speed	0.15µs per instruction	
Float execution speed	8µs per instruction	
Super capacitor data retention time		
Onboard Communication		
Communication Interface	216-1AD/1BD: 3, PORTO for PPI in RS485,PORT1 in RS485 and RS232, FPROT for freeport in RS485 216-1AF/1BF: 3, PORTO in RS485 and RS232, FPROTO for freeport in RS485,FPROT1 for freeport in RS485	
Isolation(external signal to logic circuit)	Not isolated	
PPI/MPI baudrates	9.6,19.2,and 187.5 kbaud	
Freeport baudrates	0.3,0.6,1.2,2.4,4.8,9.6,19.2 and 38.4 kbaud	
Maximum cable length per segment		
Up to 38.4 kbaud	1200m	
187.5 kbaud	1000m	
Maximum number of stations		
Per segment	32 stations	
Per network	126 stations	
Maximum number of masters	32 masters	
PPI master mode(NETR/NETW)	Yes	
MPI connections	8 total,2 reserved:1 for PG and 1OP	
Input Features		
Number of integrated inputs	14 inputs	
Input type	Sink/Source(IEC Type 1 sink)	
Input Voltage		
Maxumum continuous permissible	30 VDC	
Surge	35 VDC for 0.5 s	
Rated value	24 VDC at 4 mA, nominal	
Logic 1 signal(minimum)	15 VDC at 2.5 mA, minimum	
Logic 0 signal(maximum)	5 VDC ata 1mA, maximum	
Isolation(Field Side to Logic Circuit)		
Optical isolation(Galvanic)	500 VAC for 1 minute	

(colotion groups of				
<u> </u>	8 points			
Input Delay Times				
Filtered inputs and interrupt	0.2 to 12.8 ms, user-selectable			
inputs				
HSC Clock Input Rate				
Single Phase				
Logic 1 lever = 15 to 30 VDC	20 kHz, maximum			
Logic 1 lever = 15 to 26 VDC	30 kHz, maximum			
Quadrature				
Logic 1 lever = 15 to 30 VDC	10 kHz, maximum			
Logic 1 lever = 15 to 26 VDC	20 kHz, maximum			
Connection of 2 Wire Proximity	Sensor(Bero)			
Premissible leakage current	1 mA, maximum			
Cable Length				
Unshielded(not HSC)	300 m			
Shielded	500 m			
HSC inputs, shielded	50 m			
Number of inputs ON Simultane	eously			
40℃	14			
50°C	14			
Output Feature				
Number of integrated				
outputs	10 outputs	10 outputs		
Output type	Solid State-MOSFET Relay, dry contact			
Output voltage				
Permissible range	20.4 to 28.8 VDC 5 to 30VDC or 5 to 250 VAC			
	24 VDC -			
Logic 1 signal at maximum	n o ve			
current	20 VDC, minimum -			

Number of output groups 2 3 Number of output groups 2 3 Number of output ON(maximum) 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Logic 0 signal with 10	0.1 VDC, maximum	_		
Logic 1 signal 0.75A 2A Number of output groups 2 Number of output groups 10 Number of output 10 ON(maximum) 10 Per group-horizontal mounting(maximum) 5 Per group-vertical mounting(maximum) 5 Maximum current per common/group 1,75A 8A Lamp load 5W 30W DC/200W AC ON state resistance(contact resistance) 10 µA, maximum 7A with contacts closed No No No Surge current 8A for 100 ms, maximum 7A with contacts closed No No No Solation Optical isolation(galvanic) 500 VAC for 1 minute 1 1500 V	hm load				
Number of output groups Number of output ON(maximum) Per group-horizontal mounting(maximum) Per group-vertical mounting(maximum) Per group-vertical mounting(maximum) Maximum current per common/group Lamp load SW 30W DC/200W AC ON state resistance(contact resistance) Leakage current per point Surge current AA for 100 ms, maximum AA with contacts closed Overload protection No No No Solotion resistance Isolation resistance Solotion coil to contact Isolation between open contacts In group of In group of S points In group of	Output Current	.			
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mounting(maximum) Per group-vertical mounting(maximum) Maximum current per common/group Lamp load ON state resistance(contact resistance) Leakage current per point Surge current Overload protection No No Overload protection Optical isolation (galvanic) Isolation resistance Isolation between open contacts In group of Inductive Load Clamping Repetitive energy dissipation On to Off On to Off Swap A/3/3 4/3/3 A/3/3 A/3/2 A/3/3 A/3/3 A/3/3 A/3/3 A/3/2 A/3/3 A/3/2 A/3/3 A/3/3 A/3/2 A/3/3 A/3/A A A A A A A A A A A A A	ON(maximum)				
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ON state resistance (contact resistance) 0.3 ohm 0.2 ohm,maximum when new 2 one of the property of the pro	common/group	5.73A	OA .		
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Isolation coil to contact Isolation between open contacts In group of 5 points 3 points Inductive Load Clamping Repetitive energy dissipation 1W, all channels - Clamp voltage limits L+ minus 48V - Output Delay Off to On 15 µs, maximum - On to Off 100 µs, maximum - Switching Frequency (pulse train outputs)	Optical isolation(galvanic)	500 VAC for 1 minute	-		
Isolation between open contacts In group of 5 points 3 points Inductive Load Clamping Repetitive energy dissipation 1W, all channels - Clamp voltage limits L+ minus 48V - Output Delay Off to On 15 \mus, maximum - On to Off 100 \mus, maximum - Switching Frequency(pulse train outputs)	Isolation resistance	-	100 Mohm, minimum when new		
In group of 5 points 3 points Inductive Load Clamping Repetitive energy dissipation 1W, all channels - Clamp voltage limits L+ minus 48V - Output Delay Off to On 15 µs, maximum - On to Off 100 µs, maximum - Switching Frequency(pulse train outputs)	Isolation coil to contact	-	1500 VAC for 1 minute		
In group of 5 points 3 points Inductive Load Clamping Repetitive energy dissipation 1W, all channels - Clamp voltage limits L+ minus 48V - Output Delay Off to On 15 µs, maximum - On to Off 100 µs, maximum - Switching Frequency(pulse train outputs)	Isolation between open		750.04.66 1 : .		
Inductive Load Clamping Repetitive energy dissipation 1W, all channels - Clamp voltage limits L+ minus 48V - Output Delay Off to On 15 µs, maximum - On to Off 100 µs, maximum - Switching Frequency(pulse train outputs)	contacts	-	750 VAC for Iminute		
Repetitive energy dissipation 1W, all channels - Clamp voltage limits L+ minus 48V - Output Delay Off to On 15µs,maximum - On to Off 100µs,maximum - Switching Frequency(pulse train outputs)	In group of	5 points	3 points		
Clamp voltage limits	Inductive Load Clamping				
Output Delay Off to On 15 µs, maximum - On to Off 100 µs, maximum - Switching Frequency(pulse train outputs)	Repetitive energy dissipation	1W, all channels	-		
Off to On 15µs,maximum - On to Off 100µs,maximum - Switching Frequency(pulse train outputs)	Clamp voltage limits	L+ minus 48V	-		
On to Off 100µs,maximum - Switching Frequency(pulse train outputs)	Output Delay				
Switching Frequency(pulse train outputs)	Off to On	15µs,maximum	-		
	On to Off	100µs,maximum	-		
Q0.0 and I0.0 20 kHz, maximum 1 Hz, maximum	Switching Frequency(pulse train outputs)				
	Q0.0 and I0.0	20 kHz, maximum	1 Hz, maximum		

Relay			
Switching delay	-	10 ms,maximum	
Lifetime mechanical(no		20 000 000 /-	
load)	_	20,000,000 open/close cycles	
Lifetime contacts at rated		200,000 anan/slasa ayslas	
load(2A)	-	300,000 open/close cycles	
Cable Length			
Shielded	500 m	500 m	
Unshielded	150 m	150 m	

Accessory

- 1. RS232 Programmable Cable
 - 2. Battery
 - 3. Memory Card

2.

Raspored pinova komunikacionog porta

216-1AD/2161BD:

DB9 Female	PIN	PORT0(PPI)	PORT1(PPI)	FPORT(Freeport)
	1	Shell Ground	Shell Ground	1 : Shell Ground
	2	Logical Ground	RS232 Signal RXD	2 : RS485 Signal B/+
	3	RS485 Signal B	RS485 Signal B	3 : RS485 Signal A/-
	4	Send Request	Send Request	
	5	Logical Ground	Logical Ground	
	6	+5V , 100Ω	+5V , 100Ω	
	7	+24V	Null/+24V	
	8	RS485 Signal A	RS485 Signal A	
	9	Reserved	RS232 Signal TXD	
	Shell	Shell Ground	Shell Ground	