



### Tehničke specifikacije

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 range	20.4 to 28.8VDC	85 to 264VAC,47 to 63Hz
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 120VAC
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		
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		
Onboard digital inputs	14 DC24V	14 DC24V

Onboard 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 expanded to 110KB	
Stored permanently	10KB	
Backed by super capacitor or battery	10KB	
High-speed counters(32 bit value)		
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 Modules	7 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 down	112 bits	
Backed by super capacitor or battery	256 bits	
Timers Total	256 timers	
Backed by super capacitor or battery	64 timers	
1ms	4 timers	
10ms	16 timers	
100ms	236 timers	
Counters total	256 counters	
Backed by super capacitor or battery	256 counters	

Boolean execution speed	0.15 $\mu$ s per instruction
Float execution speed	8 $\mu$ s per instruction
Super capacitor data retention time	100 hours, typical
Onboard Communication	
Communication Interface	216-1AD/1BD: 3, PORT0 for PPI in RS485,PORT1 in RS485 and RS232, FPROT for freeport in RS485 216-1AF/1BF: 3, PORT0 in RS485 and RS232, FPROT0 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

Isolation groups of	8 points	
Input Delay Times		
Filtered inputs and interrupt inputs	0.2 to 12.8 ms, user-selectable	
HSC Clock Input Rate		
Single Phase		
VDC Logic 1 lever = 15 to 30	20 kHz, maximum	
VDC Logic 1 lever = 15 to 26	30 kHz, maximum	
Quadrature		
VDC Logic 1 lever = 15 to 30	10 kHz, maximum	
VDC Logic 1 lever = 15 to 26	20 kHz, maximum	
Connection of 2 Wire Proximity Sensor(Bero)		
Permissible leakage current	1 mA, maximum	
Cable Length		
Unshielded(not HSC)	300 m	
Shielded	500 m	
HSC inputs,shielded	50 m	
Number of inputs ON Simultaneously		
40°C	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
Rated value	24 VDC	-
Logic 1 signal at maximum current	20 VDC, minimum	-

Logic 0 signal with 10 kohm load	0.1 VDC, maximum	-
Output Current		
Logic 1 signal	0.75A	2A
Number of output groups	2	3
Number of output ON(maximum)	10	10
Per group-horizontal mounting(maximum)	5	4/3/3
Per group-vertical mounting(maximum)	5	4/3/3
Maximum current per common/group	3.75A	8A
Lamp load	5W	30W DC/200W AC
ON state resistance(contact resistance)	0.3 ohm	0.2 ohm,maximum when new
Leakage current per point	10 $\mu$ A, maximum	-
Surge current	8A for 100 ms, maximum	7A with contacts closed
Overload protection	No	No
Isolation		
Optical isolation(galvanic)	500 VAC for 1 minute	-
Isolation resistance	-	100 Mohm, minimum when new
Isolation coil to contact	-	1500 VAC for 1 minute
Isolation between open contacts	-	750 VAC for 1minute
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 $\mu$ s,maximum	-
On to Off	100 $\mu$ s,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 load)	-	20,000,000 open/close cycles
Lifetime contacts at rated 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	