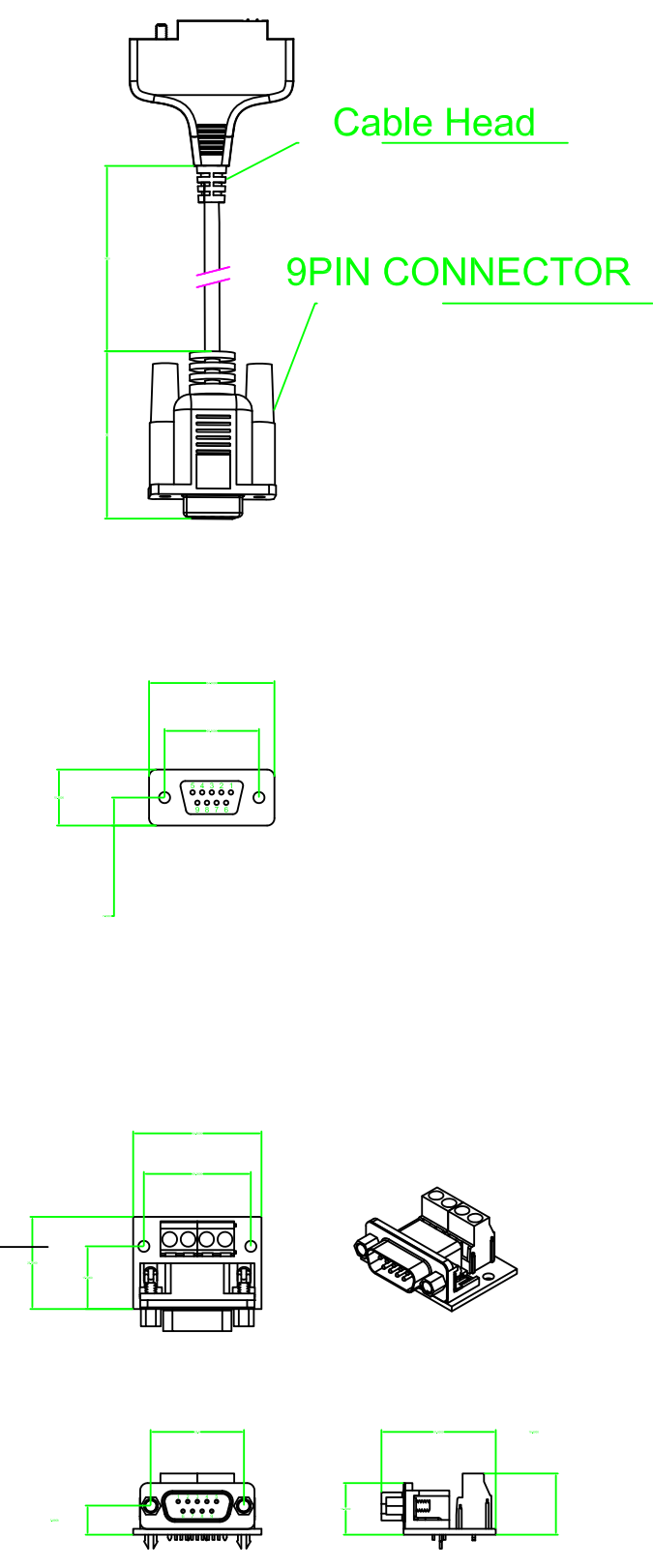


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The Modbus protocol was originally developed for Modicon controllers by Modicon Inc. Visit <http://www.modbus.org> to find more valuable information.
TC-Pro48x series support the Modbus ASCII protocol. The communication Baud Rates range from 1200bps to 57600bps. The following Modbus functions are supported.



Cable Head

9PIN CONNECTOR

ADP090401

PIN	CODE	Description	Signal(232)	Signal(485)	Signal(422)	ADP-090401	Color	Note
Pin1	CD	(Carrier Detect)	CAB-090A232	CAB-090A485	CAB-090A422			
Pin2	RXD	(Receive)	PC RXD	485A	A	A	Black	
Pin3	TXD	(Transmit)	PC TXD	485B	B	B	Brown	
Pin4	DTR	(Data Terminal Ready)			Y	Y	Red	
Pin5	GND	(Ground)	G		Z	Z	Orange	
Pin6	DSR	(Data Sel Ready)						
Pin7	RTS	(Request To Send)					Yellow	
Pin8	CTS	(Clear To Send)					Green	
Pin9	RI	(Ring Indicator)						

Type	Address	R/W	Valid value	Write	Description	Note
Timer						
Setting	0x440	R/W	0 ~ 9	N	Time Range	
	0x442	R/W	0 ~ 1	N	Timer Mode	
	0x444	R/W	0 ~ 9	N	Output Mode	
	0x446	R/W	0000 ~ 9999	N	Output Time	Low word
Setting	0x448	R/W	00 ~ 99	N	Output Time	High word
	0x44a	R/W	0000 ~ 9999	Y	Set Value(not z Mode) (Cycle Timesz Mode)	Low word
Setting	0x44c	R/W	00 ~ 99	Y	Set Value(not z Mode) (Cycle Timesz Mode)	High word
	0x44e	R/W	0 ~ 100	Y	Duty % (z Mode)	
Count Value A	0x502	R	0000 ~ 9999	Y	Count Value A	Low word
	0x504	R	00 ~ 99	Y	Count Value A	High word
Count Value B	0x502	R	0000 ~ 9999	Y	Count Value B(z Mode)	Low word
	0x504	R	00 ~ 99	Y	Count Value B(z Mode)	High word
Dual Timer						
Setting	0x460	R/W	0 ~ 9	N	off Time Range	
	0x462	R/W	0 ~ 9	N	on Time Range	
	0x464	R/W	0 ~ 1	N	Timer Mode	
	0x466	R/W	0 ~ 1	N	Output Mode	
Setting	0x468	R/W	0000 ~ 9999	Y	OFF Set Value	Low word
	0x46a	R/W	00 ~ 99	Y	OFF Set Value	High word
Setting	0x46c	R/W	0000 ~ 9999	Y	ON Set Value	Low word
	0x46e	R/W	00 ~ 99	Y	ON Set Value	High word
Count Value	0x502	R	0000 ~ 9999	Y	Count Value	Low word
	0x504	R	00 ~ 99	Y	Count Value	High word
2-Stage Timer						
Setting	0x480	R/W	0 ~ 1	N	Forecast Absolute	
	0x482	R/W	0 ~ 9	N	Time Range	
	0x484	R/W	0 ~ 1	N	Output Mode	
	0x486	R/W	0000 ~ 9999	Y	Set Value 1	Low word
Setting	0x488	R/W	00 ~ 99	Y	Set Value 1	High word
	0x48a	R/W	0000 ~ 9999	Y	Set Value 2	Low word
Setting	0x48c	R/W	00 ~ 99	Y	Set Value 2	High word
	0x48e	R/W	00 ~ 99	Y	ON Set Value	High word
Count Value A	0x502	R	0000 ~ 9999	Y	Count Value A	Low word
	0x504	R	00 ~ 99	Y	Count Value A	High word
General Setting						
Setting	0x432	R/W	0 ~ 8	N	Type Function	TC-Pro480 0-2, TC-Pro481 3-8
	0x434	R/W	0 ~ 1	N	reset Input signal width	
Setting	0x436	R/W	0 ~ 1	N	np/np Input Mode	
	0x438	R/W	0 ~ 4	N	kp level	
	0x43c	R/W	0 ~ 1	N	kp on/off	
	0x43e	R/W	0 ~ 1	N	Communicate Write Disable/Enable	
System Setting						
Setting	0x4d2	R/W	0 ~ 1	N	System Status	start / reset Timer
	0x578	R/W	0 ~ 1	N	System Flag	The flag value 1 will move the RAM value to ROM
Frequency Offset Compensation						
Setting	0x840	R/W	0000 ~ 0001	N	Compensation direction (+/-)	
	0x842	R/W	0000 ~ mHz	N	Frequency offset compensation value	
	0x844	R/W	0000 ~ 7Hz	N	Frequency offset compensation value	
	0x846	R/W	0000	N	Override 0000	
	0x848	R/W	0000	N	Override 0000	
	0x84a	R/W	0000	N	Override 0000	
	0x84c	R/W	1234	N	Override 1234	
LCD Display						
OUT I/2	0x50a	R/W		N	out1 Display	bit3
	0x50a	R/W		N	out2 Display	bit4
	0x429	R/W		N	reset1 Display	bit3
	0x424	R/W		N	reset2 Display	bit0

Type	Address	R/W	Valid value	Write	Description	Note
1-Stage / 2-Stage / Total / Batch / Dual Counter						
Setting	0x6a0	R/W	0 ~ 4	N	Input mode	
	0x6a2	R/W	0 ~ b	N	Output mode	
	0x6a4	R/W	0 ~ 1	N	Counting speed	
	0x6a6	R/W	0 ~ 3	N	Decimal point position	
Prescale value	0x6a8	R/W	0000 ~ 9999	N	Prescale value	Low word
	0x6aa	R/W	0000 ~ 0009	N	Prescale value	High word
Output time 1	0x6b4	R/W	0000 ~ 9999	N	Output time 1	Low word
	0x6b6	R/W	0000 ~ 0099	N	Output time 1	High word
Output time 2	0x6b8	R/W	0000 ~ 9999	N	Output time 2	Low word
	0x6ba	R/W	0000 ~ 0099	N	Output time 2	High word
1-Stage Counter						
Set value 1	0x6ac	R/W	0000 ~ 9999	Y	Set value 1	Low word
	0x6ae	R/W	0000 ~ 0099	Y	Set value 1	High word
	0x6c6	R/W	0 ~ 1	Y	Set value 1 +/-	(1:0/0:1)
	0x924	R/W	0000 ~ 9999	Y	Count value 1	Low word
Count value 1	0x926	R/W	0000 ~ 0099	Y	Count value 1	High word
	0x928	R/W	0 ~ 1	Y	Count value 1 +/-	
2-Stage Counter						
Set value 1	0x6ac	R/W	0000 ~ 9999	Y	Set value 1	Low word
	0x6ae	R/W	0000 ~ 0099	Y	Set value 1	High word
	0x6c6	R/W	0 ~ 1	Y	Set value 1 +/-	
	0x6b0	R/W	0000 ~ 9999	Y	Set value 2	Low word
Set value 2	0x6b2	R/W	0000 ~ 0099	Y	Set value 2	High word
	0x6c8	R/W	0 ~ 1	Y	Set value 2 +/-	
Count value 1/2	0x924	R/W	0000 ~ 9999	Y	Count value 1 / 2	Low word
	0x926	R/W	0000 ~ 0099	Y	Count value 1 / 2	High word
0x928	R/W	0 ~ 1	Y	Count value 1 / 2 +/-		
Batch Counter						
Set value 1	0x6ac	R/W	0000 ~ 9999	Y	Set value 1	Low word
	0x6ae	R/W	0000 ~ 0099	Y	Set value 1	High word
	0x6c6	R/W	0 ~ 1	Y	Set value 1 +/-	
	0x6b0	R/W	0000 ~ 9999	Y	Set value 2	Low word
Set value 2	0x6b2	R/W	0000 ~ 0099	Y	Set value 2	High word
	0x6c8	R/W	0 ~ 1	Y	Set value 2 +/-	
Count value 1	0x924	R/W	0000 ~ 9999	Y	Count value 1	Low word
	0x926	R/W	0000 ~ 0099	Y	Count value 1	High word
Count value 2	0x928	R/W	0 ~ 1	Y	Count value 1 +/-	
	0x92a	R/W	0000 ~ 9999	Y	Count value 2	Low word
Count value 2	0x92c	R/W	0000 ~ 0099	Y	Count value 2	High word
	0x92e	R/W	0 ~ 1	Y	Count value 2 +/-	
Dual Counter (initial must set for 1)						
Setting	0x6bc	R/W	0 ~ 1	N	Dual Counter mode	
	0x6ac	R/W	0000 ~ 9999	Y	Set value 1	Low word
Set value 1	0x6ae	R/W	0000 ~ 0099	Y	Set value 1	High word
	0x6c6	R/W	0 ~ 1	Y	Set value 1 +/-	
Count value 1	0x924	R/W	0000 ~ 9999	Y	Count value 1	Low word
	0x926	R/W	0000 ~ 0099	Y	Count value 1	High word
Count value 2	0x928	R/W	0 ~ 1	Y	Count value 1 +/-	
	0x92a	R/W	0000 ~ 9999	Y	Count value 2	Low word
Count value 2	0x92c	R/W	0000 ~ 0099	Y	Count value 2	High word
	0x92e	R/W	0 ~ 1	Y	Count value 2 +/-	
Tachometer						
Setting	0x6be	R/W	0 ~ 3	N	Output mode	
	0x6c0	R/W	0 ~ 3	N	Average processing	
	0x6c2	R/W	000 ~ 9999	N	Auto-zero time	
	0x6c4	R/W	000 ~ 9999	N	Startup time	
Set value 1	0x6ac	R/W	0000 ~ 9999	Y	Set value 1	Low word
	0x6ae	R/W	0000 ~ 0099	Y	Set value 1	High word
Set value 2	0x6b0	R/W	0000 ~ 9999	Y	Set value 2	Low word
	0x6b2	R/W	0000 ~ 0099	Y	Set value 2	High word
Count value 1/2/3	0x924	R/W	0000 ~ 9999	Y	Count value 1	Low word
	0x926	R/W	0000 ~ 0099	Y	Count value 1	High word
General Setting						
Setting	0x432	R/W	0 ~ 8	N	Type Function	TC-Pro480 0-2, TC-Pro481 3-8
	0x434	R/W	0 ~ 1	N	reset Input signal width	
Setting	0x436	R/W	0 ~ 1	N	np/np Input mode	
	0x438	R/W	0 ~ 4	N	kp level	
	0x43c	R/W	0 ~ 1	N	kp on/off	
	0x43e	R/W	0 ~ 1	N	Communicate Write Disable/Enable	
System Setting						
Setting	0x4d2	R/W	0 ~ 1	N	System Status	start / reset Timer
	0x578	R/W	0 ~ 1	N	System Flag	The flag value 1 will move the RAM value to ROM
LCD Display						
OUT I/2	0x50a	R/W		N	out1 Display	bit3
	0x50a	R/W		N	out2 Display	bit4
	0x429	R/W		N	reset1 Display	bit3
	0x424	R/W		N	reset2 Display	bit0

No.	Description	Material	Q'ty	Surface	Remark
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Project :					TC-PRO4802
Title :					TC-Pro482 Series Address Mapping
Scale	Drawer	Checked	Approved	Date	
1/1	Dennie	.	.	14,11,12	
Dwg No.	T C M D 4 8 2 1				Rev.

Rev.	Description	Checked	Date	Dwg No.	Rev.
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