EPC-TM2 Instruction Manual

EPC-TM2 includes two digital inputs, two PT100 thermal detection analog inputs, two relay outputs and two analog outputs (current 0~20mA / Voltage 0~10V optional).

1. Picture of the Board



Fig. 1 Picture of EPC-TM2

2. Specification of User Terminals

2.1 Specification of Terminals

Terminal	Function
CN3	Two PT100 thermal detection analog inputs Two digital inputs Two analog outputs
CN4	Two relay outputs
J1	PE terminal

2.2 Specification of Jumper

Jumper	Function	Default
S1	Analog output 1 current/voltage output option	AO1-I (current output)
S2	Analog output 2 current/voltage output option	AO2-I (current output)

3. Wiring

3.1 CN3 Wiring

Name	Function
EAI1	PT100 thermal detection analog input 1
GND	
EAI2	PT100 thermal detection analog input 2
GND	
EAO1	Analog output 1: 0~20mA: impedance requirement 200Ω~500Ω 0~10V: impedance requirement ≥10KΩ 0~20mA and 0~10V can be selected by slide switch S1.
EAO2	Analog output 2: 0~20mA: impedance requirement 200Ω~500Ω 0~10V: impedance requirement ≥10KΩ 0~20mA and 0~10V can be selected by slide switch S2
+24V	+24V
PLC	Digital input common terminal
COM	+24V ground
EX1~2	Digital input terminals 1~2: Input specifications: 24VDC, 5Ma Frequency range: 0~200HZ Voltage Range: 10V~30V

3.2 CN4 Wiring

Name	Function
ERA	Relay output 1: ERA-ERB: normally closed
ERB	ERA-ERC: normally opened
ERC	Contact capacity: 250VAC/3A, 30VDC/3A
ETA	Relay output 2: ERA-ERB: normally closed
ETB	ERA-ERC: normally opened
ETC	Contact capacity: 250VAC/3A, 30VDC/3A

4. Parameter lists

4.1 EAI1&EAI2.

EAI1&EAI2 terminal at TM2 board only support PT100 temperature sensor input, don't support 0~10V/0~20mA input.

Default motor temperature detection function can only be used for motor overtemperature protection. If real time monitoring of motor temperature is required, please contact us for customized firmware according to specified requirements.

Below table is the parameter list for TM2 card EAI1&EAI2 terminal function at GK620 platform

d0-25	Temperature transducer signal input of motor 1	2: EAI1 (TM2 card)	1	×
d3-25	Temperature transducer signal input of motor 2	2: EAI1 (TM2 card)	0	×

GK820 don't support EAI1&EAI2 terminals at TM2 board as default. Please contact us for customized firmware according to specified requirements if EAI1&EAI2 terminals is needed for GK820 platform.

4.2 EAO1&EAO2.

Below table is the parameter list for TM2 card EAO1&EAO2 terminal function at GK620 platform.

C3-01	EAO1 output function (on IO option)	Same as C3-00	1	△
C3-06	EAO1 offset	-100.0%~100.0%	0.0%	×
C3-07	EAO1 gain	-2.000~2.000	1.000	×
C3-08	EAO1 filtering time	0.0s~10.0s	0.0s	△
U0-16	EAO1 output	0.0%~100.0%	0.0%	◎

C4-25	EAO2 output function	Same as C3-00	0	△
C4-26	EAO2 offset	-100.0%~100.0%	0.0%	×
C4-27	EAO2 gain	-2.000~2.000	1.000	×
C4-28	EAO2 filtering time	0.0s~10.0s	0.0s	△
U0-61	EAO2 output	0.0%~100.0%	0.0%	◎

Below table is the parameter list for TM2 card EAO1&EAO2 terminal function at GK820 platform. GK820 don't support EAO2 terminal at TM2 card as default, if 4 AO terminals are required, please contact us for dedicated firmware.

C4-25	EAO1 output function	Same as C3-00	0	△
C4-26	EAO1 offset	-100.0%~100.0%	0.0%	×
C4-27	EAO1 gain	-2.000~2.000	1.000	×
C4-28	EAO1 filtering time	0.0s~10.0s	0.0s	△

4.3 EXI&EX2

Below table is the parameter list for TM2 card EX1 & EX2 terminal function at GK620 platform.

C0-07	Function of terminal EX1 (on IO option board)	Same as C0-01	0	×
C0-11	Filtering time of digital input terminal	0.000s~1.000s	0.010s	△
C0-15	Digital input terminal enabled status setting 2	Hundreds place: EX1 (on IO option board) 0: Positive logic 1: Negative logic	0000	×
C0-20	Option of virtual input terminal	000~77F 0: Actual terminal in effect 1: Virtual terminal in effect Ones place: BIT0~BIT3: X1~X4	000	×

		Tens place: BIT4~BIT6: X5~X6, EX1 Hundreds place: BIT8~BIT10: AI1~AI2, EAI1 (EX1 and EAI1 located at IO option board)		
U0-18	Digital input terminal status	00~7F	00	◎
C4-23	Function of terminal EX2	Same as C1-00	0	×

Below table is the parameter list for TM2 card EX1 & EX2 terminal function at GK820 platform. GK820 don't support EX2 terminal at TM2 card as default, if EX2 terminals are required, please contact us for dedicated firmware.

C4-23	Function of terminal EX1	Same as C1-00	0	×
C0-11	Filtering time of digital input terminal	0.000s~1.000s	0.010s	△
C0-15	Digital input terminal enabled status setting 2	Thousands place: EX1 (on IO option board) 0: Positive logic 1: Negative logic	0000	×
U0-18	Digital input terminalstatus	00~7F	00	◎

4.4 ERA/ERB/ERC

Below table is the parameter list for TM2 card ERA/ERB/ERC terminal function at GK620 platform.

C1-03	Option board relay output function (ERA/ERB/ERC)	Same as C1-02	15	△
C1-07	Option board relay output time delay (ERA/ERB/ERC)	0.0s~3600.0s	0.0s	△
C1-08	Enabled state of digital output ERA/ERB/ERC	Ones place: Y1 0: Positive logic 1: Negative logic Tens place: Y2 (same as ones place) Hundreds place: control board relay output (same as ones place) Thousands place: option board relay output ERA/ERB/ERC (same as ones place)	0000	×

Below table is the parameter list for TM2 card ERA/ERB/ERC terminal function at GK820 platform.

C4-29	Option board relay output function ERA/ERB/ERC)	Same as C1-00	0	△
C4-30	Option board relay output delay time (ERA/ERB/ERC)	0.0s~3600.0s	0.0s	△
C4-32	Enabled state of digital output ERA/ERB/ERC	0: Positive logic 1: Negative logic	0	×

4.5 ETA/ETB/ETC

Below table is the parameter list for TM2 card ETA/ETB/ETC terminals function at GK620 platform.

C4-29	Option board relay output function ETA/ETB/ETC	Same as C1-00	0	△
C4-30	Option board relay output delay time (ETA/ETB/ETC)	0.0s~3600.0s	0.0s	△
C4-32	Enabled state of digital output ETA/ETB/ETC	0: Positive logic 1: Negative logic	0	×

GK820 don’t support ETA/ETB/ETC terminals at TM2 card as default, if ETA/ETB/ETC terminals are required, please contact us for dedicated firmware.