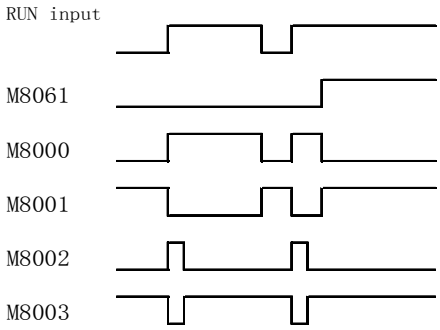
Chapter 8 special relay

PC status (M)

Device No.	Function	Operation
8000	RUN monitor (NO contact)	
8001	RUN monitor (NC contact)	
8002	Initial pulse (NO contact)	
8003	Initial pulse (NC contact)	
8004	Error occurrence	ON when one or more flags of M8061,M8064~M8067 are ON
8005	Warning occurrence	ON when one or more flags of M8060,M8063, M8069 are ON
8006	Battery low voltage	ON when battery voltage is too low. OFF when a new battery is installed.
8007	Latch for battery low voltage	ON when battery voltage is too low.

Clock device (M)

Device No.	Function	Operation
8011	10ms period oscillator	5ms ON/5ms OFF
8012	100ms period oscillator	50ms ON/50ms OFF
8013	1s period oscillator	0.5s ON/0.5s OFF
8014	1min period oscillator	30s ON/30s OFF
8015	Clock stop and set	Stop timing and reset the clock
8016	Stop displaying clock time	Stop displaying clock time
8017	+/-30s offset	+/-30 s offset for internal time
8018	RTC detection	Check whether RTC is enabled.
8019	RTC error	Clock is set out of the range.

Operation flags (M)

Device No.	Function	Operation
8020	Zero	On when the result of add or subtract is 0
8021	Borrow	On when the result of subtract is smaller than the minimum negative number of the system
8022	Carry	ON when the result of add should be carry
8023		
8024	BMOV direction	(F15) 0: forward,1:reverse
8026	RAMP mode	(F67)0: reset, 1: keep
8027	PR mode	(F77)0: 8bytes;1: 16bytes
8029	Instruction execution ends	ON when the instruction as DSW(F72) is finished

Chapter 8 Special Relay

PC status (D)

Device No.	Function	Operation
8001	TP03 type	
8002	Version	10 represents 1.0 version
8004	Error code	
8005	Warning code	

RTC (D)

Device No.	Function	Operation
8010	Present scan time(1ms unit)	
8011	Min scan time	
8012	Max scan time	
8013	Second (0~59)	
8014	Minute (0~59)	
8015	Hour	
8016	Day	
8017	Month	
8018	Year (2000~2099)	
8019	Week	

Chapter 8 Special Relay

PC operation mode (M)

Device No.	Function	Operation
8033	Register hold in stop mode	Saving mode for Register 0: STOP→RUN, TP03 saves according to requirement 1: STOP→RUN,TP03 saves all data
8034	Output prohibit	1: output 0; 0: output Y
8035	Enforced operation mode	When M8035 on, the No. of X input which D8035 specified can be used for RUN control
8036	Enforced Run instruction	When M8036 on, the PLC will switch into RUN
8037	Enforced Stop instruction	When M8037 on, the PLC will switch into STOP
8039	Constant scan mode	1: ENABLE; 0: DISABLE This register will not be initiated in Power ON.

PC mode (D)

Device No.	Function	Operation
8039	Constant scan time	Default: 0, unit: ms

Step ladder flags (M)

Device No.	Function	Operation
8040	STL transfer disable	M8040 ON, STL transfer is disabled.
8041	STL transfer start	When M8041 ON, STL state transfer is enabled in automatic operation
8046	STL state ON	When M8047 is ON and any one of S0~S899 is on, M8064 will be ON.
8047	Enable STL monitor	As long as M8047 is ON, D8040~D8047 are enabled.
8048	Annunciator ON	If M8049 ON, and any one of S900~S999 is on, M8048 will be ON
8049	Enable Annunciator	M8049 ON, D8049 is enabled.

Step ladder flags (D)

Device No.	Function	Operation
8040	Address for ON State	
8041		
8042		
8043		
8044		
8045		
8046		
8047		
8048		
8049	The minimum address for ON State among (S900 ~ S999)	

Chapter 8 Special Relay

Interruption disable (M)

Device No.	Function	Operation
8050	Input interruption disable(I00x)	ON: forbid interrupt Initial to ON when stop to run interruption disable
8051	Input interruption disable(I10x)	
8052	Input interruption disable(I20x)	
8053	Input interruption disable(I30x)	
8054	Input interruption disable(I40x)	
8055	Input interruption disable(I50x)	
8056	Timing interruption disable(I6xx)	
8057	Timing interruption disable(I7xx)	
8058	Timing interruption disable(I8xx)	
8059	Counting interruption disable (I010~I060)	

UP/DOWN counting set device (M)

Device No.	Function	Operation
8200	UP/DOWN counting set for C200	
8201	UP/DOWN counting set for C201	
8202	UP/DOWN counting set for C202	
8203	UP/DOWN counting set for C203	
8204	UP/DOWN counting set for C204	
8205	UP/DOWN counting set for C205	
8206	UP/DOWN counting set for C206	
8207	UP/DOWN counting set for C207	
8208	UP/DOWN counting set for C208	
8209	UP/DOWN counting set for C209	
8210	UP/DOWN counting set for C210	
8211	UP/DOWN counting set for C211	
8212	UP/DOWN counting set for C212	
8213	UP/DOWN counting set for C213	
8214	UP/DOWN counting set for C214	
8215	UP/DOWN counting set for C215	
8216	UP/DOWN counting set for C216	
8217	UP/DOWN counting set for C217	
8218	UP/DOWN counting set for C218	
8219	UP/DOWN counting set for C219	
8220	UP/DOWN counting set for C220	
8221	UP/DOWN counting set for C221	
8222	UP/DOWN counting set for C222	
8223	UP/DOWN counting set for C223	
8224	UP/DOWN counting set for C224	
8225	UP/DOWN counting set for C225	
8226	UP/DOWN counting set for C226	

8227	UP/DOWN counting set for C227	
8228	UP/DOWN counting set for C228	
8229	UP/DOWN counting set for C229	
8230	UP/DOWN counting set for C230	
8231	UP/DOWN counting set for C231	
8232	UP/DOWN counting set for C232	
8233	UP/DOWN counting set for C233	
8234	UP/DOWN counting set for C234	
8241	UP/DOWN counting set for C241	
8242	UP/DOWN counting set for C242	
8243	UP/DOWN counting set for C243	
8244	UP/DOWN counting set for C244	
8245	UP/DOWN counting set for C245	
8246	UP/DOWN counting set for C246	
8247	UP/DOWN counting set for C247	
8248	UP/DOWN counting set for C248	
8249	UP/DOWN counting set for C249	
8250	UP/DOWN counting set for C250	
8251	UP/DOWN counting monitor for C251	
8252	UP/DOWN counting set for C252	
8253	UP/DOWN counting monitor for C253	
8254	UP/DOWN counting set for C254	
8255	UP/DOWN counting set for C255	

Chapter 8 Special Relay

Devices (M)

Device No.	Function	Operation
8060	Expansion card error	
8061	PLC hardware check	PLC hardware error
8063	Communication error	
8064	Parameter check	
8065	Syntax check	
8066	Program check	
8067	Operation check	
8068	retain	
8069	Expansion unit check	

Error detection (D)

Device No.	Function	Operation
8060	Error code	Refer to chapter 6 -3.5.1
8061	Error code	
8063	Error code	
8064	Error code	
8065	Error code	
8066	Error code	
8067	Error code	
8068	Error code	
8069	Error code	

Communication and link (M) I

For RS485 port

Device No.	Function	Operation
8121	RS485 communication port send data is ready	RS, MBUS
8122	RS485 communication port sending flag	RS, MBUS
8123	RS485 communication port receiving data end flag	RS, MBUS
8124	RS485 communication port MBUS instruction error	MBUS
8129	RS485 communication port communication over time.	RS, MBUS

Chapter 8 Special Relay

For expansion communication port

Device No.	Function	Operation
8320	ASCII self-adapting symbol	If you want to communicate with ASCII,you must set M8320.If M8320 is off,you can not use ASCII function(Available since H/M V2.3,SR V1.8)
8321	Expansion communication port send data is ready	RS,MBUS
8322	Expansion communication port sending flag	RS,MBUS
8323	Expansion communication port receiving data end flag	RS,MBUS
8324	Expansion communication port MBUS instruction error	MBUS
8329	Expansion communication port communication over time.	RS,MBUS

For RMIO

Device No.	Function	Operation
8335	RMIO data in transmission	
8336	RMIO data transmission error (master)	
8337	RMIO data transmission error (slave 1)	
8338	RMIO data transmission error (slave 2)	
8339	RMIO data transmission error (slave 3)	
8340	RMIO data transmission error (slave 4)	
8341	Expansion communication port is under RMIO	
8342	RS 485 communication port is under RMIO	

Chapter 8 Special Relay

Communication and link (D) I

For RS485 port

Device No.	Function	Operation
8120	Communication format	Build in RS485 communication port default value 89Hex
8121	Address	Read-only default: 01
8122	Remaining data number of RS485 sending data	
8123	Number of RS485 Data received	
8124	Start character	RS485 communication port, RS instruction 02Hex
8125	End character	RS485 communication port, RS instruction 03Hex
8129	Communication watchdog time	RS485 communication port, RS and MBUS instruction

For GSM module

Device No.	Function	Operation
8310	Sending flag	0x0000: waiting 0x0001: send message(controlled by TP03) 0x0003: sending message (controlled by GSM module) 0x0000: sending successfully(controlled by GSM module) 0x0004: sending failed (controlled by GSM module)
8311	Register address of sending-message number	Register address of sending-message number
8312	length of sending-message number	length of sending-message number (max 16 words)
8313	Register address of sending-message details	Register address of sending-message details
8314	length of sending-message details	length of sending-message details (max 40 words)
8315	Receiving flag	0x0000: waiting 0x0001: receive massage (control by GSM module)
8316	Register address of Receiving-message number	Register address of sending-message number
8317	Length of Receiving-message number	length of sending-message number (max 16 words)
8318	Register address of Receiving-message details	Register address of sending-message details
8319	length of Receiving-message details	length of sending-message details (max 40 words)

Chapter 8 Special Relay

For expansion communication port

Device No.	Function	Operation
8320	Communication format	Expansion communication port (RS485/RS232) 89Hex
8321	Address	PC/PDA communication port 89HEx
8322	Remaining data number of sending data	Expansion communication port
8323	Number of RS485 Data received	Expansion communication port
8324	Start character	Expansion communication port, RS instruction 02Hex
8325	End character	Expansion communication port RS instruction 03Hex
8329	Communication watchdog time	Expansion communication port (RS and MBUS)

For RMIO

Device No.	Function	Operation
8373	RMIO slave setting state	
8374	RMIO slave setting	
8376	RMIO slave	
8377	RMIO slave number setting	
8379	RMIO retry times	
8380	RMIO monitor time	
8331	Current scan time	
8332	Max scan time	
8333	Error counting number (master)	
8334	Error counting number (slave 1)	
8335	Error counting number (slave 2)	
8336	Error counting number (slave 3)	
8337	Error counting number (slave 4)	
8338	Error code (master)	
8339	Error code (slave 1)	
8340	Error code (slave 2)	
8341	Error code (slave 3)	
8342	Error code (slave 4)	
8343	Off line output control	If RMIO off line, stop outputting the data or not

Communication and link (M) II

DTLK

Device No.	Function	Operation
8400	Data sending error (master)	
8401	Data sending error(slave 1)	
8402	Data sending error(slave 2)	
8403	Data sending error(slave 3)	
8404	Data sending error(slave 4)	
8405	Data sending error(slave 5)	
8406	Data sending error(slave 6)	
8407	Data sending error(slave 7)	
8408	Data sending error(slave 8)	
8409	Data sending error(slave 9)	
8410	Data sending error(slave 10)	
8411	Data sending error(slave 11)	
8412	Data sending error(slave 1 2)	
8413	Data sending error (slave 13)	
8414	Data sending error(slave 14)	
8415	Data sending error(slave 15)	
8416	Data sending	
8417	Expansion communication port is set as DTLK	
8418	RS485 port is set as DTLK	

Communication and link (D) II

DTLK

8173	Set state of master	Data Link
8174	Set state of slave	Data Link
8175	Set state of refresh range	Data Link
8176	set Master address	Data Link
8177	set Slaver address	Data Link
8178	set Refresh range	Data Link
8179	Retry times	Data Link
8180	Monitor time	Data Link
8401	Current scan time	
8402	Max scan time	
8403	Error counting number (master)	
8404	Error counting number (slave1)	
8405	Error counting number (slave2)	
8406	Error counting number (slave3)	
8407	Error counting number (slave4)	
8408	Error counting number (slave5)	
8409	Error counting number (slave6)	
8410	Error counting number (slave7)	
8411	Error counting number (slave8)	
8412	Error counting number (slave9)	
8413	Error counting number (slave10)	
8414	Error counting number (slave11)	
8415	Error counting number (slave12)	
8416	Error counting number (slave13)	
8417	Error counting number (slave14)	
8418	Error counting number (slave15)	
8419	Error code (master)	
8420	Error code (slave 1)	
8421	Error code (slave2)	
8422	Error code (slave3)	
8423	Error code (slave4)	
8424	Error code (slave5)	
8425	Error code (slave6)	
8426	Error code (slave7)	
8427	Error code (slave8)	
8428	Error code (slave9)	
8429	Error code (slave10)	
8430	Error code (slave11)	
8431	Error code (slave12)	
8432	Error code (slave13)	
8433	Error code (slave14)	
8434	Error code (slave15)	

Chapter 8 Special Relay

High speed and position (M)

8130	Reserved	
8131	Reserved	
8132	Reserved	
8133	Reserved	
8134	Reserved	
8135	Reserved	
8136	Reserved	
8137	Reserved	
8138	Reserved	
8139	Reserved	
8140	FNC156(ZRN)CLR signal output enable	
8141	Reserved	
8142	Reserved	
8143	Y000 pulse output finished	Available since V1.6
8144	Y001 pulse output finished	Available since V1.6
8145	Y000 pulse output stops	
8146	Y001 pulse output stops	
8147	Y000 pulse output monitoring (busy/read)	
8148	Y001 pulse output monitoring (busy/read)	
8149	Y000 Y001 pulse output at same time	

Expansion (M)

8110	EX_IO function enable	OFF: function as former ON: the number of EX_IO decide by D8110(input),D8111(output) Available since V1.7
8112	Input filter function enable	OFF: no filter function ON:the filter time decide by D8112(ms) Available since V1.7
8160	F17(XCH) SWAP	
8161	8 octal processing mode (F76,80,82,83,84, 87,188)	
8167	F71(HKY)HEX data processing	
8168	F13(SMOV)DE HEX processing	
8169	D100~D511 data preserve mode	OFF: data preserve in RAM ON: data preserve in FLASH Available since V1.8
8170	The reset of C252	If M8170 is off, C252 will be reset by X002; If M8170 is on, C252 will be reset by X005

Expansion function (D)

8110	The total number of input(include host input)	When M8110 ON, the total number of input decide by D8110
8111	The total number of output(include host output)	When M8110 ON, the total number of output decide by D8111
8112	Input filter time (ms)	When M8112 ON, the input filter time decide by D8112

High speed and position (D)

8130	Reserved	
8131	Reserved	
8132	Reserved	
8134	Reserved	
8136	Accumulated value for output pulse of Y000 and Y001	
8137	D8136(low word) , D8137(high word)	
8140	Accumulated value for output pulse of Y000	
8141	D8140(low word) , D8141(high word)	
8142	Accumulated value for output pulse of Y001	
8143	D8142(low word) , D8143(high word)	
8145	Bias speed for F158,F159	
8146	Maximum speed for F158,F159	
8147	D8146(low word) , D8147(high word)	
8148	Acceleration/deceleration time for F158,F159	

PWM output (D)

8158	PWM Y0 time base	0: 1ms 1: 0.1ms 2: 0.01ms
8159	PWM Y1 time base	

*Note: S type has no function about PWM, M type only can be set to 0, H type can be set to 0, 1,2.

OP07/08 (M)

8280	Key F1	
8281	Key F2	
8282	Key F3	
8283	Key F4	
8284	Key F5	
8285	Key F6	
8286	Key F7	
8287	Key F8	
8288	Key F9	
8289	Key F10	
8290	Key F11	
8291	Key F12	
8292	Up	
8293	Down	
8294	Left	
8295	Right	
8296	Key TMR	
8297	Key CNT	
8298	Key ENT	
8299	Key MOD1	
8300	Key MOD2	
8301	Key ESC	
8302	Reserved	
8303	Reserved	

OP07/08 (D)

8280	First line content defaulted	
8281	Second line content defaulted	
8282	First line content user defined	
8283	First line content user defined	
8284	OP07/08 display mode setting	
8285	OP07/08 present display mode	
8286	OP07/08 display number range	
8287	Error code	
8288		
8289	Present number for timer mode	
8290	Present number for Counter mode	
8291	Present number for user mode1	
8292	Present number for user mode2	
8293	Present number for user mode3	
8294	Present number for user mode4	
8295	First line content for F192 mode	
8296	Second line content for F192 mode	
8297	Data format set 1	
8298	Data format set 2	
8299	Data format set 3	
8300	Data format set 4	

AD/DA (M)

8257	Total quantity of AD modules is wrong	
8258	Total quantity of DA module channel is wrong	

AD/DA (D)

8256	number of **modules** (TP02-4AD+)	As for the basic unit (20/30 points, SR type), only one group either D8256 & D8258 or D8257 & D8259 is available for setting.
8257	number of **modules** (TP03-AD)	
8258	Number of **channels** (TP02-DA modules)	
8259	Number of **channels** (TP03 DA modules)	
8260	AD filter mode	0: no software filter 1~3: software filter mode 1~3
8261	AD1~4 channel mode set	
8262	AD5~8 channel mode set	
8263	AD9~12 channel mode set	
8264	AD13~16 channel mode set	
8265	AD17~20 channel mode set	
8266	AD21~24 channel mode set	
8267	AD25~28 channel mode set	
8268	AD29~32 channel mode set	
8269	AD33~36 channel mode set	
8270	AD37~40 channel mode set	
8271	AD41~44 channel mode set	
8272	AD45~48 channel mode set	
8273	AD49~52 channel mode set	
8274	AD53~56 channel mode set	
8275	AD57~60 channel mode set	
8276	Reserved	
8277	DA1~4 channel mode set	
8278	DA5~8 channel mode set	
8279	DA9~10 channel mode set	
8351	4TM module 1 data	Save the temperature of module 1
8352	4TM module 2 data	Save the temperature of module 2
8353	4TM module 3 data	Save the temperature of module 3
8354	4TM module 4 data	Save the temperature of module 4
8355	4TM module 5 data	Save the temperature of module 5
8356	4TM module 6 data	Save the temperature of module 6
8357	4TM module 7 data	Save the temperature of module 7

8358	4TM module 8 data	Save the temperature of module 8
8381	DA channel 1data	
8382	DA channel 2data	
8383	DA channel 3data	
8384	DA channel 4data	
8385	DA channel 5data	
8386	DA channel 6 data	
8387	DA channel 7 data	
8388	DA channel 8 data	
8389	DA channel 9 data	
8390	DA channel 10 data	
8436	AD channel 1 data	
8437	AD channel 2 data	
8438	AD channel 3 data	
8439	AD channel 4 data	
8440	AD channel 5 data	
8441	AD channel 6 data	
8442	AD channel 7 data	
8443	AD channel 8 data	
8444	AD channel 9 data	
8445	AD channel 10 data	
8446	AD channel 11 data	
8447	AD channel 12 data	
8448	AD channel 13 data	
8449	AD channel 14 data	
8450	AD channel 15 data	
8451	AD channel 16 data	
8452	AD channel 17 data	
8453	AD channel 18 data	
8454	AD channel 19 data	
8455	AD channel 20 data	
8456	AD channel 21 data	
8457	AD channel 22 data	
8458	AD channel 23 data	
8459	AD channel 24 data	
8460	AD channel 25 data	
8461	AD channel 26 data	
8462	AD channel 27 data	
8463	AD channel 28 data	
8464	AD channel 29 data	
8465	AD channel 30 data	

8466	AD channel 31 data	
8467	AD channel 32 data	
8468	AD channel 33 data	
8469	AD channel 34 data	
8470	AD channel 35 data	
8471	AD channel 36 data	
8472	AD channel 37 data	
8473	AD channel 38 data	
8474	AD channel 39 data	
8475	AD channel 40 data	
8476	AD channel 41 data	
8477	AD channel 42 data	
8478	AD channel 43 data	
8479	AD channel 44 data	
8480	AD channel 45 data	
8481	AD channel 46 data	
8482	AD channel 47 data	
8483	AD channel 48 data	
8484	AD channel 49 data	
8485	AD channel 50 data	
8486	AD channel 51 data	
8487	AD channel 52 data	
8488	AD channel 53 data	
8489	AD channel 54 data	
8490	AD channel 55 data	
8491	AD channel 56 data	
8492	AD channel 57 data	
8493	AD channel 58 data	
8494	AD channel 59 data	
8495	AD channel 60 data	
8496		AD backup channel
8497		AD backup channel
8498		AD backup channel
8499		AD backup channel