Process Center AB

SMS kommando Larmsändare CWT5xxx

www.processcenter.se

Gäller för modeller:

CWT5015
CWT5111
CWT5002-3
CWT5018
T20 4G

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Process Center AB
Skogsbrynsvägen 8 C
236 31 Höllviken
040 452900 info@processcenter.se

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040 452900 info@processcenter.se

The instructions of SMS COMMANDS

You can use this sms commands to remote control and configure RTU

SMS commands is valid when RTU is in working mode

You can execute this sms commands through RS232. But the point is that when the input command is made through RS232, the “%” has to be input ahead, while if it is sent via sms, no “%” or “< CR >” is needed.

Type	Format	Note
Config commands	%command<value><enter>	Return OK or ERROR
Inquire commands	%command<?><enter>	Return the result or ERROR

Setup control server phone

CS Setup Control server phone		
Write *Command* **CS<n>=[phone]**	*Parameters:* <n>: CS phone index, form 0~9 [phone]: a valid phone number or null string to delete	*Example:* **CS0=138000000000**
Read *Command* **CS?**	Query all CS phone number	
Delete *Command* **CS<n>**		

Basic parameters

UB Setup RTU com port0 BPS		
Write Command **UB=<BPS>**	Parameters <BPS>: 300-115200 Default BPS is 9600BPS	*Example:* **UB=9600**
Read Command **UB=?**		

UP Setup RTU com port0 Parity		
Write Command **UP=<Parity>**	Parameters <Parity>: 0: None (default) 1: Odd Parity 2: Even Parity 3: 0 Parity 4: 1 Parity	*Example:* **UP=0**
Read *Command* **UP=?**		

SIGNALA Enable or Disable low signal Alarm		
Write Command **SIGNALA=<En>**	Parameters <En> 0: Disable (default) 1: Enable	*Example:* **SIGNALA=1**
Read *Command* **SIGNALA=?**		

RSILOW Setup the thread hold value of Signal Low Alarm		
Write Command **RSILOW=<Signal>**	Parameters <Signal> Normal Signal range is 10-30 0 or 99 means no signal at all	*Example:* **RSILOW=11**
Read *Command* **RSILOW =?**	When signal low, RTU will make a sound alarm and try to send SMS	

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DAS Enable or Disable Daily Report SMS at 10.pm everyday		
Write Command **DAS=<En>**	Parameters <En> 0: Disable 1: Enable (default)	*Example:* **DAS=1**
Read *Command* **DAS =?**		

PRTCS Send proof time request SMS to first valid CS number when power up		
Write Command **PRTCS=<En>**	Parameters <En>: 0: Disable 1: Enable (default)	*Example:* **PRTCS=1**
Read *Command* **PRTCS=?**		

PRTSP Send proof time request SMS to SP when power up		
Write Command **PRTSP=<En>**	Parameters <En>: 0: Disable (default) 1: Enable	*Example:* **PRTSP=1**
Read *Command* **PRTSP=?**		

SP Setup the SP phone number	
Write Command **SP=<phone>**	SP phone number is a phone that can automatic reply a SMS to any incoming SMS, RTU use it to update interior Clocker by the timestamp in SMS, the SMS contents is not important
Read *Command* **SP=?**	SP phone number can be RTU's simcard number. So it will send proof time sms to itself when power up and RTU will receive this sms. So RTU can take out the time stamp from the sms PDU. Note: if the RTU's simcard is changed, you must change the SP also.

RPLSUC Reply SMS for successfully executed SMS command		
Write Command **RPLSUC=<En>**	Parameters <En>: 0: Disable 1: Enable (default)	*Example:* **RPLSUC=1**
Read *Command* **RPLSUC=?**		

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RPLERR Reply SMS for incorrect executed SMS command		
Write Command **RPLERR=<En>**	Parameters <En>: 0: Disable 1: Enable (default)	*Example:* **RPLERR=1**
Read *Command* **RPLERR=?**		

PW Setup RTU login Password		
Write Command **PW=<psd>**	Password is 6 characters string	*Example:* **PW=888888**
Read Command **PW=?**	Default password is 000000	

ID Setup RTU Device ID		
Write Command **ID=<id>**	Device ID is a 8 characters string Default ID is null	*Example:* **ID=00000001**
Read Command **ID=?**	ID is used in GPRS CWT_IO protocol	

PIN Setup RTU PIN code		
Write Command **PIN=<code>**	PIN code is 4 number	*Example:* **PIN=1234**
Read Command **PIN=?**		

PUK Setup RTU PUK code		
Write Command **PUK=<code>**	PUK code including 8 numbers	*Example:* **PUK=12345678**
Read Command **PUK=?**		

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SMSC Setup the SMS message center service number		
Write *Command* **SMSC=<code>**		
Read *Command* **SMSC=?**	Default is NULL (can works well in most of area and country)	

DESC Setup the RTU description information		
Write *Command* **DESC=<string>**		*Example:* **DESC=room1**
Read *Command* **DESC=?**	Description is basic information about the device, etc, the address, the administrator and so on.	

Alarm parameters

ARING Enable or Disable Alarm RING call function		
Write *Command* **ARING=<En>**	*Parameters* <En>: 0: Disable (default) 1: Enable	*Example:* **ARING=1**
Read *Command* **ARING=?**	If enable RING call, any alert will cause a voice call to CS phone numbers.	

ASC Enable or Disable Auto Answer Voice call from CS phones		
Write *Command* **ASC=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **ASC=1**
Read *Command* **ASC=?**		

AWB Enable or Disable description in Alarm SMS		
Write *Command* **AWB=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **AWB=1**
Read *Command* **AWB=?**	Add the description and timestamp with alert sms	

UARTEVENT Enable or Disable Export events from UART		
Write *Command* **UARTEVENT=<En>**	*Parameters* <En>: 0: Disable (default) 1: Enable	*Example:* **UARTEVENT=1**
Read *Command* **UARTEVENT=?**		

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IOAT Setup alert sms resend times		
Write *Command* **IOAT=<n>**	*Parameters* <n>: sms resend times default is 1	*Example:* **IOAT=3**
Read *Command* **IOAT=?**		

DRPTID Enable or Disable ID information in daily report SMS		
Write *Command* **DRPTID=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPTID=1**
Read *Command* **DRPTID=?**		

DRPDEF Enable or Disable ARM/DISARM information in daily report SMS		
Write *Command* **DRPDEF=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPDEF=1**
Read *Command* **DRPDEF=?**		

DRPBAT Enable or Disable Power Supply information in daily report SMS		
Write *Command* **DRPBAT=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPBAT=1**
Read *Command* **DRPBAT=?**		

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DRPMEM Enable or Disable description information in daily report SMS		
Write *Command* **DRPMEM=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPMEM=1**
Read *Command* **DRPMEM=?**		

DRPRSI Enable or Disable GSM Signal information in daily report SMS		
Write *Command* **DRPRSI=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPRSI=1**
Read *Command* **DRPRSI=?**		

DRPDIN Enable or Disable Alarm Wired Inputs information in daily report SMS		
Write *Command* **DRPDIN=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPDIN=1**
Read *Command* **DRPDIN=?**		

DRPTMP Enable or Disable build in temperature information in daily report SMS		
Write *Command* **DRPTMP=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **DRPTMP=1**
Read *Command* **DRPTMP=?**		

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Input and output parameters

IOTP Setup all inputs and outputs type		
Setup all I/O channels type *Write* *Command* **IOTP=<$I_0I_1I_2I_3I_4I_5I_6I_7$><$O_0O_1O_2O_3O_4O_5O_6O_7$>**	*Parameters* **<$I_0I_1I_2I_3I_4I_5I_6I_7$>** **Inputs type:** 0: DISABLE 1: TO OPEN ALARM (EDGE) 2: TO OPEN ALARM(LEVEL) 3: TO CLOSE ALARM (EDGE)(default) 4: TO CLOSE ALARM(LEVEL) **<$O_0O_1O_2O_3O_4O_5O_6O_7$>** **Outputs type:** 0: DISABLE 1: GENERAL OUTPUT (default) 2: BUZZER 3: SNAPSHOOT 4: SIREN **<n>:** 0~7 (DI or DO index)	*Example:* **IOTP=33333333111100 00**
Setup single input type *Write* *Command* **IOTPI=<n>,<I_n>**		*Example:* **IOTPI=0,2** Setup input0 type is 2
Setup single output type *Write* *Command* **IOTPO=<n>,<O_n>**		*Example:* **IOTPO=0,1** Setup output0 type is 1
Read *Command* **IOTP=?**		

IOIP Disable inputs alarm		
Write *Command* **IOIP=<n/nn/…/nnnnnnnn>**	*Parameters* <n/nn/…/nnnnnnnn>: 1 digit to 8 digits n: 0~7 (input index)	*Example:* Disable input0 alarm **IOIP=0** Disable input2/3/5 alarm **IOIP=235**
Read *Command* **IOIP=?**		

IOIC Enable inputs alarm		
Write *Command* **IOIC=<n/nn/…/nnnnnnnn>**	*Parameters* <n/nn/…/nnnnnnnn>: 1 digit to 8 digits n: 0~7 (input index)	*Example:* **IOIC=1** **IOIC=01234567**
Read *Command* **IOIC=?**		

DINURG Enable or Disable inputs “24 hours” option		
Write Command **DINURG<n>,<En>**	*Parameters* <n>: 0~7 (input index) <En>: 0: Disable (default) 1: Enable	*Example:* **DINURG0,1** Enable input0 “24 hours” option
Read Command **DINURG=?**		

DINSND Enable or Disable inputs “sound alarm” option		
Write Command **DINSND<n>,<En>**	*Parameters* <n>: 0~7 (input index) <En>: 0: Disable 1: Enable (default)	*Example:* **DINSND=1,0** Disable input1 “sound alarm” option
Read Command **DINSND=?**		

IOAS Setup alarm sms limit interval		
Write Command **IOAS<n>,<time>**	*Parameters* <n>: 0～7 (Inputs index) <time>: 0~255 (min)	*Example:* **IOAS0,2**
Read Command **IOAS<n>?**	Default is 0	

IOLS Setup sms resend interval when input is in alarm state		
Write Command **IOLS<n>,<time>**	*Parameters* <n>: 0～7 (Inputs index) <time>: 0~255 (min)	*Example:* **IOLS0,2**
Read Command **IOLS<n>?**	Default is 0	

DINDLY Setup timer for ensuring inputs alarm		
Write Command **DINDLY<n>,<time>**	*Parameters* <n>: 0～7 (Inputs index) <time>: 0~65535 (sec)	*Example:* **DINDLY0,5**
Read Command **DINDLY<n>?**	Default is 0	

S Setup digital inputs alarm sms content		
Write Command **S<nn>=<string>**	*Parameters* <nn>: 00～07 (inputs alarm sms index) <string>: Alarm sms	*Example:* **S00=sensor alarm**
Read Command **S<nn>=?**		

S Setup digital inputs recover sms content		
Write Command **S<nn>=<string>**	*Parameters* <nn>: 08～15 (inputs recover sms index) <string>: Recover sms	*Example:* **S08=alarm recover**
Read Command **S<nn>=?**		

I Setup inputs name		
Write Command **I<nn>=<string>**	*Parameters* <nn>: 00～07 (inputs name index) <string>: Name	*Example:* **I02=sensor**
Read Command **I<nn>=?**		

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O Setup outputs name		
Write *Command* **O<nn>=<string>**	*Parameters* <nn>: 00～07 (outputs name index) <string>: Name	*Example:* **O02=pump**
Read *Command* **O<nn>=?**		

IOIS Read inputs status	
Read *Command* **IOIS**	

IOOS Read outputs status	
Read *Command* **IOOS**	

IOOR Setup remember outputs status		
Write *Command* **IOOR=<En>**	*Parameters* <En>: 0: Disable (default) 1: Enable	*Example:* **IOOR=1**
Read *Command* **IOOR=?**		

IOHT Setup Persist timespan of siren		
Write *Command* **IOHT=<n>**	*Parameters* <n>: 0～255 (min)	*Example:* **IOHT=10**
Read *Command* **IOHT=?**	Default is 15 minutes	

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Control outputs commands

IOOH Control outputs on		
control *Command* **IOOH<nnnnnnnn>**	*Parameters* <nnnnnnnn>: 1 digit to 8 digits n: 0~7 (outputs index)	*Example:* Control ouput0 on: **IOOH0** Control ouput2/3/5 on: **IOOH235**

IOOL Control outputs off		
control *Command* **IOOL<nnnnnnnn>**	*Parameters* <nnnnnnnn>: 1 digit to 8 digits n: 0~7 (outputs index)	*Example:* **IOOL0** **IOOL01234567**

IOOP Control outputs pulse		
control *Command* **IOOP<nnnnnnnn>**	*Parameters* <nnnnnnnn>: 1 digit to 8 digits n: 0~7 (outputs index) default pulse interval is 1 second, and the interval can be set by command IOPO	*Example:* **IOOP0** **IOOP01234567**

IOPO Setup pulse interval		
Write *Command* **IOPO<sec>**	*Parameters* <sec>: 0~65535 (second)	*Example:* **IOPO5**
Read *Command* **IOPO?**		

IOOP Control outputs pulse with time		
control *Command* **IOOP<nnnnnnnn>,<sec>**	*Parameters* <nnnnnnnn>: 1 digit to 8 digits n: 0~7 (output index) <sec>: 0~65535 (second)	*Example:* Generate a 10 seconds pulse on output0: **IOOP0,10** Generate a 3 seconds pulse on output 2/3/5: **IOOP235,3**

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IOOF Control all outputs by a command		
control *Command* **IOOF<$S_0S_1S_2S_3S_4S_5S_6S_7$>**	*Parameters* **<$S_0S_1S_2S_3S_4S_5S_6S_7$>**: 8 digits **S_n**: 0: output off 1: output on	*Example:* Control output4/5 off and others on **IOOF11110011**

AIN parameters

AIN*H Setup high point of the AIN normal range1		
Write *Command* **AIN<n>H=<Val>**	*Parameters* <n>: 0~3 (AIN index) <Val>: a float value	*Example:* **AIN0H=30.01**
Read *Command* **AIN<n>H=?**		

AIN*L Setup low point of the AIN normal range1		
Write *Command* **AIN<n>L=<Val>**	*Parameters* <n>: 0~3 (AIN index) <Val>: a float value	*Example:* **AIN0L=10.53**
Read *Command* **AIN<n>L=?**		

AIN*SC Setup the scale factor of AIN		
Write *Command* **AIN<n>SC=<Val>**	*Parameters* <n>: 0~3 (AIN index) <Val>: a float value	*Example:* **AIN0SC=62.00**
Read *Command* **AIN<n>SC=?**	*Reference* AIN value = AIN*[Scale Factor]-Offset	

AIN*ZE Setup the Offset value of AIN		
Write *Command* **AIN<n>ZE=<Val>**	*Parameters* <n>: 0~3 (AIN index) <Val>: a float value	*Example:* **AIN0ZE=12.00**
Read *Command* **AIN<n>ZE=?**	*Reference* AIN value = AIN*[Scale Factor]-Offset	

AIN*OS Setup AIN normal range1's lag value		
Write Command **AIN<n>OS=<lag>**	*Parameters* <n>: 0~3 (AIN index) <lag>: a float value Default is 0	*Example:* **AIN0OS=2.00**
Read Command **AIN<n>OS=?**		
Reference	When AIN value goes out of normal rang1, RTU will alarm. But will not return to normal state before AIN return into range **AINH-lag** and **AINL+lag**	

AIN*ST Setup AIN upload step value		
Write Command **AIN<n>ST=<val>**	*Parameters* <n>: 0~3 (AIN index) <lag>: a float value Default is 0	*Example:* **AIN0ST=5.00**
Read Command **AIN<n>ST=?**		

AIN*R Query AIN Normal range 1		
Execution Command **AIN<n>R**	*Parameters* <n>: 0~3 (AIN index)	

AIN*C Query Value of AIN		
Execution Command **AIN<n>C**	*Parameters* <n>: 0~3 (AIN index)	

ADS Query all AIN		
Execution Command **ADS**		

AINON Enable AIN		
Write *Command* **AINON=<n>**	*Parameters* <n>: 0~3 (AIN index)	*Example:* Enable AIN0 **AINON=0**
Read *Command* **AINON=?**		

AINOFF Disable AIN		
Write *Command* **AINOFF=<n>**	*Parameters* <n>: 0~3 (AIN index)	*Example:* Disable AIN1 **AINOFF=1**
Read *Command* **AINOFF=?**		

AINURG Setup AIN Urgency		
Write *Command* **AINURG=<n>,<En>**	*Parameters* <n>: 0~3 (AIN index) <En>: 0: Disable (default) 1: Enable	*Example:* Enable AIN0 as urgent alarm **AINURG=0,1**
Read *Command* **AINURG=?**		

AINSND Setup AIN Sound Alarm		
Write *Command* **AINSND=<n>,<En>**	*Parameters* <n>: 0~3 (AIN index) <En>: 0: Disable 1: Enable (default)	*Example:* Enable AIN0 sound alarm **AINSND=0,1**
Read *Command* **AINSND=?**		

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AINTP Setup AIN type		
Write Command **AINTP=<n>,<type>**	*Parameters* <n>: 0~3 (AIN index) <type>: 0: Voltage 1: Current (default)	*Example:* **AINTP=0,1**
Read Command **AINTP=?**		

AINDRP Setup AIN value send with daily report sms		
Write Command **AINDRP=<$S_0S_1S_2S_3$>**	*Parameters* **<$S_0S_1S_2S_3$>**: 4 AIN channels **S_n**: 0: Disable (default) 1: Enable	*Example:* Enable AIN 0/1 daily report **AINDRP=1100**
Read Command **AINDRP=?**		

AINAS Setup the minimum time of twice AD alarm sms		
Write Command **AINAS=<min>**	*Parameters* <min>: 0~255 (min), default is 0 0 means disable the function	*Example:* **AINAS=2**
Read Command **AINAS=?**		

AINLS Setup interval of resend AD alarm state sms		
Write Command **AINLS=<min>**	*Parameters* <min>: 0~255 (min), default is 0 0 means disable the function	*Example:* **AINLS=2**
Read Command **AINLS=?**		

AINDLY Setup timespan of ensure AD alarm		
Write *Command* **AINDLY=<sec>**	*Parameters* <sec>: 0~255 (second), default is 0 0 means disable the function	*Example:* **AINDLY=2**
Read *Command* **AINDLY=?**		

A Setup the AIN channel's name		
Write *Command* **A<nn>=<string>**	*Parameters* <nn>: 00~03 (AIN index) <string>: Max 24 characters.	*Example:* **A00=temperature**
Read *Command* **A<nn>=?**		

Modbus master parameters

N Setup the registers' name		
Write *Command* **N<nn><string>**	*Parameters* <nn>: 00~31 (register index) <string>: register name, max 32 characters	*Example:* **N00temperature**
Read *Command* **N<nn>?**		*Example:* **N00?**

R Query register value		
Read *Command* **R<nn>?**	*Parameters* <nn>: 00~31 (register index)	*Example:* **R01?**

MDLS Setup the interval minutes of alarm status registers' SMS		
Write *Command* **MDLS<min>**	*Parameters* <min>: 0~255 minutes	*Example:* **MDLS2**
Read *Command* **MDLS?**	Reference: 0 means never resend SMS when register keep in alarm state 1-255 minutes means if the counter of Alarm State exceed this interval An alarm SMS will resend.	

MDAS Setup the interval minutes between twice Alarm SMS		
Write *Command* **MDAS<min>**	*Parameters* <min>: 0~65535 minutes	*Example:* **MDAS2**
Read *Command* **MDAS?**	*Reference:* 0 means disable this function This command is used to forbidden too many SMS send in s short time	

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MDRTO Setup response timeouts of modbus master reading		
Write Command **MDRTO<ms>**	*Parameters* <ms>: 0~65535 ms the millisecond of timeouts for Modbus reading response	*Example:* **MDRTO100**
Read Command **MDRTO?**		

MDLTO The delay time interval of every reading pool		
Execution Command **MDLTO<ms>**	*Parameters* <ms>: 0~65535 ms the millisecond of timeouts for Modbus reading response	*Example:* **MDLTO10**
Read Command **MDLTO?**		

MDSTATE Query all registers' value	
Execution Command **MDSTATE**	

MDALARM Query the registers that in alarm status	
Execution Command **MDALARM**	

MDMAS Setup the master polling parameters		
Write Command **MDMAS<nn><device address>,<register address>, <type>,<ns>,<gain>,<step>, <offset>,<mask>,<do>**	*Parameters* <nn>: 00~31(polling group index) <device address>: destination device address <register address>: destination register address <type>: register type 0: Coil	*Example:* **MDMAS0132,1001,0,1,2,1,3,1,2**

	1: Keep register 2: Input register 3: Discrete Input state <ns>: normal state of Coils and Discrete Input state registers, 0 is Normal off, 1 is Normal ON <gain>: the sample value equal **read value*GAIN-offset** <step>: the value the limit the gprs upload, if the absolute change value of between twice pool beyond this value, master will upload New Value by GPRS or other way <offset>: the sample value equal **read value*GAIN-offset** <mask>: set to 0, disable this function, it's a bit alarm mask that can cause ALARM status. <do>: interlock output pin index. Set to 255 to disable this function	

MDMSF Setup the register 32bit flag and little ending flag		
Write Command **MDMSF<nn><32b>,<lit-end>,<float>,<unsigned>**	*Parameters* <nn>: 00~31 (register index) <32b>: 1: this register is 32bits 0: this register is 16bits <lit-end>: 1: this register is little ending 0: this register is big ending <float>: 1: this register is float type 0: this register is integer type <unsigned>: 1: this register is unsigned integer 0: this register is signed integer	*Example:* **MDMSF021,1,1,0**

MDSLV Query the connected slave device counts	
Execution Command	

MDSLV	

WCOIL Write a Coil register		
Write Command **WCOIL<dev id>,<register address>,<value>**	*Parameters* <dev id>: the destination device to Write <register address>: register address <value>: 1: set the coil ON 0: set the coil OFF	*Example:* **WCOIL1,1,1**

WREGI Write a keep register		
Write Command **WREGI<dev id>,<register address>,<value>**	*Parameters* <dev id>: the destination device to Write <register address>: register address <value>:	*Example:* **WREGI 1,1,50**

WMREGI Write multi keep register		
Write Command **WMREGI<dev id>,<register address>,<value1>,<value2>, <value3>……**	*Parameters* <dev id>: the destination device to Write <register address>: the start address of register to write <value1>,<value2>,<value3>…….: consecutive multiple registers value	*Example:* Write keep register from 1 to 3 on device address 9 **WMREGI9,1,50,34,4**

RCOIL Read Coil register		
Write Command **RCOIL<dev id>,<start address>,<counts>**	*Parameters* <dev id>: the destination device to read <register address>: the start address of register to read <counts>: the counts of registers to read	*Example:* Read coil registers 1-11 on device 2 **RCOIL2,1,10**

RKEEP Read Keep register		
Write Command **RKEEP<dev id>,<start address>,<counts>**	*Parameters* <dev id>: the destination device to read <register address>: the start address of register to read <counts>: the counts of registers to read	*Example:* Read keep registers 1-5 on device 5 **RKEEP5,1,5**

RINPUT Read Input register		
Write	*Parameters*	*Example:*

Command **RINPUT<dev id>,<start address>,<counts>**	<dev id>: the destination device to read <register address>: the start address of register to read <counts>: the counts of registers to read	Read input registers 1-4 on device 6 **RINPUT6,1,4**

GPRS parameters

M2MEN Eable or disable GPRS transfer		
Write Command **M2MEN=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **M2MEN=0**
Read Command **M2MEN=?**		

M2MAPN Setup GPRS APN		
Write Command **M2MAPN=<string>**	*Parameters* <string>: GPRS access point name	*Example:* **M2MAPN=cmnet**
Read Command **M2MAPN=?**		

M2MUID Setup GPRS user name		
Write Command **M2MUID=<string>**	*Parameters* <string>: GPRS user name, default is null	*Example:* **M2MUID=user**
Read Command **M2MUID=?**		

M2MPWD Setup GPRS user password		
Write Command **M2MPWD=<string>**	*Parameters* <string>: GPRS user password, default is null	*Example:* **M2MPWD=pwd**
Read Command **M2MPWD=?**		

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236 31 Höllviken
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M2MIDT Setup GPRS idle timeout		
Write *Command* **M2MIDT=<min>**	*Parameters* <min>: 0~65535 (minute) Default is 0	*Example:* **M2MIDT=20**
Read *Command* **M2MIDT=?**		

M2MCTO Setup TCP connection timeouts		
Write *Command* **M2MCTO=<sec>**	*Parameters* <sec>: 0~65535 (second) Default is 25	*Example:* **M2MCTO=25**
Read *Command* **M2MCTO=?**		

MODUID Setup modbus TCP unit id		
Write *Command* **MODUID=<id>**	*Parameters* <id>:	*Example:* **MODUID=2**
Read *Command* **MODUID=?**		

GDTUEN Eable or disable com data to GPRS server(DTU)		
Write *Command* **GDTUEN=<En>**	*Parameters* <En>: 0: Disable (default) 1: Enable	*Example:* **GDTUEN=0**
Read *Command* **GDTUEN=?**		

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236 31 Höllviken
040 452900 info@processcenter.se

GMSGEN Enable or disable CWT_IO protocol		
Write Command **GMSGEN=<En>**	*Parameters* <En>: 0: Disable 1: Enable	*Example:* **GMSGEN=0**
Read Command **GMSGEN=?**		

M2MDTSIP Setup GPRS server IP or domain name		
Write Command **M2MDTSIP<n>=<ip>**	*Parameters* <n>: 0~3 (server index) <ip>: server IP address or domain name	*Example:* **M2MDTSIP0=173.276.78.90**
Read Command **M2MDTSIP=?**		

M2MDTSPT Setup GPRS server port		
Write Command **M2MDTSPT<n>=<port>**	*Parameters* <n>: 0~3 (server index) <port>: server port	*Example:* **M2MDTSPT0=3000**
Read Command **M2MDTSPT=?**		

M2MDTSPO Setup transfer protocol		
Write Command **M2MDTSPO<n>=<pt>**	*Parameters* <n>: 0~3 (server index) <pt>: Protocol type index 0: TCP 1: UDP	*Example:* **M2MDTSPO0=0**
Read Command **M2MDTSPO=?**		

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M2MDTSTP Setup server type		
Write *Command* **M2MDTSTP<n>=<st>**	*Parameters* <n>: 0~3 (server index) <st>: service type index 0: CWT_IO 1: GPRS DTU 2: Modbus TCP 3: WMMP (unused)	*Example:* **M2MDTSTP2=0**
Read *Command* **M2MDTSTP=?**		

M2MDTSTO Setup data transfer timeouts		
Write *Command* **M2MDTSTO<n>=<Socket IdleTo>, <Server RepTo>, <HeartTo>**	*Parameters* <n>: 0~3 (server index) <Socket IdleTo>: idle timeout (second) <Server RepTo>: Respond timeout (ms) <HeartTo>: Heart timeout (second)	*Example:* **M2MDTSTO=0**
Read *Command* **M2MDTSTO=?**		

GPRS commands

M2MDRP Request upload state to server	
Execution Command **M2MDRP**	Data include DI, DO, AI, modbus etc.

M2MDIS Request upload all DI state to server	
Execution Command **M2MDIS**	

M2MDOS Request upload all DO state to server	
Execution Command **M2MDOS**	

M2MADS Request upload all AI data to server	
Execution Command **M2MADS**	

M2MREGS Request upload all local modbus registers to server	
Execution Command **M2MREGS**	

M2MITP Request upload build in temperature to server	
Execution Command **M2MITP**	

M2METP Request upload external DS18B20 temperature to server	
Execution Command **M2METP**	

M2MRTM Re-dial GPRS to connect server	
Execution Command **M2MRTM**	

M2MLIP Query local GPRS interface and IP address	
Execution Command **M2MLIP**	

Buzzer parameters

BUZEN Enable or disable buzzer sound alarm		
Write *Command* **BUZEN=<En>**	*Parameters* <En>: 0: Disable 1: Enable (default)	*Example:* **BUZEN=1**
Read *Command* **BUZEN=?**	The sound alarm include interior buzzer and any output used as Siren or Buzzer	

BUZT Setup buzzer persist time when alarm		
Write *Command* **BUZT=<sec>**	*Parameters* <sec>: 0~255 seconds Default Time span is 60 seconds	*Example:* **BUZT=15**
Read *Command* **BUZT=?**		

BUZCLR Reset the interior buzzer sound	
Execution *Command* **BUZCLR**	

Interior temperature parameters

TMPH Setup high point of interior temperature normal range		
Write Command **TMPH=<Val>**	*Parameters* <Val>: -127~128	*Example:* **TMPH=30**
Read Command **TMPH=?**		

TMPL Setup low point of interior temperature normal range		
Write Command **TMPL=<Val>**	*Parameters* <Val>: -127~128	*Example:* **TMPL=10**
Read Command **TMPL=?**		

TMPB Setup temperature adjustments value		
Write Command **TMPB=<Val>**	*Parameters* <Val>: -127~128	*Example:* **TMPB=2**
Read Command **TMPB=?**		

TMPAS Setup the timespan of twice alarm sms		
Write Command **TMPAS=<min>**	*Parameters* <min>: 0~255 (min), default is 0 0 means disable the function	*Example:* **TMPAS=2**
Read Command **TMPAS=?**		

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TMPLS Setup timespan of resend alarm sms		
Write *Command* **TMPLS=<min>**	*Parameters* <min>: 0~255 (min), default is 0 0 means disable the function	*Example:* **TMPLS=2**
Read *Command* **TMPLS=?**		

TMPNDLY Setup timespan of ensure alarm status		
Write *Command* **TMPNDLY=<sec>**	*Parameters* <sec>: 0~255 (second), default is 0 0 means disable the function	*Example:* **TMPNDLY=2**
Read *Command* **TMPNDLY=?**		

TMPOS Setup lags of temperature alarm range		
Write *Command* **TMPOS=<val>**	*Parameters* <val>: 0~255	*Example:* **TMPOS=2**
Read *Command* **TMPOS=?**		

TMPON Enable temperature sensor alarm	
Execution *Command* **TMPON**	

TMPOFF Disable temperature sensor alarm	
Execution *Command* **TMPOFF**	

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TMPURG Setup temperature sensor alarm is urgency 24 hours		
Write Command **TMPURG=<En>**	*Parameters* <En>: 0: Disable 1: Enable	*Example:* **TMPURG=1**
Read Command **TMPURG=?**		

TMPSND Setup temperature sensor sound alarm		
Write Command **TMPSND=<En>**	*Parameters* <En>: 0: Disable 1: Enable	*Example:* **TMPSND=1**
Read Command **TMPSND=?**		

TMPIH Setup interlock output pin of high point		
Write Command **TMPIH=<DO>**	*Parameters* <DO>: 0~n (output index) 255 is none	*Example:* **TMPIH=0**
Read Command **TMPIH=?**		

TMPIL Setup interlock output pin of low point		
Write Command **TMPIL=<DO>**	*Parameters* <DO>: 0~n (output index) 255 is none	*Example:* **TMPIL=1**
Read Command **TMPIL=?**		

TMPR Query temperature normal range	
Execution Command **TMPR**	

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TMPC Query current temperature value	
Execution *Command* **TMPC**	

Interior battery parameters

BATEN Enable or disable power lost alarm		
Write *Command* **BATEN=<En>**	*Parameters* <En>: 0: Disable 1: Enable	*Example:* **BATEN=1**
Read *Command* **BATEN=?**		

POWDLY Setup time of ensure power alarm		
Write *Command* **POWDLY=<sec>**	*Parameters* <sec>: 0～65535 seconds Default is 5, 0 means disable the function	*Example:* **POWDLY=15**
Read *Command* **POWDLY=?**		

POW Query power status	
Execution *Command* **POW**	

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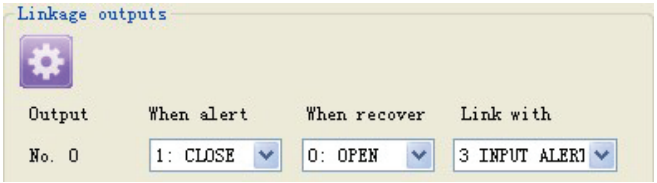
Interlock parameters

IOOC Setup outputs action	
Write Command **IOOC=<nnnnnnnn><xxxxxxxx>**	*Parameters* <nnnnnnnn>: 0~7 Outputs' action when alert by "link with" <xxxxxxxx>: 0~7 Outputs' action when recover by "link with" n & x: 0: OPEN 1: CLOSE 2: CLOSE PULSE 3: CLOSE 300S 4: CLOSE 30S 5: CLOSE 60S 6: NONE
Read Command **IOOC=?**	

IOOA Setup link with			
Write Command **IOOA=<n><index>**	*Parameters* <n>: 0~7 output index <index>: "link with" index		
	0: NONE	8: 7 input alert	16: humidity sensor
	1: 0 input alert	9: 0 AD alert	17: 0 Ex-temp alert
	2: 1 input alert	10: 1 AD alert	18: 1 Ex-temp alert
	3: 2 input alert	11: 2 AD alert	19: 2 Ex-temp alert
	4: 3 input alert	12: 3 AD alert	20: 3 Ex-temp alert
	5: 4 input alert	13: Interior temp alert	21: 4 Ex-temp alert
	6: 5 input alert	14: system power down	22: 5 Ex-temp alert
	7: 6 input alert	15: Server call	
Read Command **IOOC=?**			

Example: config output0 on when input3 alert and output0 off when input3 recover



The sms command is:
IOOC1666666606666666
IOOA04

Setup timers

mtimer Setup system timers		
Write Command **mtimer<n>=<HH>,<MM>,<action>**	*Parameters* <n>: 0~5 (mtimer index) <HH>: 0~24 (hour) <MM>: 0~60 (minute) <action>: 0~39	*Example:* Setup send daily report sms at 17:50 everyday **mtimer0=17,50,16**
Read Command **mtimer=?**		

mspan Setup minutes timers		
Write Command **mspan<n>=<min>,<action>**	*Parameters* <n>: 0~5 (mspan index) <min>: 0~65535 (minute) <action>: 0~39	*Example:* Setup send daily report sms every 30 minutes **mspan0=30,16**
Read Command **mspan=?**		

sspan Setup second timers		
Write Command **sspan<n>=<min>,<action>**	*Parameters* <n>: 0~5 (mspan index) <min>: 0~65535 (second) <action>: 0~39	*Example:* Setup send daily report sms every 30 seconds **sspan0=30,16**
Read Command **sspan=?**		

mdate Setup week timers		
Write Command **mdate<n>=<day>,<HH>,<MM>,<action>**	*Parameters* <n>: 0~6 <day>: 0~6 (week day) <HH>: 0~24 (hour) <MM>: 0~60 (minute) <action>: 0~39	*Example:* Setup send daily report sms at 18:34 Monday **Mdate0=0,18,34,16**
Read Command **mdate=?**		

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Action index:

0: None	14: Pulse OC 3	28: Howl alarm
1: Disarm	15: Snapshoot	29: Clocker
2: Arm	16: daily report sms	30: Enable buzzer
3: Driver OC 0 (output0 on)	17: Export state by uart0	31: Disable buzzer
4: Driver OC 1 (output1 on)	18: Upload state by sms	32: Upload din by gprs
5: Driver OC 2 (output2 on)	19: Exec user cmd0	33: Upload dout by gprs
6: Driver OC 3 (output3 on)	20: Exec user cmd1	34: Upload ain by gprs
7: OC 0 off	21: Exec user cmd2	35: Upload modbus by gprs
8: OC 1 off	22: Exec user cmd3	36: Upload graycode by gprs
9: OC 2 off	23: Exec user cmd4	37: Save samples to flash
10: OC 3 off	24: Exec user cmd5	38: Upload din counter
11: Pulse OC 0	25: Exec user cmd6	39: Din counter reset
12: Pulse OC 1	26: Upload state by gprs	
13: Pulse OC 2	27: Buzzer beep	

Setup User command

U Setup the User defined commands		
Write Command **U<nn>=<string>**	*Parameters* <nn>: 00: User defined command 0 01: User defined command 1 …… 05: User defined command 5 <string>: user defined command contents max 24 characters	*Example:* Use "abc" instead of command "IOOH0" **U00=abc**
Read Command **U<nn>=?**		

Y Setup the User defined commands mapped RTU commands		
Write Command **Y<nn>=<string>**	*Parameters* <nn>: 00: RTU command 0 01: RTU command 1 …… 05: RTU command 5 <string>: RTU command contents max 24 characters	*Example:* Use "abc" instead of command "IOOH0" **Y00=IOOH0**
Read Command **Y<nn>=?**		

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System operation commands

PW Setup system password		
Write Command **PW=<pad>**	*Parameters* <psd>: 6 digits	*Example:* **PW=123456**
Read Command **PW=?**		

DAYRP Query the RTU status (Daily report SMS)	
Read Command **DAYRP**	

ARM/BF Arm the RTU system	
Execution Command **ARM**	

DISARM/CF Disarm the RTU system	
Execution Command **DISARM**	

RST Reset the RTU power	
Execution Command **RST**	

LOADF Load factory settings	
Execution Command **LOADF**	