ADT762 Commands Set

1 Commands Instruction

(1)Each command includes two parts: **mnemonic** and **parameter**. The **mnemonic** and **parameter** are separated by a space;

For example : MEASure[:SCALar]:CH? <value>，MEASure[:SCALar]:CH? is the mnemonic，<value> is the parameter to be input，and they need to be separated by a space. If use this command for acquiring the current measured value, just input MEASure:CH? PV

(2)About the mnemonic

- the [] in mnemonic is optional, can be omitted.

For example : MEASure[:SCALar]:AELectricity? It can be:**MEASure:SCALar:AELectricity?** Or **MEASure:AELectricity?**

- the (num1:num2) in mnemonic indicates range of number, it needs to be input with the actual number.

For example : SENSe:ELECtricity:TCCHannel(1:4)? if use this command for acquiring the configuration of the first TC channel, just input: SENSe:ELECtricity:TCCHannel1?

(3)About the parameter

Each parameter in this set is marked with**<>** (do not enter angle brackets when converting to actual instructions) and separated by commas.

(4) Terminator

The SCPI command must include a command terminator, which can be one of the follows (excluding double quotation marks): "\r\n", "\r", "\n" or "\0".

1 Commands instruction

1.1 IEEE488.2 common commands

NO.	Command	Explanation	Parameters	Returning values
1	*CLS	This command elminates the following registers; Standard event register Querying event register Operating event register Status byte rgister Error queue	-	-
2	*IDN?	Instrument identification query, the returned data is divided into 2 parts: a. Product serial number; b. software version number;	-	Product serial number; software version number
3	*RST	Main software reset	-	-

1.2 Pressure commands

NO.	Command	Explanation	Parameters	Returning values
1.	PRESsure#(0:8)?	Read pressure measurement value For example：PRESsure0?	Parameter: NoneSuffix parameter: 0: all pressure 1: control module pressure 2: Internal high voltage 3: Internal low voltage	Pressure value, pressure unit, pressure type (Comma separated)

			4: External A 5: External B 6: Positive pressure air source 7: negative pressure air source 8: Atmospheric pressure value	
2.	PRESsure:TARGet?	Read target pressure value	None	Target value, pressure unit, pressure type
3.	PRESsure:TARGet:RANGe?	Read target pressure value edit range; Return value for exammple: (-99.37 ~ 7350) 1133	None	Lower limit, upper limit, unit value
4.	PRESsure[:TARGet] <Numeric>[,<Numeric>|<UnquoStr>][,G|D|A]	Set target pressure value	Parameter: target value Optional parameters: pressure unit ID or unit name Optional parameters: pressure type	None
5.	PRESsure:SLEWrate? [RANGE]	Read pressure control rate or range (Without parameter reading control voltage rate, with RANGE parameter reading rate range)	Optional：RANGE	Rate, unit or rate range and unit
6.	PRESsure:SLEWrate <Numeric>	Set pressure control rate	Pressure control rate value	None
7.	PRESsure:SLEWrate:ENABle?	Read if the preesure control rate limit is enabled	None	0 disable,1 enable
8.	PRESsure:SLEWrate:ENABle 0|1	Set if the pressure control rate limit is enabled	0 disable,1enable	None
9.	PRESsure:PVENt? [RANGE]	Read the venting pressure or range (Without parameters to read the vent pressure, with RANGE parameters to read	Optional parameters：RANGE	Pressure and unit, or pressure range and unit

		the vent pressure range)		
10.	PRESsure:PVENt <Numeric>	Set venting pressure	Pressure value	None
11.	PRESsure:AZERo?	Read if auto clear is enabled after venting	None	0：disable 1：enable
12.	PRESsure:AZERo 0|1	Set if auto clear is enabled after venting	0：disable 1：enable	None
13.	PRESsure:PLIMit:ENABle?	Read the enabling status of setpoint limit	None	0：disable 1：enable
14.	PRESsure:PLIMit:ENABle 0|1	Set the enabling status of setpoint limit	0：disable 1：enable	None
15.	PRESsure:PLIMit?	Read setpoint limit range	None	Range and Unit
16.	PRESsure:PLIMit <Numeric>,<Numeric>	Set setpoint limit range	Setpoint limit lower limit, setpoint limit upper limit	None
17.	PRESsure:MODE?	Read the current pressure control status	None	VENTor MEASURE or CONTROL
18.	PRESsure:MODE 0|1|2|VENT|MEASURE|CONTROL	Set the current pressure control status	VENT|MEASURE|CONTROL|0|1|2	None
19.	PRESsure:MODule#(1:5):UNIT? [<Numeric >]	Read pressure module units	Parameter [<Numeric >]：None or 1 It indicates sub-range number, start from 1. The module returns the unit of current range, then parameter 1 will be invalid. For other modules which have multiple ranges and the number is within the ranges' quantity, it takes effect.	Unit name

			#(1:5) is the number of the module. 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module	
20.	PRESsure:MODule#(1:5):UNIT <Numeric>| <UnquoStr>[,<Numeric >]	Set pressure module units	Parameter 1: Unit ID or or Unit name Parameter 2: sub-range number, start from 1. If no this parameter, it indicates set module range or auto-range. #(1:5) is the number of the module. 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module	None
21.	PRESsure:MODule#(1:5):PTYPe?	Read pressure module pressure type	Parameter: None #(1:5) is the number of the module. 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module	G|A|D
22.	PRESsure:MODule#(1:5):PTYPe G|A|D	Set pressure module pressure type	Parameter: G|A|D	None

			#(1:5) is the number of the module. 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module	
23.	PRESsure:MODule#(0:5):ONLine?	Read pressure module online status When the parameter is not 0, return a number (0 or 1)When the parameter is 0, five numbers are returned, separated by commas. Returns the online status of the internal high-pressure module, internal low-pressure module, external A module, external B module, and atmospheric pressure module in order.	Parameter：None #(0:5) is the number of the module. 0. All module 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module	0：off line 1：on line
24.	PRESsure:MODule:CONTrol?	Read the current control module	None	H high pressure module L low pressure module A-CTRL External A module B-CTRL External B module
25.	PRESsure:MODule:CONTrol L|H| A-CTRL | B-CTRL |0|1|2|3 [,<Numeric>]	Set the current control module	Parameter 1：L|H| A-CTRL |B-CTRL |0|1|2|3 modules which need to be switched Optional parameter 2: Numeric Sub-range number of multi-range module Note: In case of one parameter, it is for switching	None

			the module. In case of two parameters, first is for switching the module, then switch the internal option(multi-range only). Ignore the parameter 2 if the module is not multi-range	
26.	PRESsure:MODule#(1:5):ZERO	Module clear	Parameter：none #(1:5) is the number of the module. 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module	None
27.	PRESsure:MODule#(1:6):INFO?	Read module information	Parameter：none #(1:6) is the number of the module. 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module 6. barometric module	Serial number, range, pressure type, firmware version, accuracy. (Comma separated) (barometric module only has ID and range)
28.	PRESsure:MODule#(1:6):RANGe?	Read module range	Parameter：none #(1:6) is the number of the module. 1. control module 2: Internal module 3: reserved	One or three parameters. When reading the control module and it is multi-range, three parameters will be returned. For the control module,

			4: External A module 5: External B module 6. barometric module	the returned value is the current selected range. 1. Range(for multi-range control module, return the selected sub-range) 2. Index, the ordinal number of the range, start from 1 3. IsAuto, auto range or not?(1= auto 0= no) Eg：(0~60000)kPa,1,1
29.	PRESsure:MODule:SETPoint:LIMit? [0|1]	Read the upper and lower limits of the pressure control setpoint	Parameter：none|0|1 Specify the returned format and unit display type	No parameter: Return range and unit ID Eg：(0 ~ 700),1133 0: lower limit, upper limit, unit ID 1: lower limit, upper limit, unit name
30.	PRESsure:MODule#(1:3):RESolution? [<Numeric>]	Read module resolution	[<Numeric>] Parameter：None or 1 Sub range number for multi-range module, start from 1 #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	resolution
31.	PRESsure:MODule#(1:3):RESolution <Numeric>[,<Numeric>]	Set module resolution	Parameter 1：4|5|6|7 （Quartz module does not support setting to 7） Parameter 2：Sub range number for multi-	None

			range module, start from 1. For non-multirange module, ignore this. #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	
32.	PRESsure:MODule#(1:3):FILTer:ENABle?	Read module filtering status	Parameter：None #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	0：disable 1：enable
33.	PRESsure:MODule#(1:3):FILTer:ENABle 0|1	Set module filtering status	Parameter：0|1 #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	None
34.	PRESsure:MODule#(1:3):FILTer?	Read module filtering parameter	Parameter：None #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	0|1：First order filtering | average filtering, Filter coefficients / extreme points Filtered samples number
35.	PRESsure:MODule#(1:3):FILTer 0|1,<Numeric>[,<Numeric>]	Set module filtering parameter	0: Firrst order filtering,filter coefficient (0.01-1) or 1average value filtering,extreme point(0-10),filtered samples number (20-100) #(1:3) is the number of the module.	None

			1. Control module 2: External A module 3: External B module	
36.	PRESsure:MODule#(1:3):STABle?	Read module stable status	Parameter：None #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	0：unstable 1：stable
37.	PRESsure:MODule#(1:2):STABle:ENABle?	Read judgment stability status of module	Paramter：None #(1:2) is the number of the module. 1: External A module 2: External B module	0 not stabilizing 1 stabilizing
38.	PRESsure:MODule#(1:2):STABle:ENABle 0|1	Set judgment stability status of module	Parameter: 0：not stabilizing 1：stabilizing #(1:2) is the number of the module. 1: External A module 2: External B module	None
39.	PRESsure:MODule#(1:3):STABle:CONFigure?	Read judgment stability parameter of module	Parameter：None #(1:3) is the number of the module. 1. Control module 2: External A module 3: External B module	Stability（%F.S），stabilization time（s）
40.	PRESsure:MODule#(1:3):STABle:CONFigure <Numeric>,<Numeric>	Set judgment stability status of module	Parameter: stability (0.003-1),stabilization time (1-60 s) #(1:3) is the number of the module.	None

			1. Control module 2: External A module 3: External B module	
41.	PRESsure:HCORrection:ENABle?	Read head correction status	None	0：disable 1：enable
42.	PRESsure:HCORrection:ENABle 0|1	Set head correction status	0：disable 1：enable	None
43.	PRESsure:HCORrection?	Read head correction parameter	None	0：(Fixed value) correction value, unit 1: (calculated value) unit system (0 | 1: metric | inch), density value, height value, acceleration, zero return device used or not.
44.	PRESsure:HCORrection:VAL <Numeric>	Set head correction parameters (correction type is fixed value)	Corrected value	None
45.	PRESsure:HCORrection:CALC 0|1,<Numeric>,<Numeric>,<Numeric>,<Numeric>[,<Numeric>]	Set head correction parameters (correctional type is fixed value) Density type (0: distilled water, 1: Diethylhexyl Sebacate, 2. Custom. Density value is omitted when density type is 0, 1. Density value cannot be omitted when density type is 2.	unit system :0 | 1: metric | inch,height value,acceleration value, zero return device used or not. density type，density value,	None
46.	PRESsure:ENABle#(0:3)?	Read if the pressure part interface is displayed	#(0:3) is the number of the module 0: Read whether the pressure control is collapsed, Whether ExtA, ExtB are displayed	1 1. Input parameter 0: sequential pressure control, ExtA, ExtB, comma separated 0 | 1,0 | 1,0 | 1

			1: Whether the pressure control is collapsed. 2:Whether ExtA is displayed 3: Whether ExtB is displayed	0 | 1: not displayed | displayed (collapsed | non-collapsed) 2. Input parameters 1-3: specify whether the channel is displayed 0 | 1: not displayed | displayed (collapsed | non-collapsed)
47.	PRESsure:ENABle#(1:3) 0|1	Set if the pressure part interface is displayed	Parameter 1: specified channel #(1:3) is the number of the module 1: pressure control (whether collapsed) 2: ExtA (whether display) 3: ExtB (whether display) Parameter 2: specify whether the channel is displayed or collapsed 0 | 1: Do not display | display (collapsed | non-collapsed)	None
48.	PRESsure:MODule#(1:8):RANGe:LIST? [<UnquoStr>]	Acquire the detailed range information	Parameter 1 None or 0: return unit ID 1: return unit name #(1:8) is the number of the module 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module 6. barometric module 7. External A control module	For multiple ranges, the information is separated by ";" For different parameters of one range, use "," to separate. Returned value: number of the module(start from one), lower limit, upper limit, unit, pressure type, auto-range or not(0=no 1= auto) Eg:

			8. External B control module	1,0,600,kPa,G,1;2,0,100,kPa,G,0
49.	PRESsure:RANGe? < Numeric>,< Numeric>?	Read module range	Parameter 1: module number 0. return all 1. control module 2: Internal module 3: reserved 4: External A module 5: External B module 6. barometric module Parameter 2: return unit ID or name 0. return unit ID 1. return unit name	Returned value: the information is separated by ";" For different parameters of one range, use "," to separate. module number, lower limit, upper limit, unit, Eg: 1,0 ,7000,kPa;2,0,70000,kPa
50.	DATA?	Read pressure, electric measure and electric output data	None	Returned value: Number of current control module, current pressure, target pressure, pressure unit, stabilized or not, control mode, current option, electric measure/switch data, unit, electric output option, data, unit

1.3 Electric measurement commands

NO.	Command	Explanation	Parameters	Returning values
1.	ELECtricity:MEASure?	Read the current electrical measurement value	None	Measurement item measurement value, unit

2.	ELECtricity:MEASure:FUNCtion?	Read the current electrical measurement project, Description: Returns the item serial number. When returning to the CURR position, the loop power configuration is also returned; when returning to the SW position, the switch type is also returned.	None	1：CURR current and whether the loop power supply is on（0：disable，1：enable） 2：VOLvoltage 3：MVmillivolt 4：SW switch and switch type（0：Normal,1：NPN,2：PNP） 5：HART 6：PA
3.	ELECtricity:MEASure:FUNCtion <Numeric>[,<Numeric>]	Set the current power measurement project Description: Parameter 1 sets the current electronic logging serial NO.; when setting the current , parameter 2 sets whether to enable loop power. When setting the switch, parameter 2 sets the switch type. In the above two cases, parameter 2 can be omitted (the default is 0), and parameter 2 is not required for the rest of the electronic test positions	Parameter： 1:CURR 2:VOL 3:MVOL 4:SW 5:HART 6:PA Optional parameters： Current gear loop power supply: 0: close 1: open Switch type : 0 general switch 1 NPN 2 PNP	None
4.	ELECtricity:MEASure:ZERO	Electronic test gear position zero clear	None	None
5.	ELECtricity:MEASure:CZERo"	Cannel electronic test gear position zero clear	None	None
6.	ELECtricity:MEASure:FILTer:ENABle?	Read if the test is enabled for filtering(Current, voltage, millivolt gear	None	0：disable 1：enable

		supported)		
7.	ELECtricity:MEASure:FILTer:ENABle 0|1	Set if the test is enabled for filtering(Current, voltage, millivolt files supported)	0：disable 1：enable	None
8.	ELECtricity:MEASure:FILTer?	Read filter configuration of the current electric test gear (Current and voltage mV gear support)	None	0 first order filtering and filtering coefficient (0.1-1) or 1Average filtering and number of samples (20-100) and number of de-extreme values (0-10)
9.	ELECtricity:MEASure:FILTer 0| 1,<Numeric>[,<Numeri c>]	Set filter configuration of the current electric test gear (Current and voltage mV gear support)	0 first order filtering and filtering coefficient (0.1-1) or 1Average filtering and number of samples (20-100) and number of de-extreme values (0-10)	None
10.	ELECtricity:MEASure:STABle?	Read if the current electric test gear is stable	None	0：non -stabilizing 1：stabilizing
11.	ELECtricity:MEASure:STABle:ENABle?	Read if the current electric test gear enables judgemental stability. (Current and voltage mV gear support)	None	0：disable 1：enable
12.	ELECtricity:MEASure:STABle:ENABle 0|1	Set if the current electric test gear enables judgemental stability. (Current and voltage mV gear support	0：disable 1：enable	None
13.	ELECtricity:MEASure:STABle:CONFigure?	Read the current electric test gear judgemental stability configuration. (Current and voltage mV gear support)	None	Stabilization time, stability
14.	ELECtricity:MEASure:STABle:CONFigure <Numeric>,	Set the current electric test gear judgemental stability configuration.	Stabilization time, stability	None

	<Numeric>			
15.	ELECtricity:MEASure:SCALe:ENABle?	Read whether the current electrical test gear enable scaling(Current and voltage mV gear support)	None	0：disable 1：enable
16.	ELECtricity:MEASure:SCALe:ENABle 0|1	Set whether the current electrical test gear enable scaling(Current and voltage mV gear support)	0：disable 1：enable	None
17.	ELECtricity:MEASure:SCALe?	Reads the current electrical test gear scaling configuration (Current and voltage mV gear support)	None	Conversion function, input range, output range, output range decimal places
18.	ELECtricity:MEASure:SCALe 0|1| 2,<Numeric>,<Num eric>,<Numeric>,<Numeric>,<UnquoStr>,< Numeric>	Set the current electrical measurement gear scale configuration(Current and voltage mV range support) Conversion function: 0 linear, 1 square, 2 square Decimal places of output range: 1 | 0.1 | 0.01 | 0.001 Decimal places are 0 | 1 | 2 | 3 The maximum character length of the output unit is 10. If the length is greater than 10, the first ten characters are trunc	Conversion function Input lower limit input upper limit output lower limit Output upper limit Output lower limit Output unit Decimal places of output range	None
19.	ELECtricity:MEASure:MINMax:ENABle?	Read if the maximum and minimum value of current electric test gear are enabled (Current and voltage mV gear support)	None	0：disable 1：enable
20.	ELECtricity:MEASure:MINMax:ENABle 0|1	Set if the maximum and minimum value of current electric test gear are enabled	0：disable 1：enable	None

		(Current and voltage mV gear support)		
21.	ELECtricity:MEASure:SWITch:ACTIons?	Read the main interface switch test action value	None	Switch channel action value and unit
22.	ELECtricity:MEASure:ENABle?	Read if the electrical test interface is displayed	None	0：hide 1：display
23.	ELECtricity:MEASure:ENABle 0|1	Set whether the electrical test interface is displayed	0：hide 1：display	None

1.4 Electric output commands

NO.	Command	Explanation	Parameters	Returning values
1.	ELECtricity:SOURce:FUNCtion?	Read the electric test output gear Power configuration (0 does not enable loop power, 1 enables loop power)	None	0 NONE,1current output and power supply configuration,2 voltage output3 power output
2.	ELECtricity:SOURce:FUNCtion <Numeric>[,<Numeric>]	Set electronic test output gear 如：ELECtricity:SOURce:FUNCtion 1,1 ELECtricity:SOURce:FUNCtion 2 ELECtricity:SOURce:FUNCtion 3	0 NONE 11 current output 2 voltage output 3 power output, current output with power supply configuration (0 closed 1 open)	None
3.	ELECtricity:SOURce[:TARGet]?	Read target value of electronic test output	None	Target value
4.	ELECtricity:SOURce[:TARGet] <Numeric>	Set target value of electronic test output	Target value	None
5.	ELECtricity:SOURce:ENABle?	Read if the electrical test output interface is displayed	None	0：hide 1：display
6.	ELECtricity:SOURce:ENABle 0|1	Set if the electrical test output interface is displayed	0：hide 1：display	None
7.	ELECtricity:SOURce:SLOPe:STATus?	Get the current electrical output channel slope status	None	0 Non-slope output 1 slope output pause 2 Ramp output in progress

8.	ELECtricity:SOURce:SLOPe:STATus 0|1|2	Set the current electrical output channel slope status	0 Non-slope output 1 slope output pause 2 Ramp output in progress	None
9.	ELECtricity:SOURce:SLOPe:CONFigure?	Get the current electrical output slope parameter	None	Lower limit, upper limit, limit unit, rise time, fall time, lower limit dwell time, upper limit dwell time, repeat times
10.	ELECtricity:SOURce:SLOPe:CONFigure <Numeric>,<Numeric>,<Numeric>,<Numeric>,<Numeric>,<Numeric>,<Numeric>,<Numeric>	Set the current electrical output slope parameter	Lower limit, upper limit, limit unit, rise time, fall time, lower limit dwell time, upper limit dwell time, repeat times	None

1.5 System commands

NO.	Command	Explanation	Parameters	Returning values
1.	SYSTem:ERRor[:NEXT]?	Read commands execution error message	None	A message at the top of the error message stack
2.	SYSTem:LOCK?	Check lock screen status	None	0 Unlock screen 1 lock screen
3.	SYSTem:LOCK <Boolean>|ON|OFF	Set lock screen status	0|OFF unlock screen 1|ON lock screen	None
4.	SYSTem:VERSion? [\"APPLication\"|\"OS:FIRMware\"|\"OS:HARDware\"|\"CONTroller:FIRMware\"|\"CONTroller:HARDware\"|\"ElECtricity:FIRMware\"|\"ElECtricity:HARDware\"]	Read device versions	Optional parameters: "APPLication" main program version "OS:FIRMware" operation system firmware version, "OS:HARDware" operation system hardware version, "CONTroller:FIRMware" control panel	By default, the main program version is returned without parameters, and the version number of the corresponding parameters is returned with parameters.

			firmware version，"CONTroller:HARDware" control panel hardware version，"EIECtricity:FIRMware" electrical test board fireware version， "EIECtricity:HARDware" electrical test board hardware version。	
5.	SYSTem:DATE?	Read system date	None	Date（yyyy,MM,dd format）
6.	SYSTem:DATE <Numeric>,<Numeric>,<Numeric>	Set system date	Day month year	None
7.	SYSTem:TIME?	Read system time	None	Time（HH,mm,ss）
8.	SYSTem:TIME <Numeric>,<Numeric>,<Numeric>	Set system date	hour minute second	None
9.	SYSTem:TIME:FORMat?	Read system time format	None	Two values, separated by comma 24hours?, current time zone
10.	SYSTem:TIME:FORMat <Boolean>,<Numeric>	Set system time format	Two parameters, separated by comma 24hours?, time zone UTC value	None
11.	SYSTem:TBEEp?	Check system key tone status	None	0 disable 1 enable
12.	SYSTem:TBEEp <Boolean>|ON|OFF	Set system key tone status	0|OFF disable 1|ON enable	None
13.	SYSTem:PBEEp?	Check system warning tone status	None	0 disable 1 enable
14.	SYSTem:PBEEp <Boolean>|ON|OFF	Set system warning tone status	0|OFF disable 1|ON enable	None

15.	SYSTem:ORBEep?	Check system overrange alarm tone status	None	0 disable 1 enable
16.	SYSTem:ORBEep <Boolean>|ON|OFF	Check system overrange alarm tone status	0|OFF disable 1|ON enable	None
17.	SYSTem:STBEep?	Check system stable warning tone status	None	0 disable 1 enable
18.	SYSTem:STBEep <Boolean>|ON|OFF	Set system stable warning tone status	0|OFF disable 1|ON enable	None
19.	SYSTem:VOLume?	Read system volume percentage	None	Volume percentage
20.	SYSTem:VOLume <Numeric>	Set system volume	Volume percentage	None
21.	SYSTem:LANGuage?	Read the current language type	None	the current language name
22.	SYSTem:LANGuage <UnquoStr>[,<Boolean>]	Set the current language	Parameter: language name zh-CN, Optional parameter: whether to restart the device, restart by default	None
23.	SYSTem:LANGuage:CONFig?	Read the list of currently supported languages	None	Languages list
24.	SYSTem:LANGuage:CONFig <QuoteStr>	Set the list of currently supported languages	Languages list （comma separated）	None
25.	SYSTem:WLAN:STATe?	Read wlanstatus	None	0 close 1 open
26.	SYSTem:WLAN:STATe <Boolean>|ON| OFF	Set wlan status	0|OFF close 1|ON open	None
27.	SYSTem:WLAN:ADDRess?	Read wlanIP address	None	IP address

28.	"SYSTem:WLAN:ADDRess <UnquoStr>	Set walan IP address	IP address (without quotes)	None
29.	SYSTem:WLAN:MASK?	Read wlanIP subnet mask	None	Subnet mask
30.	SYSTem:WLAN:MASK <UnquoStr>	Set wlanIP subnet mask	Subnet mask (without quotes)	None
31.	SYSTem:WLAN:GATeway?	Read wlan gateway address	None	Gateway address
32.	SYSTem:WLAN:GATeway <UnquoStr>	Set wlan gateway address	Gateway address (without quotes)	None
33.	SYSTem:WLAN:MAC?	Read wlan MAC address	None	MAC address
34.	SYSTem:WLAN:DHCP?	Read wlan DHCP status	None	0 DHCP 1 static state IP
35.	SYSTem:DHCP <Boolean>|OFF|ON	Set wlanDHCP status	0|OFF DHCP 1|ON static state IP	None
36.	SYSTem:WLAN:SSID? [ALL]	Read wlan SSID No parameter: returns the name of the hotspot that is currently connected, or "" Optional parameters: ALL returns all connectable hotspot names when there is no connection, and does not return when connected	Parameters：None Optional parameters：ALL	SSID
37.	SYSTem:WLAN:CONNect <QuoteStr>,<QuoteStr>[,<QuoteStr>]	connect with hotspot	Hotspot name Quoted stringHotspot type Quoted string "WPA2_PSK" etc. Optional parameter: hotspot password quoted string	None
38.	SYSTem:WLAN:CONNect?	Check hotspot connection status	None	Description of connection status
39.	SYSTem:WLAN:DISConnect	Disconnect with hotspot	None	None

40.	SYSTem:WLAN:DBM?	Read hotspot signal strength	None	hotspot strength
41.	SYSTem:ETHernet:DHCP?	Read ETHernet DHCP status	None	0 DHCP 1 static status IP
42.	SYSTem:ETHernet:DHCP <Boolean>|OFF|ON	Set ETHernet DHCPstatus	0|OFF DHCP 1|ON static status IP	None
43.	SYSTem:ETHernet:ADDRess?	Read Ethernet IP address	None	IPaddress
44.	SYSTem:ETHernet:ADDRess <UnquoStr>	Set Ethernet IP address Only effective when it is a static IP	IP address(without quotes	None
45.	SYSTem:ETHernet:MASK?	Read ethernet subnet mask	None	Subnet mask
46.	SYSTem:ETHernet:MASK <UnquoStr>	Set the Ethernet subnet mask only effective when It is a static IP	Subnet mask (without quotes)	None
47.	SYSTem:ETHernet:GATeway?	Read Ethernet gateway address	None	Gateway address
48.	SYSTem:ETHernet:GATeway <UnquoStr>	Set Ethernet gateway address	Gateway address (without quotes)	None
49.	SYSTem:ETHernet:PHYSicaladdress?	Read Ethernet physical address	None	Physical address
50.	SYSTem:BLUEtooth:STATe?	Read Bluetooth status	None	0 close 1 open
51.	SYSTem:BLUEtooth:STATe <Boolean>|ON|OFF	Set Bluetooth status	0|OFF close 1|ON open	None
52.	SYSTem:BLUEtooth:NAMe	Read Bluetooth name	None	Bluetooth name
53.	SYSTem:BLUEtooth:NAMe <UnquoStr>	Set Bluetooth name	Name (without quotes)	None
54.	SYSTem:BRIGhtness? Percentage|Value	Read system screen brightness	Percentage or value	Screen brightness

55.	SYSTem:BRIGhtness Percentage| Value,<Numeric>	Set system screen brightness Brightness value range:Value 200-4096 Percentage 0-100 Automatically set to maximum brightness when the setting brightness value is greater than 4096 or 100. Set the minimum brightness when the brightness value is less than 0 or 200.	Parameter 1: percentage or value Parameter 2 brightness value	None
56.	SYSTem:BATTery:ONLIne?	Read if the battery is online	None	1: battery online 0: Battery is offline
57.	SYSTem:BATTery:STATus?	Read the current battery status	None	0: Battery communication is abnormal 1: Battery communication is normal
58.	SYSTem:BATTery:CAPacity?	Read the current battery level	None	Current battery level, total battery level (unit mAh)
59.	SYSTem:SNAPshot	Take snapshot	None	None
60.	DISPlay:ACLOud:CAPTcha 0| 1,<UnquoStr>,<Numeric>	Display or close show cloud service verification code	Parameter 1: 0-Close the display 1-display the verification code Parameter2: string, verification code content Parameter 3: Number Timeout	None

1.6 Data management commands

NO.	Command	Explanation	Parameters	Returning values

1.	DATamanager:COUNt? LEAKtest| SNAPshot|DATAlogger|METHanedetector| SPHYgmomanoter	Read the count of data	Parameter 1: LEAKtest SNAPshot DATAlogger METHanedetector SPHYgmomanoter	The count of data
2.	DATamanager:INFo? LEAKtest| SNAPshot,<Numeric>,<Numeric>	Read the relativeinformation of data	Parameter 1: LEAKtest SNAPshot DATAlogger METHanedetector SPHYgmomanoter Parameter 2: start, starting position Parameter 3: count, read length	Information
3.	DATamanager:DEL LEAKtest| SNAPshot,<UnquoStr>	Delete test result	Parameter 1: LEAKtest SNAPshot Parameter 2: File path to perform the delete operation (without quotes)	None
4.	DATamanager:LENGth? <UnquoStr>	Read data length	File path (without quotes)	Return data length
5.	DATamanager:DATa? <UnquoStr>,<Numeric>,<Numeric>	Read the data at the specified position	File path (without quotes), initial position, read length of data	String Format return data

1.7 Switch testing commands

NO.	Command	Explanation	Parameters	Returning values
1.	SWITch:MODE	Set switch test working status	parameter:	None

	<Numeric>,<Numeric>,<Numeric>,<Numeric>		* Switch test status 1: start, 0: stop, 2: stop and rate decay * Switch working mode 0,1,2,3 * Set the switch range (fixed unit kpa, when the pressure control capability range is exceeded, only the pressure control capability range is available	

1.8 HART

NO.	Command	Explanation	Parameters	Returning values
1.	HART:SUPPLYMODE?	Check the power supply mode		0-IPIR internal power supply internal resistance; 1-EPER external power supply external resistance; 2-EPIR external power supply internal resistance ; 3-IPER internal power supply external resista
2.	HART:SUPPLYMODE IPIR|EPER|EPIR|IPER|0|1|2|3	Set the power mode	0 or IPIR: internal power supply internal resistance ; 1 or EPER: external power supply external resistance; 2 or EPIR: external power supply internal resistance ; 3 or IPER: internal resistor external resista	-

3.	HART:SEARCH Start|Stop| Zero[,<Numeric>][,<Numeric>]	HARTsearch ;	Start: start searching; Stop: stop searching; Zero: Search only for 0 addresses Note: the back of Start and Stop parameters can be added address range parameters , such as '', 0,	-
4.	HART:DEVICES?	Search device	-	List of discovered devices (address and device type)
5.	HART:CONnect<address>	Connect Discovered Devices	Address	-
6.	HART:ONLDEVice:PROCess?	Get process volume options	-	PV: the main variable; AO: analog current value; %: Range percentage; SV: the second host variable; TV: the third host variable; FV: the fourth host variable; LoopCurrent: loop current
7.	HART:ONLDEVice:PROCess:VALue? [PV| AO|%|SV|TV|FV|LoopCurrent]	Get process value	PV: the main variable; AO: analog current value; %: Range percentage; SV: the second host variable; TV: the third host variable; FV: the fourth host variable; LoopCurrent: loop current	Empty: current variable valueOr specified process value
8.	HART:ONLDEVice:PROCess PV|AO|%| SV|TV|FV|LoopCurrent	Switching process amount	PV: the main variable; AO: analog current value; %: Range percentage;	

			SV: the second host variable; TV: the third host variable; FV: the fourth host variable; LoopCurrent: loop current	-
9.	HART:ONLDEVice:PARameter? <name>	Check parameter	name:parameter name（quoted string）	Return the value of the corresponding parameter
10.	HART:ONLDEVice:PARameter[:ECHO] <name>,<“value”>	Set parameter	name:parameter name (quoted string）value:value（quoted string）	-
11.	HART:ONLDEVice:INFO?	Check HART Device Information	No parameters or <parameter name>The parameter name list is as follows： Tag Manufacturer Devicetype Deviceid writeprotect date message descriptor finalassemble preambles universalrev hardwarerev softwarerev devicerev	Return all device information values without parameters Return the corresponding parameter value when the parameter name is specifie
12.	HART:ONLDEVice:SENSor?	Return all parameter values of the sensor Or return the corresponding value according to	No parameters or <parameter name>The parameter name list is as follows：	Return all device information values without parameters

		the specified parameter nam	sn unit lrl url minspan	Return the corresponding parameter value when the parameter name is specifie;
13.	HART:ONLDEVice:OUTput?	Returns all HART output parameter values Or return the corresponding value according to the specified parameter nam	No parameters or <parameter name>The parameter name list is as follows: unit lrv urv damping transferFunction	Return all HART output parameters without parameters Return the corresponding parameter value when the parameter name is specifie;
14.	HART:ONLDEVice:CONNected?	Gets whether the HART device is connected	None	1=connection，0=disconnected
15.	HART:ONLDEVice:TRIM:SENSor Zero|Low|High|Reset[,<Value>[,<Unit>]]	Sensor trim(Zero, Low point, High point, Reset)	Zero|Low|High|Reset, <trim value>,<unit> Note: When calibrating Zero|Reset, <Value>,<Unit> can be omitted. Calibration unit of low|high can be omitted, but the unit of calibration value should be the same with HART PV, the unit can be unit name or unit ID	0= succeed Non 0= failed
16.	HART:ONLDEVice:TRIM:CURRent 0|4|20|Zero|Gain[, <Numeric>]	Current trim	0|4|20|Zero|Gain，<trim value> (0 = exit calibration，Numeric can be omitted 4|20 = go to 4mA/20mA calibration，Numeric can be omitted;	0= succeed Non 0= failed

			Zero= calibrate 4mA,Numeric = loop current value Gain=calibrate 20mA,Numeric = loop current value	

1.9 Profibus PA commands

NO.	Command	Explanation	Parameters
1	PROFIBUS:SEARCH Start[,<Numeric>,<Numeric>]	Start or Start, <search initial address>, <search end address>	PA Equipment SearchThe default search address range is 1-126. You can also specify a search address range.
2	PROFIBUS:DEVICES?	-	Back to the serched list of devices Number of devices; {device address; device manufacturer; device identification number; device Id
3	PROFIBUS:CONnect <Numeric>	<device address>	Connect searched Devices
4	PROFIBUS:ONLDEVice:PARAmeter? <UnquoStr>	<parameter name>	Read parameter valueGet parameter value based on parameter name (obtained from corresponding DD file)
5	PROFIBUS:ONLDEVice:PARAmeter <UnquoStr>,<QuoteStr>	<parameter name>,<setting parameter value>	Setting parametersProvide the parameter name (obtained from the corresponding DD file) and the parameter value to be set
6	PROFIBUS:ONLDEVice:PROCess? <UnquoStr>| <Numeric>	<Parameter name> or <process quantity serial number>	Get Process ValueParameter names are obtained from the DD file;Process quantity serial number is the sequence number of the process quantity

NO.	Command	Explanation	Parameters
			parameter (calculated from 0);
7	PROFIBUS:ONLDEVice:SENSORTRIM Low|High|Reset,<Numeric>	Low|High|Reset, <adjustment value>	Sensor adjustment Low point adjustment：APP: PROFIBUS:ONLDEVice:SENSORTRIM Low,<adjusted value> High point adjustment：APP: PROFIBUS:ONLDEVice:SENSORTRIM High,<adjusted> recover sensor dajustment：APP: PROFIBUS:ONLDEVice:SENSORTRIM Reset，0
8	PROFIBUS:DD:PROCess? [<Numeric>]	No parameters or <device IdentNumber>	read all process quantity symbol lists of DD files No parameter: read all process quantity symbols of the DD file corresponding to the current online device, return to error without online device; <IdentNumber>：Read IdentNumber all process quantity symbols corresponding to DD files；
9	PROFIBUS:DD:BLOCk? <UnquoStr>[,<Numeric>]	<Block name> or <Block name>,<device IdentNumber>	Read the DD file corresponding to all parameter variable symbol lists under BlockOnly <Block name> parameters: read all parameter symbol lists corresponding to <Block name> in the DD file of the online device;<Blockmingc>, <device IdentNumber>: read all parameter symbol lists corresponding to <block name> in the DD file corresponding to <device IdentNumber>;Note: <Block name> is generally PB, FB, TB, TB1, TB2, FB1, FB2.

Commands attached list 1，SCPI unit Id list

Unit Id	Unit

2000	Text unit
32767	Space unit
1211	mA
1212	μA
1209	A
1240	V
1241	mV
1281	Ω
1284	kΩ
1283	MΩ
1000	K
1001	℃
1002	℉
1003	°R
999	°Re
1005	°
1342	%
1133	kPa
1130	Pa
1131	GPa
1132	MPa
1134	mPa
1135	μPa

1136	hPa
1137	bar
1138	mbar
1139	torr
1140	atm
1141	psi
1142	psia
1143	psig
1144	gf/cm^2
1145	kgf/cm^2
1147	inH2O@4°C
1148	inH2O@68°F
1150	mmH2O@4°C
1151	mmH2O@20°C
1153	ftH2O@4°C
1154	ftH2O@68°F
1156	inHg@0°C
1158	mmHg@0°C
2001	mtorr
2002	lb/ft^2
2003	tsi
2004	psf
2005	inH2O@60°F
2006	ftH2O@60°F
2007	cmH2O@4°C
2008	mH2O@4°C

2009	cmHg@0°C
2010	mHg@0°C
2011	kgf/m^2

Commands attached list 2 Error definition

NO.	Error code	Error description	Explanation
1	0	No error	No error
Command error			
2	120	Commandparameter error	Command parameter error
3	-108	Parameter not allowed	Too many parameter or misuse parameter in commands which do not need the parameter
4	-109	Missing parameter	Missing parameter
5	-110	Command header error	Command header error
6	-114	Header suffix out of range	Header suffix out of range
7	-123	Numeric overflow	43 Numeric overflow, the abs of number's index is over 43
8	-151	Invalid string data	Invalid string data, such as unmatched quote
9	-171	Invalid expression	Invalid expression, such as unmatched brackets
Execution error			
10	-200	Execution error	Execution error
11	-221	Settings conflict	Settings conflict
12	-222	Data out of range	Parameter out of valid range
13	-223	Too much data	Too much data to be processed
14	-224	Illegal parameter value	Illegal parameter value
15	-230	Data corrupt or stale	The data is invalid, or the data is being read, and valid data has not been obtained
16	-240	Hardware error	Hardware error
17	-256	File name not found	File name not found
18	-282	Illegal program name	Illegal program name
19	220	Measure error	Measure error

NO.	Error code	Error description	Explanation
20	221	Failed to set meaure function	Failed to set meaure function
21	222	Failed to read measure value	Failed to read measure value
22	223		
23	224		
24	240	Control error	Control error
25	241		
26	242		
27	243		
28	260	Calibration error	Calibration error
29	261	Calibration secured	Device is secured, cannot perform calibration
30	262	Invalid calibration secure code	Invalid calibration secure code
31	263	Missing calibration value	This error occurs when the calibration value is set without setting the calibration point during current/voltage calibration
32	264	Missing calibration data	This error occurs when calibration points are set continuously without calibration values set
33	265	Failed to set calibration function	Failed to set calibration function
34	266	Calibration data is not enough	When saving the calibration data, this error occurs if the calibration data does not reach 3 points
35	271	Setion_name_not_found	Setion name not found
36	272	Key_name_not_found	Key name not found
37	291	Update secured	Update secured, cannot update the device
38	292	Invalid update secure code	Invalid update secure code
39	293	Not found the service pack	Not found the service pack
40	294	The service pack unavailable	The service pack unavailable
41	295	AppUpdate not found	AppUpdate.exe not found

NO.	Error code	Error description	Explanation
		Device related errors	
42	-310	System error	System error
43	-311	Memory error	Memory error
44	-350	Queue overflow	Queue overflow
45	-360	Communication error	Communication error
46	301	Internal module is not connected	Internal module is not connected
47	302	External module is not connected	External module is not connected
48	303	Supply module is not connected	Supply module is not connected
49	304	Vacuum module is not connected	Vacuum module is not connected
50	361	Open WLAN Failed	Open WLAN Failed
51	362	Set WLAN address mode failed	Set WLAN address mode failed
52	363	Set WLAN address failed	Set WLAN address failed
53	364	Communication port to WIFI module is not open	Communication port to WIFI module is not open
54	365	WLANisnotconnected	WLAN is not connected