

42iQ,42iQHL,42iQLS,42iQTL - 118206-00
 MODBUS Register Table

Rev AF
 V 01.06.14.34444

EXT MODBUS	TYPE	DEFAULT	MINIMUM	MAXIMUM	UNITS	PRECISION	DESCRIPTION
1	float	0					NO Auto Concentration (ppb or ug/m3) [not in 42iQD]
3	float	0					NO2 Auto Concentration (ppb or ug/m3) [not in 42iQD]
5	float	0					NOx Auto Concentration (ppb or ug/m3)
7	float	0					NH3 Auto Concentration (ppb or ug/m3)
9	float	0					NT Auto Concentration (ppb or ug/m3)
11	float	0			Basic Units		NO Single/Low Range Concentration (ppb or ug/m3) [not in 42iQD]
13	float	0			Basic Units		NO2 Single/Low Range Concentration (ppb or ug/m3) [not in 42iQD]
15	float	0			Basic Units		NOx Single/Low Range Concentration (ppb or ug/m3)
17	float	0			Basic Units		NH3 Single/Low Range Concentration (ppb or ug/m3) [in 17iQ only]
19	float	0			Basic Units		NT Single/Low Range Concentration (ppb or ug/m3) [in 17iQ only]
21	float	0			Basic Units		NO High Range Concentration (ppb or ug/m3) [not in 42iQD]
23	float	0			Basic Units		NO2 High Range Concentration (ppb or ug/m3) [not in 42iQD]
25	float	0			Basic Units		NOx High Range Concentration (ppb or ug/m3)
31	unsigned16	0	0	1			Indicates which range is active in Auto Mode 1 = high range 0 = low range
35	float	0	-273.15	273.15	degC	1	Instrument Temperature (degC)
41	float	0	0	2.4	degC		NO2 converter temperature
49	float	0			mmHg		Chamber Pressure (mmHg)
51	float	0			L/min	3	Sample Flow (L/min)
55	float	0			Basic Units		NO Background (ppb or ug/m3) [not in 42iQD]
57	float	1			Basic Units		NOx Background (ppb or ug/m3)
59	float	2			Basic Units		NT Background (ppb or ug/m3)
61	float	0			Basic Units		Prereactor Background (ppb or ug/m3) [in 42iQTL only]
71	unsigned16	0	0	1			Ozonator Flow Status 0 - Off 1 - On
73	float	0			Basic Units		Prereactor Auto Concentration (ppb or ug/m3) [in 42iQTL only]
75	float	0			Basic Units		Prereactor Single/Low Concentration (ppb or ug/m3) [in 42iQTL only]
77	float	0			Basic Units		Prereactor High Concentration (ppb or ug/m3) [in 42iQTL only]
79	float	0					NO Auto Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
81	float	0					NO2 Auto Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
83	float	0					NOx Auto Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
89	float	0			Basic Units		NO Single/Low Range Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
91	float	0			Basic Units		NO2 Single/Low Range Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
93	float	0			Basic Units		NOx Single/Low Range Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
99	float	0			Basic Units		NO High Range Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
101	float	0			Basic Units		NO2 High Range Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
103	float	0			Basic Units		NOx High Range Corrected Concentration (ppb or ug/m3) [if O2 Sensor installed]
501	string		6	9	characters		Formatted Time: HH:MM(:SS)
506	string		9	11	characters		Formatted Date: MM/DD/(YY)YY
512	unsigned16	0			sec		Last Calibration Time (Seconds from 01-Jan-1970)
513	unsigned16	0			sec		Previous Calibration Time (Seconds from 01-Jan-1970)
514	unsigned32	1	0				General Alarm Flag
516	string	empty	0	14	characters		Serial Number
524	string	empty	0	32	characters		Firmware Version
540	string	iQSeries	0	16	characters		HostName

548	unsigned32	1	0			General Warning Flag
550	unsigned16	0	0	1		Instrument Warmup Flag set to 1 initially if warm up is enabled and either after all the module alarms are cleared up or after 2 hours set to 0
651	integer16	1	0			Pressure Alarm Status
652	unsigned16	0	0	65535		Pressure Faults 3: Bit7 - Board Communication FailureBit14 - Power supplies Bit15 - General when any faults detected
653	unsigned16	0	0	65535		Pressure Cal Status0 - Do nothing1 - Reset all values to defaults2 - Update high point sensor 13 - Update low point sensor 14 - Update high point sensor 25 - Update low point sensor 26 - Update high point sensor 37 - Update low point sensor 391 - Reset all values to defaults done92 - Update high point sensor 1 done93 - Update low point sensor 1 done94 - Update high point sensor 2 done95 - Update low point sensor 2 done96 - Update high point sensor 3 done97 - Update low point sensor 3 done
654	unsigned16	0	0	65535		Pressure Calibration Faults 1 (LSB): Bit 0-1: High point sensor 1Offset is: 00=Ok 01=user input out of range 10=measurement out of range 11=No calBit2-3: Low point sensor 1Offset is: 00=Ok 01=user input out of range 10=measurement out of range 11=No calBit4-5: High point sensor 2Offset is: 00=Ok 01=user input out of range 10=measurement out of range 11=No calBit6-7: Low point sensor 2Offset is: 00=Ok 01=user input out of range 10=measurement out of range 11=No calBit8-9: High point sensor 3Offset is: 00=Ok 01=user input out of range 10=measurement out of range 11=No calBit10-11: Low point sensor 3Offset is: 00=Ok 01=user input out of range 10=measurement out of range 11=No calBit12-15=N/A
655	integer16	0	0	1		Flow/Pressure Communication Alarm Status
656	integer16	0	0	1		Flow/Pressure Power Supply Alarm Status
701	float				deg C	Permeation Oven Gas Temperature (deg C) [if Perm Oven installed]
703	float				deg C	Permeation Oven Oven Body Temperature (deg C) [if Perm Oven installed]
705	integer16	1	0			Permeation Oven Alarms [if Perm Oven installed]
706	integer16	0	0	1		Perm Oven Oven Tempature Alarm Status [if Perm Oven installed]
707	integer16	0	0	1		Perm Oven Board Communication Alarm Status [if Perm Oven installed]
708	integer16	0	0	1		Perm Oven 5V Alarm Status [if Perm Oven installed]
709	integer16	0	0	1		Perm Oven 3.3V Alarm Status [if Perm Oven installed]
710	integer16	0	0	1		Perm Oven 3V Alarm Status [if Perm Oven installed]
711	integer16	0	0	1		Perm Oven 2.5V Alarm Status [if Perm Oven installed]
712	integer16	0	0	1		Perm Oven 24V Alarm Status [if Perm Oven installed]
713	unsigned16	0	0			Perm Oven Bit-packed faults 4: [if Perm Oven installed]Bit0 = UnusedBit1 = Heater status faultBit2 = heater power fault.Bit3 = 5 volts power fault.Bit 4 = 3.3 volts power fault.Bit5 = 2.5 volts power fault.Bit6 = 3 volts power fault.Bit7=Board communication failureBit8= Calibration fault.Bit9-13 = UnusedBit14 = Power supply failureBit 15 = Any faults in Fault 0 or and Fault 1
714	float	25			deg C	Min Oven temperature [if Perm Oven installed]
716	float	105			deg C	Max Oven temperature [if Perm Oven installed]
718	integer16	0	0	1		Perm Oven Body Thermistor Short Alarm Status [if Perm Oven installed]
719	integer16	0	0	1		Perm Oven Gas Thermistor Short Alarm Status [if Perm Oven installed]
720	integer16	0	0	1		Perm Oven Body Thermistor Open Alarm Status [if Perm Oven installed]
721	integer16	0	0	1		Perm Oven Gas Thermistor Short Alarm Status [if Perm Oven installed]
751	integer16	1	0			PSB Alarms Count
752	unsigned16	0	0	65535		Zero Gas Alica's MFC Status Faults 0:Bit0 = Temperature Overflow(TOV)BIT1 = Temperature Underflow(TOV)BIT2 = Volumetric Overflow (VOV)BIT3 = Volumetric Underflow (VOV)BIT4 = Mass Overflow (MOV)Bit5 = Mass Underflow (MOV)Bit6 = Pressure Overflow (POV)Bit7 = Totalizer Overflow (OVR)Bit8 = PID Loop in Hold (HLD)Bit9 = ADC Error (ADC)Bit10= PID Exhaust (EXH)Bit11= Over Pressure Limit (OPL)Bit12= Flow Overflow during totalize (TMF)Bit13= Measurement was aborted

753	unsigned16	0	0	65535	Span Gas #1 Alicat's MFC Status Faults 1:Bit0 = Temperature Overflow(TOV)BIT1 = Temperature Underflow(TOV)BIT2 = Volumetric Overflow (VOV)BIT3 = Volumetric Underflow (VOV)BIT4 = Mass Overflow (MOV)Bit5 = Mass Underflow (MOV)Bit6 = Pressure Overflow (POV)Bit7 = Totalizer Overflow (OVR)Bit8 = PID Loop in Hold (HLD)Bit9 = ADC Error (ADC)Bit10= PID Exhaust (EXH)Bit11= Over Pressure Limit (OPL)Bit12= Flow Overflow during totalize (TMF)Bit13= Measurement was aborted
754	unsigned16	0	0	65535	Span Gas #2 (optional) Alicat's MFC StatusFaults 2:Bit0 = Temperature Overflow(TOV)BIT1 = Temperature Underflow(TOV)BIT2 = Volumetric Overflow (VOV)BIT3 = Volumetric Underflow (VOV)BIT4 = Mass Overflow (MOV)Bit5 = Mass Underflow (MOV)Bit6 = Pressure Overflow (POV)Bit7 = Totalizer Overflow (OVR)Bit8 = PID Loop in Hold (HLD)Bit9 = ADC Error (ADC)Bit10= PID Exhaust (EXH)Bit11= Over Pressure Limit (OPL)Bit12= Flow Overflow during totalize (TMF)Bit13= Measurement was aborted
755	unsigned16	0	0	65535	PSB Board most significant word Faults 3:Bit0..6=N/ABIT7=Board communication failureBIT8=Reset info block to defaultBIT9=Verfiy info block failBIT10=Reset calibration block to defaultBIT11=Verify calibration block failBit 12 - 13 = N/ABit14=Power Supply FailureBit15=General when any faults detected
756	unsigned16	0	0	65535	Status bits from STEP board 1:Bit Description0 Channel A 0=OK 1=Error (current>4A)1 Channel B 0=OK 1=Error (current>4A)2 Channel C 0=OK 1=Error (current>4A)3 Channel D 0=OK 1=Error (current>4A)4 Channel A 0=Off 1=On5 Channel B 0=Off 1=On6 Channel C 0=Off 1=On7 Channel D 0=Off 1=On8-11 5V Supply 0=Fail 0xa=Good12-15 24V Supply 0=Fail 0xa=Good
757	unsigned16	0	0	65535	Status bits from STEP board 2:Bit Description0 Channel A 0=OK 1=Error (current>4A)1 Channel B 0=OK 1=Error (current>4A)2 Channel C 0=OK 1=Error (current>4A)3 Channel D 0=OK 1=Error (current>4A)4 Channel A 0=Off 1=On5 Channel B 0=Off 1=On6 Channel C 0=Off 1=On7 Channel D 0=Off 1=On8-11 5V Supply 0=Fail 0xa=Good12-15 24V Supply 0=Fail 0xa=Good
758	unsigned16	0	0	65535	Status bits from STEP board 3:Bit Description0 Channel A 0=OK 1=Error (current>4A)1 Channel B 0=OK 1=Error (current>4A)2 Channel C 0=OK 1=Error (current>4A)3 Channel D 0=OK 1=Error (current>4A)4 Channel A 0=Off 1=On5 Channel B 0=Off 1=On6 Channel C 0=Off 1=On7 Channel D 0=Off 1=On8-11 5V Supply 0=Fail 0xa=Good12-15 24V Supply 0=Fail 0xa=Good
759	unsigned16	0	0	65535	Status bits from STEP board 4:Bit Description0 Channel A 0=OK 1=Error (current>4A)1 Channel B 0=OK 1=Error (current>4A)2 Channel C 0=OK 1=Error (current>4A)3 Channel D 0=OK 1=Error (current>4A)4 Channel A 0=Off 1=On5 Channel B 0=Off 1=On6 Channel C 0=Off 1=On7 Channel D 0=Off 1=On8-11 5V Supply 0=Fail 0xa=Good12-15 24V Supply 0=Fail 0xa=Good
760	integer16	0	0	1	PSB Communication Status
761	integer16	0	0	1	PSB Power Supply Status
762	integer16	0	0	1	Channel 1 Error from STEP board
763	integer16	0	0	1	Channel 2 Error from STEP board
764	integer16	0	0	1	Channel 3 Error from STEP board
765	integer16	0	0	1	Channel 4 Error from STEP board
766	integer16	0	0	1	STEP 1 5V Error
767	integer16	0	0	1	STEP 1 24V Error
768	integer16	0	0	1	Channel 1 Error from STEP board
769	integer16	0	0	1	Channel 2 Error from STEP board
770	integer16	0	0	1	Channel 3 Error from STEP board
771	integer16	0	0	1	Channel 4 Error from STEP board
772	integer16	0	0	1	STEP 2 5V Error
773	integer16	0	0	1	STEP 2 24V Error
774	integer16	0	0	1	Channel 1 Error from STEP board
775	integer16	0	0	1	Channel 2 Error from STEP board
776	integer16	0	0	1	Channel 3 Error from STEP board

777	integer16	0	0	1		Channel 4 Error from STEP board
778	integer16	0	0	1		STEP 3 5V Error
779	integer16	0	0	1		STEP 3 24V Error
780	integer16	0	0	1		Channel 1 Error from STEP board
781	integer16	0	0	1		Channel 2 Error from STEP board
782	integer16	0	0	1		Channel 3 Error from STEP board
783	integer16	0	0	1		Channel 4 Error from STEP board
784	integer16	0	0	1		STEP 4 5V Error
785	integer16	0	0	1		STEP 4 24V Error
801	float	0				Analog Input 1 Reading
803	float	0				Analog Input 2 Reading
805	float	0				Analog Input 3 Reading
807	float	0				Analog Input 4 Reading
809	integer16	1	0			Analog Alarms
810	unsigned16	0	0	65535		Analog IO Faults 0: Bit-packed faults:Bit0 = 15V Status Diagnostic Failed Bit1 = Negative 15V Status Diagnostic Failed Bit2 = 5V Status Diagnostic Failed Bit3 = 3dot3V Status Diagnostic Failed Bit4 = 5V Reference Status Diagnostic Failed Bit5..15 = N/A
811	unsigned16	0	0	65535		Analog IO Faults 2: Bit-packed faults:Bit0 = Voltage Output Channel 1 Failed Bit1 = Voltage Output Channel 2 Failed Bit2 = Voltage Output Channel 3 Failed Bit3 = Voltage Output Channel 4 Failed Bit4 = Voltage Output Channel 5 Failed Bit5 = Voltage Output Channel 6 Failed Bit6 = Current Output Channel 1 Failed Bit7 = Current Output Channel 2 Failed Bit8 = Current Output Channel 3 Failed Bit9 = Current Output Channel 4 Failed Bit10 = Current Output Channel 5 Failed Bit11 = Current Output Channel 6 Failed Bit12 = AD5755 Temperature Too HighBit13 = AD5755-1 SPI Communications AlertBit14 = AD5755-2 SPI Communications Alert Bit15 = AD5755-3 SPI Communications Alert
812	unsigned16	0	0	65535		Analog IO Faults 3: Bit-packed faults:Bit0..6 = N/ABit7 = Board Communication FailureBit8 = Information block set defaultBit9 = Information block corruptedBit10 = Calibration block set defaultBit11 = Calibration block corruptedBit12..13 = N/ABit14 = Power Supply FailureBit15 = General when any faults detected
813	unsigned16	0	0	65535		Analog IO Calibration Status: 0 = Calibration IdleVoltage Input Calibration 1 = Calculate voltage input start2 = Calculate voltage input stop3 = Calculate voltage input default4 = Calibration voltage input done Voltage Output Calibration 5 = Calculate voltage output start6 = Calculate voltage output stop7 = Calculate voltage output default8 = Calibration voltage output done Current Output Calibration 9 = Calculate current output start10 = Calculate current output stop11 = Calculate current output default12 = Calibration voltage output done
814	unsigned16	0	0	65535		Analog IO Cal Faults 1: Bit-packed faults for voltage input calibration:Bit0-1 = Channel 1 voltage input calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit2-3 = Channel 2 voltage input calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit4-5 = Channel 3 voltage input calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit6-7 = Channel 4 voltage input calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit8..15 = N/A
815	unsigned16	0	0	65535		Analog IO Cal Faults 2: Bit-packed faults for voltage output 5V range calibration:Bit0-1 = Channel 1 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit2-3 = Channel 2 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit4-5 = Channel 3 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit6-7 = Channel 4 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit8-9 = Channel 5 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit10-11 = Channel 6 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit12..15=N/A

816	unsigned16	0	0	65535		Analog IO Cal Faults 3: Bit-packed faults for voltage output 10V range calibration:Bit0-1 = Channel 1 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit2-3 = Channel 2 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit4-5 = Channel 3 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit6-7 = Channel 4 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit8-9 = Channel 5 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit10-11 = Channel 6 voltage output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit12..15=N/A
817	unsigned16	0	0	65535		Analog IO Cal Faults 4: Bit-packed faults for current output calibration:Bit0-1= Channel 1 current output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit2-3= Channel 2 current output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit4-5= Channel 3 current output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit6-7= Channel 4 current output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit8-9= Channel 5 current output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit10-11= Channel 6 current output calibration failureOffset is: 00 = Ok 01 = Low 10 = High 11 = No calBit12..15=N/A
818	integer16	0	0	1		Analog IO Voltage Output Channel 1 Alarm Status
819	integer16	0	0	1		Analog IO Voltage Output Channel 2 Alarm Status
820	integer16	0	0	1		Analog IO Voltage Output Channel 3 Alarm Status
821	integer16	0	0	1		Analog IO Voltage Output Channel 4 Alarm Status
822	integer16	0	0	1		Analog IO Voltage Output Channel 5 Alarm Status
823	integer16	0	0	1		Analog IO Voltage Output Channel 6 Alarm Status
824	integer16	0	0	1		Analog IO Current Output Channel 1 Alarm Status
825	integer16	0	0	1		Analog IO Current Output Channel 2 Alarm Status
826	integer16	0	0	1		Analog IO Current Output Channel 3 Alarm Status
827	integer16	0	0	1		Analog IO Current Output Channel 4 Alarm Status
828	integer16	0	0	1		Analog IO Current Output Channel 5 Alarm Status
829	integer16	0	0	1		Analog IO Current Output Channel 6 Alarm Status
830	integer16	0	0	1		Analog IO Chip Temperatures Alarm Status
831	integer16	0	0	1		Analog IO Chip 1 Communication Alarm Status
832	integer16	0	0	1		Analog IO Chip 2 Communication Alarm Status
833	integer16	0	0	1		Analog IO Chip 3 Communication Alarm Status
834	integer16	0	0	1		Analog IO Communication Alarm Status
835	integer16	0	0	1		Analog IO Power Supply Alarm Status
951	integer16	1	0			Digital IO Alarms
952	unsigned16	0	0	65535		Digital IO Board fault register 1 least significant wordBit 0 = Solenoid1 above 500mA shut down and alarmBit 1 = Solenoid1 below 10mA and output is onBit 2 = Solenoid2 above 500mA shut down and alarmBit 3 = Solenoid2 below 10mA and output is onBit 4 = Solenoid3 above 500mA shut down and alarmBit 5 = Solenoid3 below 10mA and output is onBit 6 = Solenoid4 above 500mA shut down and alarmBit 7 = Solenoid4 below 10mA and output is onBit 8 = Solenoid5 above 500mA shut down and alarmBit 9 = Solenoid5 below 10mA and output is onBit 10 = Solenoid6 above 500mA shut down and alarmBit 11 = Solenoid6 below 10mA and output is onBit 12 = Solenoid7 above 500mA shut down and alarmBit 13 = Solenoid7 below 10mA and output is onBit 14 = Solenoid8 above 500mA shut down and alarmBit 15 = Solenoid8 below 10mA and output is on
953	unsigned16	0	0	65535		Digital IO Board fault register 2
954	unsigned16	0	0	65535		Digital IO Board fault register 4 most significant wordBit0..9=N/A Bit 7 = Board Communication FailureBit14 = Power Supply Bit15 = General when any faults detected
955	unsigned16	0	0	1		Digital IO External Alarm 1
956	unsigned16	0	0	1		Digital IO External Alarm 2
957	unsigned16	0	0	1		Digital IO External Alarm 3

						Reset the solenoid faultsBit0 = 24V Switchable Output 0 Bit1 = 24V Switchable Output 1 Bit2 = 24V Switchable Output 2Bit3 = 24V Switchable Output 3Bit4 = 24V Switchable Output 4Bit5 = 24V Switchable Output 5Bit6 = 24V Switchable Output 6Bit7 = 24V Switchable Output 7Bit8..15 = N/A
958	unsigned16	0	0	255		
959	integer16		0	1		Digital I/O solenoid1 above 500mA alarm
960	integer16		0	1		Digital I/O solenoid1 below 10mA alarm
961	integer16		0	1		Digital I/O solenoid2 above 500mA alarm
962	integer16		0	1		Digital I/O solenoid2 below 10mA alarm
963	integer16		0	1		Digital I/O solenoid3 above 500mA alarm
964	integer16		0	1		Digital I/O solenoid3 below 10mA alarm
965	integer16		0	1		Digital I/O solenoid4 above 500mA alarm
966	integer16		0	1		Digital I/O solenoid4 below 10mA alarm
967	integer16		0	1		Digital I/O solenoid5 above 500mA alarm
968	integer16		0	1		Digital I/O solenoid5 below 10mA alarm
969	integer16		0	1		Digital I/O solenoid6 above 500mA alarm
970	integer16		0	1		Digital I/O solenoid6 below 10mA alarm
971	integer16		0	1		Digital I/O solenoid7 above 500mA alarm
972	integer16		0	1		Digital I/O solenoid7 below 10mA alarm
973	integer16		0	1		Digital I/O solenoid8 above 500mA alarm
974	integer16		0	1		Digital I/O solenoid8 below 10mA alarm
975	integer16		0	1		Digital I/O power supply alarm
976	integer16	0	0	1		Digital IO Communication Alarm
977	unsigned16	0	0	1		Digital IO Relay Test Mode Alarm
978	unsigned16	0	0	1		Digital IO Solenoid Test Mode Alarm
1001	integer16	0	-99	60		Maintenance History Calculated Months Left Reaction Chamber/Cooler Module
1002	integer16	0	-99	60		Maintenance History Calculated Months Left PMT
1003	integer16	0	-99	60		Maintenance History Calculated Months Left PMT Base Socket
1004	integer16	0	-99	60		Maintenance History Calculated Months Left Converter Cartridge
1005	integer16	0	-99	60		Maintenance History Calculated Months Left Ozonator Assembly
1006	integer16	0	-99	60		Maintenance History Calculated Months Left NH3 Scrubber
1007	integer16	0	-99	60		Maintenance History Calculated Months Left Sample Permeation Dryer
1008	integer16	0	-99	60		Maintenance History Calculated Months Left Flow System
1009	integer16	0	-99	60		Maintenance History Calculated Months Left Sample Pump
1010	integer16	0	-99	60		Maintenance History Calculated Months Left Capillary (Sample)
1011	integer16	0	-99	60		Maintenance History Calculated Months Left Capillary (Ozone)
1012	integer16	0	-99	60		Maintenance History Calculated Months Left DC Power Supply
1013	integer16	0	-99	60		Maintenance History Calculated Months Left Foam Fan Filter
1014	integer16	0	-99	60		Maintenance History Calculated Months Left System Components
1015	integer16	0	-99	60		Maintenance History Calculated Months Left Purafil
1016	integer16	0	-99	60		Maintenance History Calculated Months Left Charcoal
1017	integer16	0	-99	60		Maintenance History Calculated Months Left Dri-Rite
1018	integer16	0	-99	60		Maintenance History Calculated Months Left Permeation Tube
1019	integer16	0	-99	60		Maintenance History Calculated Months Left Ozone Permeation Dryer
1020	integer16	0	-99	60		Maintenance History Calculated Months Left O2 Sensor
1021	integer16	0	-99	60		Maintenance History Calculated Months Left Bypass Pump
1022	integer16	0	-99	60		Maintenance History Calculated Months Left 22
1023	integer16	0	-99	60		Maintenance History Calculated Months Left 23
1024	integer16	0	-99	60		Maintenance History Calculated Months Left 24
1025	integer16	0	-99	60		Maintenance History Calculated Months Left 25
1026	integer16	0	-99	60		Maintenance History Calculated Months Left 26
1027	integer16	0	-99	60		Maintenance History Calculated Months Left 27
1028	integer16	0	-99	60		Maintenance History Calculated Months Left 28
1029	integer16	0	-99	60		Maintenance History Calculated Months Left 29

1030	integer16	0	-99	60		Maintenance History Calculated Months Left 30
1031	integer16	0	-99	60		Maintenance History Calculated Months Left 31
1032	integer16	0	-99	60		Maintenance History Calculated Months Left 32
1033	integer16	0	-99	60		Maintenance History Calculated Months Left 33
1034	integer16	0	-99	60		Maintenance History Calculated Months Left 34
1035	integer16	0	-99	60		Maintenance History Calculated Months Left 35
1036	integer16	0	-99	60		Maintenance History Calculated Months Left 36
1037	integer16	0	-99	60		Maintenance History Calculated Months Left 37
1038	integer16	0	-99	60		Maintenance History Calculated Months Left 38
1039	integer16	0	-99	60		Maintenance History Calculated Months Left 39
1040	integer16	0	-99	60		Maintenance History Calculated Months Left 40
1041	integer16	0	-99	60		Maintenance History Calculated Months Left 41
1042	integer16	0	-99	60		Maintenance History Calculated Months Left 42
1043	integer16	0	-99	60		Maintenance History Calculated Months Left 43
1044	integer16	0	-99	60		Maintenance History Calculated Months Left 44
1045	integer16	0	-99	60		Maintenance History Calculated Months Left 45
1046	integer16	0	-99	60		Maintenance History Calculated Months Left 46
1047	integer16	0	-99	60		Maintenance History Calculated Months Left 47
1048	integer16	0	-99	60		Maintenance History Calculated Months Left 48
1049	integer16	0	-99	60		Maintenance History Calculated Months Left 49
1050	integer16	0	-99	60		Maintenance History Calculated Months Left 50
1051	unsigned16	0	0	1		Maintenance History Alert
1101	string		0	300		Predictive Diagnostics Alerts List
1301	integer16	0	0	1		Predictive Diagnostic Alert Reaction Chamber
1302	integer16	0	0	1		Predictive Diagnostic Alert NO ₂ Converter
1303	integer16	0	0	1		Predictive Diagnostic Alert Sample Pump
1304	integer16	0	0	1		Predictive Diagnostic Alert Capillary
1305	integer16	0	0	1		Predictive Diagnostic Alert Flow Path
1306	integer16	0	0	1		Predictive Diagnostic Alert Case Fan
1307	integer16	0	0	1		Predictive Diagnostic Alert Sample Valve
1308	integer16	0	0	1		Predictive Diagnostic Alert Zero Valve
1309	integer16	0	0	1		Predictive Diagnostic Alert Span Valve
1310	integer16	0	0	1		Predictive Diagnostic Alert 10
1311	integer16	0	0	1		Predictive Diagnostic Alert 11
1312	integer16	0	0	1		Predictive Diagnostic Alert 12
1313	integer16	0	0	1		Predictive Diagnostic Alert 13
1314	integer16	0	0	1		Predictive Diagnostic Alert 14
1315	integer16	0	0	1		Predictive Diagnostic Alert 15
1316	integer16	0	0	1		Predictive Diagnostic Alert 16
1317	integer16	0	0	1		Predictive Diagnostic Alert 17
1318	integer16	0	0	1		Predictive Diagnostic Alert 18
1319	integer16	0	0	1		Predictive Diagnostic Alert 19
1320	integer16	0	0	1		Predictive Diagnostic Alert 20
1321	unsigned16	0	0	1		Predictive Diagnostic Alerts
1551	float	0	0	18.536	Volts	1 Cooler Voltage
1553	integer16	0	0	1		Bench Temperature Short Alarm Status
1554	integer16	0	0	1		Bench Temperature Open Alarm Status
1555	integer16	0	0	1		Cooler Temperature Sensor Short Alarm Status
1556	integer16	0	0	1		Cooler Temperature Sensor OpenAlarm Status
1557	integer16	0	0	1		Cooler Current Too Low Alarm Status
1558	integer16	0	0	1		Cooler Current Too High Alarm Status
1559	integer16	0	0	1		Cooler Voltage Too Low Alarm Status
1560	integer16	0	0	1		Cooler Voltage Too High Alarm Status
1561	integer16	0	0	1		PMT Voltage Too Low Alarm Status
1562	integer16	0	0	1		PMT Voltage Too High Alarm Status
1563	integer16	0	0	1		Frequency Too Low Alarm Status
1564	integer16	0	0	1		Frequency Too High Alarm Status
1565	integer16	0	0	1		Bench Communication Alarm Status
1566	integer16	0	0	1		Bench Power Supply Alarm Status
1567	integer16	0	0	1		Chamber Temperature Alarm Status
1568	float	0	-26	80	degC	1 Bench Temperature:Coarse if outside range.Fine if within range
1570	float	0	-26	80	degC	1 Cooler Temperature:Coarse if outside range.Fine if within range
1572	integer16	0	0	1		Cooler Temperature Alarm Status

1573	float	0	0	7.748	Amps	1	Cooler Current (Amps)
1575	float	0	0	999.9	picoAmps	1	PMT Current in pico-Amps
1577	float	0	0	300000	Hz	1	Frequency
1579	unsigned16	1000	10	1000			PMT Low Gain Value
1580	unsigned16	1	1	100			PMT Gain Value
1581	integer16	1	0				Number of active alarms
1582	float	-10	-40	10	degC	1	Cooler Temp Min
1584	float	-1	-40	10	degC	1	Cooler Temp Max
1586	float	48	45	55	degC	1	Min Bench Temp Alarm
1588	float	52	45	55	degC	1	Max Bench Temp Alarm
1590	float	0	-1515	0	Volts	1	PMT High Voltage
1651	string	0	0	11			NO Single/Low Range Concentration Reading(String in User Selected Units for GUI) [not in 42iQD]
1657	string	0	0	11			NO2 Single/Low Range Concentration Reading(String in User Selected Units for GUI) [not in 42iQD]
1663	string	0	0	11			NOx Single/Low Range Concentration Reading(String in User Selected Units for GUI)
1669	string	0	0	11			NH3 Single/Low Range Concentration Reading(String in User Selected Units for GUI) [in 17iQ only]
1675	string	0	0	11			NT Single/Low Range Concentration Reading(String in User Selected Units for GUI) [in 17iQ only]
1681	string	0	0	11			Pre Single/Low Range Concentration Reading(String in User Selected Units for GUI) [in 42iQTL only]
1687	string	0	0	11			NO High Range Concentration Reading(String in User Selected Units for GUI) [not in 42iQD]
1693	string	0	0	11			NO2 High Range Concentration Reading(String in User Selected Units for GUI) [not in 42iQD]
1699	string	0	0	11			NOx High Range Concentration Reading(String in User Selected Units for GUI)
1705	string	0	0	11			NH3 High Range Concentration Reading(String in User Selected Units for GUI) [in 17iQ only]
1711	string	0	0	11			NT High Range Concentration Reading(String in User Selected Units for GUI) [in 17iQ only]
1717	string	0	0	11			Pre High Range Concentration Reading(String in User Selected Units for GUI) [in 42iQTL only]
1723	integer16	0	0	1			NO Concentration Alarm Status [not in 42iQD]
1724	integer16	0	0	1			NO2 Concentration Alarm Status [not in 42iQD]
1725	integer16	0	0	1			NOx Concentration Alarm Status
1726	integer16	0	0	1			Pressure Alarm Status
1727	integer16	0	0	1			Flow Alarm Status
1728	integer16	0	0	1			Instrument Temperature Alarm Status
1729	integer16	0	0	1			Auto Zero Cal/Check Alarm Status
1730	integer16	0	0	1			Auto Span Cal/Check Alarm Status
1731	integer16	0	0	1			NH3 Concentration Alarm Status [in 17iQ only]
1732	integer16	0	0	1			NT Concentration Alarm Status [in 17iQ only]
1733	unsigned16	0	0	1			1=NO single range home screen
1734	unsigned16	0	0	1			1=NO Dual low range home screen
1735	unsigned16	0	0	1			1=NO Dual high range home screen
1736	unsigned16	0	0	1			1=NO Auto low range home screen
1737	unsigned16	0	0	1			1=NO Auto high range home screen
1738	unsigned16	0	0	1			1=NOx single range home screen
1739	unsigned16	0	0	1			1=NOx Dual low range home screen
1740	unsigned16	0	0	1			1=NOx Dual high range home screen
1741	unsigned16	0	0	1			1=NOx Auto low range home screen
1742	unsigned16	0	0	1			1=NOx Auto high range home screen
1743	unsigned16	0	0	1			1=NO/NOx single range home screen
1744	unsigned16	0	0	1			1=NO/NOx Dual low range home screen
1745	unsigned16	0	0	1			1=NO/NOx Dual high range home screen
1746	unsigned16	0	0	1			1=NO/NOx Auto low range home screen
1747	unsigned16	0	0	1			1=NO/NOx Auto high range home screen
1751	integer16	0	0	1			Ozonator Flow Status Alarm Status
1752	integer16	0	0	1			Ozonator Communication Alarm Status
1753	integer16	0	0	1			Ozonator Power Supply Alarm Status
1754	integer16	0	0	1			Ozonator Power On/Off Alarm Status
1755	unsigned16	0	0	1			Ozonator:0 - Low1 - High

							Ozonator Current Monitor. If Ozonator Hi low pin = logic 1. (For 200Hz (400pps):Minimum limit : 0.150ANormal conditions: 0.230AMaximum limit : 0.350A b. Ozonator Hi Low Pin = logic 0 (For 130Hz) For 130Hz (130pps):Minimum limit : 0.050ANormal conditions: 0.075AMaximum limit : 0.114A
1756	float	0	0	0.5	Amps		
1758	integer16	1	0				Number of active alarms
1759	integer16	0	0			1	Ozonator Current Alarm Status
1801	integer16	0	0			1	NO2 Converter Thermistor Open Alarm Status
1802	integer16	0	0			1	NO2 Converter Thermistor Short Alarm Status
1803	integer16	0	0			1	NO2 Converter Communication Alarm Status
1804	integer16	0	0			1	NO2 Converter Power Supply Alarm Status
1805	integer16	0	0			1	Converter Temperature Alarm Status
1806	integer16	1	0				Number of active alarms
1807	float	300	300	1000	degC	1	Min Converter Temperature Alarm
1809	float	350	300	1000	degC	1	Max Converter Temperature Alarm
1811	unsigned16	1	0			1	Enable/disable the module
1851	integer16	0	0				Number of active oxygen alarms [if O2 Sensor installed]
1852	unsigned16	0	0	65535			Bit-packed O2 Faults 0:Bit 0...7=UnusedBit8 = Ambient temp thermistor openBit9 = Ambient temp thermistor shortBit 10...15=Unused
1853	unsigned16	0	0	65535			Bit-packed O2 Faults 1:Bit0...3 = UnusedBit4 = 5 volts Fault.Bit5 = 3.3 volts Fault.Bit6 = 2.5 volts Reference Fault.Bit7= 24 volts Fault.Bit 8...15=Unused
1854	unsigned16	0	0	65535			Bit-packed O2 Faults 2:Bit0 = X - fail.Bit1 = E - fail.Bit 2 = B - fail.Bit 3 = C - fail.Bit 4 = S - fail.Bit 5 = M - fail.Bit 6 = O2 sensor not detected.Bit7...15 = Unused
1855	unsigned16	0	0	65535			Bit-packed O2 Faults 3:Bit0...6 = UnusedBit7 = Board communication failureBit8 = Information block set defaultBit9 = Information block corruptedBit10 = Calibration block set defaultBit11 = Calibration block corruptedBit12...13 =N/ABit14 =Power Supply FailureBit15 =General in any faults detected
1856	unsigned16	0	0				Calibration Status0 = Calibration IdleAmbient Calibration Steps1 = Cal Ambient offset start2 = Cal Ambient offset stop3 = Cal Ambient offset default4 = Cal Ambient offset doneO2 Calibration Steps5 = Factory Cal1 (Offset) Start6 = Factory Cal1 (Offset) Stop7 = Factory Cal1 (Offset) Done8= Factory Cal2 (Span) Start9= Factory Cal2 (Span) Stop10= Factory Cal2 (Span) Done11 = User Cal (Span) Start12 = User Cal (Span) Stop13 = User Cal (Span) Default14 = User Cal (Span) Done
1857	unsigned16	0	0				Bit-packed O2 Calibration Faults:Bit 0 = Factory Calibration failure.(verify for 'C' in errors received from Oxygen sensor module.Bit 1 = User Cal (Span) Fail. (Calculated Cal coefficient <0.5 or >2)Bit2-3 = Ambient temperature calibration failure. Offset is: 00=Ok 01=Lo 10=Hi 11=No cal
1859	float	0	-10	110	%	3	O2 Concentration [if O2 Sensor installed]
1861	float	0	-10	100	°C	1	O2 Temperature [if O2 Sensor installed]
1863	integer16	0	0			1	O2 Concentration Alarm Status [if O2 Sensor installed]
1864	integer16	0	0			1	O2 Thermistor Open Status [if O2 Sensor installed]
1865	integer16	0	0			1	O2 Thermistor short Status [if O2 Sensor installed]
1866	integer16	0	0			1	O2 Sensor Malfunction Status [if O2 Sensor installed]
1867	integer16	0	0			1	O2 Outside Operational Spec Status [if O2 Sensor installed]
1868	integer16	0	0			1	O2 Sensor Communication Fault Status [if O2 Sensor installed]
1869	integer16	0	0			1	O2 Sensor Calibration Fault Status [if O2 Sensor installed]
1870	integer16	0	0			1	O2 Photodiode Current Low Fault Status [if O2 Sensor installed]
1871	integer16	0	0			1	O2 Sensor not detected Fault Status [if O2 Sensor installed]
1872	integer16	0	0			1	O2 Board Communication Fault Status [if O2 Sensor installed]
1873	integer16	0	0			1	O2 Power Supply Fault Status [if O2 Sensor installed]
1874	integer16	0	0			1	O2 Sensor Communication Alarm Status [if O2 Sensor installed]
1875	unsigned16	0	0			1	Enable/disable the module
1951	string	0	0	11			NO Single/Low Range Corrected Concentration Reading(String in User Selected Units) [not in 42iQD]
1957	string	0	0	11			NO2 Single/Low Range Corrected Concentration Reading (String in User Selected Units) [not in 42iQD]

1963	string	0	0	11		NOx Single/Low Range Corrected Concentration Reading (String in User Selected Units)
1969	string	0	0	11		NO High Range Corrected Concentration Reading(String in User Selected Units) [not in 42iQD]
1975	string	0	0	11		NO2 High Range Corrected Concentration Reading(String in User Selected Units) [not in 42iQD]
1981	string	0	0	11		NOx High Range Corrected Concentration Reading(String in User Selected Units)
1987	unsigned16	0	0	1		Auto Check NO Zero Alarm Status [not in 42iQD]
1988	unsigned16	0	0	1		Auto Check NOx Zero Alarm Status
1989	unsigned16	0	0	1		Auto Check NO Span Alarm Status [not in 42iQD]
1990	unsigned16	0	0	1		Auto Check NO2 Span Alarm Status [not in 42iQD]
1991	unsigned16	0	0	1		Auto Check NOx Span Alarm Status
1992	unsigned16	0	0	1		Auto Check NH3 Span Alarm Status [in 17iQ only]
1993	unsigned16	0	0	1		Auto Check NT Span Alarm Status [in 17iQ only]
1994	unsigned16	0	0	1		Auto Check NT Zero Alarm Status [in 17iQ only]
1995	integer16	0	0	1		Bypass Flow Alarm Status [in 42iQHL with bypass option only]
1996	integer16	0	0	1		Bypass Pressure Alarm Status [in 42iQHL with bypass option only]
1997	float	0			mmHg	Bypass Pressure [in 42iQHL with bypass option only]
1999	float	0			L/min	3 Bypass Flow (L/min) [in 42iQHL with bypass option only]
2001	unsigned16	0	0	1		1=Prereactor single range home screen
2002	unsigned16	0	0	1		1=Prereactor Dual low range home screen
2003	unsigned16	0	0	1		1=Prereactor Dual high range home screen
2004	unsigned16	0	0	1		1=Prereactor Auto low range home screen
2005	unsigned16	0	0	1		1=Prereactor Auto high range home screen
2006	unsigned16	0	0	1		Auto Check Prereactor Zero Alarm Status [only in 42iQTL]
2023	integer16	0	0	1		Prereactor Concentration Alarm Status [in 42iQTL only]
2024	integer16	0	0	1		PMT42CalcSW Alarm Count (non-zero if any alarms in this module are active) for Conc/AutoZero/AutoSpan
2025	integer16	0	0	1		PMT42CalcSW Alarm Count (non-zero if any alarms in this module are active) for Pres/Flow/Amb Temp
2251	unsigned16	0	0	1		Enable/Disable the Zero/Span valve module
2252	integer16	0	0	1		Trigger zero check or cal.
2253	integer16	0	0	1		Trigger span check or cal.
2254	integer16	0	0	1		Trigger purge
2255	integer16	0	0	1		Trigger Ozonator Level 1
2256	integer16	0	0	1		Trigger Ozonator Level 2
2257	integer16	0	0	1		Trigger Ozonator Level 3
2258	integer16	0	0	1		Trigger Ozonator Level 4
2259	integer16	0	0	1		Trigger Ozonator Level 5
2260	integer16	0	0	1		Trigger Ozonator Level 6
2351	unsigned16	0	0	1		Enable(1)/disable(0) the module
2352	integer16	0	0	4		i0 Reference Mode [48iQTL only]
2451	string	0.0.0.0	7	15	characters	Dynamic IP Address
2459	string	0.0.0.0	7	15	characters	Dynamic Subnet Mask
2467	string	0.0.0.0	7	15	characters	Dynamic Gateway Address
2475	string	00:00:00:00	17	17	characters	Wired MAC Address
2484	unsigned16	0	0	1		Ethernet Configuration Alarm Flag
2485	unsigned16	0	0	1		Ethernet IP Address Configuration Alarm Flag
2486	unsigned16	0	0	1		Ethernet Subnet Mask Configuration Alarm Flag
2487	unsigned16	0	0	1		Ethernet Gateway Configuration Alarm Flag
2488	unsigned16	0	0	1		Ethernet DNS Configuration Alarm Flag
2489	unsigned16	0	0	1		Ethernet DNS Configuration Alarm Flag
5158	string	0.0.0.0	7	15	characters	Wired DNS Address
5166	string	0.0.0.0	7	15	characters	Wired DNS Address 2
5174	unsigned16	0	0	1		Ethernet Configuration commit
5182	integer16	0	0	2		Date Format: 0=MM/DD/YYYY (US) 1=DD/MM/YYYY (EU)2=YYYY-MM-DD (ISO 8601)
5183	unsigned16	50	5	100	%	Screen Brightness
5184	unsigned16	0	0	1		Sleep Enable Status
5185	unsigned16	5	1	720	minutes	Sleep Timeout value in minutes
5186	unsigned16	0	0	23		Update clock time: Hours - set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0

5187	unsigned16	0	0	59		Update clock time: Minutes - set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5188	unsigned16	0	0	59		Update clock time: Seconds - set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5189	unsigned16	1	1	12		Update clock time: Month - set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5190	unsigned16	1	1	31		Update clock time: Day - set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5191	unsigned16	1970	1970	2038		Update clock time: Year - set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5192	string	0	0	32	characters	Timezone Code (Hours from UTC):DLW+12NST+11HST+10YST+9PST+8PST+8PDTMS T+7MST+7MDTCST+6CST+6CDT EST+5EST+5EDTCOT+4ART+3GST+2CVT+1UTC0 CET-1CET-2BST-3DLT-4CET-5FOX-6GLF-7CCT-8JST-9GST-10 LMA-11DLE-12
5208	unsigned16	0	0	3		Allows setting of time/date: set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5209	unsigned16	0	0	2		Signal to set time/date
5210	unsigned32	0			seconds	Seconds from 1/1/1970
5212	unsigned16	1	0	2		Enable Time Server
5213	string		0	30		Set Time Server
5228	unsigned16	0				User Data Logging Treatment mode to use: Average=0 Current=1 Max=2 Min=3
5229	unsigned16	0				Data Logging database is ready
5230	string	0	0	2	characters	The number of digits to display after the decimal for concentration data
5231	unsigned16	0	0	1		Low Dynamic Filtering Enable (On/Off)
5232	unsigned16	0	0	1		High Dynamic Filtering Enable (On/Off)
5233	unsigned16	0	0	1		Digital IO for Auto Background Calibration
5234	unsigned16	0	0	1		Digital IO for Low Range Auto Span Calibration
5235	unsigned16	0	0	1		Digital IO for High Range Auto Span Calibration
5236	integer16	0	0	2		Commit user time change: set 5208 to 2(GUI) or 3(Modbus) - set desired time registers - set 5236 to 1 - set 5208 to 0
5237	integer16	0	0	1		If any pop up is open on the GUI the register will read 1. To close the dialog set this register to 0.
5500	unsigned16	0	0	1		Enable/disable the Digital IO module
5600	unsigned16	1	0	1		Allow Analog Outputs to go over or under range: 0 = Disable 1 = Enable
5601	unsigned16	0	0	1		Enable/Disable the Analog IO module
5602	float	0				Voltage Output Minimum 1
5604	float	0				Voltage Output Minimum 2
5606	float	0				Voltage Output Minimum 3
5608	float	0				Voltage Output Minimum 4
5610	float	0				Voltage Output Minimum 5
5612	float	0				Voltage Output Minimum 6
5614	float	100				Voltage Output Maximum 1
5616	float	100				Voltage Output Maximum 2
5618	float	100				Voltage Output Maximum 3
5620	float	100				Voltage Output Maximum 4
5622	float	100				Voltage Output Maximum 5
5624	float	100				Voltage Output Maximum 6
5626	float	0				Current Output Minimum 1
5628	float	0				Current Output Minimum 2
5630	float	0				Current Output Minimum 3
5632	float	0				Current Output Minimum 4
5634	float	0				Current Output Minimum 5
5636	float	0				Current Output Minimum 6
5638	float	0				Current Output Maximum 1
5640	float	0				Current Output Maximum 2
5642	float	0				Current Output Maximum 3
5644	float	0				Current Output Maximum 4
5646	float	0				Current Output Maximum 5

5648	float		0				Current Output Maximum 6
5700	unsigned16		1	0	1		Enable/Disable the Flow/Pressure module
6000	integer16		0	0	1		Purge Mode
6001	integer16		0	0	1		Zero Mode
6002	integer16		0	0	1		Span Mode
6003	integer16		1	0	1		Sample Mode
6004	integer16		0	0	1		Ext Span Mode (Optional)
6005	integer16		0	0	1		i0 Reference Mode [48iQTL only]
6006	integer16		0	0	9		Gas Mode: SAMPLE=0; ZERO=1; SPAN=2; PURGE=3; AUTO ZERO=4; AUTO SPAN=5; AUTO PURGE=6; EXTSPAN=7; i0 REFERENCE=8; WARMUP=9; NOTE: Scheduled calibrations should not be set via Modbus (AUTO ZERO; AUTO SPAN ; AUTO PURGE)
6100	unsigned16		1	0	1		Enable/disable the Dilution module
6101	float		1	1	500		Dilution ratio
6200	unsigned16		0	0	1		Enable/disable the module
6201	string	--		0	12		Permeation Tube Gas Name [if Perm Oven installed]
6207	float		190	1	99999.9		Permeation Tube Rate [if Perm Oven installed]
6209	float		0.382	0.0001	9.999		Permeation Tube Molar Constant [if Perm Oven installed]
6900	unsigned16		0	0	1		Enable/disable the Communication module
7000	unsigned16		0	0	1		Enable/Disable the Predictive Diagnostics module
7100	float		1	0.5	2		NO Single/Low Range Span Coefficient [no in 42iQD]
7102	float		1	0.75	1.05		NO2 Single/Low Range Span Coefficient [no in 42iQD]
7104	float		1	0.7	1.4		NOx Single/Low Range Span Coefficient
7106	float		1	0.5	2		NO High Range Span Coefficient [not in 42iQD]
7108	float		1	0.75	1.05		NO2 High Range Span Coefficient [not in 42iQD]
7110	float		1	0.7	1.4		NOx High Range Span Coefficient
7112	float		1	1			NO Single/Low Range Span Concentration [not in 42iQD]
7114	float		1	1			NO2 Single/Low Range Span Concentration [not in 42iQD]
7116	float		1	1			NO2_2 Single/Low Range Span Concentration [in 17iQ only]
7118	float		1	1			NOx Single/Low Range Span Concentration
7120	float		1	1			NH3 Single/Low Range Span Concentration [in 17iQ only]
7122	float		1	1			NH3_2 Single/Low Range Span Concentration [in 17iQ only]
7124	float		1	1			NT Single/Low Range Span Concentration [in 17iQ only]
7126	float		1	1			NO High Range Span Concentration [not in 42iQD]
7128	float		1	1			NO2 High Range Span Concentration [not in 42iQD]
7130	float		1	1			NO2_2 High Range Span Concentration [in 17iQ only]
7132	float		1	1			NOx High Range Span Concentration
7134	float		1	1			NH3 High Range Span Concentration [in 17iQ only]
7136	float		1	1			NH3_2 High Range Span Concentration [in 17iQ only]
7138	float		1	1			NT High Range Span Concentration [in 17iQ only]
7140	float					ppb	NO Range Value for Single/Low Range (ppb) [not in 42iQD]
7142	float					ppb	NO Range Value for High Range (ppb) [not in 42iQD]
7144	float					ppb	NO2 Range Value for Single/Low Range (ppb) [not in 42iQD]
7146	float					ppb	NO2 Range Value for High Range (ppb) [not in 42iQD]
7148	float					ppb	NOx Range Value for Single/Low Range (ppb)
7150	float					ppb	NOx Range Value for High Range (ppb)
7152	float					ppb	NH3 Range Value for Single/Low Range (ppb) [in 17iQ only]
7154	float					ppb	NH3 Range Value for High Range (ppb) [in 17iQ only]
7156	float					ppb	NT Range Value for Single/Low Range (ppb) [in 17iQ only]
7158	float					ppb	NT Range Value for High Range (ppb) [in 17iQ only]
7160	float					ppb	Pre Range Value for Single/Low Range (ppb) [in 42iQTL only]
7162	float					ppb	Pre Range Value for High Range (ppb) [in 42iQTL only]
7164	float					Basic Units	NO Range Value for Single/Low Range (ppb or ug/m3) [not in 42iQD]
7166	float					Basic Units	NO Range Value for High Range (ppb or ug/m3) [not in 42iQD]

7168	float				Basic Units		NO2 Range Value for Single/Low Range (ppb or ug/m3) [not in 42iQD]
7170	float				Basic Units		NO2 Range Value for High Range (ppb or ug/m3) [not in 42iQD]
7172	float				Basic Units		NOx Range Value for Single/Low Range (ppb or ug/m3)
7174	float				Basic Units		NOx Range Value for High Range (ppb or ug/m3)
7176	float				Basic Units		NH3 Range Value for Single/Low Range (ppb or ug/m3) [in 17iQ only]
7178	float				Basic Units		NH3 Range Value for High Range (ppb or ug/m3) [in 17iQ only]
7180	float				Basic Units		NT Range Value for Single/Low Range (ppb or ug/m3) [in 17iQ only]
7182	float				Basic Units		NT Range Value for High Range (ppb or ug/m3) [in 17iQ only]
7184	float				Basic Units		Pre Range Value for Single/Low Range (ppb or ug/m3) [in 42iQTL only]
7186	float				Basic Units		Pre Range Value for High Range (ppb or ug/m3) [in 42iQTL only]
7188	string	ppm	1	7			Concentration units
7192	unsigned16	1	0	1			Single Range Mode Request DEPRICATED.
7193	unsigned16	0	0	1			Dual Range Mode Request DEPRICATED.
7194	unsigned16	0	0	1			Auto Range Mode Request DEPRICATED.
7195	unsigned16	3	1	6			Measure mode: NO/Nox mode (NO/NOx valve)1=NO 2=Nox 3=NO_NOx 4=NT 5=NO_NOx_NT 6=PRE
7600	float	1	0.5	2		3	O2 Calibration Coefficient [if O2 Sensor installed]
7602	float	-0.5	-5	100 %		1	Min Conc Alarm limit [if O2 Sensor Installed]
7604	float	25	0	100 %		1	Max Conc Alarm limit [if O2 Sensor Installed]
7606	float	1	0.5	2		3	O2 Span user coef
7608	float	0	0	100 %		2	O2 Span user concentration
7610	float	0		%			Edit O2 Cal-1 Factory Offset
7612	float	20.9		%			Edit O2 Cal-2 Factory Span
7614	unsigned16	0	0	5			Directions to perform O2 Calibrations using Modbus:Manual Span: set modbus register 7606 to desired O2 span coefficient value; after that set modbus register 7614 to 1Auto Span: set modbus register 7608 to desired O2 span concentration value; after that set modbus register 7614 to 2Reset Defaults: set modbus register 7614 to 3o2 point 1: set modbus register 7610 to desired o2 concentration; after that set modbus register 7614 to 4o2 point 2: set modbus register 7612 to desired o2 concentration; after that set modbus register 7614 to 5
7900	float	0			Basic Units		Min NO Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7902	float	0			Basic Units		Max NO Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7904	float	0			Basic Units		Min NO2 Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7906	float	0			Basic Units		Max NO2 Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7908	float	0			Basic Units		Min NOx Conc Alarm(Basic Units ppb or ug/m3 for Protocols)
7910	float	0			Basic Units		Max NOx Conc Alarm(Basic Units ppb or ug/m3 for Protocols)
7912	float	0			Basic Units		Min NH3 Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]
7914	float	0			Basic Units		Max NH3 Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]

7916	float	0			Basic Units		Min NT Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]
7918	float	0			Basic Units		Max NT Conc Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]
7920	float	0			Basic Units		Max NO Background Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7922	float	0			Basic Units		Max NOx Background Offset Alarm(Basic Units ppb or ug/m3 for Protocols)
7924	float	0			Basic Units		Max NT Background Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]
7926	float	0			Basic Units		Max NO Span Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7928	float	0			Basic Units		Max NO2 Span Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [not in 42iQD]
7930	float	0			Basic Units		Max NOx Span Offset Alarm(Basic Units ppb or ug/m3 for Protocols)
7932	float	0			Basic Units		Max NH3 Span Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]
7934	float	0			Basic Units		Max NT Span Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [in 17iQ only]
7936	float	150	20	400	mmHg	1	Min Pressure Alarm
7938	float	300	20	400	mmHg	1	Max Pressure Alarm
7940	float	0.35	0.005	2	L/min	3	Min Flow Alarm
7942	float	0.9	0.005	2	L/min	3	Max Flow Alarm
7944	float	8	0	50	degC	1	Min Internal Temperature Alarm
7946	float	45	0	50	degC	1	Max Internal Temperature Alarm
7948	float	0			Basic Units		Max Prereactor Background Offset Alarm(Basic Units ppb or ug/m3 for Protocols) [only in 42iQTL]
7964	float	150	100	400	mmHg	1	Min Bypass Pressure Alarm [in 42iQHL with bypass option only]
7966	float	300	100	400	mmHg	1	Max Bypass Pressure Alarm [in 42iQHL with bypass option only]
7968	float	0.35	0	1.5	L/min	3	Min Bypass Flow Alarm [in 42iQHL with bypass option only]
7970	float	0.9	0	1.5	L/min	3	Max Bypass Flow Alarm [in 42iQHL with bypass option only]
7972	float	0			ppb		Min Prereactor Alarm (ppb Units) [in 42iQTL only]
7974	float	0			ppb		Max Prereactor Alarm (ppb Units) [in 42iQTL only]

8300	unsigned16	0	0	65535	<p>Directions to perform Calibrations using Modbus:Manual NO Bkg: set modbus register 8301 to the desired NO background value in Base Gas Units (PPB or ug/m3); after that set modbus register 8300 to 3Manual NOx Bkg: set modbus register 8301 to the desired NOx background value in Base Gas Units (PPB or ug/m3); after that set modbus register 8300 to 5Manual Prereactor Bkg: set modbus register 8301 to the desired Prereactor background value in Base Gas Units (PPB or ug/m3); after that set modbus register 8300 to 9 (42iQTL Only)Auto NO Bkg: set modbus register 8300 to 2Auto NOx Bkg: set modbus register 8300 to 4Auto Prereactor Bkg: set modbus register 8300 to 8 (42iQTL Only)Manual NO Span or Manual NO Span Low: set modbus register 8301 to desired NO span coefficient value; after that set modbus register 8300 to 11Manual NO2 Span or Manual NO2 Span Low: set modbus register 8301 to desired NO2 span coefficient value; after that set modbus register 8300 to 13Manual NOx Span or Manual NOx Span Low: set modbus register 8301 to desired NOx span coefficient value; after that set modbus register 8300 to 15Manual NO Span High: set modbus register 8301 to desired NO span coefficient value; after that set modbus register 8300 to 25Manual NO2 Span High: set modbus register 8301 to desired NO2 span coefficient value; after that set modbus register 8300 to 27Manual NOx Span High: set modbus register 8301 to desired NOx span coefficient value;</p> <p>after that set modbus register 8300 to 29Auto NO Span or Auto NO Span Low: set modbus register 8301 to desired NO span concentration value in Base Gas Units (PPB or ug/m3); after that set modbus register 8300 to 10Auto NO2 Span or Auto NO2 Span Low: set modbus register 8301 to desired NO2 span concentration value in Base Gas Units (PPB or ug/m3); after that set modbus register 8300 to 12Auto NOx Span or Auto NOx Span Low: set modbus register 8301 to desired NOx span concentration value in Base Gas Units (PPB or ug/m3); after that set modbus register 8300 to 14Auto NO Span High: set modbus register 8301 to desired high NO span concentration value in Base Gas Units (PPB or ug/m3); after that set modbus register to 8300 to 24Auto NO2 Span High: set modbus register 8301 to desired high NO2 span concentration value in Base Gas Units (PPB or ug/m3); after that set modbus register to 8300 to 26Auto NOx Span High: set modbus register 8301 to desired high NOx span concentration value in Base Gas Units (PPB or ug/m3); after that set modbus register to 8300 to 28Reset Defaults: set modbus register 8300 to 1To see the new concentration value in Base Gas Units (PPB or ug/m3) use modbus registers 11 for NO 13 for NO2 15 for NOx single range or low range or modbus registers 21 for NO 23 for NO2 25 for NOx high range; Read 75 for Prereactor conc value (42iQTL Only)</p>
------	------------	---	---	-------	---

8301	float	0	0			Remote target calibration
8303	float	0	0	5000000000	ppb	NO span concentration
8305	float	0	0	5000000000	ppb	NO2 span concentration
8307	float	0	0	5000000000	ppb	NO2_2 span concentration
8309	float	0	0	5000000000	ppb	NOx span concentration
8311	float	0	0	5000000000	ppb	NH3 span concentration
8313	float	0	0	5000000000	ppb	NH3_2 span concentration
8315	float	0	0	5000000000	ppb	NT span concentration
8317	float	0	0	5000000000	ppb	NO high span concentration
8319	float	0	0	5000000000	ppb	NO2 high span concentration
8321	float	0	0	5000000000	ppb	NO2_2 high span concentration
8323	float	0	0	5000000000	ppb	NOx High span concentration
8325	float	0	0	5000000000	ppb	NH3 high span concentration
8327	float	0	0	5000000000	ppb	NH3_2 high span concentration
8329	float	0	0	5000000000	ppb	NT high span concentration
8331	float	0	0	5000000000		NO Virtual span concentration
8333	float	0	0	5000000000		NO2 Virtual span concentration
8335	float	0	0	5000000000		NO2_2 Virtual span concentration
8337	float	0	0	5000000000		NOx Virtual span concentration
8339	float	0	0	5000000000		NH3 Virtual span concentration
8341	float	0	0	5000000000		NH3_2 Virtual span concentration
8343	float	0	0	5000000000		NT Virtual span concentration
8345	float	0	0	5000000000		NO high Virtual span concentration
8347	float	0	0	5000000000		NO2 high Virtual span concentration
8349	float	0	0	5000000000		NO2_2 high Virtual span concentration
8351	float	0	0	5000000000		NOx High Virtual span concentration
8353	float	0	0	5000000000		NH3 high Virtual span concentration
8355	float	0	0	5000000000		NH3_2 high Virtual span concentration
8357	float	0	0	5000000000		NT high Virtual span concentration
8359	float	1	0.5	2		NO Virtual span coefficient
8361	float	1	0.75	1.05		NO2 Virtual span coefficient
8363	float	1	0.5	2		NO2_2 Virtual span coefficient
8365	float	1	0.7	1.4		NOx Virtual span coefficient
8367	float	1	0.5	2		NH3 Virtual span coefficient
8369	float	1	0.5	2		NH3_2 Virtual span coefficient
8371	float	1	0.5	2		NT Virtual span coefficient
8373	float	1	0.5	2		NO high Virtual span coefficient
8375	float	1	0.75	1.05		NO2 high Virtual span coefficient
8377	float	1	0.5	2		NO2_2 high Virtual span coefficient
8379	float	1	0.7	1.4		NOx high Virtual span coefficient
8381	float	1	0.5	2		NH3 high Virtual span coefficient
8383	float	1	0.5	2		NH3_2 high Virtual span coefficient
8385	float	1	0.5	2		NT Virtual span high coefficient

						0=NOT_DONE 1=RESET_DONE 2=AUTO_BKG_NO_DONE 3=MAN_BKG_NO_DONE 4=AUTO_BKG_NOX_DONE 5=MAN_BKG_NOX_DONE 6=AUTO_BKG_NT_DONE 7=MAN_BKG_NT_DONE 8=AUTO_BKG_PRE_DONE 9=MAN_BKG_PRE_DONE 10=AUTO_SPAN_NO_DONE 11=MAN_SPAN_NO_DONE 12=AUTO_SPAN_NO2_DONE 13=MAN_SPAN_NO2_DONE 14=AUTO_SPAN_NOX_DONE 15=MAN_SPAN_NOX_DONE 16=AUTO_SPAN_NO2_2_DONE 17=MAN_SPAN_NO2_2_DONE 18=AUTO_SPAN_NH3_DONE 19=MAN_SPAN_NH3_DONE 20=AUTO_SPAN_NH3_2_DONE 21=MAN_SPAN_NH3_2_DONE 22=AUTO_SPAN_NT_DONE 23=MAN_SPAN_NT_DONE 24=AUTO_HI_SPAN_NO_DONE 25=MAN_HI_SPAN_NO_DONE 26=AUTO_HI_SPAN_NO2_DONE 27=MAN_HI_SPAN_NO2_DONE 28=AUTO_HI_SPAN_NOX_DONE 29=MAN_HI_SPAN_NOX_DONE 30=AUTO_HI_SPAN_NO2_2_DONE 31=MAN_HI_SPAN_NO2_2_DONE 32=AUTO_HI_SPAN_NH3_DONE 33=MAN_HI_SPAN_NH3_DONE 34=AUTO_HI_SPAN_NH3_2_DONE 35=MAN_HI_SPAN_NH3_2_DONE 36=AUTO_HI_SPAN_NT_DONE 37=MAN_HI_SPAN_NT_DONE 100=AUTO_PMT_VOLTAGE_DONE 101=AUTO_PMT_VOLTAGE_STOP_DONE 102=AUTO_PMT_VOLTAGE_EXIT_DONE 103=MAN_PMT_VOLTAGE_DONE 104=DEFAULT_PMT_VOLTAGE_DONE 150 = SCHED_AUTO_BKG_CHECK_DONE 151 = SCHED_AUTO_SPAN_CHECK_DONE 152 = SCHED_AUTO_BKG_CAL_DONE 153 = SCHED_AUTO_SPAN_CAL_DONE
8387	unsigned16	0	0			
8388	unsigned16	0	0			0=Undefined1=Pass2=Too low3=Too high
8389	unsigned16	0	0	1		0=No action1=Set to new value
10000	string		0	50	characters	SMTP Server address for emails
10025	unsigned16	25	0			SMTP port for sending emails
10026	string		0	255	characters	E-mail From address for sending emails
10154	string		0	16	characters	E-mail password for sending emails
10162	string		0	255	characters	PCP email address
10290	string		0	255	characters	Contact Information: To: User email address
10418	string		0	255	characters	Contact Information: CC: User email address 1
10546	string		0	255	characters	Contact Information: CC: User email address 2
10674	string		0	255	characters	Contact Information: CC: User email address 3
10802	string		0	255	characters	Contact Information: CC: User email address 4
10930	string		0	255	characters	Contact Information: CC: User email address 5
11058	string		0	255	characters	Contact Information: CC: User email address 6
11186	string		0	255	characters	Contact Information: CC: User email address 7
11314	string		0	255	characters	Contact Information: CC: User email address 8
11442	string		0	255	characters	Contact Information: CC: User email address 9
11570	string		0	255	characters	Contact Information: CC: User email address 10

USA

27 Forge Parkway
Franklin, MA 02038
Ph: (508) 520-0430
Toll Free: (866) 282-0430
orders.aqi@thermofisher.com

Find out more at thermofisher.com/iQSeries