

**Modbus**  
**Flexio Configuration Properties**

**Modbus Object Type: Holding Registers**

Name	Default	Min	Max	Units	Modbus Reg #	Multiplier	Focus Screen	Notes
Device Type	15	15	15	None	1	1	Device	(Not writable) 15=Flexio Controller
Device Soft Ver	7.6	0	655.35	None	2	100	Device	(Not writable)
Device Hard Ver	3.1	0	6553.5	None	3	10	Device	(Not writable) 2.0=C1000 / 2.5=C1050 / 3.1=M2000
Net Baud	3	0	5	None	4	1	COM Ports	0=9600 / 1=19200 / 2=38400 / 3=57600 / 4=76800 / 5=115200
Net Parity	0	0	2	None	5	1	COM Ports	0=NONE / 1=ODD / 2=EVEN
Net StopBits	0	0	1	None	6	1	COM Ports	0=1 Stop Bit / 1=2 Stop Bits
RJ45 Baud	3	0	5	None	7	1	COM Ports	0=9600 / 1=19200 / 2=38400 / 3=57600 / 4=76800 / 5=115200
RJ45 Parity	0	0	2	None	8	1	COM Ports	0=NONE / 1=ODD / 2=EVEN
RJ45 StopBits	0	0	1	None	9	1	COM Ports	0=1 Stop Bit / 1=2 Stop Bits
Location	0	0	65535	None	10	1	Device	(Regs 10-17) Each reg holds 2 chars - 16 chars max - 8 regs

Input Mode (1-9)	1	0	27	None	18	1	Inputs	(Regs 18-26) 0=OFF / 1=TEMP (degC x100) / 2=CONTACT (none x1) / 3=PERCENT (% x1) / 4=PULSECOUNT (none x1) / 5=IN.H2O (x100) / 6=PSI (x10) / 7=GAS (PPM x1) / 8=HUMIDITY (%RH x1) / 9=PRESSURE (Pa x10) / 10=GAS (PPB x1) / 11=PERCENT (% x10) / 12=VOLTS (V x10) / 13=CURRENT (mA x10) / 14=CURRENT (A x10) / 15=FREQUENCY (Hz x10) / 16=POWER (kW x10) / 17=SPEED (RPM x1) / 18=FLOW (CFM x1) / 19=FLOW (GPM x10) / 20=FLOW (l/s x10) / 21=SPEED (FPM x10) / 22=SPEED (m/s x10) / 23=DISTANCE (in x10) / 24=DISTANCE (ft x10) / 25=DISTANCE (mm x10) / 26=DISTANCE (m x 10) / 27=NO_UNIT (x10)
Input Offset (1-9)	0	-32768	32767	None	27	1	Inputs	(Regs 27-35) Units and multipliers are decided by the input mode. If input mode=CONTACT, this corresponds to the HOLD or TOGGLE delays in seconds, with min=0, max=65000.
Output Reverse Acting (1-8)	0	0	1	None	36	1	Outputs	(Regs 36-43) 0=Normal / 1=Reverse Acting
Analog Output Pulsed (1-3)	0	0	1	None	44	1	Outputs	(Regs 44-46) 0=Not pulsed / 1=Pulsed
Analog Output Range (1-3)	0	0	3	None	47	1	Outputs	(Regs 47-49) 0=0-10VDC / 1=2-10VDC / 2=0-5VDC / 3=CUSTOM
Output Source Type (1-8)	0	0	5	None	50	1	Outputs	(Regs 50-57) 0=OFF / 1=LOCAL INPUT / 2=NETWORK / 3=OCCUPANCY / 4=BACKUP / 5=LOCAL OUTPUT
Output Network Source (1-8)	0	0	16	None	58	1	Outputs	(Regs 58-65) 0=NetOutTemp / 1=NetSupplyTemp / 2-6=NetMath1-5 / 7-14=NetOccup1-8 / 15=Fan Status / 16=Water Supply Source
Output Local Source (1-8)	0	0	9	None	66	1	Outputs	(Regs 66-73) 0-8 = Inputs 1-9 / 0-9=Outputs 1-10

Output Minimum/Fixed Setpoint (1-8)	2150	-32768	32767	None	74	1	Outputs	(Regs 74-81) Units and multipliers are decided by the input mode - This value is used if Output SP Source is set to "FIXED" or its scale source is invalid
Output Band (1-8)	300	0	65535	None	82	1	Outputs	(Regs 82-89) Units and multipliers are decided by the input mode
Output Logic Type (1-8)	0	0	1	None	90	1	Outputs	(Regs 90-97) 0=Reverse (Heating) / 1=Direct (Cooling)
Output Action Type (1-8)	0	0	1	None	98	1	Outputs	(Regs 98-105) 0=Differential / 1=Proportional/Integral Loop
Output Integral Value (1-8)	15	0	120	min	106	1	Outputs	(Regs 106-113) Only available when output action type is set to PI Loop
Auto Override Condition (1-8)	0	0	4	None	114	1	Outputs	(Regs 114-121) 0=No Ovrld / 1=OutTempOnly / 2=OccOnly / 3=OutOrOcc / 4=OutAndOcc
Manual Output Override (1-8)	255	0	255	%	125	1	Visualisation	(Regs 125-132) 0-100=Override / Else=AUTO
Manual Occupancy Override	255	0	255	None	133	1	Visualisation	0=UNOC / 1=OCCUP / Else=AUTO
Manual Output Override (9-10)	255	0	255	%	134	1	Visualisation	(Regs 134-135) 0-100=Override / Else=AUTO
Locked Address	0	0	127	None	140	1	Device	Saved address (overrides physical dipswitch address). Set to 0 to return to physical address.
Reset	0	0	1	None	145	1	Device	Set to 1 to cause a reset
Reprogram	0	0	1	None	146	1	Device	Set to 255 to enter reprogram mode (Warning: Irreversible action - Reserved for ProLon Focus software)
Clear Pulse Counters	0	0	9	None	147	1	Inputs	0=Do nothing / 1-9=Clear pulse counter of specified input
Reset Lead/Lag Counters	0	0	1	None	148	1	Device	Write 1 to reset Lead/Lag counters
Auto Override Action Type (1-8)	0	0	1	None	150	1	Outputs	(Regs 150-157) 0="Set Value to:" / 1="Set Minimum to:"
Auto Override Action Value (1-8)	0	0	100	%	158	1	Outputs	(Regs 158-165)

Auto Override Occup Condition (1-8)	0	0	1	None	166	1	Outputs	(Regs 166-173) 0=Unoccupied / 1=Occupied
Auto Override Out Temp Condition (1-8)	0	0	1	None	174	1	Outputs	(Regs 174-181) 0=Less Than / 1=More Than
Auto Override Out Temp Value (1-8)	0	-327.68	327.67	deg C	182	100	Outputs	(Regs 182-189)
Output Contact Condition (1-8)	0	0	1	None	190	1	Outputs	(Regs 190-197) 0=Out ON when contact CLOSED / 1=Out ON when contact OPEN (0=Out ON when UNOCCUP / 1=Out ON when OCCUP) (0=Out ON when Fan Off / 1=Out ON when Fan On)
Outside Temp Source	127	0	255	None	198	1	Inputs	0-8=Input1-9 / ELSE=NETWORK
Occupancy Source	127	0	255	None	199	1	Inputs	0-8=Input1-9 / 9=Local Schedule (M2000 only) / 10-17=Network1-8 / ELSE=Network1
Icon Text Data (1-3)	0	0	255	None	200	1	Edit Icon	(Regs 200-202) Modbus address of Input Register to display (0=None)
Icon Red Color Condition	0	0	255	None	203	1	Edit Icon	Modbus address of Input Register that is the source output (0=None)
Icon Blue Color Condition	0	0	255	None	204	1	Edit Icon	Modbus address of Input Register that is the source output (0=None)
Output Binding Config 1 (1-8)	0	0	255	None	205	1	Outputs	(Regs 205-212) 8thBit->[0=Deactivate / 1=Activate] this output, 7thBit->[0=When SrcOutput is OFF or SrcContact OPEN / 1=When SrcOutput ON or SrcContact CLOSED], 6th&5thBit->[0=Src is Local Output / 1=Src is Local Input / 2=Src is NetworkVar], 4 LSBits=SrcID->[0=NONE / 1-9=Src1-9] If Src is NetworkVar, SrcID->[0=NONE / 1=FanStatus]
Analog Input Signal Type (1-9)	0	0	5	None	213	1	Inputs	(Regs 213-221) 0=0-5VDC / 1=1-5VDC / 2=4-20mA / 3=0.5-4.5VDC / 4=0-20mA / 5=Thermistor 10KType3 / 6=Setpoint (PL-RS) / 7=0-10VDC / 8=2-10VDC. If input mode=CONTACT--> 0=DEFAULT / 1=HOLD / 2=TOGGLE

Analog Input Range Min (1-9)	0	-32768	32767	None	222	1	Inputs	(Regs 222-230) Units and multipliers are decided by the input mode. If input mode=CONTACT, display closed contact text as --> 0=CLOSED, 1=ON, 2=OFF, 3=YES, 4=NO, ELSE=CLOSED. If input mode=PULSE COUNT, this is N/A
Analog Input Range Max (1-9)	0	-32768	32767	None	231	1	Inputs	(Regs 231-239) Units and multipliers are decided by the input mode. If input mode=PULSE COUNT --> This is the sample rate in (msec*10) (Min=0.2msec / Max=50msec) If input mode=CONTACT--> N/A
Supply Water Temp Source	127	0	255	None	240	1	Inputs	0-8=Input1-9 / ELSE=NETWORK
Time Zone	7	0	25	None	250	1	Visualisation	0=GMT-12 ... 25=GMT+13
UseDST	1	0	1	None	251	1	Visualisation	Automatically adjust for daylight savings time (0=NO / 1=YES)
DST Active Month	3	1	12	None	252	1	Visualisation	1=January ... 12=December
DST Active Week	1	0	4	None	253	1	Visualisation	0= First weekend of month ... 4=5th weekend of month
DST Deactive Month	11	1	12	None	254	1	Visualisation	1=January ... 12=December
DST Deactive Week	0	0	4	None	255	1	Visualisation	0= First weekend of month ... 4=5th weekend of month
Schedule - Years	0	0	99	None	260	1	Visualisation	Years after 2000
Schedule - Months	1	1	12	None	261	1	Visualisation	1=Jan ... 12=December
Schedule - Day of Week	0	0	6	None	262	1	Visualisation	0=Sunday ... 6=Saturday
Schedule - Days	1	1	31	None	263	1	Visualisation	Day of month
Schedule - Hours	0	0	23	None	264	1	Visualisation	

Schedule - Minutes	0	0	59	None	265	1	Visualisation	
Schedule - Seconds	0	0	59	None	266	1	Visualisation	
Input Names (1-9)	0	0	65535	None	300	1	Inputs	(Regs 300-371) Each reg holds 2 chars - 16 chars max - 8 regs for each input - 9 inputs total
Output Names (1-8)	0	0	65535	None	400	1	Outputs	(Regs 400-463) Each reg holds 2 chars - 16 chars max - 8 regs for each output - 8 outputs total
Weekly Schedule	127	0	255	None	500	1	Schedule	Registers 500 to 627. Must access using Multiple Read/Write. [Sunday to Saturday, then Holiday] [period 1-8] [ hour, minute]
Calendar	0	0	255	None	628	1	Calendar	Registers 628 to 675. Must access using Multiple Read/Write. [January to December][4 bytes = 32 days]. Each bit set to 1 is considered a holiday.
Output SP Source (1-10)	0	0	255	None	700	1	Outputs	(Regs 700-709) 3 LSB --> 0=FIXED / 1=LOCAL INPUT / 2=NETWORK / 3=OCCUPANCY / 4=LOCAL OUTPUT, 5 MSB --> Source ID
Output Maximum Setpoint (1-10)	2150	-32768	32767	None	710	1	Outputs	(Regs 710-719) Units and multipliers are decided by the input mode
Output Minimum Scale (1-10)	2150	-32768	32767	None	720	1	Outputs	(Regs 720-729) Units and multipliers are decided by the scale's input mode
Output Maximum Scale (1-10)	2150	-32768	32767	None	730	1	Outputs	(Regs 730-739) Units and multipliers are decided by the scale's input mode
Backup Source	255	0	255	None	740	1	Outputs	M2000: (0-4=DO1-DO5 / 5-7=AO1-AO3 / 8-9=VO1-VO2 / ELSE=NO SOURCE) C1000: (0-3=DO1-DO4 / 4=AO / 5-9=VO1-VO5 / ELSE=NO SOURCE)
Source Proof ID	255	0	255	None	741	1	Outputs	M2000: (0-8=AI1-AI9) C1000: (0-3=AI1-AI4)
Backup Proof ID	255	0	255	None	742	1	Outputs	M2000: (0-8=AI1-AI9) C1000: (0-3=AI1-AI4)
Lead No Proof Seconds	15	1	250	sec	743	1	Outputs	
Lead Lag Sequence	0	0	3	None	744	1	Outputs	0=NO LEAD/LAG / 1=ALTERNATING / 2=FIXED RUNTIME / 3=EQUAL RUNTIME
Lead Lag Fixed Minutes	1440	1	32000	min	745	1	Outputs	

Allow Simult Lead Lag	0	0	1	None	746	1	Outputs	Only in the event that both outputs fail to get proof after "Lead No Proof Seconds"
Exercise Interval	2880	0	30000	min	747	1	Outputs	Set to zero to remove exercise interval
Exercise Time	15	10	30	min	748	1	Outputs	
Icon Text Data (4)	0	0	255	None	749	1	Edit Icon	Modbus address of Input Register to display (0=None)
Analog Output Custom Minimum (1-3)	0	0	10	volts	750	10	Outputs	(Regs 750-752)
Analog Output Custom Maximum (1-3)	10	0	10	volts	753	10	Outputs	(Regs 753-755)
Output Source Type (9-10)	0	0	5	None	800	1	Outputs	(Regs 800-801) 0=OFF / 1=LOCAL INPUT / 2=NETWORK / 3=OCCUPANCY / 4=BACKUP / 5=LOCAL OUTPUT
Output Network Source (9-10)	0	0	16	None	802	1	Outputs	(Regs 802-803) 0=NetOutTemp / 1=NetSupplyTemp / 2-6=NetMath1-5 / 7-14=NetOccup1-8 / 15=Fan Status / 16=Water Supply Source
Output Local Source (9-10)	0	0	9	None	804	1	Outputs	(Regs 804-805) 0-8 = Inputs 1-9 / 0-9=Outputs 1-10
Output Minimum/Fixed Setpoint (9-10)	2150	-32768	32767	None	806	1	Outputs	(Regs 806-807) Units and multipliers are decided by the input mode - This value is used if Output SP Source is set to "FIXED" or its scale source is invalid
Output Band (9-10)	300	0	65535	None	808	1	Outputs	(Regs 808-809) Units and multipliers are decided by the input mode
Output Logic Type (9-10)	0	0	1	None	810	1	Outputs	(Regs 810-811) 0=Reverse (Heating) / 1=Direct (Cooling)
Output Action Type (9-10)	0	0	1	None	812	1	Outputs	(Regs 812-813) 0=Differential / 1=Proportional/Integral Loop
Output Integral Value (9-10)	15	0	120	min	814	1	Outputs	(Regs 814-815) Only available when output action type is set to PI Loop
Auto Override Condition (9-10)	0	0	4	None	816	1	Outputs	(Regs 816-817) 0=No Ovrd / 1=OutTempOnly / 2=OccOnly / 3=OutOrOcc / 4=OutAndOcc
Auto Override Action Type (9-10)	0	0	1	None	818	1	Outputs	(Regs 818-819) 0="Set Value to:" / 1="Set Minimum to:"

Auto Override Action Value (9-10)	0	0	100 %		820	1	Outputs	(Regs 820-821)
Auto Override Occup Condition (9-10)	0	0	1 None		822	1	Outputs	(Regs 822-823) 0=Unoccupied / 1=Occupied
Auto Override Out Temp Condition (9-10)	0	0	1 None		824	1	Outputs	(Regs 824-825) 0=Less Than / 1=More Than
Auto Override Out Temp Value (9-10)	0	-327.68	327.67 deg C		826	100	Outputs	(Regs 826-827)
Output Contact Condition (9-10)	0	0	1 None		828	1	Outputs	(Regs 828-829) 0=Out ON when contact CLOSED / 1=Out ON when contact OPEN (0=Out ON when UNOCCUP / 1=Out ON when OCCUP) (0=Out ON when Fan Off / 1=Out ON when Fan On)
Output Binding Config 1 (9-10)	0	0	255 None		830	1	Outputs	(Regs 830-831) 8thBit->[0=Deactivate / 1=Activate] this output, 7thBit->[0=When SrcOutput is OFF or SrcContact OPEN / 1=When SrcOutput ON or SrcContact CLOSED], 6th&5thBit->[0=Src is Local Output / 1=Src is Local Input / 2=Src is NetworkVar], 4 LSBits=SrcID->[0=NONE / 1-9=Src1-9] If Src is NetworkVar, SrcID->[0=NONE / 1=FanStatus]
Output Names (9-10)	0	0	65535 None		832	1	Outputs	(Regs 832-847) Each reg holds 2 chars - 16 chars max - 8 regs for each output
Chip Type	0	0	1 None		848	1	Device	0=PIC18F6722 / 1=PIC18F67K40
Delay On Make (1-10)	0	0	900 sec		849	1	Outputs	(Regs 849-858)
Delay On Break (1-10)	0	0	900 sec		859	1	Outputs	(Regs 859-868)
Min On Time (1-10)	0	0	900 sec		869	1	Outputs	(Regs 869-878)
Min Off Time (1-10)	0	0	900 sec		879	1	Outputs	(Regs 879-888)



Output Binding Config 2 (1-10)	0	0	255	None	889	1 Outputs	(Regs 889-898) 8thBit->Perform [0=OR / 1=AND] with first Output Binding Config, 7thBit->[0=When SrcOutput is OFF or SrcContact OPEN / 1=When SrcOutput ON or SrcContact CLOSED], 6th&5thBit->[0=Src is Local Output / 1=Src is Local Input / 2=Src is NetworkVar], 4 LSBits=SrcID->[0=NONE / 1-9=Src1-9] If Src is NetworkVar, SrcID->[0=NONE / 1=FanStatus]
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## Modbus Flexio Network Variable Outputs

### Modbus Object Type: Input Registers

Name	Units	Modbus Reg #	Mult	Notes
Input Value (1-9)	None	1	1	(Regs 1-9) Units and multipliers are decided by the input mode. For C1000: Input3=Digital Input
Output Value (1-8)	%	10	1	M2000: Regs 10-14 = DO1-5, Regs 15-17 = AO1-3. C1000: Regs 10-13 = DO1-4, Reg 14 = AO, Regs 15-17 = VO1-3
Active Occupancy	None	18	1	Current occupancy status of the Flexio
Net - Outside Temp	deg C	19	100	Outside Temperature provided by the network (NC2000 or other master)
Net - Supply Temp	deg C	20	100	Supply Air Temperature provided by the network master
Net - Math (1-5)	%	21	1	(Regs 21-25) Math Function results provided by the network master
Net - Occup (1-8)	None	26	1	(Regs 26-33) Occupancy Status provided by the network (NC2000 or other master)
Net - Fan Status	None	34	1	Fan Status provided by the master: Fan Demand AND Fan Proof (fan proof as available)
Output Value (9-10)	%	35	1	(Regs 35-36) M2000: VO1-2 C1000: VO4-5
Output Setpoints (1-10)	None	37	1	(Regs 37-46) Units and multipliers are decided by the output's source.
Source Is Lead	None	47	1	
Lead On Time Minutes	min	48	1	
Lead Off Time Minutes	min	49	1	
Source Total Minutes	min	50	1	
Backup Total Minutes	min	51	1	
Source Total Days	days	52	1	
Backup Total Days	days	53	1	

Backup Alert Status	None	54	1	0=NO ALERT / 1=LEAD OUTPUT FAIL / 2=BOTH OUTPUTS FAIL
Net - Supply Water Temp	deg C	55	100	Supply Water Temperature provided by the network (NC2000 or other master)

**Modbus**  
**Flexio Network Variable Inputs**

Modbus Object Type: Holding Registers

Name	Units	Modbus Reg #	Mult	Notes
Set Net Occupancy (Slot 1)	None	136	1	Allows the occupancy to be set by another network device (0=UNOCC / 1=OCCUP / ELSE=AUTO)
Set Net Out Temp	deg C	139	100	Valid Range: -5 000 to 10 000 (-50degC to 100degC). Set to invalid value (0x7FFF) to cancel.
Supply Water Temp	deg C	142	100	Allows the supply water temp to be read/set by another network device.
Set Net Occupancy (Slot 2 - 8)	None	680	1	(Regs 680-686) Allows the occupancy to be set by another network device (0=UNOCC / 1=OCCUP / ELSE=AUTO)