



Partner: Can'nX
 Model: Klereo
 Device Type: Pool Monitoring/Controller

CONTACT SUPPORT:

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NOTES:	

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Poolnx_Klereo v1.0.umc
CATEGORY:	Pool Monitoring/Controller
VERSION:	v1.0
SUMMARY:	Provides Creston-usable values about the data of a Klereo pool. This module performs a TCP/IP connection to a Pool'nX that is used like a proxy to gather data from Klereo, send it to Crestron, and receive commands from Crestron to control the Klereo.
GENERAL NOTES:	
CRESTRON HARDWARE REQUIRED:	3-Series Processor, 4-Series Processor
SETUP OF CRESTRON HARDWARE:	The Crestron Control Processor's IP address must be in the same subnet as the Pool'nX
VENDOR FIRMWARE:	N/A



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VENDOR SETUP:	The Pool'nX has to have an internet connection.
CABLE DIAGRAM:	N/A

CONTROL: (BASIC FUNCTIONS)

<u>Signal/Function Name</u>	<u>D,S,A</u>	<u>Digital, Serial, Analog signal property definition.</u>
//	//	Each of the following signals will send a command to the Pool'nX/TCP server
di_WaterTempSetPointIncrease	D	Increase by 1°C the temperature set point of the pool. High/1 (rising edge) = Activate command; Low/0 = No effect
di_WaterTempSetPointDecrease	D	Decrease by 1°C the temperature set point of the pool. High/1 (rising edge) = Activate command; Low/0 = No effect
ai_WaterTempSetPoint	A	Set the water temperature set point to the given analog value Valid values range from 0d to 59d
di_Heating_Manual_Off	D	Manually stop the heating High/1 (rising edge) = Activate command; Low/0 = No effect
di_Heating_Regulation_On	D	High/1 (rising edge) = Activate command; Low/0 = No effect
di_Filtration_Manual_Off	D	Manually stop the filtration High/1 (rising edge) = Activate command; Low/0 = No effect
di_Filtration_Manual_On	D	Manually start the filtration High/1 (rising edge) = Activate command; Low/0 = No effect
di_Filtration_Enable_Time_Range	D	Enable the Time Range High/1 (rising edge) = Activate command; Low/0 = No effect
di_Filtration_Regulation_On	D	High/1 (rising edge) = Activate command; Low/0 = No effect
di_Lighting_Manual_Off	D	Manually stop the lighting Note: The lighting will still start again automatically depending on the Time Range settings High/1 (rising edge) = Activate command; Low/0 = No effect
di_Lighting_Manual_On	D	Manually start the lighting Note: The lighting will still stop automatically depending on the Time Range settings



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		High/1 (rising edge) = Activate command; Low/0 = No effect
di_Lighting_Time_Range	D	High/1 (rising edge) = Activate command; Low/0 = No effect
di_Lighting_Timer_Off	D	High/1 (rising edge) = Activate command; Low/0 = No effect
di_Lighting_Timer_On	D	High/1 (rising edge) = Activate command; Low/0 = No effect

CONTROL: (ADDITIONAL FUNCTIONS):

di_Aux[1-9]_Manual_Off	D	Manually stop the auxiliary High/1 (rising edge) = Activate command; Low/0 = No effect
di_Aux[1-9]_Manual_On	D	Manually start the auxiliary High/1 (rising edge) = Activate command; Low/0 = No effect
di_Aux[1-9]_Time_Range	D	High/1 (rising edge) = Activate command; Low/0 = No effect
di_Aux[1-9]_Timer_Off	D	High/1 (rising edge) = Activate command; Low/0 = No effect
di_Aux[1-9]_Timer_On	D	High/1 (rising edge) = Activate command; Low/0 = No effect

FEEDBACK: BASIC FUNCTIONS):

//	//	Some ANALOG signal's value has been multiplied by 10 (To keep a precision of 0,1). Remember to take this into account when manipulating ANALOG values that.
Water_Temperature_Text	S	Serial value of the water temperature. Has the unit " °C " at the end. (ex: 20.5 °C)
Air_Temperature_Text	S	Serial value of the air temperature. Has the unit " °C " at the end. (ex: 20.5 °C)
Internal_Temperature_Text	S	Serial value of the internal temperature. Has the unit " °C " at the end. (ex: 20.5 °C)
Heating_English_Text	S	Serial signification about the state of the Heating To see all the possible codes and their signification, visit this documentation: https://doc.can-nx.com/poolnx-klereo , or the description of Heating_Code_Text signal.
Filtration_English_Text	S	Serial signification about the state of the Filtration. To see all the possible codes and their signification, visit this documentation: https://doc.can-nx.com/poolnx-klereo , or the description of Filtration_Code_Text signal.
Lighting_English_Text	S	Serial signification about the state of the Lighting To see all the possible codes and their signification, visit this documentation: https://doc.can-nx.com/poolnx-klereo , or the description of Lighting_Code_Text signal.



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pH_Text	S	Serial value of the pH.
Orp_Text	S	Serial value of the ORP. Has the unit " mV " at the end. (ex: 600 mV)
Pressure_Text	S	Serial value of the pressure. Has the unit " mBar " at the end. (ex: 850 mBar)

FEEDBACK: (ALL FUNCTIONS):

do_pH_Canister	D	Digital value of the pH canister. Low/0 = The canister is empty (0). High/1 = The canister is not empty :]0,100]
pH_Analog	A	Analog value of the pH. Has been multiplied by 10 to keep a 0,1 precision.
pH_Text	S	Serial value of the pH.
pH_Setpoint_Analog	A	Analog value of the pH set point.
pH_Setpoint_Text	S	Serial value of the pH set point.
Water_Level_Analog	A	Analog value of the water level. Has been multiplied by 10 to keep a 0,1 precision.
Water_Level_Text	S	Serial value of the water level Has the unit " %" at the end. (ex: 65%).
Orp_Analog	A	Analog value of the ORP. Has been multiplied by 10 to keep a 0,1 precision.
Orp_Text	S	Serial value of the ORP. Has the unit " mV " at the end. (ex: 600 mV)
OrpSetPoint_Analog	A	Analog value of the ORP set point. Has been multiplied by 10 to keep a 0,1 precision.
OrpSetPoint_Text	S	Serial value of the ORP set point. Has the unit " mV " at the end. (ex: 600 mV)
Pressure_Analog	A	Analog value of the pressure. Has been multiplied by 10 to keep a 0,1 precision.
Pressure_Text	S	Serial value of the pressure. Has the unit " mBar " at the end. (ex: 850 mBar)
Air_Temperature_Analog	A	Analog value of the air temperature. Has been multiplied by 10 to keep a 0,1 precision.
Air_Temperature_Text	S	Serial value of the air temperature Has the unit " °C " at the end. (ex: 20.5 °C)
Water_Temperature_Analog	A	Analog value of the water temperature. Has been multiplied by 10 to keep a 0,1 precision.
Water_Temperature_Text	S	Serial value of the water temperature Has the unit " °C " at the end. (ex: 20.5 °C)
WaterTemperatureSetPoint_Analog	A	Analog value of the Temperature set point. Has been multiplied by 10 to keep a 0,1 precision.



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WaterTemperatureSetPoint_Text	S	Serial value of the water temperature set point Has the unit " °C " at the end. (ex: 20.5 °C)
Internal_Temperature_Analog	A	Analog value of the internal temperature. Has been multiplied by 10 to keep a 0,1 precision.
Internal_Temperature_Text	S	Serial value of the internal temperature. Has the unit " °C " at the end. (ex: 20,5 °C)
Heating_Analog	A	Analog code value of the heating state. 0d = Manual Off 31d = Regulated On To directly have the textual meaning of the code, use <Heating_English_Text>.
Heating_Code_Text	S	
Heating_English_Text	S	Serial signification about the state of the Heating
Filtration_Analog	A	Analog code value of the filtration state. 0d = Manual Off 1d = Manual On 10d = Time Range Off 11d = Time Range On 20d = Timer Off 21d = Timer On 30d = Regulated Off 31d = Regulated On 40d = Filtration synchronization Off 41d = Filtration synchronization On 60d = Maintenance Off 61d = Maintenance On 80d = Impulse Off 81d = Impulse On To directly have the textual meaning of the code, use <Filtration_English_Text>.
Filtration_Code_Text	S	Serial code value of the filtration state. 0 = Manual Off 1 = Manual On 10 = Time Range On 11 = Time Range Off 20 = Timer Off 21 = Timer On 30 = Regulated Off 31 = Regulated On 40 = Filtration synchronization Off 41 = Filtration synchronization On 60 = Maintenance Off 61 = Maintenance On



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		80 = Impulse Off 81 = Impulse On To directly have the textual meaning of the code, use <Filtration_English_Text>.
Filtration_English_Text	S	Serial signification about the state of the Filtration.
Lighting_Analog	A	Analog code value of the lighting state. 0d = Manual Off 1d = Manual On 10d = Time Range Off 11d = Time Range On 20d = Timer Off 21d = Timer On 30d = Regulated Off 31d = Regulated On 40d = Filtration synchronization Off 41d = Filtration synchronization On 60d = Maintenance Off 61d = Maintenance On 80d = Impulse Off 81d = Impulse On To directly have the textual meaning of the code, use <Lighting_English_Text>.
Lighting_Code_Text	S	Serial code value of the lighting state. 0 = Manual Off 1 = Manual On 10 = Time Range On 11 = Time Range Off 20 = Timer Off 21 = Timer On 30 = Regulated Off 31 = Regulated On 40 = Filtration synchronization Off 41 = Filtration synchronization On 60 = Maintenance Off 61 = Maintenance On 80 = Impulse Off 81 = Impulse On To directly have the textual meaning of the code, use <Lighting_English_Text>.
Lighting_English_Text	S	Serial signification about the state of the lighting.
Pool_Mode_Analog	A	Analog code value of the pool mode. 0d = Stop 1d = Eco



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		2d = Normal 3d = Monitoring 4d = Winterization 5d = Reserved 6d = Installation 7d = Reserved To directly have the textual meaning of the code, use <Pool_Mode_English_Text>.
Pool_Mode_Code_Text	S	Serial code value of the pool mode. 0 = Stop 1 = Eco 2 = Normal 3 = Monitoring 4 = Winterization 5 = Reserved 6 = Installation 7 = Reserved To directly have the textual meaning of the code, use <Pool_Mode_English_Text>.
Pool_Mode_English_Text	S	Serial signification about the pool mode.
do_Treatment_Canister	D	Digital value of the treatment canister. Low/0 = The canister is empty (0). High/1 = The canister is not empty :]0,100]
Treatment_Mode_Analog	A	Analog code value of the treatment mode. 0d = No disinfectant 1d = Liquid chlorine 2d = Electrolyzer model Generic 3d = Electrolyzer model Klereo 1 4d = Oxygen 5d = Bromine 6d = Electrolyzer model Klereo 2 7d = Reserved 8d = Electrolyzer model Klereo 3 To directly have the textual meaning of the code, use <Treatment_Mode_English_Text>.
Treatment_Mode_Code_Text	S	Serial code value of the treatment mode. 0 = No disinfectant 1 = Liquid chlorine 2 = Electrolyzer model Generic 3 = Electrolyzer model Klereo 1 4 = Oxygen 5 = Bromine 6 = Electrolyzer model Klereo 2 7 = Reserved 8 = Electrolyzer model Klereo 3 To directly have the textual meaning of the code, use <Treatment_Mode_English_Text>.
Treatment_Mode_English_Text	S	Serial signification about the state of the Treatment.
pH_Mode_Analog	A	Analog code value of the pH mode. 0d = Stop 1d = pH-Minus 2d = pH-Plus To directly have the textual meaning of the code, use <pH_Mode_English_Text>.



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pH_Mode_Code_Text	S	Serial code value of the pH mode. 0 = Stop 1 = pH-Minus 2 = pH-Plus To directly have the textual meaning of the code, use <pH_Mode_English_Text>.
pH_Mode_English_Text	S	Serial signification about the state of the pH.
Heater_Mode_Analog	A	Analog code value of the heater mode. 0d = No heating 1d = Heating or heat pypm by dry contact 2d = Heat pump controlled by bus To directly have the textual meaning of the code, use <Heater_Mode_English_Text>.
Heater_Mode_Code_Text	S	Serial code value of the heater mode. 0 = No heating 1 = Heating or heat pump by dry contact 2 = Heat pump controlled by bus To directly have the textual meaning of the code, use <Heater_Mode_English_Text>.
Heater_Mode_English_Text	S	Serial signification about the state of the Heater.
Chlorine_Analog	A	Analog value of the chlorine. Has been multiplied by 10 to keep a 0,1 precision.
Chlorine_Text	S	Serial value of the chlorine. Has the unit " mg/L " at the end. (ex: 1.5 mg/L)
ChlorineSetPoint_Analog	A	Analog value of the chlorine set point. Has been multiplied by 10 to keep a 0,1 precision.
ChlorineSetPoint_Text	S	Serial value of the chlorine set point. Has the unit " mg/L " at the end. (ex: 1.5 mg/L)
Disinfectant_Analog	A	Analog code value of the disinfectant state. 0d = Manual Off 1d = Manual On 10d = Time Range Off 11d = Time Range On 20d = Timer Off 21d = Timer On 30d = Regulated Off 31d = Regulated On 40d = Filtration synchronization Off 41d = Filtration synchronization On 60d = Maintenance Off 61d = Maintenance On 80d = Impulse Off 81d = Impulse On To directly have the textual meaning of the code, use <Disinfectant_English_Text>.
Disinfectant_Code_Text	S	Serial code value of the disinfectant state.



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		0 = Manual Off 1 = Manual On 10 = Time Range On 11 = Time Range Off 20 = Timer Off 21 = Timer On 30 = Regulated Off 31 = Regulated On 40 = Filtration synchronization Off 41 = Filtration synchronization On 60 = Maintenance Off 61 = Maintenance On 80 = Impulse Off 81 = Impulse On To directly have the textual meaning of the code, use <Disinfectant_English_Text>.
Disinfectant_English_Text	S	Serial signification about the state of the Disinfectant.
Hybrid_Disinfectant_Analog	A	Analog code value of the hybrid disinfectant state. 0d = Manual Off 1d = Manual On 10d = Time Range Off 11d = Time Range On 20d = Timer Off 21d = Timer On 30d = Regulated Off 31d = Regulated On 40d = Filtration synchronization Off 41d = Filtration synchronization On 60d = Maintenance Off 61d = Maintenance On 80d = Impulse Off 81d = Impulse On To directly have the textual meaning of the code, use <Hybrid_Disinfectant_English_Text>.
Hybrid_Disinfectant_Text	S	Serial code value of the Hybrid disinfectant state. 0 = Manual Off 1 = Manual On 10 = Time Range On 11 = Time Range Off 20 = Timer Off



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		21 = Timer On 30 = Regulated Off 31 = Regulated On 40 = Filtration synchronization Off 41 = Filtration synchronization On 60 = Maintenance Off 61 = Maintenance On 80 = Impulse Off 81 = Impulse On To directly have the textual meaning of the code, use <Hybrid_Disinfectant_English_Text>.
Hybrid_Disinfectant_English_Text	S	Serial signification about the state of the Hybrid Disinfectant.
Salinity_Analog	A	Analog value of the salinity. Has been multiplied by 10 to keep a 0,1 precision.
Salinity_Text	S	Serial value of the salinity. Has the unit " mg/L " at the end. (ex: 10.5 mg/L)
Turbidity_Analog	A	Analog value of the turbidity. Has been multiplied by 10 to keep a 0,1 precision.
Turbidity_Text	S	Serial value of the turbidity. Has the unit " FNU " at the end. (ex: 0.3 FNU)
Tacth_Analog	A	Analog value of the TAC/TH. Has been multiplied by 10 to keep a 0,1 precision.
Tacth_Text	S	Serial value of the TAC/TH, Complete Alcalimetric Title)/(Total Hardness) Has the unit " FNU " at the end. (ex: 0.3 FNU)
Covering_Section_Analog	A	Analog value of the covering section. Has been multiplied by 10 to keep a 0,1 precision.
Covering_Section_Text	S	Serial value of the covering section. Has the unit " % " at the end. (ex: 68%).
pH_Corrector_Analog	A	Analog code value of the pH corrector state. 0d = Manual Off 1d = Manual On 10d = Time Range Off 11d = Time Range On 20d = Timer Off 21d = Timer On 30d = Regulated Off 31d = Regulated On 40d = Filtration synchronization Off 41d = Filtration synchronization On 60d = Maintenance Off 61d = Maintenance On 80d = Impulse Off 81d = Impulse On



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		To directly have the textual meaning of the code, use <pH_Corrector_English_Text>.
pH_Corrector_Code_Text	S	Serial code value of the pH corrector state. 0 = Manual Off 1 = Manual On 10 = Time Range On 11 = Time Range Off 20 = Timer Off 21 = Timer On 30 = Regulated Off 31 = Regulated On 40 = Filtration synchronization Off 41 = Filtration synchronization On 60 = Maintenance Off 61 = Maintenance On 80 = Impulse Off 81 = Impulse On To directly have the textual meaning of the code, use <pH_Corrector_English_Text>.
pH_Corrector_English_Text	S	Serial signification about the pH corrector.
Alert_Is_High	D	High/1 = True; Low/0 = False
Alert_Is_Medium	D	High/1 = True; Low/0 = False
Aux[1-9]_Analog	A	Analog code value of the auxiliary state. 0d = Manual Off 1d = Manual On 10d = Time Range Off 11d = Time Range On 20d = Timer Off 21d = Timer On 30d = Regulated Off 31d = Regulated On 40d = Filtration synchronization Off 41d = Filtration synchronization On 60d = Maintenance Off 61d = Maintenance On 80d = Impulse Off 81d = Impulse On To directly have the textual meaning of the code, use <Aux[1-9]_English_Text>.
Aux[1-9]_Code_Text	S	Serial code value of the auxiliary state. 0 = Manual Off



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		1 = Manual On 10 = Time Range On 11 = Time Range Off 20 = Timer Off 21 = Timer On 30 = Regulated Off 31 = Regulated On 40 = Filtration synchronization Off 41 = Filtration synchronization On 60 = Maintenance Off 61 = Maintenance On 80 = Impulse Off 81 = Impulse On To directly have the textual meaning of the code, use <Aux[1-9]_English_Text>.
Aux[1-9]_English_Text	S	Serial signification about the auxiliary code.
Alert_Code_[0-4]_Analog	A	Analog code value of the auxiliary state. To see all the alert codes and their significations, visit our documentation sheet : https://doc.can-nx.com/poolnx-klereo/ To directly have the textual meaning of the code, use <Alert_Code_[0-4]_English_Text>.
Alert_Code_[0-4]_Code_Text	S	Serial value of the alert code. To see all the alert codes and their significations, visit our documentation sheet: https://doc.can-nx.com/poolnx-klereo/ To directly have the textual meaning of the code, use <Alert_Code_[0-4]_English_Text>.
Alert_Code_[0-4]_English_Text	S	Serial signification about the alert code.
Alert_Parameter_[0-4]_Analog	A	Analog value of the alert parameter state. To see all the alert parameters and their significations, visit our documentation sheet : https://doc.can-nx.com/poolnx-klereo/ To directly have the textual meaning of the code, use <Alert_Code_0_English_Text>
Alert_Parameter_[0-4]_Code_Text	S	Serial value of the alert parameter state. To see all the alert parameters and their significations, visit our documentation sheet : https://doc.can-nx.com/poolnx-klereo/ To directly have the textual meaning of the code, use <Alert_Code_0_English_Text>
Alert_Parameter_[0-4]_English_Text	S	Serial signification about the parameter code.



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Alert_Count_Analog	A	Analog value of the number of ongoing alerts.
Alert_Count_Text	S	Serial value of the number of ongoing alerts
Debit1_Is_Disabled	D	Signals the state of the flow meter 1. High/1 = Flow is disable; Low/0 = Flow is enable.
Debit1_Meter_Analog	A	Analog value of the flow meter 1. Has been multiplied by 10 to keep a 0,1 precision
Debit1_Meter_Text	S	Serial value of the flow meter 1.
Debit2_Is_Disabled	D	Signals the state of the flow meter 2. High/1 = Flow is disable; Low/0 = Flow is enable.
Debit2_Meter_Analog	A	Analog value of the flow meter 2 meter. Has been multiplied by 10 to keep a 0,1 precision
Debit2_Meter_Text	S	Serial value of the flow meter 2 meter.

PARAMETERS: (anything needed to be assigned inside program)

IP_Address	S	IP address of the pool'nX device in which the TCP server is launched.
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TESTING: (please fill out carefully)

OPS USED FOR TESTING:	MC3 1.502.4324.33148
SIMPL WINDOWS USED FOR TESTING:	4.2200.00.03
DEVICE DB USED FOR TESTING:	200.265.001.00
CRES DB USED FOR TESTING:	218.00.001.00
SYMBOL LIBRARY USED FOR TESTING:	1180
SAMPLE PROGRAM:	Poolnx_Klereo v1.0 Demo.smw
REVISION HISTORY:	v1.0