CATEGORIES		VARIABLES									MODBUS RTU			
Main	**Level**	**Name**	**Short name**	**dxlink21 APP**	**Public**	**Valid range**	**Default**	**Unit**	**EN | Resolution/values**	**EN | Description**	**Volatile**	**R/RW**	**Var Type**	**Address (start)**	**Address (end)**	**Data Type**
01. Mode	Basic	**Actuator type**	**Actua type**	**N.A.**	Factory	0..4	NA	NA	0 = Thermal PWM actuator 1 = Thermal 0..10Vdc actuator 2 = Electrical PWM actuator 3 = Electrical 0..10Vdc actuator 4 = Stepper	Factory setting of the actuator type. This has mainly an impact on the loop behavior.	C	R	Input Register	54		uint
01. Mode	Basic	**Climate Status**	**ClimStatus**	**ClimStatus**	User	0..5	2	NA	0 = Heating 1 = Cooling 2 = Not defined 3 = Error 4 = Check flow 5 = Flush mode	Reflects the status of the current operating mode. - *Heating (0) :* valve controls on $\mathbf{V_{sh}}$ - *Cooling (1) :* valve controls on $\mathbf{V_{sc}}$ - *Not Defined (2) :* neutral state (no heating, nor cooling requested) - *Error (3) :* is activated on DXMB4 if 'Check Flow' is not correct - *Check Flow (4) :* zero flow check $\mathbf{V_{am}}$ when DXMB4 is executing change/over - *Flush mode (5) :* the valve is in fully open position	V	R	Input Register	56		uint
01. Mode	Advanced	**Integrator**	**Integr.**	**Itime**	Factory	-32768 .. 32767	0	NA	1	Control loop integrator value.	V	RW	Holding Register	15		sint
01. Mode	Advanced	**Adaptive gain**	**U2**	**N.A.**	Factory	-32768 .. 32767	NA	NA	1	Momentary gain of adaptive gain algorithm.	V	R	Input Register	82		sint
01. Mode		**Change/Over Control**	**C/O Ctrl**	**COCtrl**	User	0..1	0	NA	0 = Inactive 1 = Active	Defines whether the valve will automatically change/over (C/O) from heating mode to cooling mode and vice-versa based on the water temperature from the integrated ΔT measurement ($\mathbf{T_{am1}}$ & $\mathbf{T_{am2}}$). Note 1 - when using this function, please make sure that the **Treturn** variable is set correctly! Note 2 - this function is available for all product series, except for 6-port valves (DNX6) or Quattro valves (DXMB4).	W	RW	Output Coil	15		bool
01. Mode		**Control characteristic**	**Ctrl char**	**CtrlChar**	User	0..1	1	NA	0 = Linear 1 = Equal percentage	Defines whether the control characteristic, i.e. the relation between $\mathbf{Y_t}$ and $\mathbf{V_{sh}}$ / $\mathbf{V_{sc}}$ (the flow setpoints in heating and cooling), is linear (0) or equal percentage (1).	W	RW	Holding Register	14		uint
01. Mode		**Control Signal**	**Ctrl Sig**	**CtrlSig**	User	0..1	0	NA	0 = Analog mode 1 = Digital mode	Sets the control input of the valve to analog or digital. - *Analog mode (0)* : the valve is controlled through a single analog input signal **Y1**, typically from the output of a HVAC-controller - *Digital mode (1)* : the valve receives its setpoint via the RS485 bus communication or the Bluetooth interface For a device with IRC-functionality (Integrated Room Control) **Control Signal** determines whether $\mathbf{T_{setadj}}$ is being read from analog input $\mathbf{T_{ext}}$ ($T_{external\ 1}$) or can be written via RS485 bus communication (digital) or the Bluetooth interface (digital). Note - after the setting of **Ctrl Signal** (0) is changed, the control loop state is reset.	W	RW	Output Coil	0		bool
01. Mode		**Flush**	**Flush**	**FlushMode**	User	0..1	1	NA	0 = Inactive 1 = Active	Used with 2- and 3-port valves When activated, this variable Flush forces the valve into its fully open position. - Active (1) : the valve is controlled to its fully open position, regardless of the input control signal. - Inactive (0) : the valve is in automatic control modus, defined by Climat Status. Note - as the Flush functionality is different for change/over applications (like 6-port valves and Quattro valves), the Flush is defined through another variable. Please refer to Flush 6Way.	W	RW	Output Coil	8		bool
01. Mode		**Flush 6Way**	**Flush 6Way**	**FlushMode6Way**	User	0..2	0	NA	0 = Inactive 1 = Flush cooling 2 = Flush heating	<u>Used with 6-port valves and Quattro valves</u> When activated, this variable **Flush 6Way** forces the 6-port valve (or the Quattro valves) into its (their) fully open position on the cooling or on the heating port(s). The **Flush 6Way** parameter replaces the **Flush** variable, which is used for 2- and 3-port valves. - *Inactive (0)* : the valve is in automatic control modus, defined by **Climat Status.** - *Flush cooling* (1) : the valve is controlled to its fully open position on the cooling port*, regardless of the input control signal. - *Flush heating* (2) : the valve is controlled to its fully open position on the heating port*, regardless of the input control signal. * Note: the default cooling and heating port may be modified by the **PortConnection** variable	V	RW	Holding Register	76		uint
01. Mode		**Measurement Signal**	**Meas Sig**	**MeasSig**	User	0..1	0	NA	0 = Analog mode 1 = Digital mode	This variable defines how the actual room temperature is received by the valve with IRC-functionality (Integrated Room Control). - *Analog mode (0)* : the valve expects the actual measured value for $\mathbf{T_{room}}$ from an external analogue input signal. - *Digital mode (1)* : values for $\mathbf{T_{room}}$ will be defined via the RS485 bus communication or via the Bluetooth interface. Note - for valves with ITC-functionality (Integrated Temperature Control) the $\mathbf{T_{room}}$ variable is used for the measured water temperature.	W	RW	Output Coil	17		bool
01. Mode		**Open loop**	**Open loop**	**OpenLoop**	User	0..1	0	NA	0 = Closed loop 1 = Open loop	<u>Used with 2- and 3-port valves</u> This variable enables or disables the flow control loop. - *Closed loop (0)* : the valve will be operated by the <u>flow control</u> loop and will therefore behave as a pressure independant control valve. - *Open loop (1)* : the valve will operate as a standard modulating valve. The valve will follow the 0..10Vdc input signal and drives the valve correspondingly in a 0..100% position. Note - this function is <u>not</u> available on the 6-port valves, nor Quattro valves.	W	RW	Output Coil	6		bool

CATEGORIES		VARIABLES										MODBUS RTU			
Main	**Level**	**Name**	**Short name**	**dxlink21 APP**	**Public**	**Valid range**	**Default**	**Unit**	**EN | Resolution/values**	**EN | Description**	**Volatile**	**R/RW**	**Var Type**	**Address (start)**	**Address (end)**	**Data Type**
01. Mode		**System Type**	**Sys type**	**SysType**	User	0..7	NA	NA	0 = Heating 1 = Cooling 2 = DuoClim 4P 3 = Room or T° control heating 4 = Room or T° control cooling 5 = RC DuoClim 6 = Dp heating 7 = Dp cooling	The **Sys type** variable determines in which mode the valve will operate. - *Heating (0)* : sets the 2- or 3-port valve to operate in Heating modus and will thereby control the flow to the $\mathbf{V_{sh}}$ setpoint - *Cooling (1)* : sets the 2- or 3-port valve to operate in Cooling modus and will thereby control the flow to the Vsc setpoint - DuoClim 4P : sets the operation to dual climate 4-pipes systems, and therefore typically used with 6-port or Quattro valves - Room or T°control Heating (3) : IRC- or ITC-functionality in combination with 2- or 3-port valves to operate in Heating modus - *Room or T°control Cooling (4)* : IRC- or ITC-functionality in combination with 2- or 3-port valves to operate in Cooling modus - *RC DuoClim (5)* : IRC Room control in combinatiion with 6-port valves - Δp heating (6) : Δp-functionality in combination with 2- or 3-port valves to operate in Heating modus - Δp cooling (7) : Δp-functionality in combination with 2- or 3-port valves to operate in Cooling modus Note - depeding on the **System Type**, the control loop will result in a **Climat Status** Heating or Cooling which will determine whether the energy consumption will be added to the heating energy variable **EnerHeat** or the cooling energy variable **EnerCool**	W	RW	Holding Register	25		uint
02. Device		**Area**	**Area**	**Area**	User		NA	sq in mm²	GPM (US): 0,001 Other: 1	The inner area of the pipe.	C	R	Input Register	26		uint
02. Device		**DN value**	**DN**	**DN**	User	GPM (US): 0,375..6 Other: 15..200	NA	NPS inch DN mm	GPM (US): 0,001 Other: 1	The normalized NPS or normalized DN-size of the pipe (depending on **Vunit**).	C	R	Input Register	25		uint
02. Device		**KVS value**	**KVS**	**KVS/CV**	User		NA	cf. Vunit m³/h or US Gpm	0,01	The Kvs- or Cv-value of the device (depending on **Vunit**): - Cv-value for US Gpm - Kvs-value for all other units	C	R	Input Register	50	51	uint32
02. Device		**Port Connection**	**Port Conn**	**PortConnection**	User	0..1	0	NA	0 = Port 1 Cool - Port 2 Heat 1 = Port 1 Heat - Port 2 Cool	This **Port Connection** variable is used with 6-port valves only - *Port 1 Cool / Port 2 Heat (0) :* defines Port 1 for Cooling (connections 1 + 4 = left side if the base of the T-shape = the common port is pointing to you) and Port 2 for Heating (connections 5 + 6 = right side if the base of the T-shape = the common port is pointing to you). - *Port 1 Heat / Port 2 Cool (1) :* defines Port 1 for Heating (connections 1 + 4 = left side if the base of the T-shape = the common port is pointing to you) and Port 2 for Cooling (connections 5 + 6 = right side if the base of the T-shape = the common port is pointing to you). Note - for more information on the mechanical connections of the 6-port valves, please refer to the "Port connections 6-port" section.	W	RW	Output Coil	16		bool
02. Device		**Position of Return Temperature sensor**	**Treturn**	**Treturn**	User	0..1	1	NA	0 = Tam1 on supply 1 = Tam1 on return	This parameter is used to determine which of both temperature sensors is used to measure the supply water temperature and which one is used to measure the return water temperature. - *Tam1 on supply (0)* : the Tam1 sensor (red labelled) is mounted in the supply part of the circuit - *Tam1 on return (1)* : the Tam1 sensor (red labelled) is mounted in the return part of the circuit	W	RW	Output Coil	7		bool
02. Device		**Nominal Flow**	**Vnom**		User					Nominal flow value of the valve	V	R	Input Register	104	105	float
02. Device		**Flow resolution range**	**Vrange**	**Vrange**	User	0..4	NA	NA	Vrange → Number of decimals (Vunit = 0, default)	Selects the range and resolution of variable ***Vnom*** in order to aid the fixed point calculations of floating point number.	C	R	Input Register	73		uint
02. Device		**Device Free Text**	**DeviceFreeText**	**DeviceFreeText**	User	20 text characters	-1	NA	1 character	20 characters that can be set as free text	W	RW	Holding Register	300	309	string
02. Device		**Device Location**	**DeviceLocation**	**DeviceLocation**	User	12 text characters	-1	NA	1 character	12 characters to specify the location of the BACNet device	W	RW	Holding Register	326	330	string
02. Device		**Device Name**	**DeviceName**	**DeviceName**	User	12 text characters	-1	NA	1 character	Device Name for BACnet Devices	W	RW	Holding Register	320	325	string
02. Device		**Production_Number**	**Production_Nb**	**ProductionNumber**	User	12 text characters	-1	NA	1 character	12 characters to specify a customer productionnumber	W	RW	Holding Register	387	392	string
02. Device		**Object Identifier**	**ObjectIdentifier**	**ObjectIdentifier**	User	0.. 4194303	-1	NA	1	Unique Identifier of a BACnet Device	C	RW	Holding Register	85	86	uint32
02. Device		**Object Name**	**ObjectName**	**ObjectName**	User	20 text characters	-1	NA	1 character	Object Name for BACnet Devices	W	RW	Holding Register	310	319	string
02. Device		**Product Type**	**ProdType**	**ProdType**	User	Free text	NA	NA	20 byte string, A..Z/0..9	ASCII representation of **Hardware Version** of the device = HW type & revision number	C	R	Input Register	5	14	Free Text
02. Device		**Serial Number**	**SN**	**SN**	User	Free text	NA	NA	10 byte string, A..Z/0..9	ASCII representation of the **Serial Number** of the device	C	R	Input Register	0	4	Free Text
02. Device		**Software/Firmware version**	**SW rev**	**SWRev**	User	Free text	NA	NA	20 byte string, A..Z/0..9	ASCII representation of **Software Version** of the device = SW type & revision number	C	R	Input Register	15	24	Free Text
03. Signals		**ADC Calibration X1 (10V)**	**ADC_Val_X1_10V**	**N.A.**	Factory	0..65535	NA	NA	1	Calibration Value $\mathbf{X_1}$ for 10V. Written during production.	W	R	Input Register	57		uint
03. Signals		**ADC Calibration Y1 (0V)**	**ADC_Val_Y1_0V**	**N.A.**	Factory	0..65535	NA	NA	1	Calibration Value $\mathbf{Y_1}$ 0V. Written during production.	W	R	Input Register	96		uint
03. Signals		**ADC Calibration Y1 (10V)**	**ADC_Val_Y1_10V**	**N.A.**	Factory	0..65535	NA	NA	1	Calibration Value $\mathbf{Y_1}$ 10V. Written during production.	W	R	Input Register	97		uint
03. Signals		**ADC Calibration Y2 (0V)**	**ADC_Val_Y2_0V**	**N.A.**	Factory	0..65535	NA	NA	1	Calibration Value $\mathbf{Y_2}$ 0V. Written during production.	W	R	Input Register	98		uint
03. Signals		**ADC Calibration Y2 (10V)**	**ADC_Val_Y2_10V**	**N.A.**	Factory	0..65535	NA	NA	1	Calibration Value $\mathbf{Y_2}$ 10V. Written during production.	W	R	Input Register	99		uint
03. Signals		**FSK**	**FSK**	**FSK**	Factory	-1..583	NA	NA	1	Counter for number of motor rotations on CB04-board with Stepper-motor. After initialisation for 2-port and 3-port valves : - the value "-1" corresponds to the closed position (A ► AB : 0%) - the value "583" corresponds to the open position (A ► AB : 100%) After initialisation for 6-port valves : - the value "-1" corresponds to the open position to Port 1 - the value "583" corresponds to the open position to Port 2	C	R	Input Register	72		uint
03. Signals		**Output X1**	**X1**	**X1**	User	X1min..X1max	NA	Volt (dc)	0,1	This value represents the actual value of the analog output signal $\mathbf{X_1}$ (0..10Vdc). Depending on setting $\mathbf{X_1}$ **type**, this output can give different signals which can be used as feedback or control of other devices. Default it indicates the actual measured flow rate.	V	R	Input Register	93		uint
03. Signals		**X1 max**	**X1 max**	**X1max**	User	0..10	10	Volt (dc)	0,1	The maximum value of $\mathbf{X_1}$ representing maximum flow / Δp / Y2	W	RW	Holding Register	71		uint
03. Signals		**X1 min**	**X1 min**	**X1min**	User	0..10	0	Volt (dc)	0,1	The minimum value of $\mathbf{X_1}$ representing NO flow / Δp / Y2	W	RW	Holding Register	70		uint

CATEGORIES		VARIABLES									MODBUS RTU			
Main	**Level**	**Name**	**Short name**	**dxlink21 APP**	**Public**	**Valid range**	**Default**	**Unit**	**EN | Resolution/values**	**EN | Description**	**Volatile**	**R/RW**	**Var Type**	**Address (start)**	**Address (end)**	**Data Type**
03. Signals		**X1 mode**	**X1 mode**	**X1Mode**	User	0..1	0	NA	0 = Analog mode 1 = Digital mode	Defines wether output X_1 acts on a analog or digital input signal. *Analog mode (0)* : Output X_1 is defined by X1 type *Digital mode (1)* : Output X_1 will reflect the value of $Y_{2_digital}$ when X_{1Type} is defined as Y2 controlled	W	RW	Output Coil	20		bool
03. Signals		**X1 type**	**X1 type**	**X1Type**	User	0..4	0	NA	0 = Flow 1 = Pressure 2 = Y2 Controlled 3 = Y1 Controlled 4 = RC_SplitRange	Defines the type of output for X_1. *Flow (0)* : representation of the flow measurement *Pressure (1)* : representation of the differential pressure measurement *Y2 Controlled (2)* : controlled from an external device like a CO2 sensor (connected to Y_2) or set to a value by $Y_{2\ digital}$. *Y1 Controlled (3)* : representation of Y_1 input *RC_SplitRange (4)* : representation of Y_{1h} and Y_{1c}, calculated by the IRC, in a split-range format for use as Y_1 input on slave valves	W	RW	Holding Register	78		uint
03. Signals		**X1 characteristic**	**X1char**	**X1Char**	User	0..1	0	NA	0 = Linear 1 = Equal percentage	Defines the representation of the X_1 feedback signal. *Linear (0)* : X_1 feedback signal is lineair in relation with the flow *Equal percentage (1)* : X_1 feedback signal is Equal percentage in relation with the flow	W	RW	Holding Register	72		uint
03. Signals		**Xm Actuator Feedback**	**Xm**	**XM**	User	0..10	NA	Volt (dc)	0,1	Reflects the actual actuator feedback signal. Range: 0..10Vdc, representing the current actuator position 0..100% (only applicable when 0..10Vdc drive is used).	V	R	Input Register	78		uint
03. Signals		**Xm PWM**	**Xm PWM**	**XMPWM**	User	0..200	NA	%	1	PWM duty cycle of thermal motor control signal (only applicable when PWM control) 0..200 = 0..100%.	V	R	Input Register	71		uint
03. Signals		**Input Y1**	**Y1**	**Y1**	User	Y1min ..Y1max	NA	Volt (dc)	0,1	Y1 defines the valve Setpoint. - In *Analog mode* , it's used to define Y1h or Y1c depending on the **Sys Type** [NR] - In *Digital mode* , it's NOT used but it can be read	V	R	Input Register	69		uint
03. Signals		**Input Y1 Maximum**	**Y1 max**	**Y1max**	User	0..10	10	Volt (dc)	0,1	The maximum value of Y1 in case it is not used for setpoint at the flow control loop or IRC-control (for example when used to control X1.)	W	RW	Holding Register	7		uint
03. Signals		**Input Y1 Minimum**	**Y1 min**	**Y1min**	User	0..10	2	Volt (dc)	0,1	The minimum value of Y1 in case it is not used for setpoint at the flow control loop or IRC-control (for example when used to control X1.)	W	RW	Holding Register	6		uint
03. Signals		**Input Y2**	**Y2**	**Y2**	User	Y2min ..Y2max	NA	Volt (dc)	0,1	Corresponds to the voltage level of the input signal Y2, for example of a Δp controller. (arvt : moet dit geen dP SENSOR zijn?)	V	R	Input Register	70		uint
03. Signals		**Input Y2 Maximum**	**Y2 max**	**Y2max**	User	0..10	10	Volt (dc)	0,1	The maximum working voltage on Y2. This value can be used with Δp controller.	W	RW	Holding Register	9		uint
03. Signals		**Input Y2 Minimum**	**Y2 min**	**Y2min**	User	0..10	2	Volt (dc)	0,1	The minimum working voltage on Y2. This value can be used with Δp controller.	W	RW	Holding Register	8		uint
03. Signals		**DI1 Type**	**DI1 Type**	**DI1Type**	User	0..1	0	NA	0 = NC 1 = NO	It defines rest status the Digital Input 1 contact. *Normally Closed (0)* : Default state of input is a closed contact *Normally Open (1)* : Default state of input is an open contact Note - it has no impact if the Digital input 1 is defined as a counter.	W	RW	Output Coil	18		bool
03. Signals		**DI1 Usage**	**DI1 Usage**	**DI1Usage**	User	0..8	0	NA	0 = Not used 1 = Window open 2 = Away mode 3 = Counter 4 = Night mode 5 = Control on max heating 6 = Control on max cooling 8 = Condense	Bits 0x000F of register are used to define DI1 Usage. Not used (0) : Digital Input is not in use Window Open* (1) : Digital Input signals state of Open Window, will reflect on SetpModif Away mode* (2) : Digital Input signals state of no presence, will reflect on SetpModif Counter (3) : Digital Input counts number of pulses in input Night mode* (4) : Digital Input signals state of night mode, will reflect on SetpModif Control Max Heating (5) : Digital Input forces flow control to Vsmaxhd, will reflect on SetpModif Control Max Cooling (6) : Digital Input forces flow control to Vsmaxcd, will reflect on SetpModif Condense* (8) : Digital Input signals state of Condensation sensor, will reflect on SetpModif ** only in use with IRC*	W	RW	Holding Register	77		uint
03. Signals		**DI1 Counter**	**DI1_Counter**	**DI1Counter**	User	0..65535	0	NA	-	Value indicating the total number of pulses for Digital Input 1. Note - Digital Input 1 has to be defined as a counter by **DI1 Usage**.	W	R	Input Register	94		uint
03. Signals		**DI1 Active**	**DI1 Active**	**DI1Active**	User	0..1	NA	NA	0 = Contact NOT active 1 = Contact active	Status of Digital Input 1. *Contact NOT active (0)* : Contact is in default state *Contact active (1)* : Contact is NOT in default state Note - Default state is determined by setting of $DI_{1\ Type}$	V	R	Discrete Register	6		bool
03. Signals		**DI2 Type**	**DI2 Type**	**DI2Type**	User	0..1	0	NA	0 = NC 1 = NO	It defines rest status the Digital Input 2 contact. *Normally Closed (0)* : Default state of input is a closed contact *Normally Open (1)* : Default state of input is an open contact Note - it has no impact if the Digital input 2 is defined as a counter.	W	RW	Output Coil	19		bool
03. Signals		**DI2 Usage**	**DI2 Usage**	**DI2Usage**	User	0..8	0	NA	0 = Not used 1 = Window open 2 = Away mode 3 = Counter 4 = Night mode 5 = Control on max heating 6 = Control on max cooling 8 = Condense	Bits 0x00F0 of register are used to define DI2 Usage. Not used (0) : Digital Input is not in use Window Open* (1) : Digital Input signals state of Open Window, will reflect on SetpModif Away mode* (2) : Digital Input signals state of no presence, will reflect on SetpModif Counter (3) : Digital Input counts number of pulses in input Night mode* (4) : Digital Input signals state of night mode, will reflect on SetpModif Control Max Heating (5) : Digital Input forces flow control to Vsmaxhd, will reflect on SetpModif Control Max Cooling (6) : Digital Input forces flow control to Vsmaxcd, will reflect on SetpModif Condense* (8) : Digital Input signals state of Condensation sensor, will reflect on SetpModif ** only in use with IRC*	W	RW	Holding Register	77		uint
03. Signals		**DI2 Counter**	**DI2_Counter**	**DI2Counter**	User	0..65535	0	NA	-	Value indicating the total number of pulses for Digital Input 2. Note - Digital Input 2 has to be defined as a counter by **DI2 Usage**.	W	R	Input Register	95		uint
03. Signals		**DI2 Active**	**DI2Active**	**DI2Active**	User	0..1	NA	NA	0 = Contact NOT active 1 = Contact active	Status of Digital Input 2. *Contact NOT active (0)* : Contact is in default state *Contact active (1)* : Contact is NOT in default state Note - Default state is determined by setting of $DI2_{Type}$	V	R	Discrete Register	7		bool
03. Signals		**DI3 Type**	**DI3 Type**	**DI3Type**	User	0..1	0	NA	0 = NC 1 = NO	It defines the digital input 3 contact has normally open or normally closed. It has no impact if the digital input 3 is defined as a counter.	W	RW	Output Coil	24		bool

CATEGORIES		VARIABLES									MODBUS RTU			
Main	**Level**	**Name**	**Short name**	**dxlink21 APP**	**Public**	**Valid range**	**Default**	**Unit**	**EN | Resolution/values**	**EN | Description**	**Volatile**	**R/RW**	**Var Type**	**Address (start)**	**Address (end)**	**Data Type**
03. Signals		**DI3 Usage**	**DI3 Usage**	**DI3Usage**	User	0..8	0	NA	0 = Not used 1 = Window open 2 = Away mode 3 = Counter 4 = Night mode 5 = Control on max heating 6 = Control on max cooling 8 = Condense	Bits 0x0F00 of register are used to define DI3 Usage. Not used (0) : Digital Input is not in use Window Open* (1) : Digital Input signals state of Open Window, will reflect on SetpModif Away mode* (2) : Digital Input signals state of no presence, will reflect on SetpModif Counter (3) : Digital Input counts number of pulses in input Night mode* (4) : Digital Input signals state of night mode, will reflect on SetpModif Control Max Heating (5) : Digital Input forces flow control to Vsmaxhd, will reflect on SetpModif Control Max Cooling (6) : Digital Input forces flow control to Vsmaxcd, will reflect on SetpModif Condense* (8) : Digital Input signals state of Condensation sensor, will reflect on SetpModif ** only in use with IRC*	W	RW	Holding Register	77		uint
03. Signals		**DI3 Counter**	**DI3_Counter**	**DI3Counter**	User	0..65535	0	NA	-	Value indicating the total number of pulses for Digital Input 3. Note - Digital Input 3 has to be defined as a counter by **DI3 Usage**.	W	R	Input Register	143		uint
03. Signals		**DI3 Active**	**DI3Active**	**DI3Active**	User	0..1	NA	NA	0 = Contact NOT active 1 = Contact active	Status of Digital Input 3. *Contact NOT active (0)* : Contact is in default state *Contact active (1)* : Contact is NOT in default state Note - Default state is determined by setting of **DI3 $_{Type}$**	V	R	Discrete Register	8		bool
03. Signals		**Y2 digital Setpoint**	**Y2 digital**	**Y2 digital**	User	Y2min ..Y2max	0	Volt (dc)	0,1	Setpoint voltage to control **X1 output** in digital mode. If the user defines the **X_1 Type** as *"Y2 controlled"* and the **X_1 mode** as *"Digital"*, then **Y2 digital** will be reflected on **X1 output**.	W	RW	Holding Register	79		uint
03. Signals		**External Temperature Sensor 1 Measurement**	**Text 1**	**Text1**	User	0..65535	NA	°C/°F	0,1	Value of external temperature measurement **Text1**. Sensor type is defined by **Text1 Type** (PT500, PT1000 or Res10K).	V	R	Input Register	91		uint
03. Signals		**External Temperature Sensor 2 Measurement**	**Text 2**	**Text2**	User	0..65535	NA	°C/°F	0,1	Value of external temperature measurement **Text2**. Sensor type is defined by **Text2 Type** (PT500, PT1000 or Res10K).	V	R	Input Register	92		uint
03. Signals		**External Temperature Sensor 1 Type**	**Text1 Type**	**ExtResType**	User	0..2	1	bit field	NA	Bits 0x000F of register are used as a bit field to define **T_{ext1}** resistive type. bit 0: a Pt500 resistor is used for temperature measurement. bit 1: a Pt1000 resistor is used for temperature measurement. bit 2: a 10K ohm potentiometer is used for setting of **T_{setad}** Note - use of a Pt500 sensor only applies on CB3-generation valves	W	RW	Holding Register	69		sint
03. Signals		**External Temperature Sensor 2 Type**	**Text2 Type**	**N.A.**	User	0..2	1	bitfield	NA	Bits 0x00F0 of register are used as a bit field to define **T_{ext2}** resistive type. bit 0: a Pt500 resistor is used for temperature measurement. bit 1: a Pt1000 resistor is used for temperature measurement. bit 2: a 10K ohm potentiometer is used for setting of **T_{setad}** Note - use of a Pt500 sensor only applies on CB3-generation valves	W	RW	Holding Register	69		sint
04.		**Modbus 32b Long Endianness**	**Long_Endianness**	**Endianness**	User	0..1	1	NA	0= Little Endian 1 = Big Endian	Sets the representation format of 32 bits values in Modbus *Little Endian (0)* : output of 32 bit values as Little Endian (backwards compatibility) *Big Endian (1)* : output of 32 bit values as Big Endian	W	RW	Output Coil	12		bool
04.Status		**BACNet Network Address**	**BACNet_NetwAddr**	**Bus Adres**	User	0..65534	0	NA	1	Sets the BACnet Network Number for the RS485 communication.	W	RW	Holding Register	84		uint
04.Status		**Communication Baudrate**	**Baudrate**	**BaudRate**	User	0..2	2	NA	0 = 9600 bit/s 1 = 19200 bit/s 2 = 38400 bit/s	Sets the **Baudrate** for the RS485 communication. *9600 bit/s (0)* : sets communication speed at 9600 *19200 bit/s (1)* : sets communication speed at 19k2 *38400 bit/s (2)* : sets communication speed at 38k4 Note - If changed, the devices will reboot and starts operating with the new baud rate.	W	RW	Holding Register	5		uint
04.Status		**Display ON**	**Display ON**	**DisplayON**	Factory	0..1	0	NA	0 = LCD Off (1 min delay) 1 = LCD On	Configures the behaviour of the LCD display *LCD Off (0)* : the LCD switches off after 1 min of being on *LCD On (1)* : the LCD stays on permanently Note - setting only applies on CB3-generation valves whit LCD present	W	RW	Output Coil	9		bool
04.Status		**Error**	**Error**	**Error**	User	0..255	NA	NA	0 = no error #0 = error, according to bit field	Refer to the corresponding section in user manual	V	R	Input Register	60		uint
04.Status		**Error2**	**Error2**	**Error2**	User	0..255	NA	NA	0 = no error #0 = error, according to bit field	Refer to the corresponding section in user manual	V	R	Input Register	150		uint32
04.Status		**Communication Address**	**Address**	**MBaddress**	User	0..247	247 (Modbus) 127 (BACNet)	NA	1..247 (Modbus) 1..127 (BACNet)	Sets the Slave **Address** for the RS485 communication.	W	RW	Holding Register	18		uint
04.Status		**Communication Parity**	**Parity**	**MBparity**	User	0..2	2	NA	0 = no parity 1 = odd parity 2 = even parity	Sets the **Parity** for the RS485 communication. *no parity (0)* *odd parity (1)* *even parity (2)* Note - Only applies for Modbus communication.	W	RW	Holding Register	24		uint
04.Status		**Port1 Active**	**Port1Active**	**Port1Active**	User	0..1	0	NA	0 = port 2 active 1 = port 1 active	Information on which port is in use on 6-port valve. *port 2 active (0)* : Port 2 is active *port 1 active (1)* : Port 1 is active Note - this register is used only with 6-port valves (DXN6).	W	R	Discrete Register	5		bool
04.Status		**Protocol**	**Protocol**	**Protocol**	User	1..2	1	NA	1 = MODBUS 2 = BACNet	Shows which communication protocol is being used. *MODBUS (1)* : RS485 communication is Modbus-RTU *BACNet (2)* : RS485 communication is BACNet MSTP	W	R	Input Register	144		uint32
04.Status		**Reboot**	**Reboot**	**Reboot**	User	0..1	0	NA	1 to reboot system	Reboots the system: clearing all volatile variables. Note - Automatically resets to 0.	V	RW	Output Coil	1		bool
04.Status		**Reset**	**Reset**	**Reset**	User	0..1	0	NA	1 to reset system	Resets the system: clearing all volatile variables, except the reboot counters and registers. Note - Automatically resets to 0.	V	RW	Output Coil	2		bool
04.Status		**Values Modbus Based**	**ValModbusBased**	**N.A.**	User	0..1	0	NA	0 = BACnet obj starts at 1 1 = BACnet obj starts at 0	Defines the start address of the MultiState values in BACNET *BACnet obj starts at 1 (0)* : Object numbers MultiState starts at 1 *BACnet obj starts at 0 (1)* : numbering follows MODBUS list and starts at 0	W	RW	Output Coil	25		bool
04.Status		**Warning**	**Warning**	**Warning**	User	0..255	NA	NA	0 = no warning #0 = warning, according to bit field	Refer to the corresponding section in user manual	V	R	Input Register	61		uint
04.Status		**Warning2**	**Warning2**	**Warning2**	User	0..255	NA	NA	0 = no warning #0 = warning, according to bit field	Refer to the corresponding section in user manual	V	R	Input Register	151		uint32
04.Status		**Days of Operation**	**Days oper**	**DaysOper**	User	0..65535	NA	Days	1	Total days in operation since first power-up	W	R	Input Register	68		uint
04.Status		**Time after last reboot (hours)**	**hh reb**	**hhreb**	User	0..65535	NA	Hours	1	Hours since system-reboot (power-up or software-reboot)	V	R	Input Register	65		uint

CATEGORIES		VARIABLES										MODBUS RTU			
Main	**Level**	**Name**	**Short name**	**dxlink21 APP**	**Public**	**Valid range**	**Default**	**Unit**	**EN | Resolution/values**	**EN | Description**	**Volatile**	**R/RW**	**Var Type**	**Address (start)**	**Address (end)**	**Data Type**
04.Status		**Time after last reboot (minutes)**	**mm reb**	**mmreb**	User	0..59	NA	Minutes	1	Minutes since system-reboot (power-up or software-reboot)	V	R	Input Register	66		uint
04.Status		**Time after last reboot (seconds)**	**ss reb**	**ssreb**	User	0..59	NA	Seconds	1	Seconds since system-reboot (power-up or software-reboot)	V	R	Input Register	67		uint
05. Energy		**External Temperature Sensor**	**T ext**	**Text**	User	0° .. + 90°	NA	°C/°F	0,1	Actual medium temperature from an external sensor. Reporting Unit can be °C or °F, depending on value of **T_{unit}**. Note - Only used when 2nd temperature sensor is NOT present.	W	RW	Holding Register	19	20	uint32
05. Energy		**Temperature Sensor Offset**	**T off**	**Toff**	User	-9°C .. + 9°C -16.2°F.. +16.2°F	0	°C/°F	0,1	Offset temperature correction between 2 sensors. Reporting Unit can be °C or °F, depending on value of **T_{unit}**. Note - Only valid when 2 sensors are used.	W	RW	Holding Register	45	46	uint32
05. Energy		**Temperature Units**	**T unit**	**Tunit**	User	0..1	0	NA	0 = °C 1 = °F	Sets the representation format of all temperature variables to Celsius or Fahrenheid *°C (0) :* All variables used in degrees Celsius *°F (1) :* All variables used in degrees Fahrenheid	W	RW	Output Coil	3		bool
05. Energy		**Temperature Sensor1 Correction**	**T1_Correction**	**T1_Correction**	User	-5..5°C	0°C	°C/°F	0,1	Temperature correction for Temperature sensor **T_{ext1}**	W	RW	Holding Register	88		uint
05. Energy		**Temperature Sensor2 Correction**	**T2_Correction**	**T2_Correction**	User	-5..5°C	0°C	°C/°F	0,1	Temperature correction for Temperature sensor **T_{ext2}**	W	RW	Holding Register	89		uint
05. Energy		**Actuel Medium Temperature 1**	**Tam 1**	**Tam1**	User	0° .. + 90°	NA	°C/°F	0,1	Reflects the actual medium temperature, measured by sensor **T_{am1}**. Reporting Unit can be °C or °F, depending on value of **T_{unit}**.	V	R	Input Register	100	101	float
05. Energy		**Actuel Medium Temperature 2**	**Tam 2**	**Tam2**	User	0° .. + 90°	NA	°C/°F	0,1	Reflects the actual medium temperature, measured by sensor **T_{am2}**. Reporting Unit can be °C or °F, depending on value of **T_{unit}**.	V	R	Input Register	102	103	float
05. Energy		**Energy Counter Units**	**E unit**	**Eunit**	User	0..1	0 (SI and UK) 1 (US)	NA	0 = Wh 1 = BTU	Unit for cumulative energy consumption. Wh (0) : energy consumption presented in Wh BTU (1) : energy consumption presented in BTU Note - resolution depends on **V_{range}**	W	RW	Holding Register	47		uint
05. Energy		**Energy Counter Cooling**	**Ener. cool**	**EnerCool**	User	Wh:0 .. 4294967295 BTU: 0 .. 1465503606	NA	kWh/BTU	depending on Vrange	Cumulative energy consumption in **Climate Status** *Cooling* mode. For more detailed information, follow the link to the Energy & Power Table. Note - resolution depends on **V_{range}**	W	R	Input Register	132	133	uint32
05. Energy		**Energy Counter Heating**	**Ener. heat**	**EnerHeat**	User	Wh:0 .. 4294967295 BTU: 0 .. 1465503606	NA	kWh/BTU	depending on Vrange	Cumulative energy consumption in **Climate Status** *Heating* mode. For more detailed information, follow the link to the Energy & Power Table. Note - resolution depends on **V_{range}**	W	R	Input Register	130	131	uint32
05. Energy		**Current Power**	**PWR**	**PWR**	User	0..65535	NA	Watt	1	Power consumption (If PWR = 0xFFFF, error). For more detailed information, follow the link to the Energy & Power Table.	V	R	Input Register	55		uint
Flow control		**Phi**	**Phi**	**N.A.**	Factory	0..100	NA	NA	0,01	Equal percentage curvature	W	RW	Holding Register	38		sint
Flow control		**Setpoint Modification**	**Setp modif**	**Setp modif**	User	NA	0	bitfield	NA	Bitfield which represents the different states, set by digital inputs or over the bus, that can effect the IRC or flow setpoint. bit 0: window open bit 1: away mode bit 2: night mode bit 3: condensation bit 4: frost protection bit 5: control max heating bit 6: control max cooling	V	R	Input Register	87		uint
Flow control		**Flow Units**	**V unit**	**Vunit**	User	0..4	SI = 0 UK = 3 US = 4	NA	0 = m³/h 1 = l/s 2 = l/min 3 = Gpm (UK) 4 = Gpm (US)	Reporting unit of flow parameters. *m³/h (0)* : Flow values are presented in m3/h *l/s (1)* : Flow values are presented in l/s *l/min (2)* : Flow values are presented in l/min *Gpm (UK) (3)* : Flow values are presented in Gpm *Gpm (US) (4)* : Flow values are presented in Gpm Note - Default depends on product version.	W	RW	Holding Register	4		uint
Flow control		**Nominal Flow Cooling**	**Vnomc**	**Vnomc**	User	Type dependent	NA	cf. Vunit	NA (floating point)	Nominal flow for cooling. Is factory set to the highest flow the device can cope with.	C	R	Input Register	116	117	float
Flow control		**Nominal Flow Heating**	**Vnomh**	**Vnomh**	User	Type dependent	NA	cf. Vunit	NA (floating point)	Nominal flow for heating. Is factory set to the highest flow the device can cope with.	C	R	Input Register	114	115	float
Flow control		**Flow Setpoint Cooling Maximum**	**Vs maxc d**	**Vsmaxcd**	User	Vsmincd..Vnomc	Vnomc	cf. Vunit	Depend on Vunit and Vrange	Setpoint for the maximum calculated flow in **Climate Status** *Cooling* mode. Note - Will always mirror **V_{sminhd}**.	W	RW	Holding Register	44		uint
Flow control		**Flow Setpoint Heating Maximum**	**Vs maxh d**	**Vsmaxhd**	User	Vsminhd..Vnomh	Vnomh	cf. Vunit	Depend on Vunit and Vrange	Setpoint for the maximum calculated flow in **Climate Status** *Heating* mode. Note - Will always mirror **V_{sminhd}**.	W	RW	Holding Register	43		uint
Flow control		**Flow Setpoint Cooling Minimum**	**Vs minc d**	**Vsmincd**	User	0..Vsmaxcd	0	cf. Vunit	Depend on Vunit and Vrange	Setpoint for the minimum calculated flow in **Climate Status** *Cooling* mode.	W	RW	Holding Register	42		uint
Flow control		**Flow Setpoint Heating Minimum**	**Vs minh d**	**Vsminhd**	User	0..Vsmaxhd	0	cf. Vunit	Depend on Vunit and Vrange	Setpoint for the minimum calculated flow in **Climate Status** *Heating* mode.	W	RW	Holding Register	41		uint
Flow control		**Flow Setpoint Cooling**	**Vsc**	**Vsc**	User	Type dependent	NA	cf. Vunit	Depend on Vunit and Vrange	Reflects the calculated flow setpoint when **Climate Status** is in ***Cooling* mode**.	W	RW	Holding Register	33		uint
Flow control		**Flow Setpoint Heating**	**Vsh**	**Vsh**	User	Type dependent	NA	cf. Vunit	Depend on Vunit and Vrange	Reflects the calculated flow setpoint when **Climate Status** is in ***Heating* mode**.	W	RW	Holding Register	32		uint
Flow control		**Qp**	**Qp**	**N.A.**	Factory	0.6..40	NA	m³/h	0,1	Nominal flow of the flow sensor.	C	R	Input Register	52		uint
Flow control		**MediumType**	**MediumType**	**MediumType**	User	0..2	1	NA	0 Water Only 1 Ethylene Glycol 2 Propylene Glycol	Setting for the type of medium used for correct flow measurement	W	RW	Holding Register	21		uint
Flow control		**GlycolConcentration**	**GlycolConcentration**	**GlycolConcentration**	User	0..100	NA	%	1	The measured glycol percentage in the medium	V	R	Input Register	119		uint
Flow control		**Flow Measurement (filtered)**	**Vam**	**Vam**	User	Type dependent	NA	cf. Vunit	NA (floating point)	Represents the actual medium flow measured by the device. **V_{am}** is reported in the unit defined by **V_{unit}**. The range (number of decimals) is defined by **V_{range}**.	V	R	Input Register	108	109	float
Flow control		**Flow Measurement (real/unfiltered)**	**Vr**	**N.A.**	User	Type dependent	NA	cf. Vunit	NA (floating point)	Represents the real medium flow. **V_r** is filtered to derive **V_{am}**, which fluctuates a lot less than **V_r**. When there's a new setpoint, then **V_{am}** = **V_r**. When **V_r** reaches **V_a** a first order filter is applied on **V_{am}** until the setpoint is changed again. **V_r** is reported in the unit defined by **V_{unit}**. The range (number of decimals) is defined by **V_{range}**.	V	R	Input Register	106	107	float

CATEGORIES		VARIABLES									MODBUS RTU			
Main	**Level**	**Name**	**Short name**	**dxlink21 APP**	**Public**	**Valid range**	**Default**	**Unit**	**EN | Resolution/values**	**EN | Description**	**Volatile**	**R/RW**	**Var Type**	**Address (start)**	**Address (end)**	**Data Type**
Flow control		**End Mode Behavior**	**EndMode**	**EndMode**	User	0..2	0	NA	0 = Normal behavior 1 = No flow 2 = Flush mode	The **EndMode** will define how the valve should react if the analog input Y_1 is set in the range [0V - 0.2V] or [9.8V - 10V]. *Normal behavior (0)* : the flow setpoint will follow V_{smaxcd} or V_{smaxhd}. *No flow (1)* : the valve will be closed (center position). *Flush mode (2)* : the valve will open completely to the corresponding port (for example when Y_1 is set to 0V and 0.5 to 4.5 set as boundaries for heating, the valve will open completely to the correspondent heating port). Note - this register used only with 6-port valves (DXN6) with analog **Control Signal**.	W	RW	Holding Register	75		uint
Flow control		**Y1 Maximum Cooling Setpoint**	**Y1 maxc**	**Y1maxc**	User	0..10	10	Volt (dc)	0,1	The value of Y_{1c} at which the flow control loop still operates. The flowsetpoint for cooling V_{sc} will be equal to V_{smaxcd}.	W	RW	Holding Register	31		uint
Flow control		**Y1 Maximum Heating Setpoint**	**Y1 maxh**	**Y1maxh**	User	0..10	10	Volt (dc)	0,1	The value of Y_{1h} at which the flow control loop still operates. The flowsetpoint for heating V_{sh} will be equal to V_{smaxhd}.	W	RW	Holding Register	30		uint
Flow control		**Y1 Minimum Cooling Setpoint**	**Y1 minc**	**Y1minc**	User	0..10	2	Volt (dc)	0,1	The value of Y_{1c} at which the flow control loop starts to operate. The flowsetpoint for cooling V_{sc} will be equal to V_{smincd}.	W	RW	Holding Register	29		uint
Flow control		**Y1 Minimum Heating Setpoint**	**Y1 minh**	**Y1minh**	User	0..10	2	Volt (dc)	0,1	The value of Y_{1h} at which the flow control loop starts to operate. The flowsetpoint for heating V_{sh} will be equal to V_{sminhd}.	W	RW	Holding Register	28		uint
Flow control		**Y1 Cooling Setpoint**	**Y1c**	**Y1c**	User	Y1minc .. Y1maxc	NA	Volt (dc)	0,1	Reflects the current setpoint for cooling V_{sc}. - In digital mode this is a read-write parameter. - In analog mode it is set by the external analog input signal Y_1 and read-only on the UI and bus.	W	RW	Holding Register	27		uint
Flow control		**Y1 Heating Setpoint**	**Y1h**	**Y1h**	User	Y1minh .. Y1maxh	NA	Volt (dc)	0,1	Reflects the current setpoint for heating V_{sh}. - In digital mode this is a read-write parameter. - In analog mode it is set by the external analog input signal Y_1 and read-only on the UI and bus.	W	RW	Holding Register	26		uint
IRC / ICT Ctrl		**Room Controller Type**	**RCtype**	**RCType**	User	0 .. 1	0 (P)	NA	0 (P) 1 (PI)	Defines the control type of the integrated room controller. (IRC) *P (0)* : IRC is P-controlled *PI (1)* : IRC is PI-controlled	W	RW	Holding Register	59		uint
IRC / ICT Ctrl		**Temperature Controller Dead band**	**Td**	**Td**	User	0.2 .. 6°C	1°C	°C or °F, depending on Tunit	0.1°C	Controller dead band between heating and cooling of the IRC	W	RW	Holding Register	53		uint
IRC / ICT Ctrl		**Temperature Controller Dead band (Night mode)**	**Tdnight**	**Tdnight**	User	0.2..20ºC	20°C	°C or °F, depending on Tunit	0.1°C	Controller dead band between heating and cooling in **Night mode** for the IRC.	W	RW	Holding Register	60		uint
IRC / ICT Ctrl		**Temperature High Limit Window Open**	**Twindhigh**	**Twindhigh**	User	6..40°C	40°C	°C or °F, depending on Tunit	0.1°C	In window open mode the temperature setpoint $T_{setcalc}$ for cooling is set to Twindhigh. Note - Window Open mode can be activated by a digital input and status can be seen in **Setp modif**	W	RW	Holding Register	58		uint
IRC / ICT Ctrl		**Temperature Low Limit Window Open**	**Twindlow**	**Twindlow**	User	6..35°C	15°C	°C or °F, depending on Tunit	0.1°C	In window open mode the temperature setpoint $T_{setcalc}$ for heating is set to Twindlow. Note - Window Open mode can be activated by a digital input and status can be seen in **Setp modif**	W	RW	Holding Register	57		uint
IRC / ICT Ctrl		**Cooling Active**	**CoolActive**	**CoolActive**	User	0..1	NA	NA	0 = cooling flow closed 1 = cooling flow open	Reflects whether the room controller is cooling the room *Cooling flow closed (0)* : No cooling water goes through the valve *Cooling flow open (1)* : Cooling water goes through the valve	V	R	Discrete Register	4		bool
IRC / ICT Ctrl		**Frost Protection Enable**	**FrostEnable**	**Frost protection**	User	0..1	1	NA	0 = disabled 1 = enabled	Enables or disables frost protection in the IRC based on T_{room} *Disabled (0)* : No frost protection *Enabled (1)* : When T_{room} is lower then 6°C, heating will be activated	V	RW	Output Coil	21		bool
IRC / ICT Ctrl		**Heating Active**	**HeatActive**	**HeatActive**	User	0..1	NA	NA	0 = heating flow closed 1 = heating flow open	Reflects whether the integrated room controller (IRC) is heating the room Heating *flow closed (0)* : No heating water goes through the valve Heating *flow open (1)* : Heating water goes through the valve	V	R	Discrete Register	3		bool
IRC / ICT Ctrl		**Night mode**	**Night mode**	**Night mode**	User	0..1	0	NA	0 = disabled 1 = enabled	Enables or disables **Night mode** for the IRC *Disabled (0)* : **Night mode** is not active, dead band for controller is set to T_d *Enabled (1)* : **Night mode** is active, dead band for controller is set to T_{dnight} Note - **Night mode** can be activated by a digital input or over Modbus/BACNet	V	RW	Output Coil	11		bool
IRC / ICT Ctrl		**Pband Cooling**	**Pbandcool**	**Pbandcool**	User	0.5 .. 6°C	2°C	°C or °F, depending on Tunit	0.1°C	Width of proportional band in the IRC for cooling	W	RW	Holding Register	55		uint
IRC / ICT Ctrl		**Pband Heating**	**Pbandheat**	**Pbandheat**	User	0.5 .. 6°C	1°C	°C or °F, depending on Tunit	0.1°C	Width of proportional band in the IRC for heating	W	RW	Holding Register	54		uint
IRC / ICT Ctrl		**Room Temperature Cooling Minimum**	**Tcoolmin**	**Tcoolmin**	User	9..35°C	9°C	°C/°F	0,1	If the IRC cooling setpoint $T_{setcalc}$ + T_d falls below $T_{coolmin}$, then $T_{coolmin}$ is taken as the actual cooling setpoint.	W	RW	Holding Register	61		uint
IRC / ICT Ctrl		**Room Temperature Measurement**	**Troom**	**Troom**	User	Troom min .. Troom max	Tsetcalc	°C/°F	0,1	Actual IRC room temperature Note - For temperature controled ITC C03/C04 T_{room} represend the actual medium temperature	V(Analog) / W(Digital)	R	Holding Register	50		uint
IRC / ICT Ctrl		**Room Temperature Maximum**	**Troom max**	**Troommax**	User	0..90°C	90°C	°C/°F	0,1	Value determins the maximum value when T_{room} measurement is read from input Y_1. (T_{room} for Y_1=10V)	W	RW	Holding Register	82		uint
IRC / ICT Ctrl		**Room Temperature Minimum**	**Troom min**	**Troommin**	User	0..90°C	0	°C/°F	0,1	Value determins the minimum value when T_{room} measurement is read from input Y_1. (T_{room} for Y_1=0V)	W	RW	Holding Register	81		uint
IRC / ICT Ctrl		**IRC/ITC Temperature Setpoint**	**Tset**	**Tset**	User	14..35°C	22°C	°C/°F	0,1	Room temperature setpoint for the IRC	V(Analog / W(Digital)	RW	Holding Register	51		uint
IRC / ICT Ctrl		**Room Temperature Setpoint Adjustment**	**Tsetadj**	**Tsetadj**	User	-TsetadjMax..TsetadjMax	0°C	°C/°F	0,1	IRC Room temperature setpoint adjustment. When **Ctrl Sig** is *Analog* , T_{setadj} is determined by T_{ext1}, when **Ctrl Sig** is *Digital* , T_{setadj} can be written over the RS485 bus	W	RW	Holding Register	52		int
IRC / ICT Ctrl		**Maximum Setpoint Adjustment**	**TsetadjMax**	**Tsetadjmax**	User	0..5°C	5°C	°C/°F	0,1	This settings determines the maximum value for T_{setadj}. T_{setadj} will be between -$T_{setadjMax}$ and + $T_{setadjMax}$.	W	RW	Holding Register	80		uint
IRC / ICT Ctrl		**Room Temperature Calculated Setpoint**	**Tsetcalc**	**Tsetcalc**	User	9..40°C	NA	°C/°F	0,1	Calculated Room temperature setpoint. $T_{setcalc}$ = T_{set}+T_{setadj}	V	R	Input Register	86		uint

Warning!
Type W variables are written in non-volatile memory. It should be noted that non-volatile memory is limited by the number of writing cycles after which it becomes dysfunctional. Therefore non-volatile memory is typically used for parameter setting only. This value is not expected to change over the lifetime of the device. An example may be the MODBUS baud rate. If the application would require frequent writing however, it is strongly recommended to drastically limit the frequency of writing new values in the non-volatile memory. A value should not be written to the non-volatile memory more than 4x per day. Surpassing the number of writing cycles to the non-volatile memory voids the warranty.

CATEGORIES		VARIABLES											MODBUS RTU			
Main	Level	Name	Short name	dxlink21 APP	Public	Valid range	Default	Unit	EN | Resolution/values	EN | Description	Volatile	R/RW	Var Type	Address (start)	Address (end)	Data Type

Waarschuwing!
Informatie over het gebruik van variabelen die in het EEPROM geheugen worden opgeslagen. Als uitgangspunt kan de levensduur van de EEPROM worden geschat op 100.000 schrijfcycli. Merk op dat dit gebaseerd is op 100k schrijfcycli MINIMAAL. Het is mogelijk dat de EEPROM (iets) langer meegaat, maar dit hangt af van verschillende factoren (temperatuur, kwaliteit van het IC, ...). De variabelen type 'W' worden opgeslagen in de EEPROM. De waarden type 'V' (bijvoorbeeld Y1h en Y1c) zijn echter NIET opgeslagen in de EEPROM en kunnen worden geschreven zonder limiet.

Waarden worden in EEPROM opgeslagen indien:
1. Ze worden geschreven via de bus of via de APP, naar het holding register. Als bijvoorbeeld Tsetadj wordt afgelezen via de potentiometeringang van de ruimtesensor en de waarde wordt telkens geactualiseerd, dan is dat niet het geval.
2. Waarden die in de EEPROM worden opgeslagen, d.w.z. wanneer zij naar het holding register worden geschreven, zal de firmware van de regelafsluiter deze eerst vergelijken met de waarde die reeds in de EEPROM is opgeslagen. Als het dezelfde is, wordt deze waarde niet opnieuw geschreven met dezelfde waarde. Alleen als de nieuwe waarde anders is, zal de EEPROM het overnemen en terugschrijven.

Attention!
Les variables de type W sont écrites dans une mémoire non volatile. Il convient de noter que la mémoire non volatile est limitée par le nombre de cycles d'écriture après quoi elle deviendra obsolète. D'une manière générale, la mémoire non volatile est utilisée uniquement pour le paramétrage. Il n'est pas prévu de modifier cette valeur au cours de la durée de vie de l'appareil. Prenons un exemple concret : la vitesse de transmission MODBUS. Si l'application exige une écriture fréquente de cette vitesse, il est fortement recommandé de limiter de manière significative la fréquence d'écriture de nouvelles valeurs dans la mémoire non-volatile. Une valeur mémoire non volatile ne peut être écrite plus de quatre fois par jour. En dépassant le cycle de vie de la mémoire non volatile vous annulez tout garantie liée au produit.

Warnung!
Variablen vom Typ W werden in einen nichtflüchtigen Speicher geschrieben. Es ist zu beachten, dass der nichtflüchtige Speicher durch die Anzahl der Schreibzyklen begrenzt ist, nach denen er nicht mehr funktioniert. Daher wird der nichtflüchtige Speicher normalerweise nur zur Parametereinstellung verwendet. Es wird nicht erwartet, dass sich dieser Wert während der Lebensdauer des Geräts ändert. Ein Beispiel kann die MODBUS-Baudrate sein. Wenn die Anwendung jedoch häufiges Schreiben erfordern würde, wird dringend empfohlen, die Häufigkeit des Schreibens neuer Werte in den nichtflüchtigen Speicher drastisch zu begrenzen. Ein Wert sollte nicht mehr als 4x pro Tag in den nichtflüchtigen Speicher geschrieben werden. Wenn die Anzahl der Schreibzyklen in den nichtflüchtigen Speicher überschritten wird, erlischt die Garantie.