MODBUS TABLE ORGANIZATION

Starting Address of the Group Registers (Dec)	Starting Address of the Group Registers (Hex)	System Version (Release)	System Version (Build)	Group Name (Text)	Group Code (Hex)	Group Complexity (Hex)	Group Version (Hex)	Object Code
16640	4100	01	16	Contactor State	52 01	10	01 00	
16640	4100	01	16	Contactor State Configuration	52 01	10	01 00	
18688	4900	01	16	Contactor Command	63 01	10	01 00	
18688	4900	01	16	Contactor Command configuration	63 01	10	01 00	

MODBUS PROTOCOL DETAILS

Function Code (Dec)	Exception Codes (Dec)	Data Encoding
2 (Read Discrete Inputs)	1, 2, 3	"Big Endian" (most significant byte first)
1 (Read Coils)	1, 2, 3	"Big Endian" (most significant byte first)
5/15 (Write Single/Multiple Coils)	1, 2, 3	"Big Endian" (most significant byte first)
4 (Read Input Registers)	1, 2, 3	"Big Endian" (most significant byte first)
3 (Read Holding register)	1, 2, 3	"Big Endian" (most significant byte first)
6/16 (Write Single/Multiple Holding register)	1, 2, 3	"Big Endian" (most significant byte first)

MODBUS OVER SERIAL DETAILS

Physical Layer	Trasmission Modes	Device Addressing	Baud Rates (bit/s)	Data Bits	Data bits trasmission sequence	Parity	Stop Bits
standard EIA/TIA 485 (RS-485) two-wire configuration	RTU	1÷247	programmable (1200, 2400, 4800, 9600, 19200, 38400)	8	Least significant bit first	NONE	1

MASTER/SLAVE COMMUNICATION TIMING

Timer Description	Timer Value (msec)
Inter-character time-out	< 1,5 character times
Response delay (from master request)	-
Delay Time (between two master trasmissions)	-

REFER ALSO TO: www.modbus.org
- MODBUS over serial line specification and implementation guide V1.02
- MODBUS APPLICATION PROTOCOL SPECIFICATION V1.1b

NOTE: File and printed copies of this document are not subject to document change control.

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [bit]	Description	Note	Read Function Codes (Dec)	Data Storing
16641	**16640**	**4100**	**4**	**Contactor State**			
16641	16640	4100	1	State of Contact 1	*See Note 1*	2	
16642	16641	4101	1	State of Contact 2	*See Note 1*	2	
16643	16642	4102	1	State of Contact 3	*See Note 1*	2	
16644	16643	4103	1	State of Contact 4	*See Note 1*	2	

Note 1
The information reported here "self-resets" when the condition that generated it ends.

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [bit]	Description	Note	Read Function Codes (Dec)	Write Function Codes (Dec)	Data Storing
18689	**18688**	**4900**	**2**	**Contactor Command**				
18689	18688	4900	1	Energize		1	5,15	
18690	18689	4901	1	De-energize		1	5,15	

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [word]	Bit Position	Description	Type	Scale	Unit	Range	Note	Read Function Code (Dec)	Data Storing
(no INPUT REGISTERS availables)												

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [word]	Bit Position	Description	Type	Scale	Unit	Range	Note	Read Function Codes (Dec)	Write Function Codes (Dec)	Data Storing
16641	**16640**	**4100**	**5**		**Contactor State Configuration**								
16641	16640	4100	1		Number of associated contacts		-	-	1 ÷ 4	*See Note 3*	3	6,16	
16642	16641	4101	1		Configuration of Contact 1		-	-		*See Note 7*	3	6,16	
16643	16642	4102	1		Configuration of Contact 2		-	-		*See Note 7*	3	6,16	
16644	16643	4103	1		Configuration of Contact 3		-	-		*See Note 7*	3	6,16	
16645	16644	4104	1		Configuration of Contact 4		-	-		*See Note 7*	3	6,16	
18689	**18688**	**4900**	**3**		**Contactor Command configuration**								
18689	18688	4900	1		Command configuration					*See Note 8*	3	6,16	
18690	18689	4901	1		Activation time (if impulsive)		0,1	sec			3	6,16	
18691	18690	4902	1		Delay on command		0,1	sec			3	6,16	

Note 3

Represent the number of contact of the associated Contactor or Latching relay.
Default value = 4

Note 7

bit0:
"0": Normally Open (NO) ***[Default]***
"1": Normally Close (NC)

bit1|15: not used

Note 8

bit0:
"0": Normally Open (NO)
"1": Normally Close (NC)

bit1|2:
"00": Implusive command
"01": toggle command
"10": maniteined command

bit3:
"0": Indipendent outputs
"1": Interlocked outputs

bit4÷15: not used