



Nota de aplicação

M580 – Comunicação Modbus (RS232) através do módulo BMXNOM0200

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Data: 10/5/16

Versão: V1.0

Especificações técnicas

Especificações Técnicas

Hardware

BMEP584040
BMXP3420102

Firmware

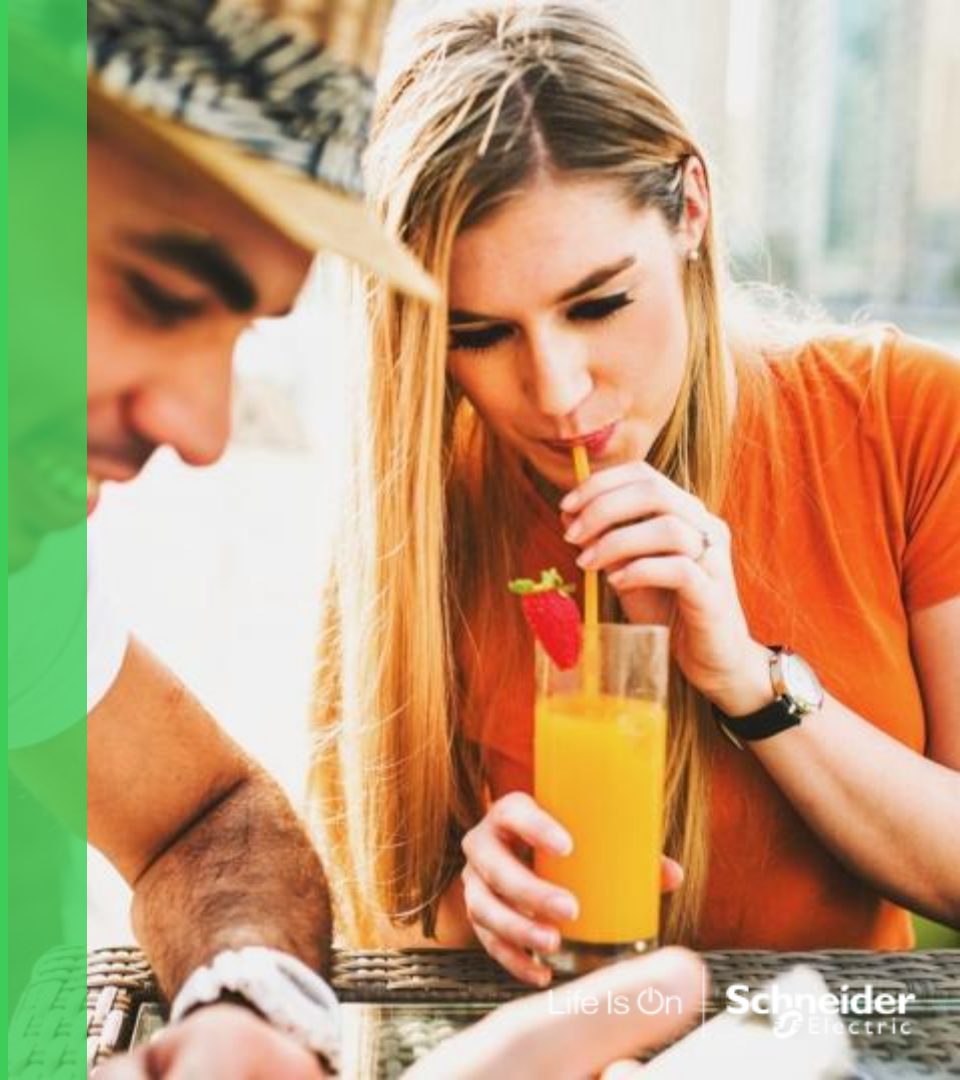
V2.1
V2.5

Software

UnityPro

Versão

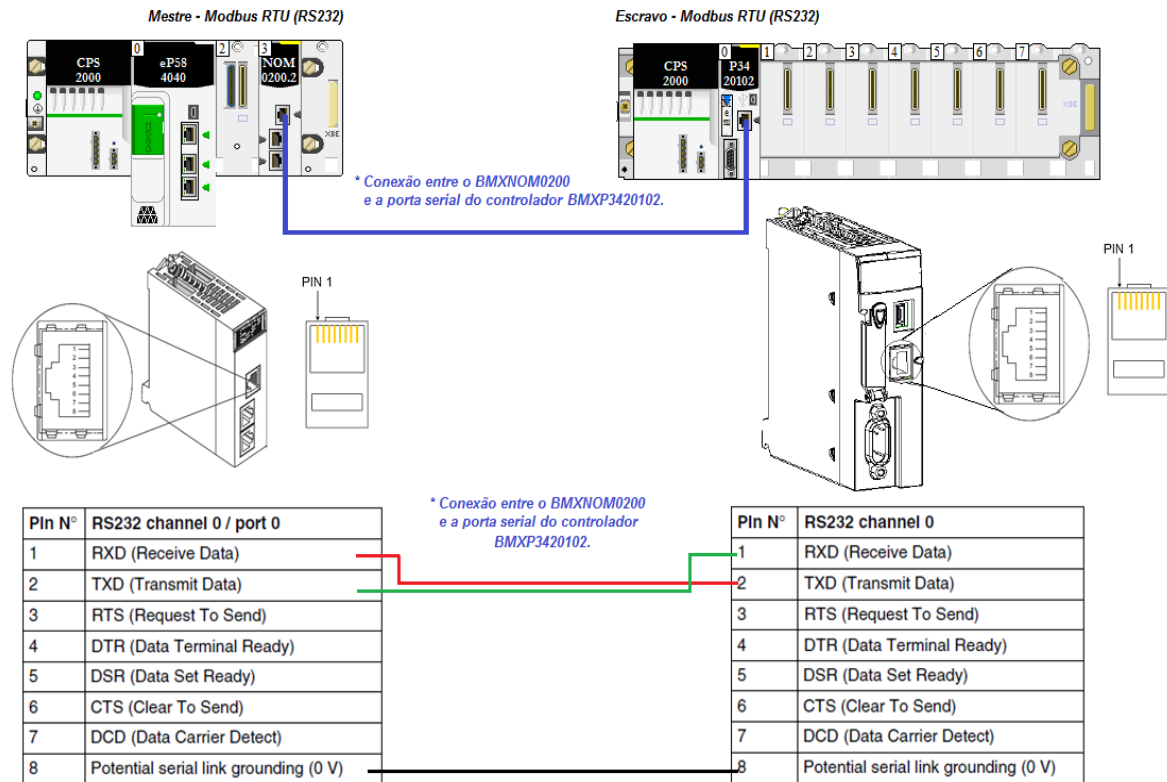
V11.0 151207



Arquitetura e esquema de ligações

Arquitetura e esquema de ligações

M580 – Comunicação Modbus (RS232) através do módulo BMXNOM0200



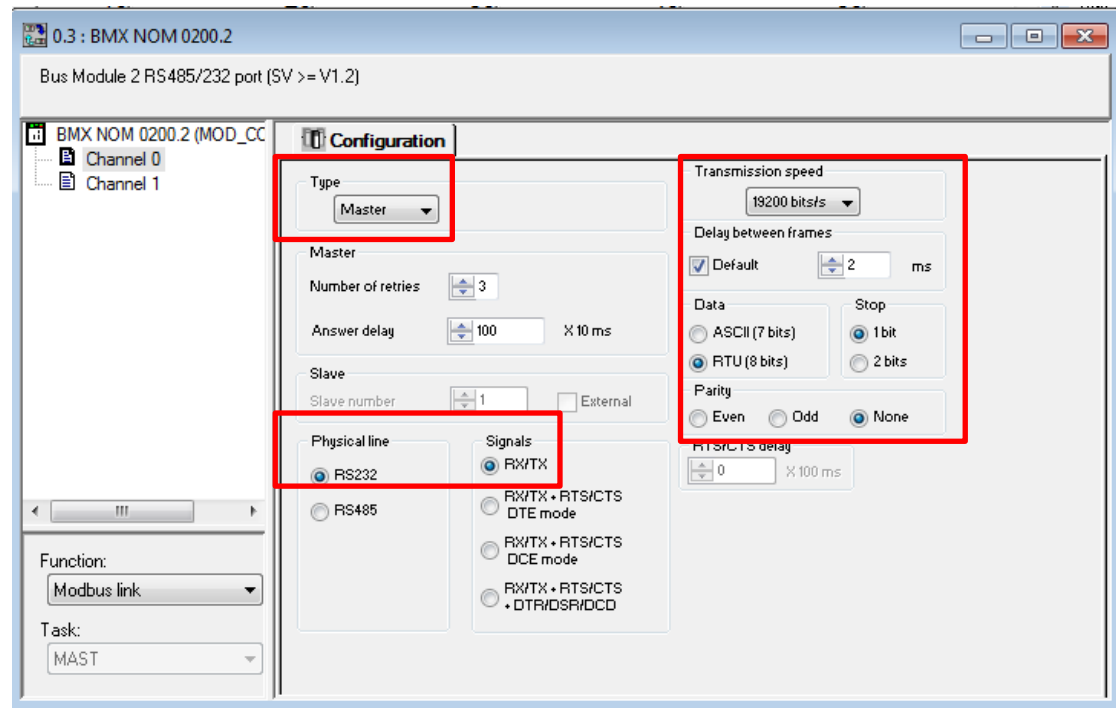
M580

UnityPro

Configuração

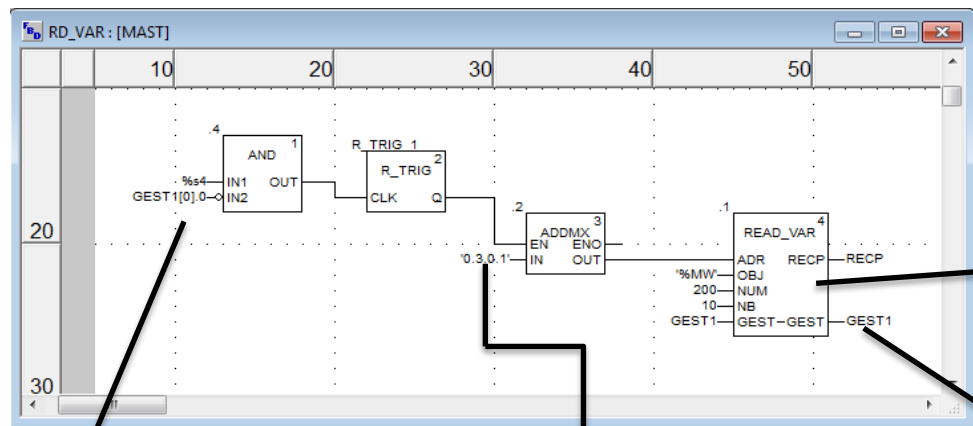
M580

Configuração do canal RS232 – BMXNOM0200



M580

Estrutura de comunicação



Activity Bit

This bit indicates the execution status of the communication function.

It is set to 1 when launched and returns to 0 when its execution is complete.

This is the first bit of the first element of the table.

Example: If the management table has been declared as follows:

Tab_Gest ARRAY [1..4] OF INT, the activity bit is the bit with the notation Tab_Gest[1].0.

NOTE: the notation previously used requires configuration of the project properties in such a way as to authorize

the extraction of bits on integer types. If this is not the case Tab_Gest[1].0 cannot be accessed in this manner.

'rack.módulo.canal.escravo'

Function Description

The READ_VAR function is used to read the value of one or more language objects:

- internal bits,
- internal words.

Verify that the objects to be read are consecutive. They may be located in a remote CPU or in a device connected to a communication channel.

On Modicon M340 and M580 CPU, the READ_VAR function can read up to 2,000 consecutive bits in a remote device.

Parameter	Type	Comment
Address	ARRAY [0..7] OF INT for Modicon M340 and M580	Specific statements by hardware platforms: • Modicon M580: ◦ Address of the destination entity of the read operation, result of ADDMX function.
Object_Type	STRING	Type of objects to read for Modicon M340 and M580 CPU: • '%M': internal bits • '%MW': internal words • '%I': input bits • '%IW': input words
First_Object	DINT	Index of the first object to read.
Object_Number	INT	Number of objects to read.

GEST1 – tabela de gestão da instrução READ_VAR (Array de 4 registros)

	Order of the Word	Most Significant Byte	Least Significant Byte
Data managed by the system	1	Exchange number	Activity bit: rank 0 Cancel bit: rank 1 Immediate acknowledge bit: rank 2
	2	operation report	communication report
Data managed by the user	3	Timeout	
	4	Length	

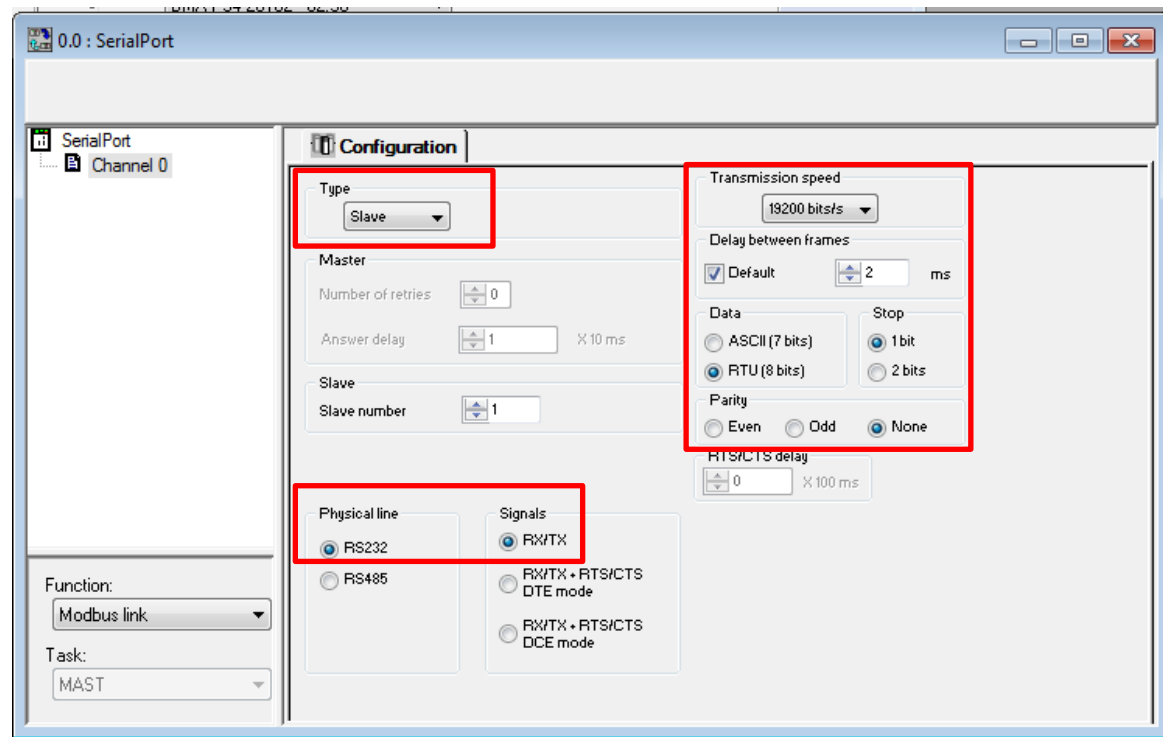
M340

UnityPro

Configuração

M340

Configuração do canal Serial – BMXP3420102



Monitoração On-line

UnityPro

M580

Aplicação

The screenshot displays the Schneider Electric M580 software interface, showing a project configuration for a BMX NOM 0200.2 module. The interface is divided into several panes:

- Project Browser:** Shows the project structure, including Configuration, Derived Data Types, Variables & FB Instances, Motion, Communication, Ethernet Network, Program, and Documentation.
- RD_VAR: [MAST]:** A ladder logic diagram showing a sequence of steps (10, 20, 30, 40, 50) with various logic blocks like AND, R_TRIG, ADDMM, and READ_VAR.
- PLC bus:** A configuration window for the PLC bus, showing the bus number (0) and the module address (BME F58 4040 02.10).
- Table:** A table listing variables and their values. The table is highlighted with a red box.

The **Table** pane contains the following data:

Name	Value	Type	Comment
RECIP		ARRAY[0..9] OF	
RECIP[0]	10	INT	
RECIP[1]	20	INT	
RECIP[2]	30	INT	
RECIP[3]	40	INT	
RECIP[4]	50	INT	
RECIP[5]	60	INT	
RECIP[6]	70	INT	
RECIP[7]	0	INT	
RECIP[8]	0	INT	
RECIP[9]	0	INT	
GEST1		ARRAY[0..3] OF	
GEST1[0]	16#4C00	INT	
GEST1[1]	16#0000	INT	
GEST1[2]	0	INT	
GEST1[3]	16#0014	INT	

The bottom status bar shows the following information:

- Ready
- Process succeeded : 0 Error(s) - 0 Warning(s)
- Rebuild All Project
- Import/export
- User errors
- FDT log event
- Search/Replace
- Ready
- HM R/W mode
- EQUAL
- RUN
- UPLOAD INFO OK
- USB-SYS
- MEM
- BUILT
- INS

M340

Aplicação

The screenshot displays the Schneider Electric M340 software interface, showing the configuration of a PLC system. The interface is divided into several panes:

- Project Browser:** Located on the left, it shows the project structure. The 'Configuration' folder is expanded, showing '0: PLC bus' and '0: BMX XBP 0800'. The 'Derived Data Types' folder is also expanded, showing 'Elementary Variables', 'Derived Variables', 'IO Derived Variables', and 'Derived FB Instances'.
- PLC bus:** The top center pane shows the PLC bus configuration. It displays a rack with slots 0 through 7. Slot 0 is occupied by 'CPS 2000' and slot 1 by 'P34 20102'. The bus is labeled 'Bus: 0' and 'BMX P34 20102 02:50'.
- SerialPort:** The bottom center pane shows the '0:0: SerialPort' configuration. It includes a 'Configuration' tab with settings for 'Type' (Slave), 'Transmission speed' (19200 bauds), 'Delay between frames' (2 ms), 'Data' (RTU 8 bits), 'Parity' (Even), and 'RTS/CTS delay' (0 ms). It also shows 'Physical line' (RS232) and 'Signals' (R2TX, RTS/CTS, DTE mode).
- Table:** A floating window on the right shows a table with columns 'Name', 'Value', and 'Type'. The table contains data for '%MW200[0]' through '%MW200[8]', all of type 'INT'. The values are 10, 20, 30, 40, 50, 60, 70, 0, and 0 respectively. The table is highlighted with a red border.

The status bar at the bottom indicates 'Process succeeded : 0 Error(s) , 4 Warning(s)' and 'Transfer Project from PLC'. The bottom right corner shows the 'HMI R/W mode' and 'RUN' buttons.

Name	Value	Type
%MW200[0]	10	INT
%MW200[1]	20	INT
%MW200[2]	30	INT
%MW200[3]	40	INT
%MW200[4]	50	INT
%MW200[5]	60	INT
%MW200[6]	70	INT
%MW200[7]	0	INT
%MW200[8]	0	INT

Avisos Importantes

- Equipamentos elétricos devem ser instalados, operados e manuseados apenas por profissionais qualificados;
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