

ANEXO 1

MÓDULO CPU DEL PLC DE LA PLANTA DE DISTRIBUCIÓN CATIA LA MAR

140CPU43412A CPU Module

Overview

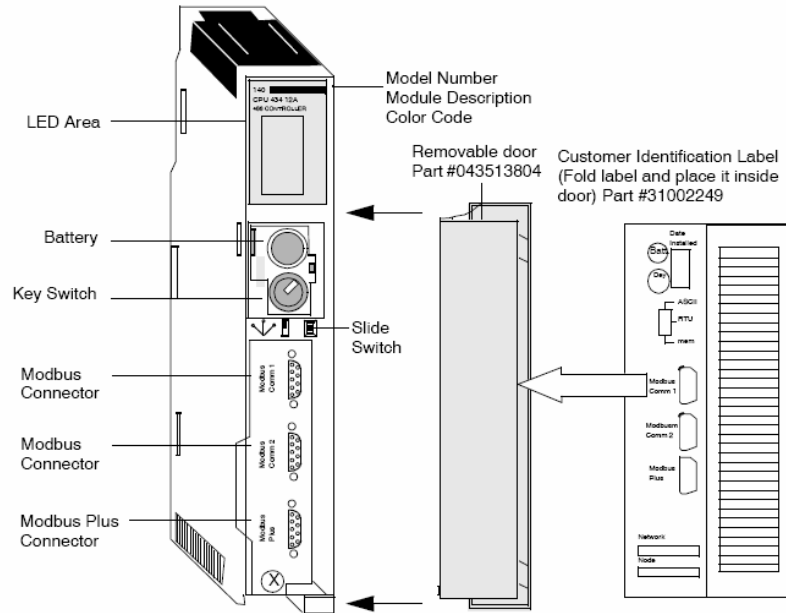
The following provides information on the specifications, LED indicators and description and error codes for the 140CPU43412A Controller Module.

This module is functionally identical to the non-"A" version, however, the following should be considered:

- If you are using the module in a Hot Standby topology, then you **must** use either two non-"A" models or two "A" models.
- The "A" version requires a new flash executive.
- The "A" version and non-"A" flash executives are **not** interchangeable.
- Schneider Automation software (Concept, ProWORX, and Modsoft) supports the "A" version. Any existing or new 140CPU43412 program configuration will load into a 140CPU43412A without any modifications.

CPU Module

The following figure shows the CPU Module and its components.



ANEXO 2

BRIDGE/MULTIPLEXER BM85

The Modbus Plus Network

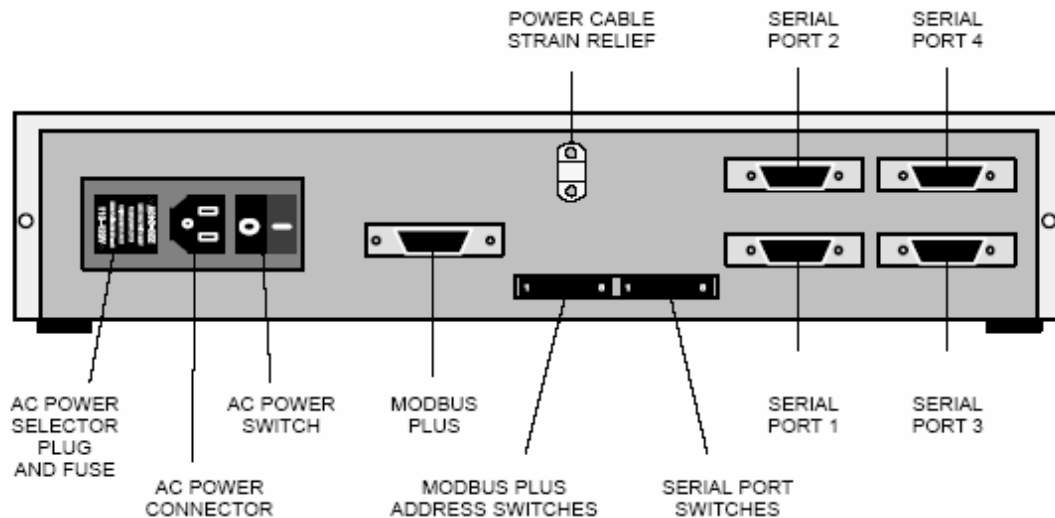
Modbus Plus is a local area network designed for industrial control applications. The network enables programmable controllers, host computers, and other devices to communicate throughout the production areas of an industrial plant. It supports up to 64 addressable node devices at a data transfer rate of 1 million bits per second. Single-cable and dual-cable network configurations are available.

User applications include transferring of process control and supervisory messages. Typical networked devices include Modicon programmable controllers that connect to the network through a direct port on the controller or through a communications option. Network adapters connect several types of host computer products to the network.

Multiple networks can be joined through Modicon Bridge Plus nodes. This facilitates the design of time-critical applications in which each network employs only the devices required for the local process.

The BM85 on Modbus Plus

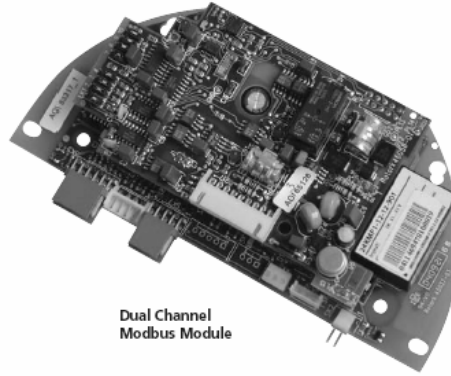
The BM85 Bridge/Multiplexer operates as a Modbus Plus node and provides four serial ports that you can configure separately for serial devices in your application. BM85 models are available for single-cable or dual-cable Modbus Plus networks, and for support of RS232, RS485, or Modicon Modbus serial devices.



ANEXO 3

MODBUS PARA ACTUADORES ROTORK

Modbus® Technical Data



Dual Channel
Modbus Module

Interface:	EIA-485 (RS-485) suitable for 2 wire connection
Number of channels:	1 on Single channel, fully isolated from the actuator circuits 2 on Dual channel, fully mutually isolated 2 on Single channel with repeater, fully mutually isolated
Address range:	1 to 247, address 0 reserved for broadcast messages
Data rate:	300 to 115k2 baud, selected over the Modbus network
Parity:	Configurable, odd, even or none
Communication Protocol:	Modbus RTU (slave device)
Function Codes:	All popular function codes including 01, 02, 03, 04, 05, 06, 15, 16
Analogue Input:	1 on Single channel, 4-20mA or 0-5V dc, externally powered, 0.1% resolution and 1% linearity at 20°C, fully isolated
User defined Digital Inputs:	4 off (IQ and IQT only), potential free input contacts
User defined Digital Outputs:	4 off contacts 5A, 120V AC or 30V, 30W DC (IQ and IQT, requires additional relay board option)
Enclosure:	Suitable for fitting within Rotork IQ, IQT and Q range actuators
Environment:	-40 to +70°C, environmentally protected by Rotork actuator double sealing to IP68
Power consumption:	All Modbus module power is taken from the actuator, no external supply is required

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As part of a process of on-going product development, Rotork reserves the right to amend and change specifications without prior notice.

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ANEXO 4

TRANSMISOR MODBUS MULTIVARIABLE DE ROSEMOUNT

Product Data Sheet

00813-0100-4738, Rev EA
Catalog 2004

Rosemount 3095FB

Rosemount 3095FB MultivariableTM Transmitter with ModbusTM Protocol

**THE PROVEN LEADER IN MULTIVARIABLE
MEASUREMENT.**

- Industry best performance of $\pm 0.075\%$
- Five year stability of $\pm 0.125\%$
- Three measurements in one device
- Easily integrated with Modbus RS-485 communications
- CoplanarTM platform enables DP Flowmeters



Rosemount 3095FB — Leader in Multivariable Measurement

Rosemount pressure products deliver a tradition of excellence and technology leadership, featuring the state-of-the-art 3095FB Multivariable transmitter. The 3095FB uses Modbus RS485 communication protocol to deliver three measurements from one coplanar device with unmatched operating performance. Engineered to combine best products with best installation practices, the 3095FB enables a complete offering of integrated DP Flowmeters making the 3095FB the industry leader in Multivariable measurement.

Industry best performance of $\pm 0.075\%$

Enabled by superior sensor technology and engineered for optimal flow performance, the 3095FB delivers unprecedented $\pm 0.075\%$ reference accuracy with 100:1 rangeability. Superior performance means reduced variability.

Five year stability of 0.125%

Through aggressive simulation testing, the 3095FB has proven its ability to maintain unprecedented performance under the most demanding conditions. Superior transmitter stability decreases calibration frequency for reduced maintenance and operation costs.

Three measurements in one device

The advanced 3095FB measures three process variables. Once device installation means reduced process penetrations, reduced inventory, and reduced installations costs.

Easily integrated with Modbus RS-485 communications

3095FB is designed to easily integrate with Supervisory Control and Data Acquisition units (SCADA), Distributed Control Systems (DCS), Flow Computers or Programmable Logic Controllers (PLC) and capable of multidropping up to 32 transmitters on same RS485 bus. Easy integration reduces engineering and installation costs.

Coplanar platform enables DP Flowmeters

The flexible coplanar platform allows integration with the complete offering of Rosemount primary elements for any flow application. The solution arrives factory calibrated, pressure-tested, and ready to install right out of the box. Only Rosemount has a scalable coplanar transmitter design to reduce engineering and inventory costs.