

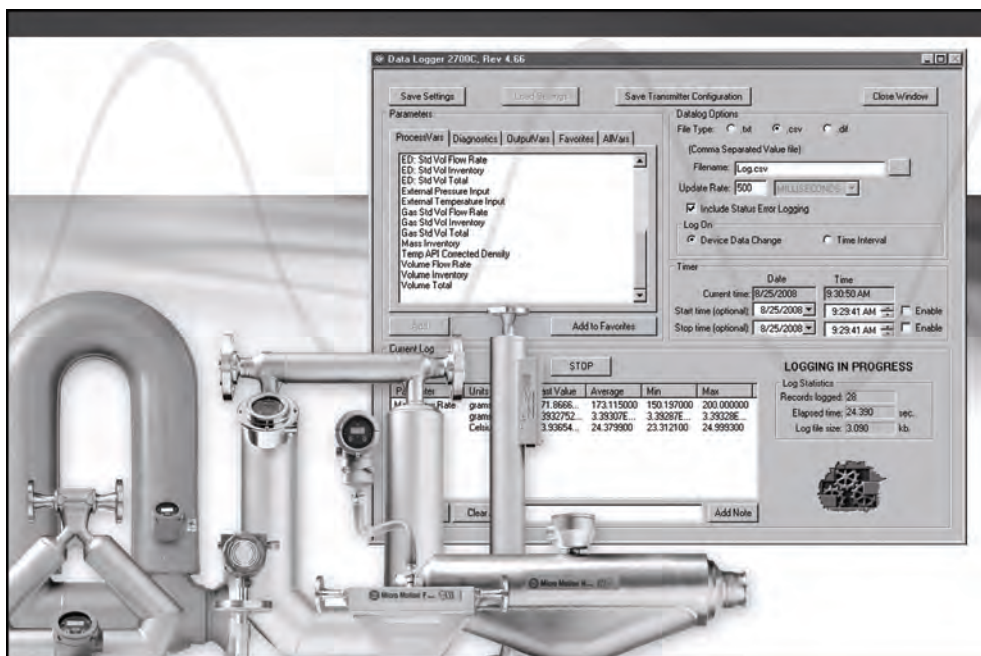
## Product Data Sheet

PS-00412, Rev. G

September 2009

# ProLink® II Transmitter Configuration Software Tool

Micro Motion® ProLink® II is a Microsoft® Windows-based application for configuring, troubleshooting, and operating Micro Motion meters.



## Features and benefits

- Easy-to-access diagnostics simplify troubleshooting
- Full configuration enables set-up of advanced functionality, including concentration curves and batch settings
- Data logging feature provides valuable diagnostic information
- Configuration file management facilitates saving and restoring transmitter configuration records



# ProLink II transmitter configuration software tool

## Transmitter configuration and data analysis

ProLink II delivers all the power and flexibility you need to configure and manage Micro Motion® transmitters and analyze process data. ProLink II provides an easy-to-use interface that allows you to have your Micro Motion meter up and running quickly no matter how complex your configuration needs are. ProLink II also offers a guided setup feature for commissioning and startup that steps you through the typical configuration parameters for meter startup. For times when you need a more complete understanding of your meter's flow characteristics, ProLink II provides a window into your process so you can easily see all process variables, meter diagnostics, and alarm conditions.

## Making the connection

Making the initial transmitter connection is a simple matter of selecting the appropriate communication protocol, baud rate, parity, and port number. You can connect over a network or directly to the transmitter, using HART®, Modbus®, or (with Micro Motion MVD™ transmitters) the Service Port. ProLink II automatically recognizes your transmitter type and configuration, as well as any installed applications such as petroleum measurement.

A full list of supported Micro Motion transmitters is provided on page 6.

*ProLink II provides an easy-to-use interface.*

The screenshot shows the 'Configuration' window of the ProLink II software. The window has a title bar with a gear icon and the text 'Configuration'. Below the title bar is a tabbed interface with the following tabs: Variable Mapping, Device, RS-485, Channel Configuration, Discrete IO, Polled Variables, Transmitter Options, API Setup, Flow, Density, Temperature, Pressure, Sensor, Special Units, T Series Config, Events, Analog Output, and Frequency. The 'Flow' tab is currently selected. The main area of the window contains several configuration parameters:

- Flow Direction: Forward (dropdown menu)
- Flow Damp: 0.32000 (text field) Sec
- Flow Cal: 1.00005.13 (text field)
- Mass Flow Cutoff: 3.00020 (text field) g/s
- Mass Flow Units: g/s (dropdown menu)
- Vol flow cutoff: 0.00000 (text field) l/sec
- Vol Flow Units: l/sec (dropdown menu)
- Mass Factor: 1.00000 (text field)
- Dens Factor: 1.00000 (text field)
- Vol Factor: 1.00000 (text field)

## A window into your process

ProLink II provides a process variable window that shows you your key process information at a glance. It can be more convenient to view process variables in ProLink II as you investigate process issues rather than walking the line to view information from transmitters in the field. Regardless of how you have configured your transmitter's outputs, ProLink II will always display all the process variable information that the transmitter has available, including totalizer and inventory data.

*ProLink II shows important process information at a glance.*

Mass		
Flow	0.00036	g/s
Total	661.76459	g
Inv	168.02818	g

Volume		
Flow	0.00000	l/sec
Total	104.37802	l
Inv	104.21525	l

Other		
Density	0.00000	g/cm3
Temp.	0.00000	C
External Pressure	0.00000	PSI

## Easy configuration

With ProLink II, you can quickly navigate to the settings you need, because all configuration information is collected into easy-to-use tabs.

Configuration changes are immediately communicated to the transmitter, which allows you to evaluate the effect of your changes and pick the right settings for your process.

ProLink II can help configure multiple transmitters easily. Using ProLink II, you can save a transmitter configuration to a file and conveniently send that same configuration to additional transmitters directly from the file. This same feature provides a convenient backup method for all your transmitters.

## Alarm handling

Alarm conditions are displayed by ProLink II on a single 3-tab screen to make alarm troubleshooting a fast and efficient process. Alarm information is separated by severity into critical, informational, and operational categories so that you can quickly locate the source of the problem and understand its priority instantly.

*Alarms are organized into three convenient tabs.*

Critical	Informational	Operational
<ul style="list-style-type: none"><li>A001 - (E)EPROM Checksum Error (CP)</li><li>A002 - RAM Error (CP)</li><li>A003 - Sensor Failure</li><li>A004 - Temperature Sensor Failure</li><li>A005 - Input Overrange</li><li>A006 - Not Configured</li><li>A008 - Density Overrange</li><li>A009 - Transmitter Initializing/Warming Up</li><li>A010 - Calibration Failure</li><li>A011 - Zero Too Low</li><li>A012 - Zero Too High</li><li>A013 - Zero Too Noisy</li><li>A014 - Transmitter Failed</li></ul>	<ul style="list-style-type: none"><li>A016 - Line RT</li><li>A017 - Meter R</li><li>A018 - (E)EP</li><li>A019 - RAM or</li><li>A020 - Calibrati</li><li>A021 - Incorrect</li><li>A022 - (E)EP</li><li>A023 - (E)EP</li><li>A024 - (E)EP</li><li>A025 - Protecte</li><li>A026 - Sensor/</li><li>A027 - Security</li><li>A028 - Core Pro</li></ul>	

Close

## Data Logger

The data logging feature in ProLink II helps you to chart and graph selected process, diagnostic, and output variables. This look into time can help you understand what is *really* going on in the process so you can determine techniques for improving the productivity and quality of the process. Data logged with the data logging tool can be exported and viewed in an external program (such as a spreadsheet application) so that you can chart the data for further analysis.

## Transmitter troubleshooting

ProLink II can show you detailed information about the raw signals being processed by a transmitter, such as drive gain and pickoff values. This kind of information can be extremely helpful when troubleshooting transmitter behavior, which minimizes expensive downtime.

*The Data Logger helps improve overall productivity.*

The screenshot shows the Data Logger application window. At the top, there are buttons for 'Save Settings', 'Load Settings', and 'Save Transmitter Configuration'. Below these are tabs for 'Parameters', 'Diagnostics', 'Output Vars', 'Favorites', and 'All Vars'. The 'Parameters' tab is active, showing a list of variables including API Avg Corrected Density, API Avg Corrected Temperature, API Corrected Volume Flow, API Corrected Volume Inventory, API Corrected Volume Total, Density, External Pressure, External Temperature, Mass Flow Rate, Mass Inventory, Mass Total, and Temperature. To the right, the 'Datalog Options' section shows 'File Type' set to '.csv' (Comma Separated Value file), 'Filename' set to 'Log.csv', and 'Update Rate' set to '500' milliseconds. Below this is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Format', 'Tools', 'Data', 'Window', and 'Help'. A toolbar with various icons is visible. Below the toolbar is a formula bar showing 'G28'. The main area displays a table with 7 rows of data. The columns are labeled 'Date', 'Time', 'Density (g/cc)', 'Mass Flow (lb/min)', and 'Temperature (F)'. The data is as follows:

	A	B	C	D	E
1	Date	Time	Density (g/cc)	Mass Flow (lb/min)	Temperature (F)
2	2/17/2003	14:24:04	1	12.1	72.6
3	2/17/2003	14:24:04	1	12.2	72.6
4	2/17/2003	14:24:04	1	12.3	72.8
5	2/17/2003	14:24:04	1	15.6	72.7
6	2/17/2003	14:24:04	1	19.4	74.8
7	2/17/2003	14:24:04	1	23.9	73.9

Note: Model 7826 and Model 7828 densitometers require the use of AdView for data logging.

## Commissioning and startup

The guided setup for commissioning and startup is ideal for new users to systematically step through the parameters that may need to be adjusted for startup\*. This guided setup provides a quick checklist and makes it easy to track progress. Any parameters that are already set up as required for the application can easily be skipped without changing the original settings. Startup is a breeze with this easy-to-use tool.

## Proving

The guided setup for proving helps provide quick configuration of common settings that simplify proving. This easy-to-use feature optimizes transmitter damping settings, flow cutoffs, and other parameters to help insure successful proving results.

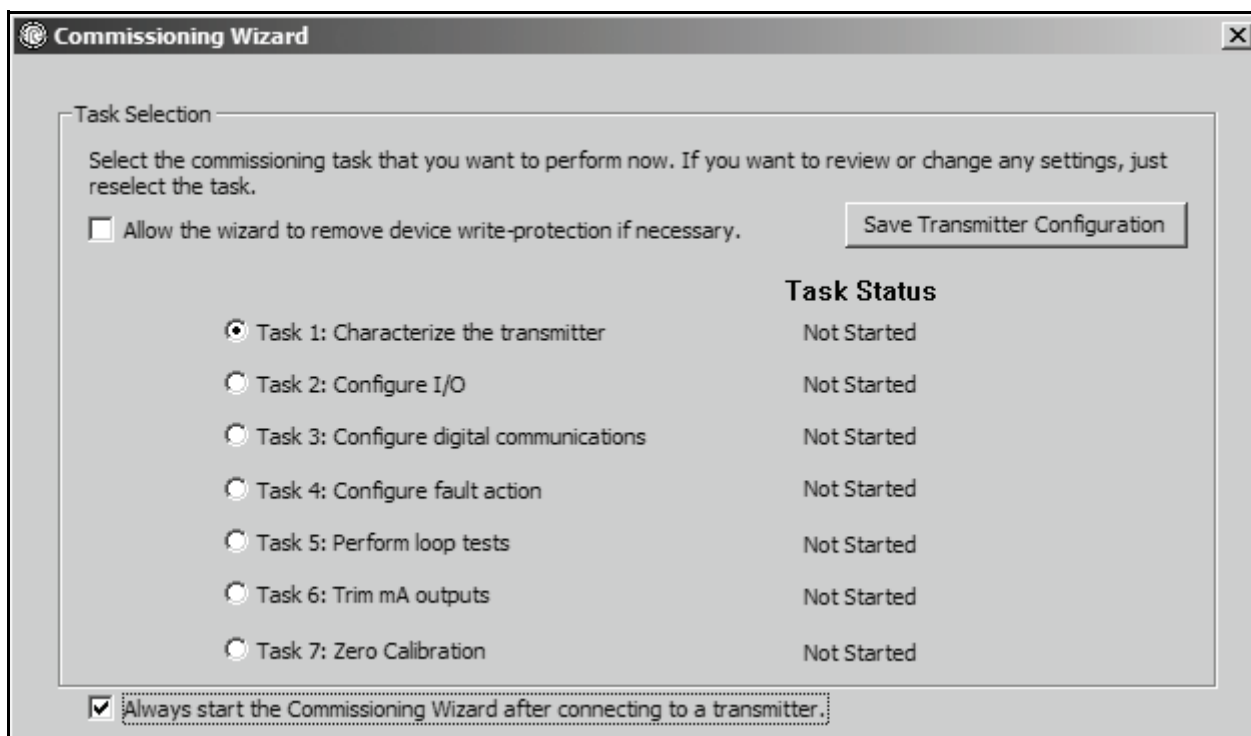
## Support for advanced transmitter applications

If the transmitter has advanced functionality such as Meter Verification, Enhanced Density, Petroleum Measurement, Discrete Batching, or Filling & Dosing software installed, ProLink II will allow you to view and configure these software options. The appropriate tabs will automatically appear on the ProLink II main screen if these options are supported by the transmitter.

ProLink II supports the discrete batching application on the Series 3000 transmitter and the filling and dosing application on the Model 1500 transmitter:

- Define batches and fill targets
- Configure outputs for valve and pump control
- Start, stop, pause, and resume the batches and fills
- Built-in overshoot compensation algorithms

*The guided setup for commissioning makes meter start-up quick and easy.*



\* Transmitters can also be preconfigured from the factory if the information is specified at the time of order.

## Series 3000 NOC

ProLink II also supports the Net Oil Computer (NOC) functionality on the Series 3000 transmitter:

- Input oil and water density values
- Configure input information for external gas leg metering
- Set up input from optional water cut probe
- View individual well test results

## Accessories

ProLink II communicates serial data from your computer to the transmitter's RS-485 or 4–20 mA terminals. Several types of signal converters and adapters are available to help you make this connection (e.g., convert from an RS-232 to an RS-485 signal, or convert from a USB to an RS-232 signal).

Micro Motion recommends certain converters and adapters, which can be ordered with ProLink II. Refer to the Ordering Information on page 7.

## ProLink II system requirements

The minimum system requirements for ProLink II are listed in the table below.

### Operating system requirements

Windows 2000 (Service Pack 3)  
Windows XP (Service Pack 1)

### Hardware requirements

Processor	Pentium®-class 200 MHz or faster
RAM	128 MB
Disk space	80 MB
Video	1024 × 768 with 256 colors
CD-ROM drive	4x or faster
Serial or USB port	1 open port

## Supported transmitters

The Micro Motion transmitters supported by ProLink II are:

### Supported transmitters

Model 2200S  
Model 2400S  
Model 1700/2700  
Model 1500/2500  
MVD Direct Connect™  
Series 3000 (MVD)  
Model 7826/7828<sup>(1)</sup>  
Model 7829<sup>(1)</sup>  
Model 7835/7845/7846/7847<sup>(1)</sup>  
Model 7835 EXD<sup>(1)</sup>  
RFT9739  
LF-Series  
IFT9701  
IFT9703  
RFT9712

*(1) Transmitter with advanced electronics option only.*

## Communication protocols

ProLink II can be used with the communication protocols listed in the table below.

Protocol	Physical layer
HART	Bell 202
	RS-485
Modbus	RS-485

# Ordering information

Model	Product description
PLK	ProLink II software
Code	ProLink II upgrade
0	ProLink II software (See system requirements on page 6)
1 <sup>(1)</sup>	Upgrade from ProLink to ProLink II
Code	License
U	Single user license (1 copy of ProLink II on a single computer)
Code	Language
E	English
F	French
G	German
M	Chinese
S	Spanish
R	Russian
Code	Accessories
A	None
V <sup>(2)</sup>	RS-232 to Bell 202 HART Converter with tester and cables
M <sup>(2)</sup>	RS-232 to RS-485 Modbus/HART Converter with tester and cables
D	Both RS-232 to Bell 202 and RS-232 to RS-485 Converters (options V & M)
E <sup>(3)</sup>	USB to Bell 202 HART Converter with tester and cables
F <sup>(3)</sup>	USB to RS-485 Modbus or HART Converter with tester and cables
G <sup>(3)</sup>	Both USB to Bell 202 and USB to RS-485 Converters (options E & F)
<b>Typical model number: PLK 0 U E A</b>	

(1) Requires completed Declaration of Ownership for prior version of ProLink™; available as software upgrade only.

(2) Bell 202 and RS-485 signal converters sold by Micro Motion prior to April 01, 2001 are not compatible with the current version of ProLink II. The signal converter must be capable of 2-wire half duplex asynchronous communication.

(3) Only available with ProLink II upgrade option 0.

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