

CWT GFM™

GAS FLOW MONITOR



Key Features

Precisely measures flow rate of welding shielding gases using the state of the art MEMS flow sensor.

- » OLED graphic display to show rate
- » Six selectable gas settings, ARGON, Argon/ CO2 (90/10), Argon/ CO2 (80/20), Argon/ CO2 (75/25), Helium, and CO2.
- » Can be customized for additional gas mixtures
- » Limit testing capability and internal fault relay
- » Provides an accumulated gas usage and peak flow rates

Connectivity »
RS-485 Serial Port with
Modbus® Protocol for
remote monitoring

FEATURES:

» Three versions available

- Portable
- In-line
- Networkable

» Benefits

- Configurable for english or metric units of measure
- Allows remote monitoring

» Take it Everywhere, Plug in Anywhere

- Plugs into a standard 120V or 230V circuit
- Portable and convenient to use – only 19 oz (539 gm)

» Communications

- Built-in Modbus® RS-485 serial port
- Modbus® RS-485 to Ethernet or USB Converter Kits

» Applications

- Perfect for spot checking gas flow rates across the shop
- Mountable for installation into existing production systems
- Monitor gas flow rates for day to day production

STANDARD CONFIGURATIONS

Product Name	Product Number	Input Power	H x W x D in (mm)	Net Weight lbs (kg)
GFM Portable	A0A0161	12 - 32vdc @ 0.5 amps (nominal 24 VDC input)	2.88 W x 4.50 D x 2.50 H (73 x 114 x 64)	2.2 (1.00)
GFM In-Line	A0A0162	12 - 32vdc @ 0.5 amps (nominal 24 VDC input)	7.50 W x 4.50 D x 2.50 H (190 x 114 x 64)	2.0 (0.91)
GFM Networkable	A0A0239	12 - 32vdc @ 0.5 amps (nominal 24 VDC input)	7.50 W x 4.50 D x 2.50 H (190 x 114 x 64)	2.0 (0.91)
Auxiliary Cable	A3W0418		3 meter long	0.4 (0.18)

GFM Portable (A0A0161)

The portable version can be used to check the gas flow rates directly at the welding torch.

What's Included

- GFM Gas Flow Monitor
- Universal Power Supply
- Hose Cone Assembly
- Rechargeable Battery



GFM In-Line (A0A0162)

The in-line version is designed to be permanently installed in a welding fixture to continuously monitor the gas flow rate.



What's Included

- GFM Gas Flow Monitor
- Universal Power Supply
- Mounting Bar
- Gas Hose Fitting Kit

GFM Networkable (A0A0239)

Networkable version will allow continuous monitoring via Modbus® RS-485 port.

Communications Cable provides power, I/O and communications between the customer's equipment and the GFM.



What's Included

- GFM Gas Flow Monitor
- Auxiliary Cable
- Mounting Bar
- Gas Hose Fitting Kit

Auxiliary Cable (A3W0418)



SPECIFICATIONS

Sensor Specifications	
Measurement Range	5 - 255 SCFH (2-120 LPM)
Display Resolution	±1 SCFH (±1 LPM)
Accuracy	±3% of full scale ± 1 digit
Operating Pressure	50 PSIA maximum (344 KPA)

Fittings Specifications	
Pipe Fittings	1/4" quick coupling fittings, male and female
Fittings Torque Spec	15 ± 5 in lb (1,7 ± 0,6 N m)

Electrical Specifications	
Fault Replay Output	Opto-Isolated SSR (Solid State Relay)
Relay Rating	48 vdc @ 1.0 amps non-inductive
Analog Sensor Output	0 - 2.55 vdc @ 10 ma
Analog Scaling	0.01 vdc = 1 SCFH (.01 V = 1 LPM)
Power Requirement	10 - 28 vdc @ 100 ma
Operating Temperature	+20° to +140°F [-7° to +60°C]
Battery Charger	115/23020 vac 60 hz @ 300 ma
Battery Life	Approximately 24 hours with full charge

COMMUNICATION CONFIGURATIONS FOR SINGLE WIRETRAK UNIT

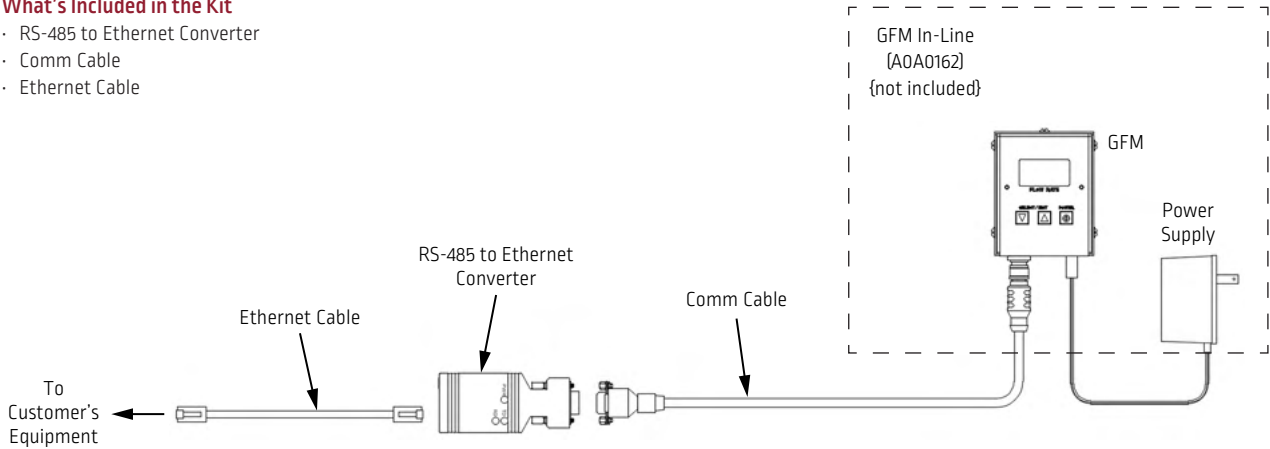
Product Name	Product Number	Input Power
RS-485 to Ethernet Converter Kit	COA5045	12 - 32 vdc @ 0.5 amps (nominal 24 vdc input)
RS-485 to USB Converter Kit	COA5062	12 - 32 vdc @ 0.5 amps (nominal 24 vdc input)

The Ethernet and USB Converter Kits are communication links between the GFM Modbus® RS-485 serial port (AUX) to the customer's ethernet or USB equipment.

RS-485 to Ethernet Converter Kit (COA5045)

What's Included in the Kit

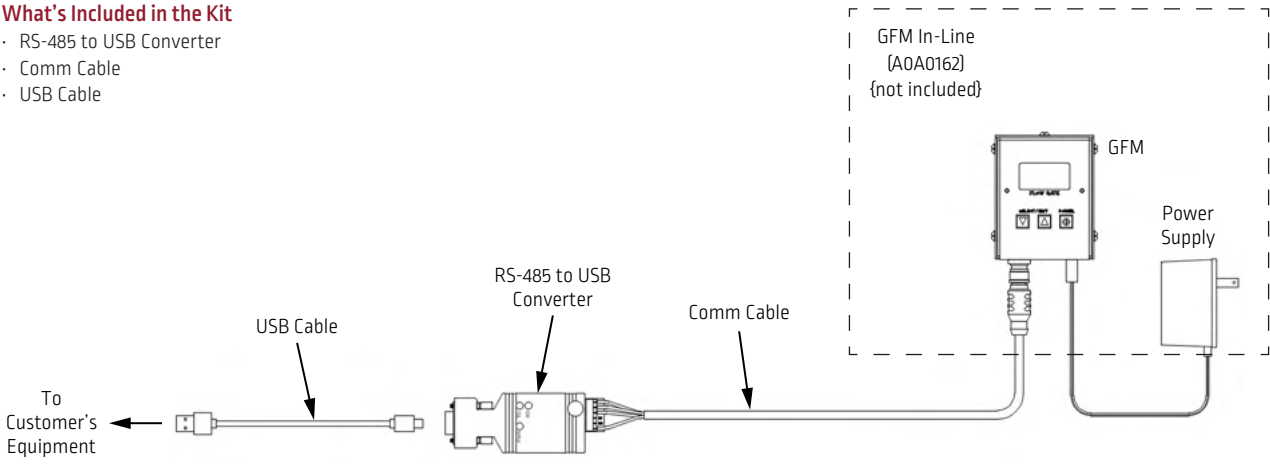
- RS-485 to Ethernet Converter
- Comm Cable
- Ethernet Cable



RS-485 to USB Converter Kit (COA5062)

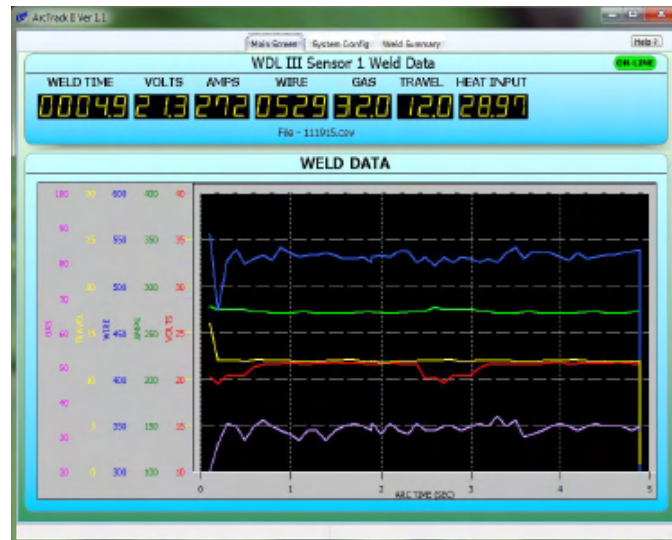
What's Included in the Kit

- RS-485 to USB Converter
- Comm Cable
- USB Cable



For additional GFM communication configurations,
email sales@cweldtech.com or call 713-462-2118.

Product Name	Product Number
ARCTRACK II Software	A5Z0051



The ArcTrack II program is designed to use with Lincoln’s CWT Brand of weld data sensors and provides advanced data logging function. Designed to provide a simple GUI interface for weld data logging for manual weld procedure development and documentation. It provides a Sweep chart option to graphically monitor and collect welding data from our remote sensors. It will generate both run time and summary data files that can be directly imported into Microsoft Excel for further evaluation. This program can be used with the following CWT Brand of sensors; WIRETRAK, GFM, WDL-3, Smart Sensor, Micro-ADM, and Intelli-DART.

System Requirements:

- Processor: 150mhz Pentium™ or higher microprocessor
- Memory: 24 Megs minimum for Windows XP©
- Hard Drive: 25 Megs of available hard drive space
- Graphics: Minimum SVGA graphics. XVGa recommended
- Communications: Ethernet or USB

The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company® is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers’ particular purpose is specifically disclaimed.

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