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/ CO_2 (90/10), Argon/ CO_2 (80/20), Argon/ CO_2 (75/25), Helium, and CO_2.

» 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

LINCOLN ELECTRIC®

FEATURES:

» **Three versions available**
  - Portable
  - In-line
  - Networkable

» **Benefits**
  - Configurable for english or metric units of mearure
  - 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	+20º to +140ºF [-7º to +60ºC]
Battery Charger	115/23020 vac 60 hz @ 300 ma
Battery Life	Approximately 24 hours with full charge

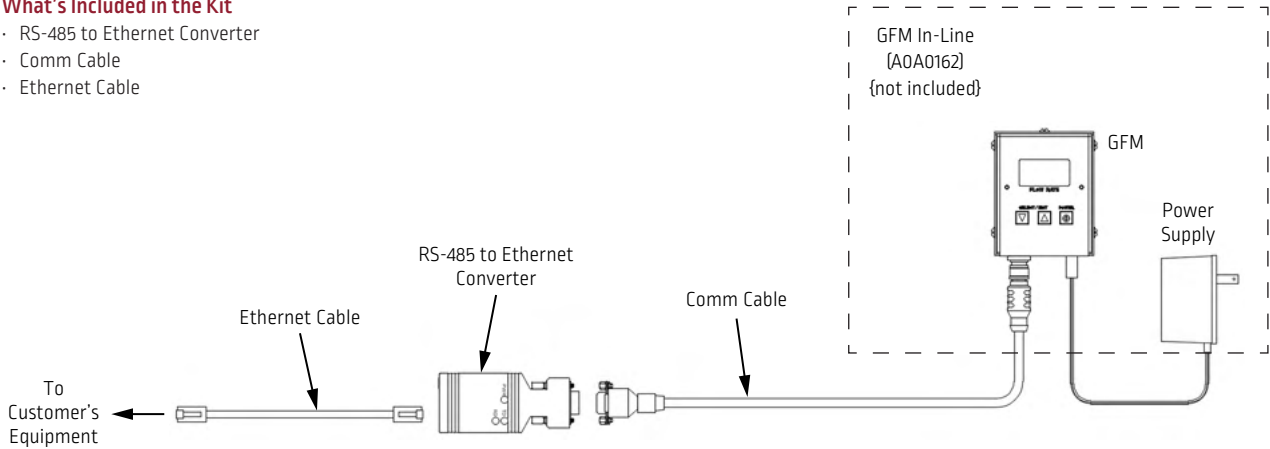# COMMUNICATION CONFIGURATIONS FOR SINGLE WIRETRAK UNIT

Product Name	Product Number	Input Power
RS-485 to Ethernet Converter Kit	C0A5045	12 - 32 vdc @ 0.5 amps (nominal 24 vdc input)
RS-485 to USB Converter Kit	C0A5062	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 (C0A5045)

What's Included in the Kit
· RS-485 to Ethernet Converter
· Comm Cable
· Ethernet Cable

GFM In-Line
(A0A0162)
{not included}

GFM

Power Supply

Ethernet Cable

RS-485 to Ethernet Converter

Comm Cable

To Customer's Equipment

RS-485 to USB Converter Kit (C0A5062)

What's Included in the Kit
· RS-485 to USB Converter
· Comm Cable
· USB Cable

GFM In-Line
(A0A0162)
{not included}

GFM

Power Supply

USB Cable

RS-485 to USB Converter

Comm Cable

To Customer's Equipment
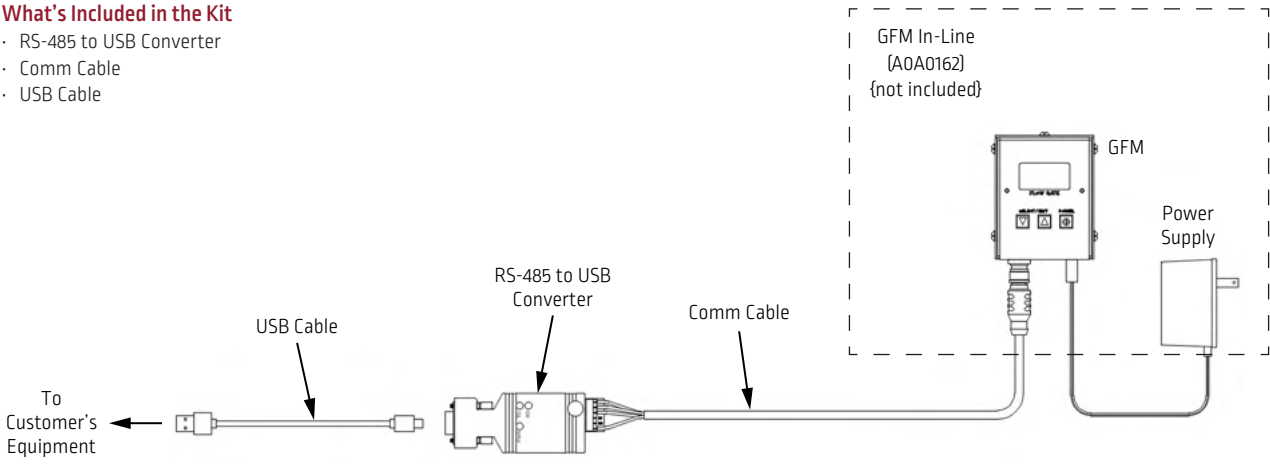
For additional GFM communication configurations, email sales@cweldtech.com or call 713-462-2118.

Product Name	Product Number
ARCTRACK II Software	A5Z0051
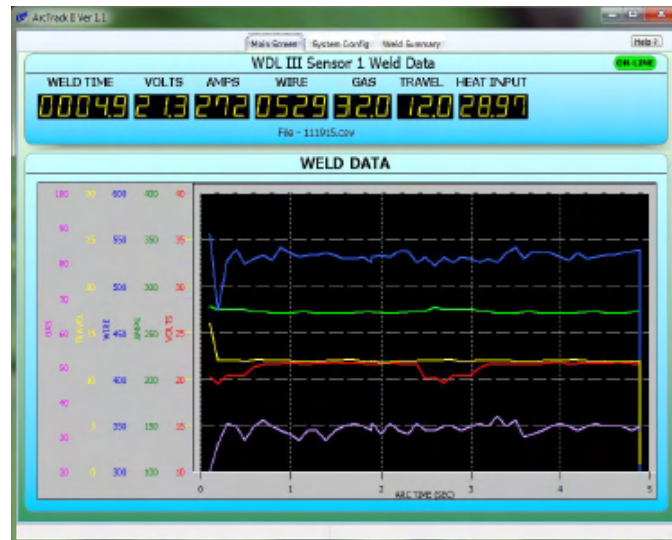
The ArcTrack II program is designed to use with Lincoln's CWT Brand of weld data sensors and provides advanced data logging function. Designed to provide a simple GUI interface for weld data logging for manual weld procedure development and documentation. It provides a Sweep chart option to graphically 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

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