Insight ArcAgent™

Welding Intelligence™

Premium data acquisition tools that enable both Insight Core™ and Insight Centerpoint™ solutions to integrate with any brand of welding power source.

ArcAgent offers flexible options from basic to advanced.

ArcAgent Manual

ArcAgent Auto

ArcAgent for Insight Core™

Insight ArcAgent features

Welding modes supported: GMAW, GMAW-P, GTAW, FCAW, SMAW, SAW, PAW, ESW, MIAB, CAW. (Not designed for resistance weld monitoring.)

Sensors supported: Measures and monitors four primary welding parameters: amps, volts, wire feed speed, gas flow.

Weld fault handling (Centerpoint™ version only): Fault notifications via stack light, torch disable*, digital I/O, EtherNet/IP*, DeviceNet*. Fault reset via key switch, digital I/O, EtherNet/IP*, DeviceNet* or through Insight Centerpoint (password, RFID or barcode).

Part Tracking interfaces (Centerpoint™ version only): Required Part Tracking controls via front panel*; digital I/O, EtherNet/IP* or DeviceNet*.

Human-machine interface (HMI) via Insight Centerpoint*: Fully supported by Insight Centerpoint when requirements call for data collection or advanced user interface. Basic setup and functionality does not require Insight Centerpoint software.

Common use cases: Arc-on time and productivity, operator performance, weld parameter verification, eliminate over/under welding, missing and incomplete weld detection*; weld process monitoring and alarming, and governing of weld sequence utilizing Insight Centerpoint*(Part Tracking and WorkFlow™).
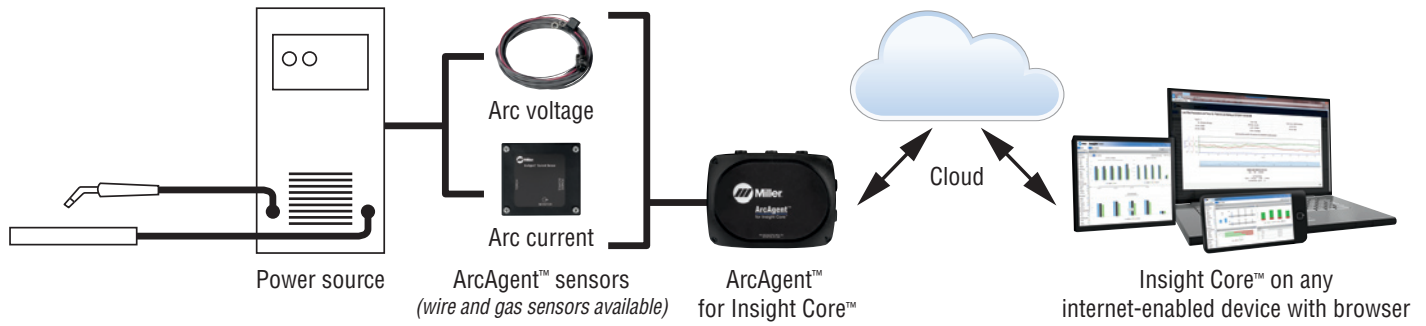
Available on select models.

Typical ArcAgent for Insight Core Installation

Arc voltage

Arc current

Power source

ArcAgent™ sensors
(wire and gas sensors available)

ArcAgent™
for Insight Core™

Cloud

Insight Core™ on any
internet-enabled device with browser

Typical Manual Welding Installation

Arc voltage

Arc current

Power source

ArcAgent™ sensors
(wire and gas sensors available)

ArcAgent™ Manual

Ethernet

Insight Centerpoint™
(optional)
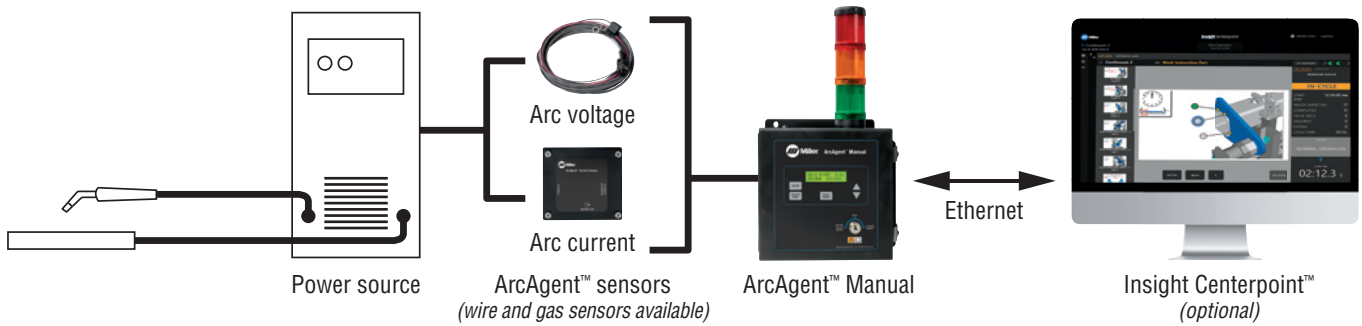
Typical Automation Welding Installation
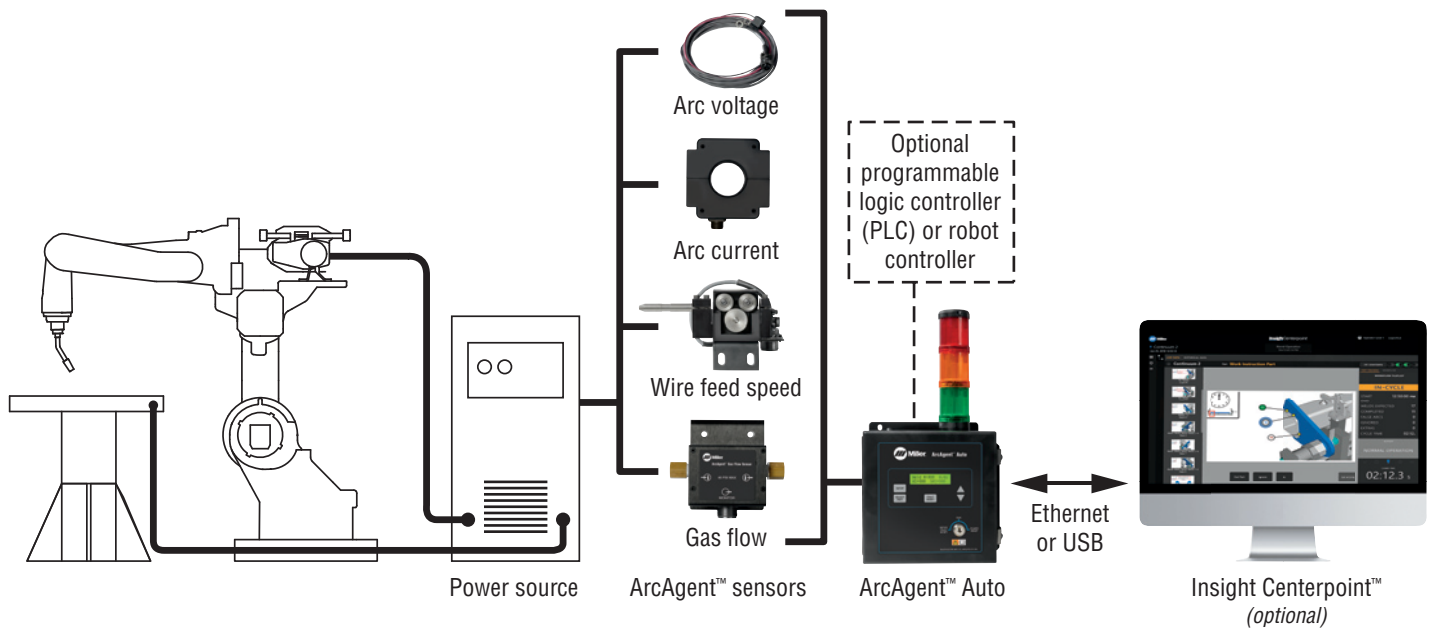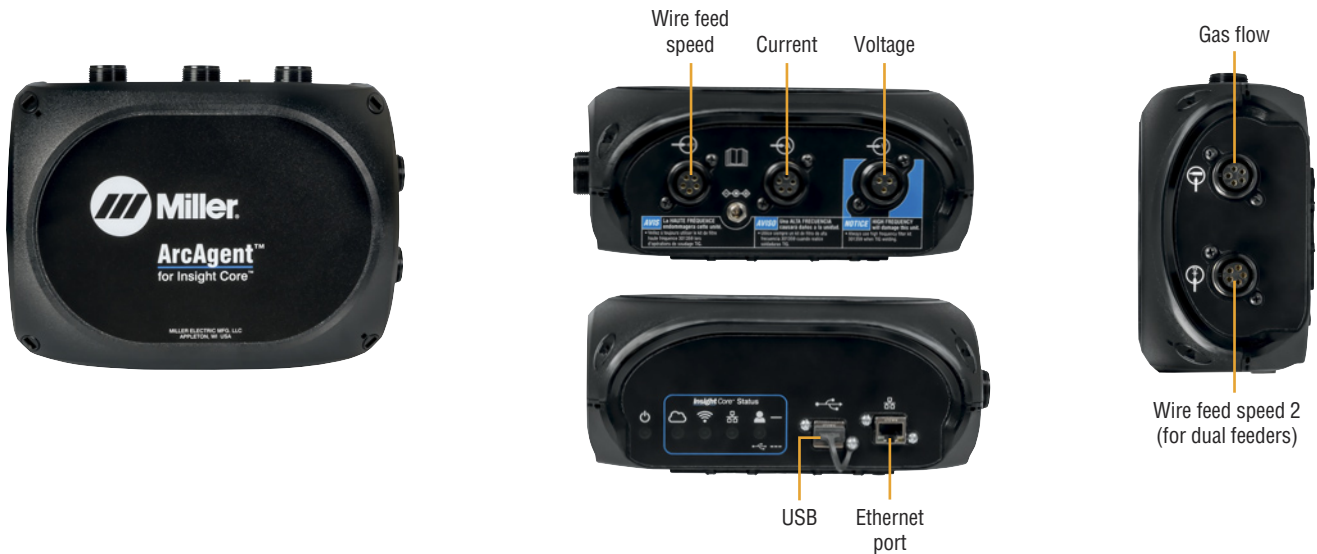
Arc voltage

Arc current

Wire feed speed

Gas flow

Optional
programmable
logic controller
(PLC) or robot
controller

Power source

ArcAgent™ sensors

ArcAgent™ Auto

Ethernet
or USB

Insight Centerpoint™
(optional)

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ArcAgent™ for Insight Core™

Wire feed speed   Current   Voltage

Gas flow

USB   Ethernet port

Wire feed speed 2 (for dual feeders)

Standard Features

Hardware

- Monitor *(external sensors required)*
  - Arc voltage
  - Arc current
  - Wire feed speed
  - Gas flow
  - Arc on time (by operator or device)
  - Average wire feed speed
  - Average deposition

Technical

- IP21 rated enclosure
- 2.4 GHz and 5 GHz Wi-Fi network connections
- RJ-45 Ethernet network connection
- USB port for updates/configuration/operator ID

Designed to enable you to see your entire fleet of welders on one productivity dashboard. The ArcAgent for Insight core uses ArcAgent external sensors allowing any welding power source to be compatible with Insight Core. Your welding productivity data can be viewed securely in any web browser on any internet connected device.

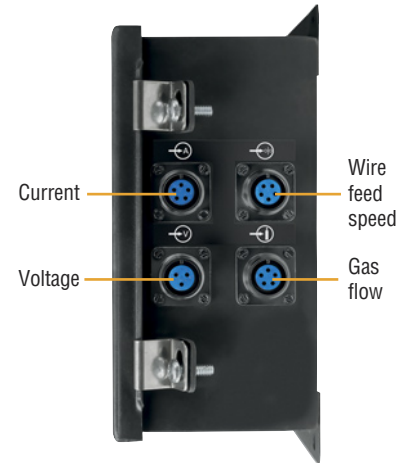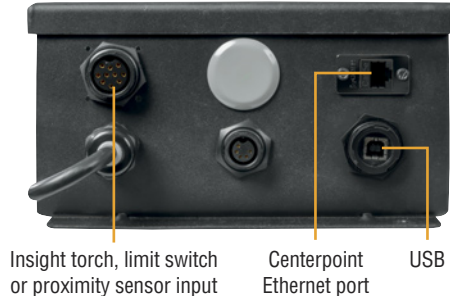| Product Dimensions (H x W x D) |
| --- |
| 3.75 x 9.25 x 7 in. (92 x 235 x 178 mm) |

Net Weight
2.15 lb (1 kg)

Max. Data Sample Rates
Volts: 10 Hz Amps: 10 Hz Wire feed speed: 10 Hz Gas flow: 10 Hz

ArcAgent™ Manual (For use in manual welding applications.)

Insight torch, limit switch or proximity sensor input

Centerpoint Ethernet port

USB

Current

Voltage

Wire feed speed

Gas flow

Standard Features

Hardware

- Monitor *(external sensors required)*
  - Arc voltage
  - Arc current
  - Wire feed speed
  - Gas flow
  - Total arc time
  - Total wire used
  - Total gas used
  - Total clamp time
  - Average current
  - Average wire feed speed
  - Deposition
  - Deposition rate
- External interfaces to cell control
- Part Tracking™ control

Technical

- Rugged and sealed enclosure
- Front panel user interface
- Two line x 16 character illuminated LCD display
- Security key for authorized setup/reset
- Ethernet PC communication via RJ-45
- Stack light for quick status indication
- Weld and part fault outputs available

Software

- Insight Centerpoint™ capabilities *(license must be purchased)*:

Note: See MillerWelds.com/insight for more information.

When used with or without Insight Centerpoint™ software, helps weld operator ensure that a weldment is not missing any welds and that those welds were completed within specification.

Includes all standard features (above) plus:
- 8 digital inputs / 8 digital outputs
- USB-PC communication
- Selectable sampling rates of 1, 3 and 5 kHz (volts and amps)

Note: Compatible with Insight Centerpoint. See page 6.

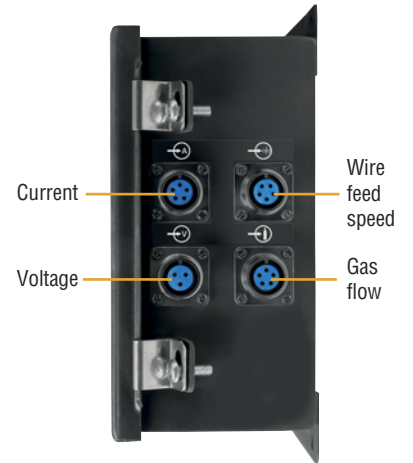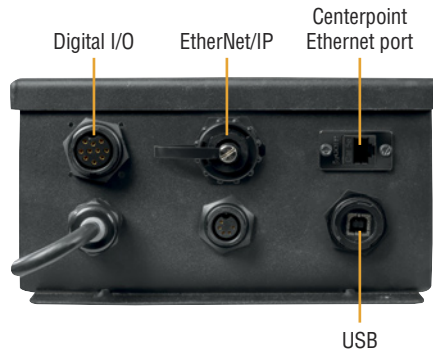| Product Dimensions (H x W x D) |
| --- |
| 9.5 x 9 x 5 in. (241.2 x 228.6 x 127 mm) |

Net Weight
11 lb. (5 kg)

Max. Data Sample Rates
Volts: 5 kHz Amps: 5 kHz Wire feed speed: 100 Hz Gas flow: 100 Hz

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ArcAgent™ Auto (For use in automated welding applications.)

Digital I/O   EtherNet/IP   Centerpoint Ethernet port

USB

Current

Voltage

Wire feed speed

Gas flow

Standard Features

Hardware

- Monitor *(external sensors required)*
  - Arc voltage
  - Arc current
  - Wire feed speed
  - Gas flow
  - Total arc time
  - Total wire used
  - Total gas used
  - Total clamp time
  - Average current
  - Average wire feed speed
  - Deposition
  - Deposition rate
- External interfaces to cell control
- Part Tracking™ control

Technical

- Rugged and sealed enclosure
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Software

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Note: See MillerWelds.com/insight for more information.

When used with or without Insight Centerpoint™ software, helps weld operator ensure that a weldment is not missing any welds and that those welds were completed within specification.

Includes all standard features (above) plus:
- 8 digital inputs / 8 digital outputs
- EtherNet/IP communication (32 bytes in/32 bytes out)
- USB-PC communication
- Selectable sampling rates of 1, 3 and 5 kHz (volts and amps)

Note: Compatible with Insight Centerpoint. See page 6.

Product Dimensions (H x W x D)
9.5 x 9 x 5 in. (241.2 x 228.6 x 127 mm)

Net Weight
11 lb. (5 kg)

Max. Data Sample Rates
Volts: 5 kHz Amps: 5 kHz Wire feed speed: 100 Hz Gas flow: 100 Hz

ArcAgent™ System Configuration Guide

1. What Solution is Needed?

Productivity Solution

ArcAgent for Insight Core
951772 Dinse output package
951773 Stud output package
301496 ArcAgent only (order sensors and cables separately)
Packages include current and voltage sensors with cables, ready to use without ordering additional sensors.

Manual Welding Solution

ArcAgent Manual   301345

Automated Welding Solution

ArcAgent Auto   301346

2. What is Being Monitored?

Voltage Monitoring

TIG Filter Sensor   301359
Voltage sensing cable used in TIG applications. Requires TIG filter cable (301384) below.

Cables — 25 ft. (7.6 m)
301516 Voltage sense cable with Dinse
301365 Voltage sense cable with lugs
301384 TIG filter cable — requires TIG filter sensor (301359) above

Current Monitoring

Standard Current Sensors
301351 600 A
Accommodates up to 4/0 lugged cables or a single Dinse/Tweco® cable.

Large Diameter Current Sensors
301356 1,000 A solid core
For multiple large cables in high-amperage applications.

Cables — 25 ft. (7.6 m)
301364 Standard current sensor cable
301367 Large diameter current sensor cable

Wire Feed Speed Monitoring

Wire Speed Sensor   301350

Wire Speed Sensor Cable
301368 25 ft. (7.6 m)

Gas Flow Monitoring

Gas Flow Sensor   301358
Note: For use with argon/CO_2 blends only.

Gas Flow Sensor Cable
301369 25 ft. (7.6 m)

3. Additional Accessories

Miller Field Application Support   195480
Contact distributor for details.

ArcAgent Auto Digital I/O Cable
301379 25 ft. (7.6 m). For ArcAgent Auto only.

4. What Software is Needed?

ArcAgent for Insight Core only requires a standard web browser, NO special software needed.

Insight Centerpoint 10
Select if utilizing ArcAgent Manual or ArcAgent Auto.
Contact us at insight@millerwelds.com or call 1-844-463-4328.

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Notes

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
ArcAgent™ for Insight Core™ Packages	**951772**	Dinse output. Includes current and voltage sensors with cables		
	951773	Stud output. Includes current and voltage sensors with cables		
ArcAgent™ for Insight Core™	**301496**	Sensors and cables required (see page 6)		
ArcAgent™ Manual	**301345**	For manual welding applications. Sensors and cables required (see page 6)		
ArcAgent™ Auto	**301346**	For automated welding applications. Sensors and cables required (see page 6)		
Sensors				
Voltage Sensors		See page 6		
Current Sensors		See page 6		
Wire Speed Sensor	**301350**	See page 6		
Gas Flow Sensor	**301358**	See page 6		
Cables		See page 6		
Software				
Insight Centerpoint™ 10		Contact us at insight@millerwelds.com or call 1-844-463-4328		
Miller Field Application Support	**195480**	Contact distributor for details		

Date: **Total Quoted Price:**

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