

# IDENTIQUIK™ SERIES SMART COUPLINGS

Automatic Product ID & Data Capture for Fluid Applications



# Colder Products Company

Colder Products Company — a world leader in the design and manufacture of plastic quick disconnects — has combined innovative engineering with leading edge manufacturing to provide a diverse range of fluid management solutions. For over 25 years Colder has been providing innovative coupling and fitting technologies for industrial, biopharmaceutical, medical, chemical, and packaging markets.

Visit [www.colder.com](http://www.colder.com) for:

- Information and literature on Colder product lines
  - Industrial
  - Medical Device
  - Bioprocessing
  - High Purity & Specialty Chemical Handling
  - Smart Technology
  - Food & Beverage Service
- Information on custom applications
- Online tools and selector guides
- Downloadable CAD drawings
- Distributor locations
- Direct connections to Colder engineers

Visit [www.colder.com/sc](http://www.colder.com/sc) for more information about Smart Coupling Technology

Topics include:

- Smart Coupling Technology — Frequently Asked Questions (FAQ's)
- Why use a Smart Coupling?
- Smart Markets
- Smart Products

For a free evaluation of your fluid management process, 'ask an engineer' at [smart@colder.com](mailto:smart@colder.com), or call 1-866-671-9168.

## On-line Catalogs and Literature



Industrial



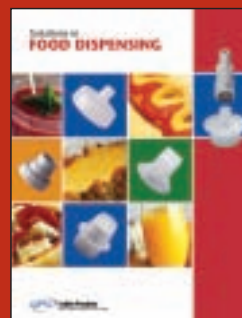
Chemical Management



Medical Device



Bioprocessing



Food Dispensing

**WARNING:** Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of Colder's products in their own applications.

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# Colder IdentiQuik™ Series Smart Couplings

Control, Protect & Enhance Your Fluid Handling Process

Continually driven by innovation, Colder has created the patented Smart Coupling to automatically exchange information across a coupling at the time of connection.

IdentiQuik Smart Technology enables users to freely exchange data between the two halves of a coupling using contactless Radio Frequency Identification Technology (RFID). For example, an application can transfer data across the coupling from the product side (e.g. rigid container, bag-in-box, disposable medical device, etc.) to the interrogator on the equipment side. Alternatively, the interrogator can be used to write product data to the RFID tag incorporated into the packaging fitment. Data can be exchanged before the two halves of the coupling are connected, thereby providing an additional level of security.



## The Benefits of RFID Include:

### Prevents Misconnections

due to operator error or out-of-sequence connections.

### Saves Time

with the automatic process of documentation such as package and media lot numbers and date codes.

### Prolongs Equipment Life

by protecting against the accidental or intentional use of harmful media that could disable or destroy equipment.

### Protects your brand

by ensuring that only quality products are allowed to pass through, thus reducing the possibility of out-of-date, misapplied, or inferior products being used. This enhances your process so that finished product matches design specifications to meet the quality expectations your valued customers have come to expect.

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# IdentiQuik™ PLC Series

Material: Acetal

The IdentiQuik™ PLC Series is based on Colder's industrial PLC product line, which is our most popular line of couplings. With proven performance worldwide in thousands of applications, the reliable 1/4" flow PLC offers a wide selection of sizes and configurations. PLC couplings are injection molded from acetal thermoplastic, are durable and resistant to most chemical solutions. When enhanced with Colder's exclusive Smart RFID technology, the IdentiQuik PLC Series becomes the first choice for applications that require instant product verification/integrity before dispensing.



## Applications may include:

- Floor cleaning equipment
- Deionized water filtration
- Beverage dispensing
- Automated machinery
- Compression therapy
- Leak detection

FEATURES	BENEFITS
Smart RFID technology	Captures data at point of connection
Colder thumb latch	One-hand connection and disconnection
Integral valving and terminations	Fewer leak points, shorter assemblies, faster installations
Clicks when connected	Assurance of a reliable connection

## IdentiQuik PLC Series Specifications

**Interrogator Read Range:** Approx. 1"

**Operating Voltage:** 8-25V standard, 5V only available

**Power Consumption:** 350mW max

**Communication:** RS-232

**I-Code RFID Tags:** 13.56 MHz, 64 byte, 48 byte user programmable

NOTE: RFID tags not approved for e-beam or gamma sterilization.

**Pressure:** Vacuum to 120psi, 8.3 bar

**Temperature:** 32° F to 158° F, 0° C to 70° C

**Materials:**

**Main components and valves:** Acetal

**Thumb latch:** Stainless steel

**Valve spring:** 316 stainless steel

**External springs and pin:** Stainless steel

**O-rings:** Buna-N

**Color:** Natural white

**Tubing Sizes:** 1/4" and 3/8" ID, 6.4mm and 9.5mm ID

**Cable & Termination:** 4' length, 9 pin D-sub connector

## IdentiQuik PLC Interrogators


	TUBING SIZE	STRAIGHT THRU	SHUTOFF
<b>In-Line</b>	1/4" ID, 6.4mm ID	IPLC4HP24A00	IPLCD4HP24A00
<i>Hose Barb</i>	5/16" ID, 7.9mm ID	IPLC5HP24A00	IPLCD5HP24A00
	3/8" ID, 9.5mm ID	IPLC6HP24A00	IPLCD6HP24A00

## IdentiQuik PLC Inserts with Integrated RFID Tag

	TUBING SIZE	STRAIGHT THRU	SHUTOFF
<b>In-Line</b>	1/4" ID, 6.4mm ID	IPLC4HPI	IPLCD4HPI
<i>Hose Barb</i>	5/16" ID, 7.9mm ID	IPLC5HPI	IPLCD5HPI
	3/8" ID, 9.5mm ID	IPLC6HPI	IPLCD6HPI

	TUBING SIZE	STRAIGHT THRU	SHUTOFF
<b>Elbows</b>	1/4" ID, 6.4mm ID	IPLC4HEPI	IPLCD4HEPI
<i>Hose Barb</i>	3/8" ID, 9.5mm ID	IPLC6HEPI	IPLCD6HEPI

NOTE: JG Push-To-Connect and Ferruleless Polytube Fittings are available as special orders. RS-485 and optical isolation are available options.

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# IdentiQuik™ PLC12 Series

Material: Polypropylene

The polypropylene IdentiQuik™ PLC12 Series with 1/4" flow offers many of the same configuration options as the PLC version. The polypropylene material adds greater chemical resistance for more demanding applications.



FEATURES	BENEFITS
Smart RFID technology	Captures data at point of connection
Polypropylene material	Chemically resistant
Colder thumb latch	One-hand connection and disconnection
Integral valving and terminations	Fewer leak points, shorter assemblies, faster installations
EPDM o-rings	Greater chemical resistance

## Applications may include:

- Battery filling equipment
- Disinfectants
- Ink jet printing
- Chemical metering pumps
- Pharmaceutical manufacturing
- Semiconductor chemical processing

## IdentiQuik PLC12 Series Specifications

**Interrogator Read Range:** Approx. 1"

**Operating voltage:** 8-25V standard, 5V only available

**Power Consumption:** 350mW max

**Communication:** RS-232

**I-Code RFID Tags:** 13.56 MHz, 64 byte, 48 byte user programmable

**NOTE:** RFID tags not approved for e-beam or gamma sterilization.

**Pressure:** Vacuum to 120psi, 8.3 bar

**Temperature:** 32° F to 158° F, 0° C to 70° C

### Materials:

**Main components and valves:** Polypropylene

**Thumb latch:** Stainless steel

**Valve spring:** 316 stainless steel

**External springs and pin:** Stainless steel

**O-rings:** EPDM

**Color:** Almond

**Tubing Sizes:** 1/4" and 3/8" ID, 6.4mm and 9.5mm ID, 3/8" OD, 9.5mm OD

**Cable & Termination:** 4' length, 9 pin D-sub connector

## IdentiQuik PLC12 Interrogators

	TUBING SIZE	STRAIGHT THRU	SHUTOFF
<b>In-Line</b>	1/4" ID, 6.4mm ID	IPLC124HP24A00	IPLC12D4HP24A00
<i>Hose Barb</i>	3/8" ID, 9.5mm ID	IPLC126HP24A00	IPLC12D6HP24A00

## IdentiQuik PLC12 Inserts with Integrated RFID Tag

	TUBING SIZE	STRAIGHT THRU	SHUTOFF
<b>In-Line</b>	1/4" ID, 6.4mm ID	IPLC124HPI	IPLC12D4HPI
<i>Hose Barb</i>	3/8" ID, 9.5mm ID	IPLC126HPI	IPLC12D6HPI

	TUBING SIZE	STRAIGHT THRU	SHUTOFF
<b>Elbows</b>	1/4" ID, 6.4mm ID	IPLC124HEPI	IPLC12D4HEPI
<i>Hose Barb</i>	3/8" ID, 9.5mm ID	IPLC126HEPI	IPLC12D6HEPI

**NOTE:** JG Push-To-Connect and Ferruleless Polytube Fittings are available as special orders. RS-485 and optical isolation are available options.



# IdentiQuik™ Universal Dispensing Coupling Series

Material: Polypropylene

The IdentiQuik™ Universal Dispensing Coupling Series (UDC) is derived from Colder's patented 3/8" flow Universal Dispensing Coupling. By incorporating RFID technology, the IdentiQuik UDC provides a universal connection to a 38mm fitment neck.



FEATURES	BENEFITS
Smart RFID technology	Helps maintain warranty integrity, brand protection
Universal 38mm cap	Fits most manufacturers' fitment necks
Polypropylene material	Chemically resistant
Shrouded thumb latch	Protects against accidental disconnects
Integral terminations	Fewer leak points, shorter assemblies, faster installations
Flush face valves	Minimizes spillage

## Applications may include:

- Condiment dispensing
- Sterilants
- Liquid colorants
- Liquid adhesives
- Cleaning concentrates
- Lubricants

## IdentiQuik UDC Series Specifications

**Interrogator Read Range:** Approx. 1"

**Operating voltage:** 8-25V standard, 5V only available

**Power Consumption:** 350mW max

**Communication:** RS-232

**I-Code RFID Tags:** 13.56 MHz, 64 byte, 48 byte user programmable

NOTE: RFID tags not approved for e-beam or gamma sterilization.

**Innovision RFID Tags:** 13.56 MHz, 28 byte, 16 byte user programmable

**Pressure:** 20" Hg vacuum to 15psi, 1bar, 103kPa

**Temperature:** 32° F to 158° F, 0° C to 70° C

### Materials:

**Main components and valves:** Polypropylene

**Thumb latch:** Polypropylene

**Valve spring:** 316 stainless steel

**38mm threaded cap & valve:** Acetal

**38mm snap-in cap & valve:** Polypropylene

**Clean-In-Place adapter:** Acetal

**O-rings:** EPDM, others available

**Color:** Light gray with charcoal latch

**Closure Size:** SP-400 38mm

**Cable & Termination:** 2' length, 9-pin D-sub connector

Customized parts (voltage, termination, cable length, etc.) available. Call for more info.



## IdentiQuik UDC



	TUBING SIZE	I-CODE PART NO.	INNOVISION PART NO.
<b>In-Line Hose Barb</b>	1/4" ID, 6.4mmID	IUDCD4HP24A00	IUDCD4HI24A00
	3/8" ID, 9.5mmID	IUDCD6HP24A00	IUDCD6HI24A00
	1/2" ID, 12.6mmID	IUDCD8HP24A00	IUDCD8HI24A00
	5/8" ID, 15.9mmID	IUDCD10HP24A00	IUDCD10HI24A00
	3/4" ID, 19.0mmID	IUDCD12HP24A00	IUDCD12HI24A00

NOTE: RS-485 and optical isolation are available options.

## UDC 38mm Caps with EPDM o-rings and passive RFID tags



		PHILLIPS I-CODE PART NO.	INNOVISION PART NO.
<b>Thread-on Cap</b>	<i>Without thread seal</i>	IUDCDPU	—
	<i>With thread seal</i>	IUDCDPT	—
<b>Snap-in Cap</b>		IUDCDPS	IUDCDIS

NOTES: I-Code interrogators must be used with I-Code caps. Innovision interrogators must be used with Innovision caps. JG Push-To-Connect and Ferruleless Polytube Fittings are available as special orders.



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# IdentiQuik™ Series Smart Coupling Guidelines

## Power Requirements

Supply voltages from 8VDC–25VDC can be accommodated. Lower supply voltages are available upon request. Maximum power consumption is 350 mW.

## Communication

Communication takes place over RS-232 from the interrogator to your controller; RS-485 optional.

## Terminations and Tubing

Straight and elbow hose barbs are available for 1/4" - 3/4" I.D. tubing. PTF and JG terminations are available on some versions.

## Tag Programming

Tag data values can be programmed with the Smart Coupling interrogator by sending ASCII strings from your control system to the interrogator. Cyclic Redundancy Checks performed by the interrogator insure data accuracy.

## RFID Tags

13.56 MHz RFID tags can accommodate up to 48 bytes of user programmable data and will retain data for 10 years through a minimum of 100,000 write cycles.

## NEW Smart Coupling Development Kit

Explore the benefits of Colder's IdentiQuik™ Series Smart Couplings, featuring integrated RFID technology, with Colder's Smart Coupling Development Kit.

The kit includes couplings, inserts and caps in different configurations as well as a power supply, interface adapter, serial cable, and engineering development software.

Engineers are also available to provide expert advice on integrating IdentiQuik Couplings into your design project. Whether you are enhancing system safety or safeguarding product integrity, Colder's Smart Coupling Development Kit can help you get it right, the smart way.



If you're considering how IdentiQuik Couplings with RFID technology can enhance your application, visit Colder's Web site to order your kit today: [www.colder.com/smartkit](http://www.colder.com/smartkit)

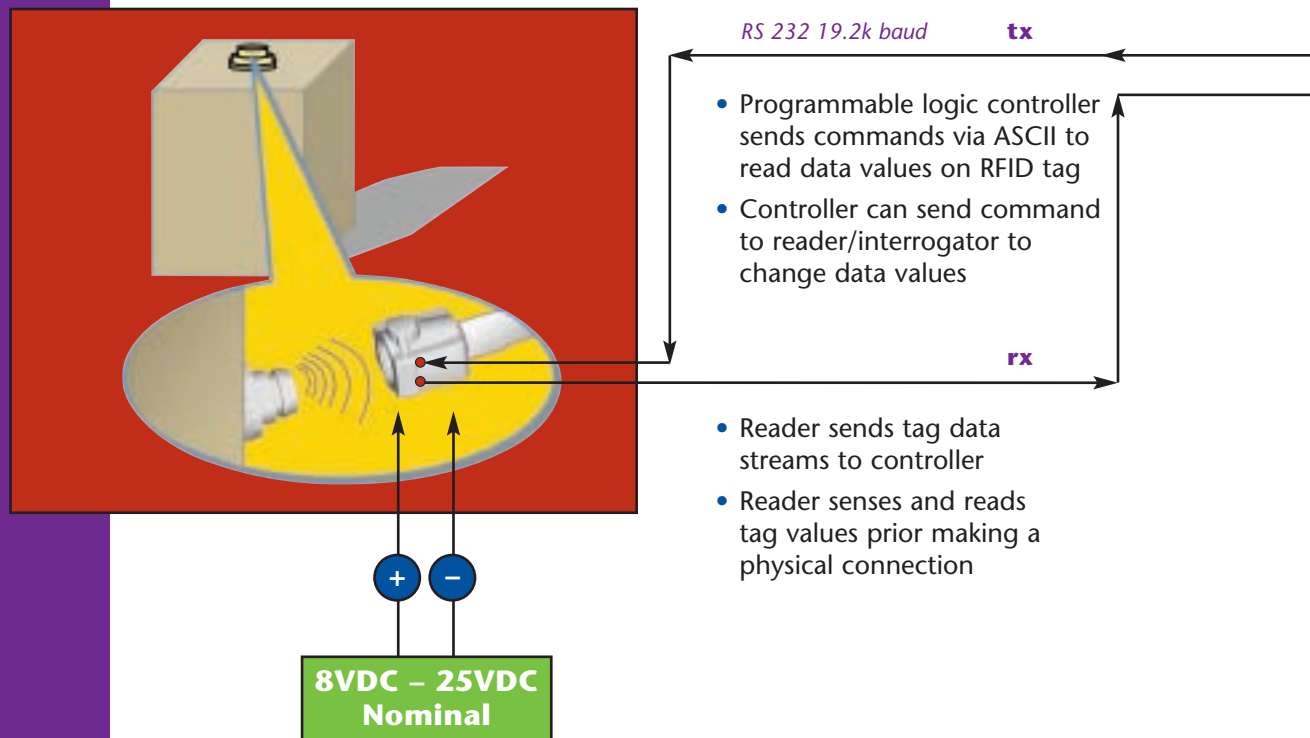
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# IdentiQuik™ Series Smart Couplings Can Integrate into Various Control Systems

## Example of Integration of Smart Coupling Components into a Control System

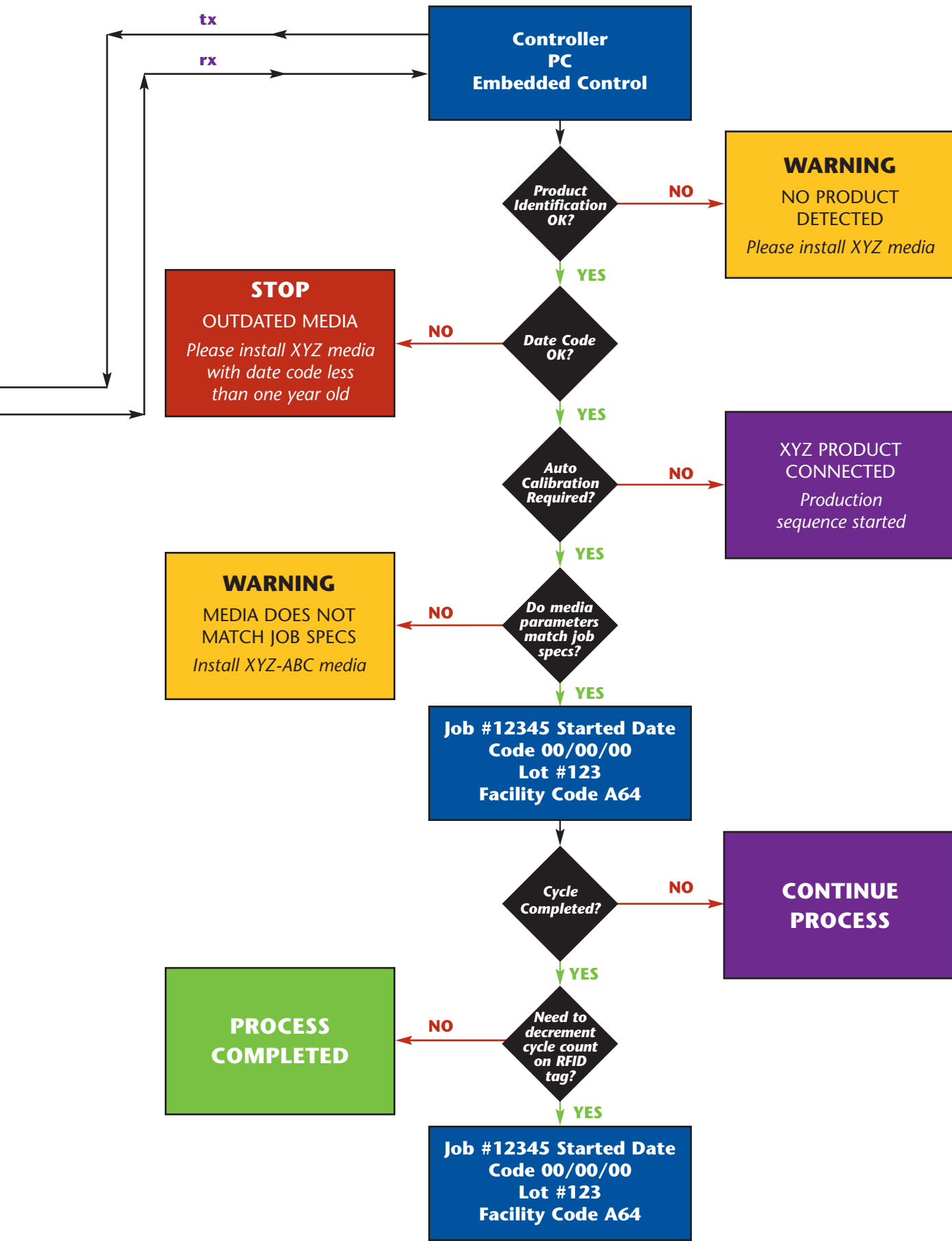
Product ID • Date Code • Package Size  
Fill Location • Product Characteristics



## Use IdentiQuik Series Smart Couplings for:

- Cycle Counts
- Auto-Calibration
- Completion of Cycle
- Date Code Validation
- Product Identification
- Media Parameter Verification





# Still Looking for That Perfect Solution?

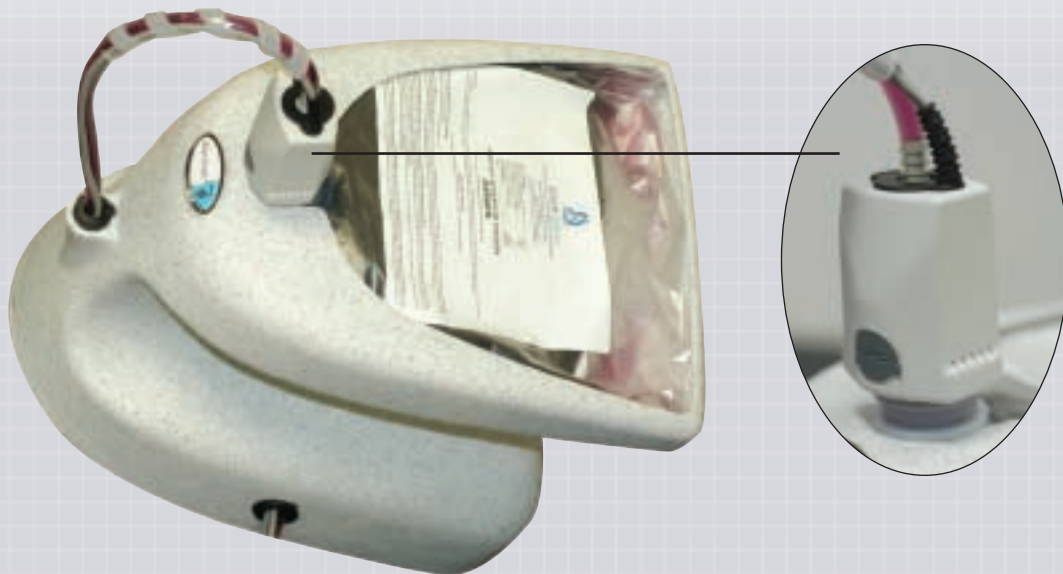
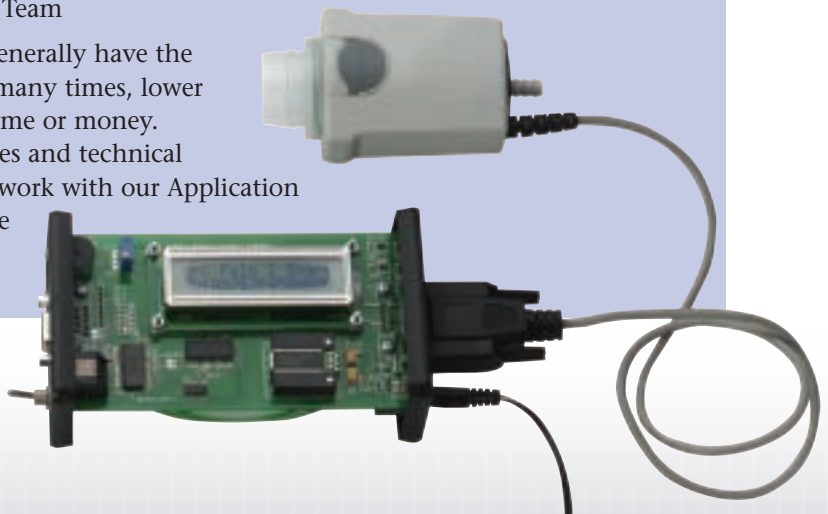
Even with thousands of standard quick disconnect couplings available, we know you still may not have found the precise part you need. That's why, for more than 25 years, Colder's Application Engineering Team has worked with customers around the world to design custom coupling solutions to solve their specific problems and improve their products' performance. Colder has solid modeling capabilities, prototype equipment, an expansive test lab, and thousands of solutions. Combine that with our years of experience and a "can do" attitude, and there is no need for you to design your solution alone.

In addition, Colder's RFID product experts can work with you to incorporate RFID capabilities into virtually any of our coupling designs. Whether you are designing a smart solution for packaging dispense systems or enabling automatic product cycle counts, our Engineering Team is ready to help you design a safe, smart solution.

## Consider a Custom-Designed Connector When:

- A quick disconnect will add value to your product, making it easier to use and more reliable
- Your requirements cannot be met by an existing standard Colder product
- Unique requirements, budgets or timing warrant your designer's collaboration with Colder's Application Engineering Team

Remember, standard catalog items generally have the advantage of quick availability and many times, lower cost, with no initial investment of time or money. However, depending on your volumes and technical requirements, it may make sense to work with our Application Engineering Team to design a unique solution tailored for your needs.



## Consider a Custom-Designed *Smart Connector* When:

- It is important that you track product use
- Automatic product identification is critical
- Brand protection is a concern


The key to a successful RFID integration is proper planning and an accurate assessment of the potential application. There are great advantages to incorporating smart couplings into many connectivity solutions, but it isn't right for every application. Colder's Smart Technology Engineering Team can help you determine whether RFID technology is right for your connectivity application.

## Potential Smart Applications

- Measure flow rates magnetically
- Weigh container contents
- Measure the temperature of fluid flow
- Read several protocols, including I-Code (standard), ISO-15693, ISO-14443, and TI-TAGIT
- Measure the pressure of fluid or gas

*(Custom designed products may be exclusively produced for a specific customer.  
The proprietary products shown below might not be available for sale.)*



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## Colder Products Company®

*Quick Couplings & Fittings for Plastic Tubing*

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