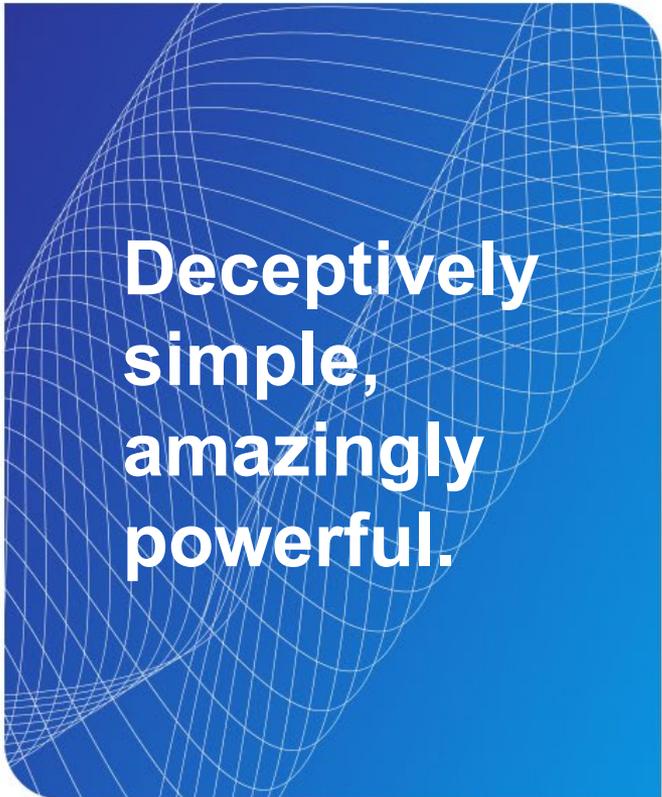




Know more, do more with **intelligent** fluid connections.

RFID-based CPC **IdentiQuik®** & **IdentiQuik® PRO** couplings redefine what's possible for controlling, protecting and streamlining fluid handling processes, creating valuable new opportunity for your business.

HOW IT WORKS

A blue rectangular area with a white grid pattern that curves and warps, creating a sense of depth and movement. The text is centered within this area.

**Deceptively
simple,
amazingly
powerful.**

IdentiQuik couplings are ideal for applications with a product involving onboard electronics and parts or media that are consumable or expensive, along with a need to control the process to ensure the use of the right tool at the right time.

There are many reasons behind this need for process control. Common reasons include brand protection, warranty management, and controlling time and use restrictions.

When employing **IdentiQuik PRO** this data transfer can be protected after enabling the integrated security functionality to defend data exchange from the tag to the reader, and the reader to the machine.

1 Storing data to the tag

Data is stored on the RFID tag embedded in the coupling insert. You have the option to decide if data should be modifiable or write-protected. Writing data can occur at any step(s) within your manufacturing process.



Examples of data include:

- Product identifiers
- Lot codes
- Batch information
- Calibration data

In addition, with **IdentiQuik PRO**, the programmed data can be protected using features that are native to the reader and can be configured through the IdentiQuik Smart Coupling Communication Protocol (ISCCP).

2 Transferring data from tag

The coupling body has an RFID reader that “looks for” the tag. Once within a few centimeters the reader energizes the tag allowing data on the tag to be shared with the reader. When prompted, the reader sends the tag data to main controller within your application.

With IdentiQuik PRO, the reader and tag can Mutually Authenticate the connection before sharing data, protecting the transfer from external threats.



3 Fluid connection

Now that the tag data has been transferred, it can be used as intended in your application. For example, error codes can alert the operator of issues such as a misconnection potential, an expired consumable, or a counterfeit device prior to physical connection.

If the connection is approved, the two coupling halves can be connected, allowing fluid to flow.



4 Use data in application

The equipment acts according to the coupling insert data sent to the controller. The controller can also send back new data to be written on to the tag.

Customers are now able to transfer more than just fluids through the point of connection.

IdentiQuik products can be used to store and transfer information such as:

- Product identification
- Batch information
- Date code
- System settings
- Auto-calibration
- Notification of cycle competition
- Cycle counts
- Media parameter verification
- Weight
- Product characteristics

APPLICATIONS

How might these
intelligent
couplings apply to
and enhance your
process?

IdentiQuik couplings allow the robust transfer of fluid and information in a limitless number of applications across multiple industries.

Examples of potential applications include:

- Connection validation
- Operational control settings
- Usage control
- Media validation
- Track and trace



Medical
instruments



Single or limited
use components



Bulk fluid
handling



Fluid
processing

Connection validation

CHALLENGE

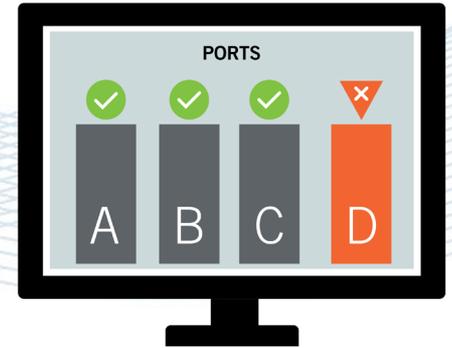
Ensure correct connections in multiple-port systems

SOLUTION

CPC IdentiQuik RFID reader reads tag and tells controller what is being connected to each equipment port – controller can display warning to operator or shut down equipment until error is corrected

BENEFIT

Each correct line is connected to correct port, preventing harm to equipment, process output or patient



Operational control

CHALLENGE

Correctly setting operational controls

SOLUTION

CPC IdentiQuik RFID reader reads tag and tells controller what identification data is on the tag; controller automatically sets operating variables such as pressure, flow rate and operating time duration to match what is required for the device that has been connected to the equipment port

BENEFIT

Reduces risk of human error in setting operational controls, preventing harm to equipment, process output or patient



Usage control

CHALLENGE

Enforcement of single- or limited-use consumable devices

SOLUTION

Controller tells reader to write to tag each time the limited-use device is connected to the equipment – or write the amount of time the consumable device has been used – and when this threshold has been reached, controller reports to operator that the connected device has reached the end of its life

BENEFIT

Reduces risk of damage to equipment, process output or patient due to overuse of consumable device



Media validation

CHALLENGE

Prevent inferior consumable media from damaging equipment

SOLUTION

CPC IdentiQuik RFID reader reads identification data on tag and controller verifies that the approved media/device is being connected to the equipment

BENEFIT

Reduces risk of damage to equipment, process output or patient due to use of unauthorized media or device



Track and trace, general purpose

CHALLENGE

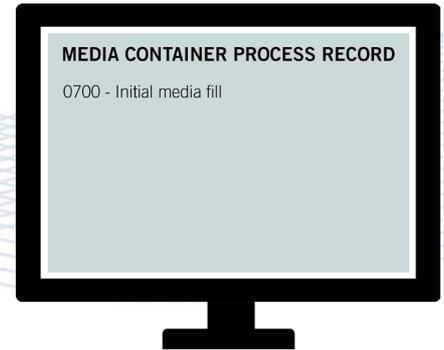
Keep and accurate record of process steps

SOLUTION

Media is placed in container with RFID tag, and as the container is connected to various pieces of equipment through each process step (e.g., add ingredients, mix, culture, curing, etc.), the reader on each piece of process equipment writes to the tag a record of what has been com

BENEFIT

Reduces risk of damage to equipment, process output or patient due to use of unauthorized media or device



Patient use track and trace

CHALLENGE

Ensure correct garment, cuff, tool or other device is used and retired at the end of its useful life

SOLUTION

RFID tag is attached to the garment or cuff used in patient's treatment, and reader writes patient data and record of use to the tag at initial use; with subsequent uses, reader reports tag identification and usage data to controller for verification and usage control

BENEFIT

Ensures the correct device is being used by patient and that the device has not exceeded useful life



BENIFITS

High-value benefits for your fluid handling.



IdentiQuik couplings yield powerful new capabilities for reducing your costs and those of your customers, while mitigating risk and honing a competitive advantage.

This intelligent technology allows you to:

- Protect your brand
- Minimize misconnections
- Prolong equipment life
- Increase efficiency

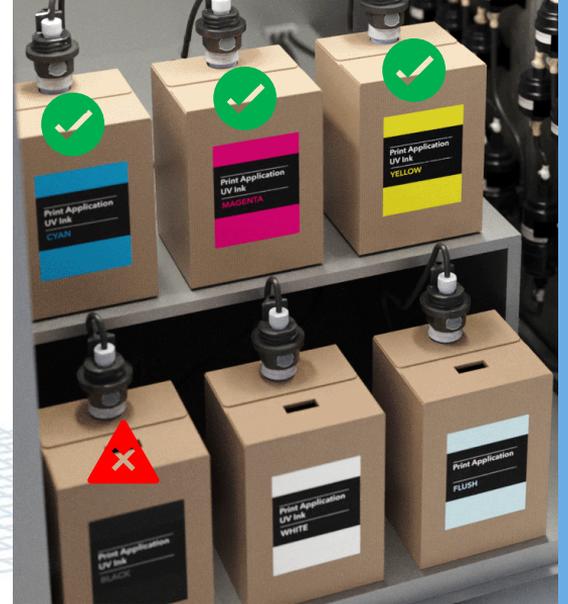
Protect your brand

IdentiQuik couplings verify that only approved products get used with your equipment, eliminating the use of expired, misapplied or inferior alternatives that can compromise performance and threaten reputations. This also reduces your exposure to false warranty claims.



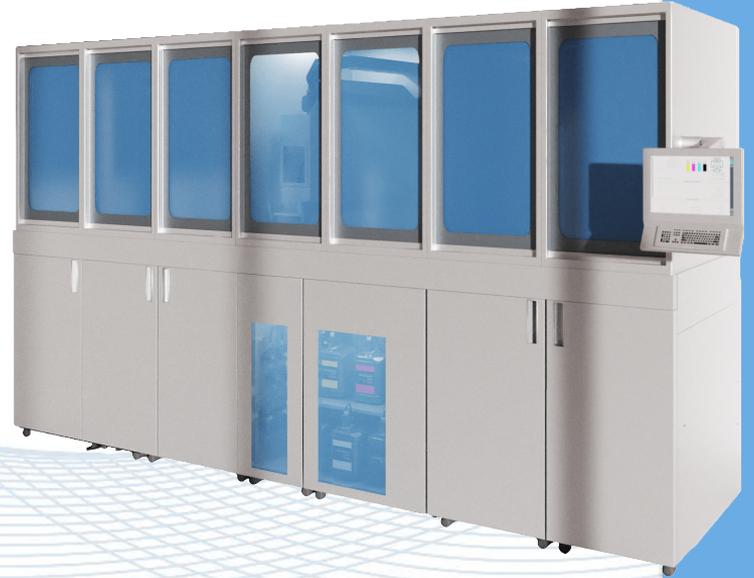
Eliminate misconnections

IdentiQuik couplings help drive human error out of the fluid handling equation, by alerting the operator when an incorrect connection is about to be made.



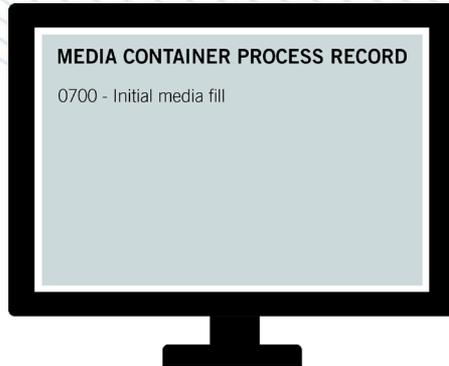
Prolong equipment life

IdentiQuik couplings protect against the accidental or intentional use of harmful media – such as aftermarket supplies – that could disable or damage equipment.

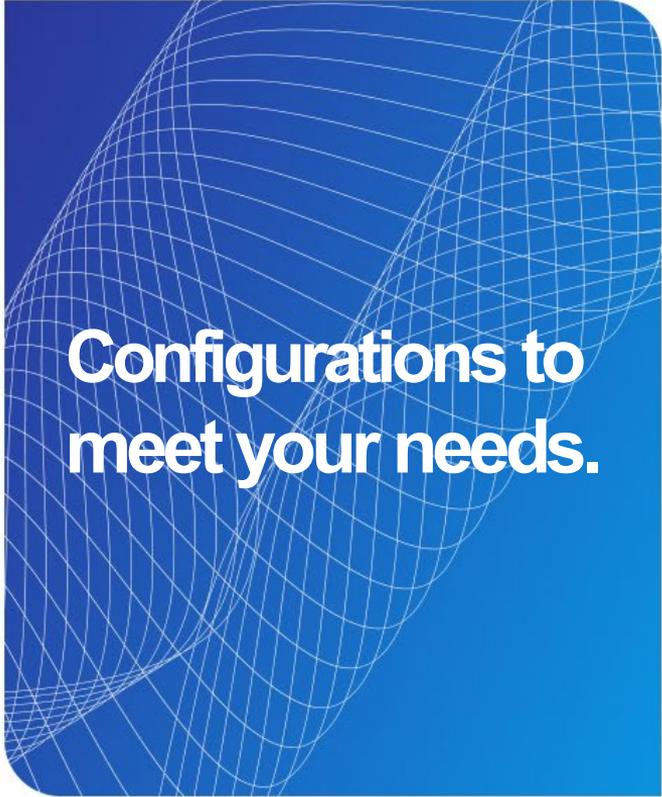


Improve efficiency

IdentiQuik couplings eliminate the need for operators to manually record proven steps, avoiding potential inaccuracies due to human recording error. They also speed compliance with electronic recordkeeping requirements, while eliminating the need for file cabinets full of written process records.



COUPLING TYPES

A large graphic on the left side of the slide consists of a blue background with a white, glowing grid of lines that curves and warps, creating a sense of depth and movement. The text 'Configurations to meet your needs.' is overlaid on this graphic in a white, bold, sans-serif font.

**Configurations to
meet your needs.**

IdentiQuik couplings are available in an array of sizes and configurations to meet your needs, including a few standard product configurations as well as limitless engineered solution possibilities.

IdentiQuik features

Product features	Description	IdentiQuik®	IdentiQuik® PRO
Required tag	Required tag to be paired with the correct reader to enable functionality defined below	Standard	Enhanced security
Easy integration	Defined set of user commands to incorporate IdentiQuik into your system	✓	✓
RF compliance	FCC, IC, and CE compliant	✓	✓
Integrated security	<ul style="list-style-type: none"> NXP ICODE DNA tag security features are natively supported on the CPC reader Allows user to significantly shorten development time Defined set of commands enables use of security features 	-	✓
Read range	Distance to when the tag can be identified by the reader	Fixed	Adjustable
Mutual authentication	<ul style="list-style-type: none"> Protection against unauthorized access to data and functionality Tag proves authenticity based on a code The reader proves that it has access rights 	-	AES - 128bit
Memory access protection	<ul style="list-style-type: none"> Three user keys exist for tag authentication and/or mutual authentication Memory can be partitioned into public or restricted memory sections 	-	AES - 128bit
Mutual authentication attempt limit	<ul style="list-style-type: none"> Maximum number of mutual authentication attempts can be defined Once limit is reached, no further attempts are possible preventing hacking from unauthorized source 	-	✓
One-way usage counter	The DNA tag provides a counter that can only update, as a number, in one direction. This allows a simple and effective consumption count.	-	✓

IdentiQuik

The **IdentiQuik** offering enables base RFID data communication between the tag on the coupling insert and the reader on the coupling body.

IdentiQuik technology enables data and fluid transfer at the point of connection.

Common applications of this technology:

- Connection validation
- Media validation
- Operation control settings
- Usage control
- Track and trace

IdentiQuik PRO

IdentiQuik PRO has all the base RFID functionality of the IdentiQuik readers, but adds multiple layers of security, further protecting the value of your connection. These features are native to the reader and can be configured through the IdentiQuik Smart Coupling Communication Protocol (ISCCP)



IdentiQuik PRO

1

Secure connection between the Reader and Controller

Message Authentication Code (MAC) – Two-way confirmation that the communication is from an authentic source for every command between the CPC Reader and Application Host.



IdentiQuik PRO

2

Secure connection between the Tag and Reader

Native Mutual Authentication on IdentiQuik PRO Reader. Two-way confirmation between the Reader and Tag verifies connection is authentic. Prevents hackers from accessing and viewing the data stored on the tag



IdentiQuik PRO

3

Security on the Tag

- Tag use limit - Prevents unauthorized access to data on the tag and the ability to limit the number of attempts from an unauthorized device.
- Additional memory space over our standard Tag.
- Ability to designate user privilege's (service tech access vs. production tag).
- Prevents hackers from accessing and viewing the data stored on the tag, through Mutual Authentication.



iUDC – Our highest flow coupling

IdentiQuik iUDC couplings provide a universal connection to a 38mm fitment neck, allowing you to make instant connections to bulk packaging systems. The automatic flush face valve minimizes costly or dangerous spillage, and an ergonomic design and large, shrouded thumb latch pad make the coupling easy to grip and simple to operate.

Available in IdentiQuik and IdentiQuik PRO configurations.

Applications for iUDC include:

- Bag-in-box (BIB) packaging systems
- Flexible bulk packaging systems
- Rigid bulk packaging systems
- And many more

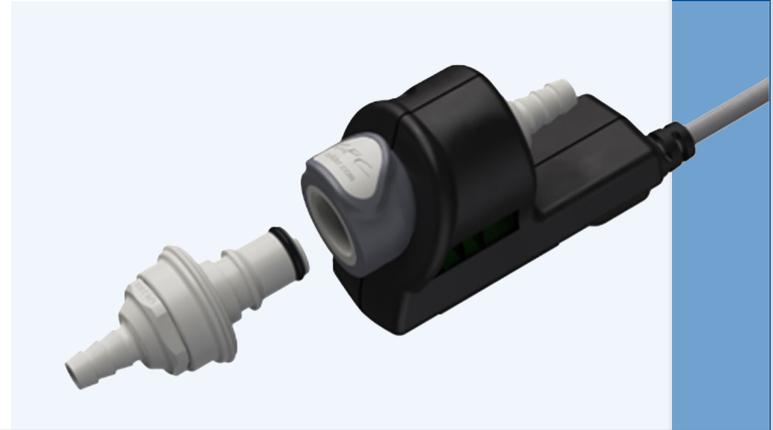


iNS4 – Fast and drip free

IdentiQuik iNS4 Non-Spill (NS) Couplings are designed with double-sided non-spill shutoff. Available in IdentiQuik and IdentiQuik PRO configurations.

Applications for iNS4 include:

- Flexible bulk packaging systems
- Large-format inkjet printing
- In-Vitro Diagnostics
- And many more



iPLC12 – Chemical-resistant and highly versatile

IdentiQuik iPLC12 couplings are designed with superior chemical resistance in mind. Available in IdentiQuik and IdentiQuik PRO configurations.

Applications for iPLC12 include:

- In-Vitro Diagnostics
- Laser Cooling
- Large-format inkjet printing
- And many more



Unmatched customization capabilities.

If one of the standard IdentiQuik Couplings does not meet your needs, CPC has a dedicated team working to develop Engineered Solutions to your exact application needs.

Common engineered solutions include:

- Integration of RFID into standard CPC quick disconnect couplings
- IdentiQuik or IdentiQuik PRO configurations
- Addition of weight, pressure, temperature and flow sensing
- Customer specific geometry
- And much more

Certified across global regulations

FCC:

<https://fcc.report/FCC-ID/U9C-IDENTIQUIK2>

IC Certification Number:

7038A-IDENTIQUIK2

CE DoC:

Certificate No. 24-210771 - 24-220771

<https://www.cpcworldwide.com/Capabilities/Intelligent-Fluid-Connections>



Make smarter, more secure connections today.

Contact your CPC representative to discuss all the ways that IdentiQuik couplings can benefit your fluid handling.

Visit <https://www.cpcworldwide.com/Contact-Us>