

**SENTRY® QCIII QUICK CONNECT SYSTEM**

*The cleanest, safest, most user-friendly connection system  
available for high-purity bulk chemical dispense*



# safe, easy-to-use dispense system

## Materials Integrity Management

For nearly 40 years, Entegris—the industry experts for materials integrity management solutions—has been committed to purifying, protecting and transporting the critical materials that enable the world's leading technologies. Materials integrity management starts with the chemicals that come into direct contact with every wafer and IC produced. To help you safely handle these high-purity, microelectronic-grade chemicals, Entegris offers the Sentry® QCIII quick connect system—a reliable means for filling containers or connecting a bulk chemical source to the chemical dispense unit.

## Sentry QCIII Quick Connect Systems

Entegris introduced our first patented Quick Connect System over 20 years ago and our system remains the industry standard for high-purity chemical dispense. Expanding on the proven performance and functionality of this quick connect



*The Sentry QCIII quick connect system is available with a 3-port or 4-port dispense head and a drum insert of either PFA or polyethylene material.*

system, the Sentry QCIII quick connect system is today's safest and easiest method of connecting chemical containers with typical bulk chemical delivery systems. This patented connection system comprises a key coded dispense head (DH) and drum insert (DI) that self align. Simply rotating the retaining ring pulls the DH and DI together so no visual line of site is required to make the connection—simplifying the assembly process significantly.

The Sentry QCIII quick connect system is designed for use with FluoroPure® chemical containers including HDPE transport drums, PFA composite drums, pressure vessels and intermediate bulk containers.

### O-ring Free Main Dispense Seal

The main chemical dispense line utilizes Entegris' industry leading Flaretok® sealing technology, which provides a leak-free, secure connection without o-rings. This sealing technology decreases your cost of ownership by eliminating the need for o-ring replacement and maintenance while minimizing downtime.



*By utilizing Flaretok sealing technology in the main dispense line, Entegris has eliminated o-rings, reducing maintenance and decreasing cost of ownership.*

## Recirculation and Dispense in One

Designing four ports into the system enables recirculation and dispense operations in one connection. This eliminates the need for an independent recirculation dispense head and drum insert. The single DI connection assembles faster, requires less labor, reduces maintenance and thus lowers your costs.

1.  $\frac{3}{4}$ " fill and dispense port allows higher flow in either filling or dispense applications
2.  $\frac{1}{2}$ " vent port allows proper ventilation during chemical dispense operations
3.  $\frac{1}{4}$ " connection verification port ensures proper DH/DI engagement prior to initial dispense operations if OEM equipment is equipped with this feature
4. Optional  $\frac{3}{4}$ " recirculation port allows chemical recirculation; an optional diffuser, which reduces chemical agitation and foaming typical with chemicals containing surfactants

## Higher Flow Rates

Entegris' innovative dispense head optimizes the flow path to allow chemical dispense at 1.5x the flow rate of standard quick connect systems. This larger flow volume increases the overall capacity of your bulk chemical dispense system, reducing recirculation time and increasing process efficiency.

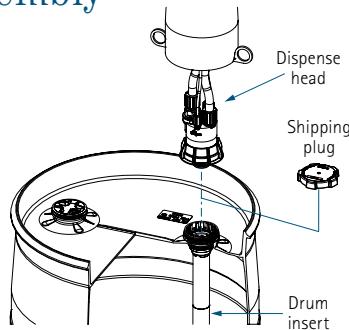
## Easy Product Traceability



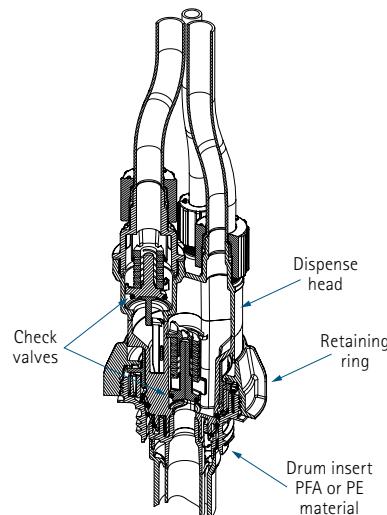
*Permanent serialized laser marking on the dispense head, drum insert and ID tag allow for easy product identification and traceability.*

Both the dispense head and drum insert are laser marked, allowing quick, visual identification. Permanent serialized laser marking is nonintrusive and noncontaminating. Laser marking allows for 100% traceability to a production date and production inspection record.

## Assembly



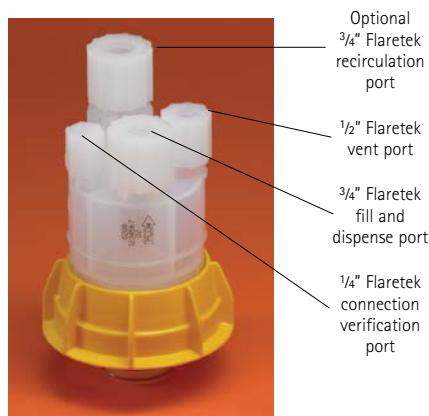
Dispense Head Assembly Cross Sectional View



### NOTES:

- The  $\frac{1}{4}$ " Flaretek verification port is not shown due to cutaway view
- Due to the large quantity of key coded options, drum inserts are key coded per customer order

### Port Options

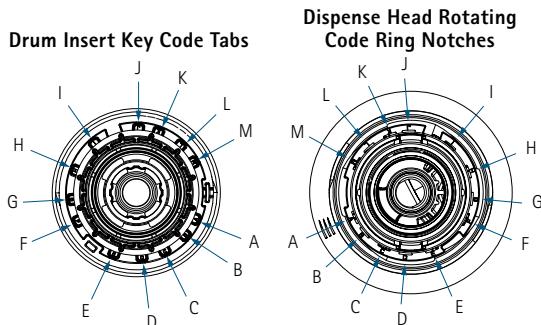


## Key Codes

The Sentry quick connect system is the industry standard for interfacing FluoroPure® containers with bulk chemical delivery systems safely and conveniently. Entegris' patented quick connect system is key coded to assure against unsafe chemical mixing while guaranteeing dedicated clean service. One connection provides dispensing, recirculation, venting and connection verification.



*Entegris' patented quick connect system is key-coded to assure against unsafe chemical mixing.*



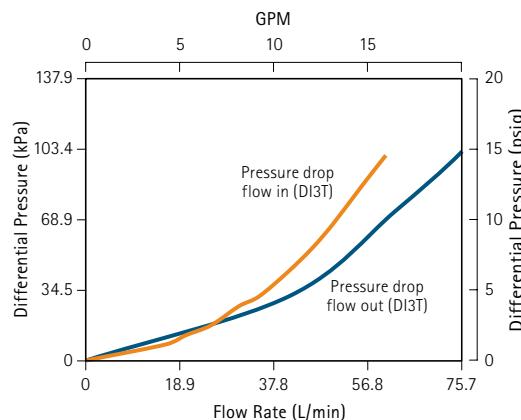
*A series of seven tabs/slots are used to make up each chemical code.*

## Specifications

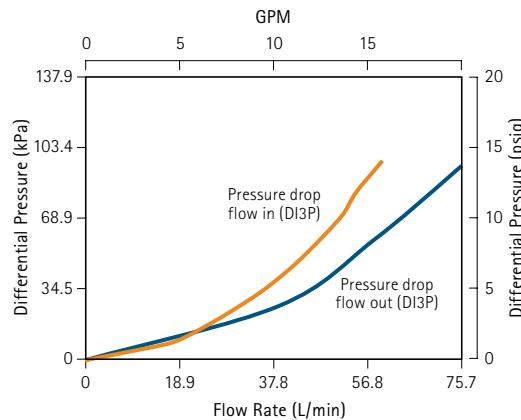
Materials of construction:	Dispense head	Wetted parts include PFA, FEP and Kalrez® 4001 materials/Kalrez 6221 for Life Sciences applications Nonwetted parts are PFA and polyethylene
	Drum insert	Wetted parts are PFA or polyethylene with FEP encapsulated o-rings Nonwetted parts are polyethylene. Nut materials are PFA, PVDF and CPFA
Operating conditions:	Maximum pressure	207 kPa (30 psig) @ 77°F (25°C)
Regulatory:		All internal wetted surfaces are made from resins that comply with FDA regulation 21 CFR 177.1550 or 21 CFR 177.2600 for use as articles or components of articles intended to contact food. Representative samples of these resins have been tested for biocompatibility in accordance with USP protocol and all meet the requirements of a USP Class VI (121 C) plastic. These resins also do not use any animal derived materials as intentional components.

## Performance Data

### Dispense Port Water Flow vs. Pressure Drop



### Dispense Port Water Flow vs. Pressure Drop

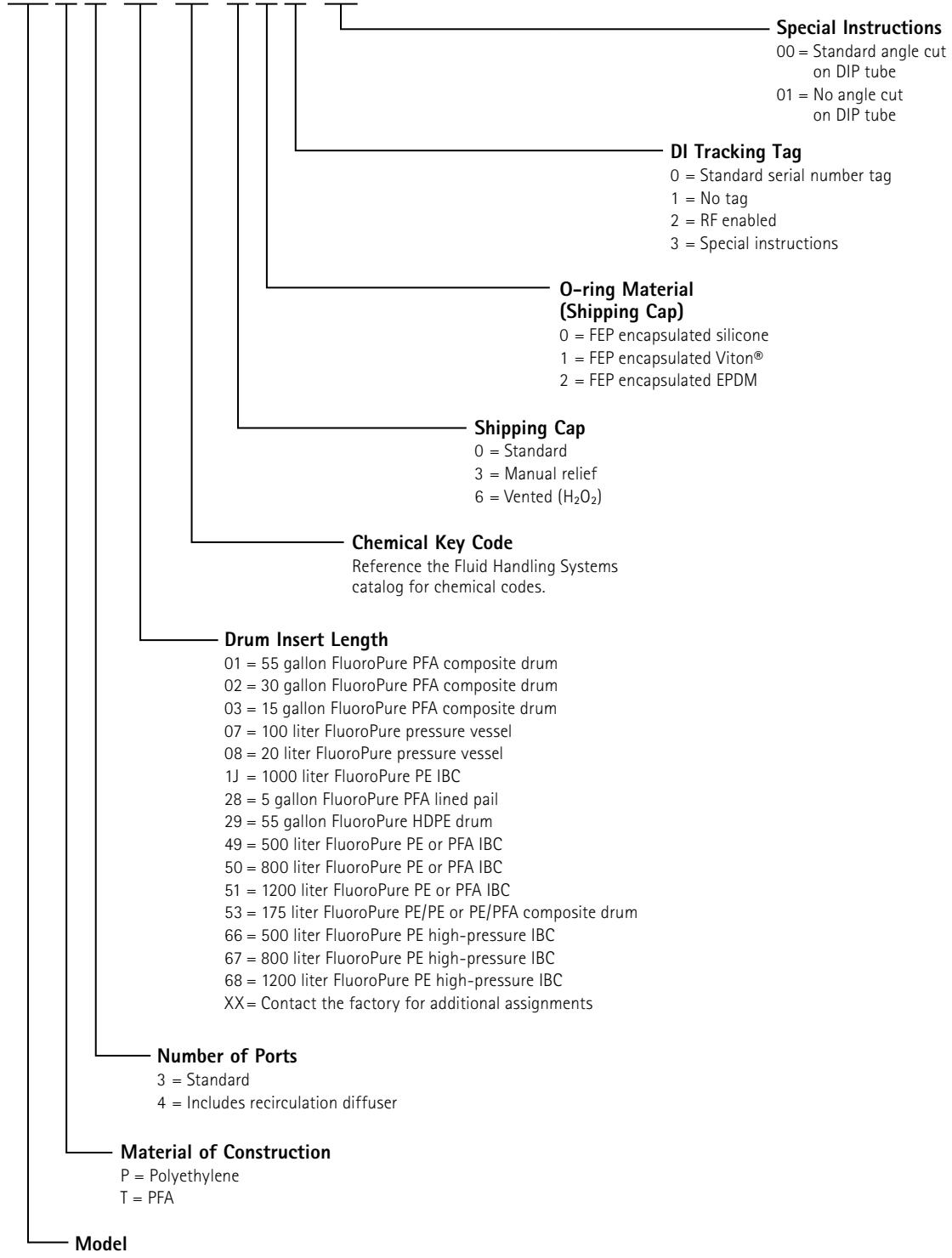


## Ordering Information

## FluoroPure Drum Inserts

## Part Number

D | 3







## For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [www.entegris.com](http://www.entegris.com) and select the Customer Service link for the center nearest you.

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