# OPTIMIZED CONNECTIONS. PLEASANT FLIGHTS.

## FIT TO FLY: THE NEXT GENERATION OF AIRCRAFT SYSTEM CONNECTORS





# OPTIMIZED CONNECTIONS. PLEASANT FLIGHTS.

## FIT TO FLY: THE NEXT GENERATION OF AIRCRAFT SYSTEM CONNECTORS



## FROM THE ROAD INTO THE AIR

HENN is a major manufacturer of quick-fit couplings for liquid and air connection systems for the automotive industry. More than 50 million connectors manufactured annually are used at OEMs all over the world from the USA to Japan.

Why do the world's leading car companies choose the HENN connection system?

- Proven Unit Reliability during many years of operation in hostile environments and in-service history of millions of connectors in service without failures.
- Easy installation with fail-safe features due to the reusable locking system.
- Fast installation that does not require any special costly training or special tools.

With the HC.F2F01 connector, which includes the aerospace requirements of a dual-locking mechanism, HENN has now brought the advantages of its proven system that the automotive industry has enjoyed for many years into the aerospace domain.



## WHERE THE CONNECTOR CAN BE APPLIED

Our connector system can be interfaced with any number of standard aerospace material combinations such as aluminium tubing, clear potable water tubing or air conditioning tubing; its applications are unlimited in aircraft environment architecture.

Applications where the advantage of the HENN connector system can easily be applied are:

#### Galleys / Lavatories

Inlets and outlets are often in areas that are not easily accessible. The HENN system adresses this by offering a tool-less one-handed installation and locking system that can also be visually checked for its locking status.

#### ECS systems

Mechanical clip installation of tubing to ECS outlet fittings often bond together and are also situated in areas difficult to access. The HENN system does not bond over time and is just as easy to release after one day or five years.

#### Avionics cooling

Cooling air tubing can be challenging in small avionic bay areas. The Henn connection system allows tubes to be removed and reinstalled to gain access without damage to the overall system. Tube systems can also be easily modified, with the result that the addition of a further outlet is soon completed.

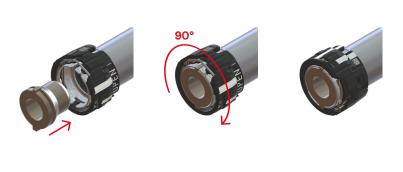
## HOW THE CONNECTOR WORKS

## TO CONNECT:

- Plug the coupling into the connector. The spring clip will engage automatically with the coupling retention groove and locks the two sections together.
- Turn the locking ring through 90 degrees clockwise which locks the spring clip into place, thus achieving a dual locking system that can be visually checked by alignment of the locked / unlocked indicator lines.

### TO DISCONNECT:

- Turn the locking ring through 90 degrees anti clockwise.
- 2. Pull the spring clip out.
- 3. Slide out the connector from the coupling.





## HOW THE CONNECTOR IS QUALIFIED

The HC.F2F01 connector has been subject to the applicable sections of RTCA DO-160G "Environmental Requirements for Airborne Equipment" via an EASA DOA qualification program under EASA Program Number: ITS-T24302

RTCA DO-160G Section #	Description	Category
4	Temperature and Altitude	C1
5	Temperature Variation	с
6	Humidity	A
8	Vibration	S – C(3)
14	Salt Spray	S

Section #26 – Flammability:

The non-metallic sections of the HC.F2F01 connector are within the limitations of the EASA / FAA small parts exemptions being smaller than  $50.8 \text{mm}(3") \times 50.8 \text{mm}(3") \times 30.8 \text{mm}(3")$  and have therefore been omitted from testing.

## SUMMARY AND SPECIFICATIONS

### **GENERAL SPECIFICATIONS**

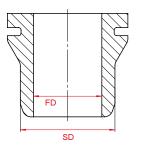
The HENN HC.F2F01 connector offers a solution for fluid and gas transfer systems. It complies with the requirements of the VDA standard and at the same time its versatility enables it to be used with every type of hose or pipe as well used as a replacement for clamped or screwed connections. With its compact design, this connector is a versatile solution for all kinds of aerospace applications. The main body is manufactured as a single metal part which provides stability and excellent corrosion-resistance properties. The 100% automated manufacturing and assembly process guarantees a fully controlled manufacturing environment.

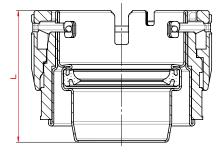
## **OPERATING CONDITIONS**

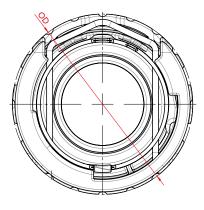
- Temperature Range: -55°C to 135°C / -67°F to 275°F
- Pressure Range: 0.01 to 6 bar / 0.14 to 87 psig

#### MATERIALS

- Connector Body: EN 10346 1.0436
  [DX56D + ZM200]
- Spring Clip: Stainless Steel (1.4310)
- Locking Mechanism: PA 6.6
- Sealing Element: LSR 3022-60







## **DIAMETERS / SPECIFICATIONS**

	Flow Diameter FD [mm]	Sealing Diameter SD [mm]	Outer Diameter OD* [N]	Installation Length L [mm]	Insertion Force [N]	Max. Outer Diameter of Hose** [mm]	Min. Inner Diameter of Hose** [mm]
HC.F2F01-12	12	16.15	34	23	47	25.20	16.45
HC.F2F01-14	14	17.50	37	23	49	26.50	17.65
HC.F2F01-16	16	22.15	43	27	52	31.60	22.25
HC.F2F01-20	20	26.15	48	28	55	35.90	26.05
HC.F2F01-26	26	32.35	54	30	59	42.70	31.95
HC.F2F01-32	32	38.35	61	32	63	48.70	37.65
HC.F2F01-35	35	41.35	64	33	66	51.70	40.45
HC.F2F01-40	40	46.35	69	35	71	56.70	45.25

provisional

\*\* as indication, real values depending on material and wall thickness