

Performance

With its Transport Category OEI field performance, control and engine responsiveness and wide range of operational speeds (74 to 223 KIAS), the Dornier 228 ensures safe margins throughout the entire mission envelope.

Range of take-off distance

- 2.600 ft at MTOW, ISA, SL
- 3.150 ft at MTOW, ISA+10°C, 2000 ft elevation
- 4.000 ft at MTOW, ISA+20°C, 4000 ft elevation

Accelerate stop distance range

- 2.500 ft at MTOW, ISA at SL
- 3.000 ft at MTOW, ISA+10°C at 2000 ft elevation
- 3.600 ft at MTOW, ISA+20°C at 4000 ft elevation

Range of unfactored landing distance

- 1.480 ft at MLW, ISA at SL
- 1.590 ft at MLW, ISA+10°C at 2000 ft elevation
- 1.730 ft at MLW, ISA+20°C at 4000 ft elevation

Climb at ISA, SL conditions

- normal 1570 ft/min
- single engine 400 ft/min

Speed

- max. cruise 223 KIAS
- minimum control 74 KIAS

Certification Basis



The Dornier 228 is the only 3rd-generation aircraft in its class. It has been purposely designed to match the FAR23/CS23 commuter category airworthiness standard, which assigns safety margin equivalents to transport category aircraft. Its advanced design provides the Dornier 228 with unmatched performance, payload capacity, operational flexibility and efficiency.

The Dornier 228 success is proven by the over four million hours flown to date. Based on continuous improvements and innovations, the Dornier 228 offers a high level of safety, even in its standard version, and is one of the most reliable aircraft in the world with its perfect mix of a mature design and innovative technologies.

Due to its advanced aerodynamics, the Dornier 228 is able to match or exceed the STOL performance of competing aircraft at the same payload, all while cruising up to 50 kts faster.



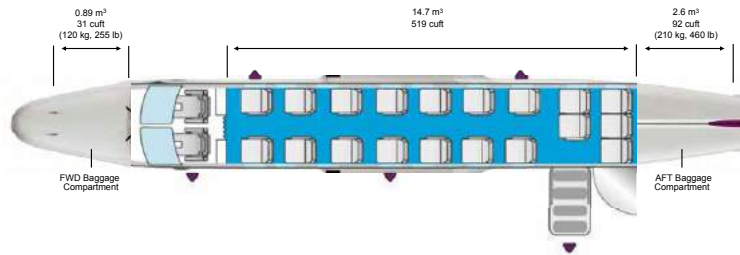
Passenger Transport



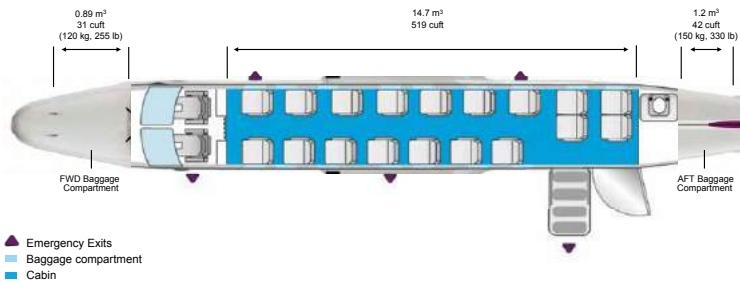
A high standard of passenger comfort is the primary consideration in the Dornier 228 design. The standard cabin consists of 19 individual passenger seats with 30-in pitch and offers airline standard passenger comfort in single seat configuration.

Its rectangular cross-section is the ideal shape for utility applications and provides passengers with ample space at shoulder height, extra passenger headroom and cargo storage. Passengers enter through a passenger door with built-in steps on the LH side of the rear fuselage. An 18 seats layout, with a toilet located aft of the cabin, is also available.

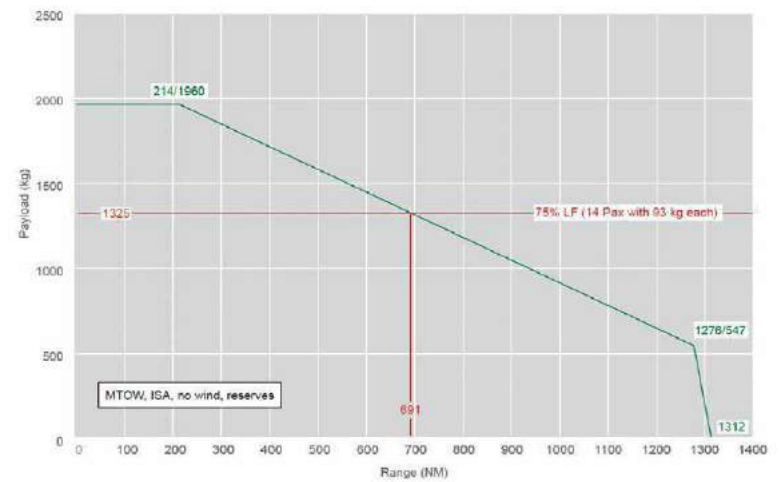
PAX layout – 19 passenger seats



PAX layout – 18 passenger seats, toilet



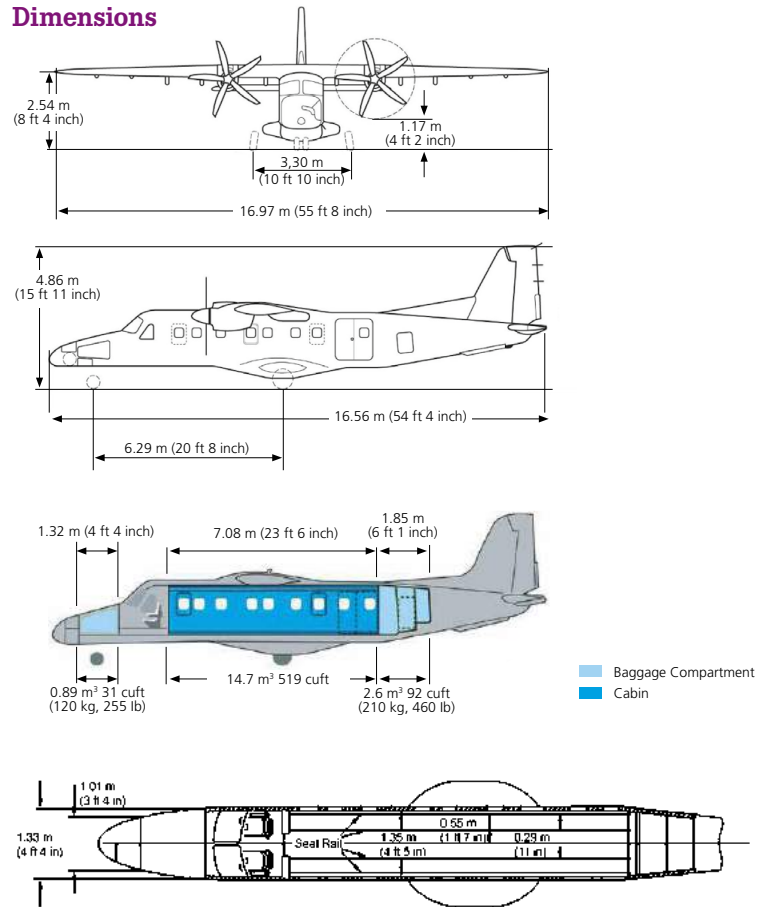
Payload/Range Diagram



Aircraft Specifications



Dimensions



Principal dimensions

Overall height	15 ft 11 in (4.86 m)
Overall length	54 ft 4 in (16.56 m)

Wing

Span	55 ft 8 in (16.97 m)
Area	344.3 ft² (32.00 m²)
Aspect ratio	9.0
Taper ratio	0.7
Sweepback of leading edge inboard	0°/outboard 8°

Vertical stabilizer

Height	8 ft 10 in (2.70 m)
Area	64.6 ft² (6.0 m²)
Aspect ratio	1.50
Taper ratio	0.46
Rudder area	16.1 ft² (1.5 m²)
Rudder deflection	-24°/+24°

Passenger compartment

Overall length, max.	23 ft 3 in (7.08 m)
Maximum width	4 ft 4 in (1.328 m)
Maximum height	5 ft 1 in (1.55 m)

Horizontal stabilizer

Span	21 ft 2 in (6.45 m)
Area	89.6 ft² (8.33 m²)
Aspect ratio	5.00
Taper ratio	1.00
Elevator deflection	-30°/+25°

Ailerons

Span	8 ft 10 in (2.69 m)
Area	2×14.5 ft² (2×1.345 m²)
Deflection (Flaps 0°)	25° up/18° down
Chord	30%

Doors (height × width)

Cockpit door	2 ft 9 in × 2 ft 2 in (0.84 m × 0.65 m)
Passenger airstair door	4 ft 5 in × 2 ft 1 in (1.34 m × 0.64 m)
Passenger/cargo door (both door panels are open)	4 ft 5 in × 4 ft 2 in (1.34 m × 1.28 m)
Baggage door (front)	3 ft 11 in × 1 ft 8 in (1.2 m × 0.5 m)
Baggage door (rear)	2 ft 11 in × 1 ft 9 in (0.89 m × 0.53 m)
Emergency exits (3)	2 ft 2 in × 1 ft 7 in (0.67 m × 0.48 m)

Weights

Weights	lb	kg
Max. take-off weight (MTOW*)	14,110	6,400
Max. landing weight	13,448	6,100
Max. zero fuel weight (MZFW)	13,095	5,940
Operating weight empty (with 2 Pilots) (OWE)	8,598	3,900
Mission equipment (incl. operator and console)	1,047	475
Max. fuel	4,156	1,885

* e.g. optional MTOW increase to 6,575 kg (14,550 lbs) possible

Performance

With its Transport Category OEI field performance, control and engine responsiveness and wide range of operational speeds (74 to 223 KIAS), the Dornier 228 ensures safe margins throughout the entire mission envelope.

Range of take-off distance

- 2.600 ft at MTOW, ISA, SL
- 3.150 ft at MTOW, ISA+10°C, 2000 ft elevation
- 4.000 ft at MTOW, ISA+20°C, 4000 ft elevation

Accelerate stop distance range

- 2.500 ft at MTOW, ISA at SL
- 3.000 ft at MTOW, ISA+10°C at 2000 ft elevation
- 3.600 ft at MTOW, ISA+20°C at 4000 ft elevation

Range of unfactored landing distance

- 1.480 ft at MLW, ISA at SL
- 1.590 ft at MLW, ISA+10°C at 2000 ft elevation
- 1.730 ft at MLW, ISA+20°C at 4000 ft elevation

Climb at ISA, SL conditions

- normal 1570 ft/min
- single engine 400 ft/min

Speed

- max. cruise 223 KIAS
- minimum control 74 KIAS

Certification Basis



The Dornier 228 is the only 3rd-generation aircraft in its class. It has been purposely designed to match the FAR23/CS23 commuter category airworthiness standard, which assigns safety margin equivalents to transport category aircraft. Its advanced design provides the Dornier 228 with unmatched performance, payload capacity, operational flexibility and efficiency.

The Dornier 228 success is proven by the over four million hours flown to date. Based on continuous improvements and innovations, the Dornier 228 offers a high level of safety, even in its standard version, and is one of the most reliable aircraft in the world with its perfect mix of a mature design and innovative technologies.

Due to its advanced aerodynamics, the Dornier 228 is able to match or exceed the STOL performance of competing aircraft at the same payload, all while cruising up to 50 kts faster.



Engines and Propellers

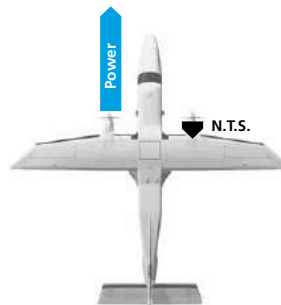


The Dornier 228 is currently the most productive, most reliable and most up-to-date aircraft in its class. And this unmatched performance has even been significantly improved by the new 5-bladed propeller in combination with the fuel-efficient TPE331-10 engine. The results are unique and outstanding mission performances and improvements over the whole flight profile.

Our complete support of the Dornier 228 includes the competence required for the regular MRO, certified safety and continued support of the TPE331 engine over its entire life cycle. RUAG is your experienced partner of choice as a Honeywell Authorised Service Centre and we invest our expertise in providing full support for TPE331-5 & -10 engines, offering both line and major maintenance, as well as hot section inspection.

Engine data	TPE331-10
Dimensions	1080 – 518 – 676 (mm)
(length – width – height)	42.5 – 20.4 – 26.6 (in)
Weight	385 lb
Pressure Ratio	10.55
Power	940 shp
Compressor bleed (max.)	10%
TBO (commercial operation min 800 h/year)	7,000 h
ESFC (Equiv. Specific Fuel Consumption T/O)	0.534 lb/hp-h

N.T.S.
Negative Torque Sensing (N.T.S.) provides automatic and instantaneous prop drag reduction



TPE331 Engine Benefits

- Low Specific Fuel Consumption (SFC)
- Efficient “front-to-rear-flow” turbine design
- Very high ram pressure recovery
- Low frontal area reducing drag to a minimum
- Instantaneous power response in all flight modes
- Automatic torque and ITT limiting system
- Automatic start sequence
- Simple Engine Anti-Ice System
- 940 SHP de-rated to 776 SHP
- Flat rated up to ISA + 30°C at SL
- Low Direct Maintenance Cost
- Time between overhaul up to 7,000 hours
- Engine Health Monitoring (optional)



5-bladed Composite Propeller

- Lighter propeller: Reduced stress on the engine and electrical system during start up
- Smaller propeller diameter: Reduced noise and increased ground clearance
- Retrofit ready: EASA STC A.S.02755, MT-Propeller



Glass Cockpit



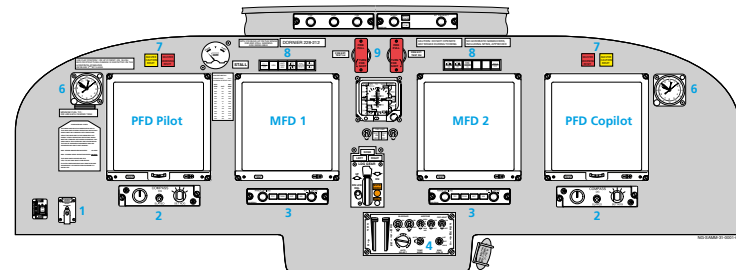
The cockpit is fitted with 4 large UNIVERSAL® displays, featuring one Primary Flight Display (PFD) and one Multi Function Display (MFD) in front of each crew member located on the central panel, additionally an Electronic Standby Instrument System (ESIS) is installed between the two MFD. Those crystal clear, sunlight readable HD displays provide the pilots with the specific information required during each phase of the flight.

Key features

- Four (4) 8.9 inch liquid crystal HD displays
- Designed for increased situational and flight safety awareness
- Primary Flight Display (PFD) with multiple display setting to match mission segment requirements
- Navigation display with TAWS overlay,
- Terrain cross-section analysis along flight path
- Multi-sensors FMS with LPV Monitor
- Emergency ESIS with navigation capability
- Charts and airport diagrams (optional)
- Checklist (optional)
- Moving Map (optional)
- Native NVG PFD/MFD display available (not add-on filters)
- Obstacle cross-section view along flight path
- Synthetic vision (optional)



Main Instrument Panel



- | | |
|--|---|
| 1. ELT Control Panel | 7. Pilot and Co-pilot Master Warning Master Caution Annunciator/Buttons |
| 2. Pilot and Co-pilot PFD Control Unit | 8. Pilot and Co-pilot NAV and Annunciator Panel |
| 3. Pilot and Co-pilot MFD and WXR Control Unit | 9. Engine Fire Handles |
| 4. Air Conditioning Control Panel | 10. Emergency ESIS |
| 5. Landing Gear Lever | |
| 6. Pilot and Co-pilot Clock | |

Avionics

Navigation and Pitot Static Systems

- UNIVERSAL® UNS-1Ew Flight Management System (FMS)
- Dual Revue Thommen Air Data Computer
- Dual Northrop Grumman Litef Attitude Heading Reference System
- Rockwell Collins Radar Altimeter
- Rockwell Collins Distance Measuring Equipment
- Dual Rockwell Collins VHF Navigation System
- ACSS Transponder System
- Honeywell Weather Radar (optional)
- Universal Avionics Terrain Awareness and Warning System Class A (TAWS, optional)
- ACSS Airborne Collision Avoidance System (TCAS, optional)
- Flight Director/Autopilot (optional)
- L3-Com Airborne TACAN System (optional)

Indicating Systems

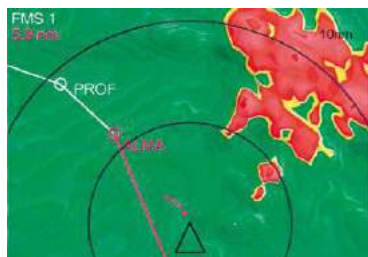
- Universal Avionics Electronic Flight Instrument System
- L-3 Com Avionics Electronic Standby Instrument Systems
- Dual AEE Analog-Digital Converting System (EIU)
- AEE Central Advisory and Warning System

Recording Systems

- L3-Com Solid State Flight Data Recorder with Flight Data Acquisition Unit (optional)
- L3-Com Solid State Cockpit Voice Recorder (optional)

Emergency Equipment

- Emergency Locator Transmitter



TAWS – A unique 3-D perspective view provides the optimum level of situational awareness.

Communication Systems



Dual Rockwell Collins VHF Communication System

- two independent VHF COM transceivers and antennas

Digital Becker Avionics Intercommunication System

- two audio control units installed in the center pedestal and one remote electronic unit
- provides communication between pilot, co-pilot, operator and observers and monitoring of all COM and NAV radio equipment.

Dual Universal Avionics Radio Control Units RCU

- two radio control units installed in the center pedestal
- primary means of control for all onboard radios without a dedicated control unit

Rockwell Collins V/UHF Communications System (optional)

- accommodates full range of ECCM (el. counter-countermeasures) waveforms

HF Communication System (optional)

- long range communication and data transmission
- inverted-V antenna between top of fuselage tail section and vertical stabilizer

SELCAL Decoder (optional)

- allows an aircraft crew to be notified of incoming communications even when the aircraft's radio has been muted

SATCOM (optional)

- provides secure video, data, voice and IP