VOYAGER SERIES

Voyager DF9

Acoustic Doppler Current Profiler (ADCP)

Dual-frequency, 9-beam flagship profiler for unmatched versatility

KEY FEATURES

- ✓ Velocity Operating Frequency: 600 kHz + 2 MHz (dual-frequency)
- ✓ Adaptive dual-frequency switching
  - 2 MHz for superior precision and stability in shallow water
  - 600 kHz for enhanced penetration in deep water and high-sediment flood conditions
- ✓ Maximum Profiling Range (Distance): 80 m
- ✓ Maximum Depth Profiling Range: 100 m
- ✓ Depth rating: (100 m / 800 m)
- ✓ Seamless integration with HyFlow data analysis and cloud platform
- ✓ Low-power DSP technology for extended deployments

VELOCITY SPECIFICATIONS	
Velocity Profiling Range	±20m/s
Velocity Accuracy	0.25% of water velocity relative to ADCP, ± 2.0 mm/s
Maximum Profiling Range (Distance)	80 m
Cell Size	0.02 m - 4 m
Number of Cells	Auto, 170 maximum
Operation Mode	Broadband/Long Broadband/Narrowband/Pulse-coherent
Data output rate	2 Hz (typical)

BOTTOM TRACK SPECIFICATIONS	
Profiling Range	0.3 m - 100 m
Accuracy	0.25% of bottom velocity relative to ADCP, ± 2.0 mm/s
Velocity Range	± 20 m/s
Resolution	1 mm/s

DISCHARGE SPECIFICATIONS	
Profiling Range (Distance)	0.3 m - 100 m
Computations	Internal + Software

DEPTH SPECIFICATIONS	
Depth Range	0.3 m - 100 m
Maximum Depth Profiling Range	100 m
Accuracy	± 1%
Resolution	0.001 m

VERTICAL BEAM SPECIFICATIONS	
Vertical Beam Range	100 m
Accuracy	± 1%
Resolution	0.001 m

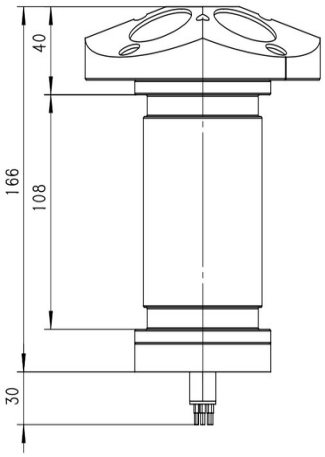
STANDARD SENSOR SPECIFICATIONS			
	Temperature	**Tilt**	**Compass**
Range	-5°C to 45°C	±90°	0 - 360°
Accuracy	±0.5°C	±0.3°	±1°

TRANSDUCER & HARDWARE SPECIFICATIONS	
Number of Acoustic Beams	9
Beam Configuration	4 transducers of 2.0 MHz, Janus arrangement with 22 degrees beam angle (velocity measurement) 4 transducers of 600 kHz, Janus arrangement with 22 degrees beam angle (velocity measurement) 1 vertically mounted transducer of 600 kHz
Internal Memory	1 GB

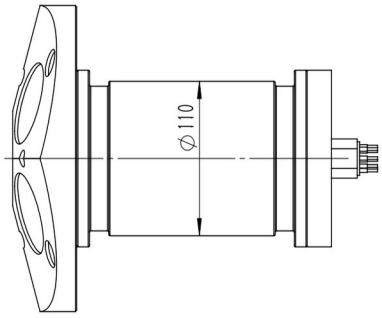
PHYSICAL SPECIFICATIONS	
Depth Rating (Optional)	100 m / 800 m
Weight in Air	[Contact HyFlow]
Weight in Water	[Contact HyFlow]
Dimensions	∅176 mm × 166 mm (H)
Housing Material	Aluminum alloy (Titanium alloy custom)

DIMENSION DRAWINGS

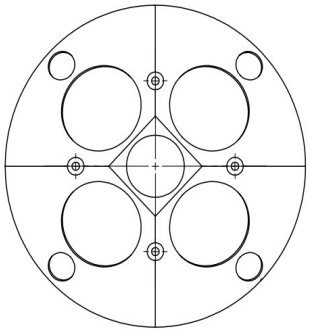
Unit: mm



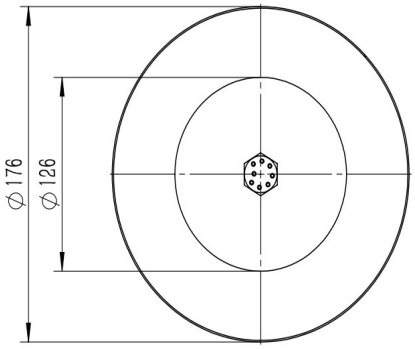
Side View



Side View (Horizontal)



Top-Down View (Transducer Face)



Bottom-Up View (Mounting Face)

POWER & COMMUNICATION SPECIFICATIONS	
Input Voltage	24V DC ± 10%
Power Consumption	[Contact HyFlow]
Communications	RS-232, 57600 baud

APPLICATIONS

- ✓ Multi-depth river discharge (shallow to deep)
- ✓ Coastal and estuarine current profiling
- ✓ Oceanographic research requiring versatile depth coverage
- ✓ Environmental monitoring and impact assessments
- ✓ Irrigation canal and water channel flow measurement
- ✓ Vessel-mounted surveys across varying water depths
- ✓ Bathymetric and current mapping
- ✓ Flood monitoring and early warning systems

HYFLOW SOFTWARE ECOSYSTEM

Every Voyager system integrates seamlessly with the HyFlow software platform, delivering a complete workflow from data collection to cloud analytics.

- ✓ Cross-platform ADCP data analysis software (Windows and Linux)
- ✓ Edge computing for real-time processing and automated gauging
- ✓ Cloud platform for data visualization, storage, and ML analytics
- ✓ Unified data platform — eliminate data silos across deployments