

The next generation of PTT sensors and low voltage connectors

Subsea Controls Downunder

26th October 2022



Siemens Energy

40 years of subsea excellence

DigiTRON connectors & WEPS100 sensors

- Unrivalled global track record
- Hundreds of thousands of installations
- Fully ISO accredited
- Synonymous with reliability
- Fully compliant with industry standards
- Purpose built state of the art facilities for design, test and manufacturing (UK/ Norway)
- Global life of field support in all major subsea regions
- Key supplier to all major operators
- Designed into SPS systems globally

So why change?



Reliability

Standardisation

Obsolescence Management

High speed comms

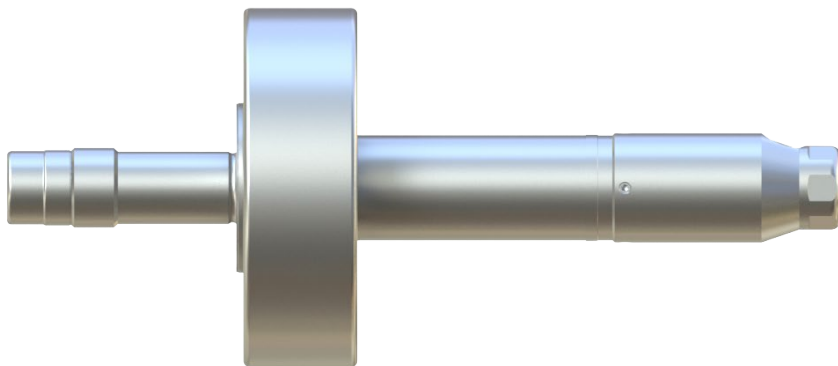
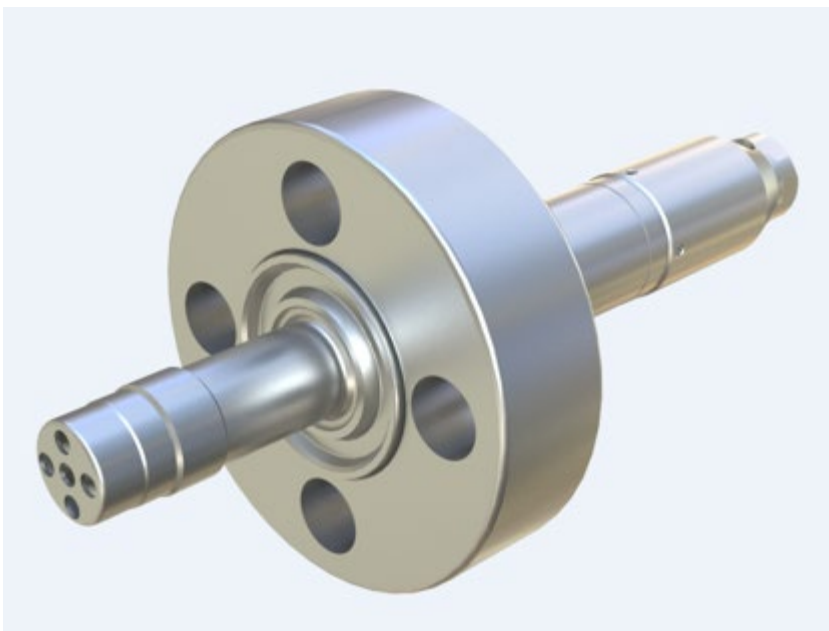
Cost Reduction

Smart data ready

Sustainability

Shorter Lead Times & Availability

WEPS 300 Design Overview



- Reduced size/ weight compared to WEPS100
- Reduced power consumption
- Enhanced Materials (alloy 625)
- Full redundancy of sensor channels
- Standardised design/ flange housing
- Future proof technology reduces obsolescence risk
- Inbuilt vibration/tilt measurement technology
- API-6A, 17D and 17F compliant (3 units)

Key features

Pressure ranges;

- 0-700 bar (10k psi)
- 0-1035 bar (15k psi)

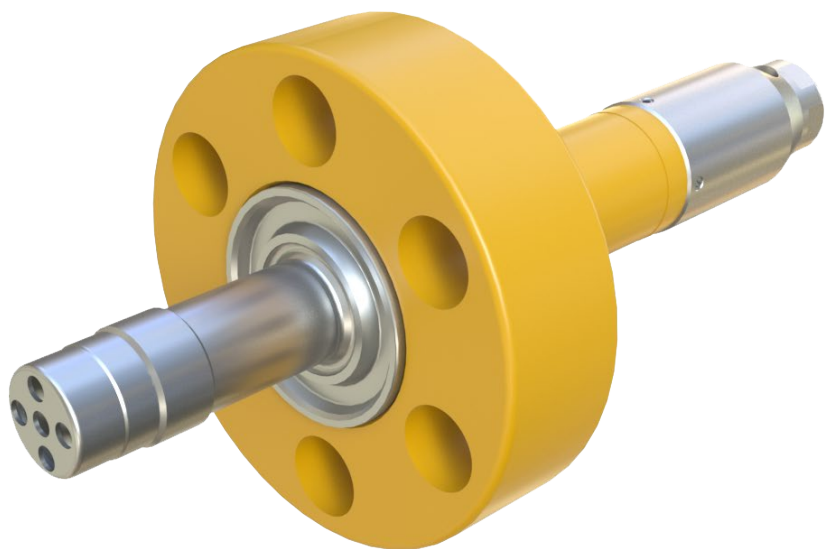
Temperature range -40 to +180 deg C

Accuracy/ Drift

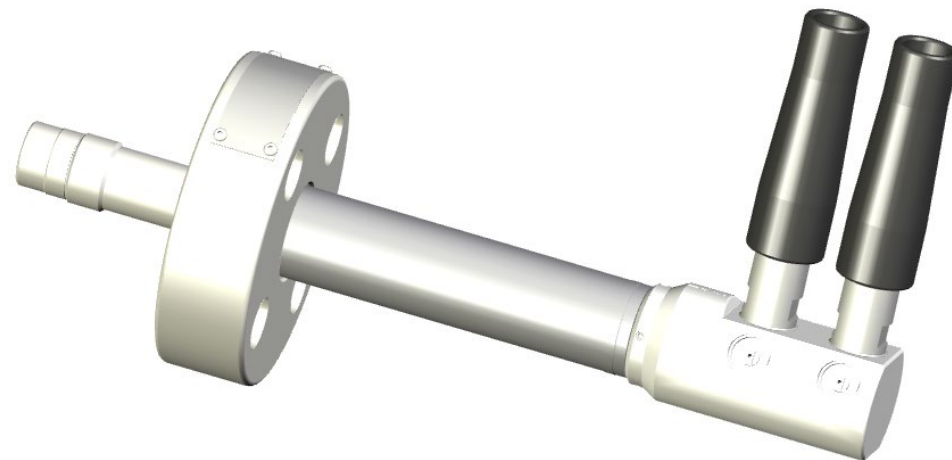
±0.025% FS – Pressure / ±0.02% FS/Yr @25° Retracted only
±0.3% CR – Temperature / ±0.1% FS/Yr

Supports -CANopen CiA-443 SIIIS Lv2
- Modbus

WEPS-300 configurations



- PT, 2xPT, PT/TT and 2 x PT/TT
- 10K and 15K PSI
- Process Interface – BX-150 4 and 6 bolt
- MK2 straight exit, 90 degree and disconnectable solutions are in development



Extended Redundancy – Dual Adapter solution

Equinor TR1233 Compliance:

- Non common oil volume in jumpers
- 2x Single sensors not needed

Design overview – DigiTRON^{nx}



- Will replace DigiTRON range
- Dual barrier controlled environment principal
- Standardised super duplex material
- Same mounting and sealing interfaces
- Standardised design – fewer product variants
- Shorter connector length – approx. 9% reduction in steel
- API-17F compliant
- Not backward compatible

Key features

12 way pin layout designed specifically for high speed communication

Less connector variants (359 → 68)

Removal of soldering

Single termination boot

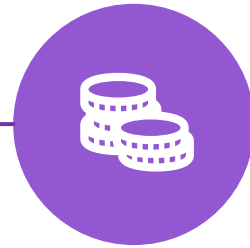
Next phase- hose and cable termination optimisation (start 2023)

Key benefits



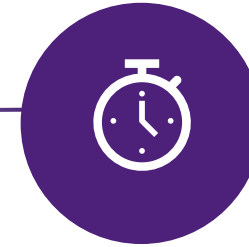
Performance & Reliability

- Maintains proven design philosophies and materials
- Enhanced manufacturing methods
- Solderless terminations
- Fully compliant with industry standards plus additional HALT testing



Cost Reduction

- Standardised design with fewer product variants
- More sustainable sourcing methods
- Reduced engineering
- Simpler installation

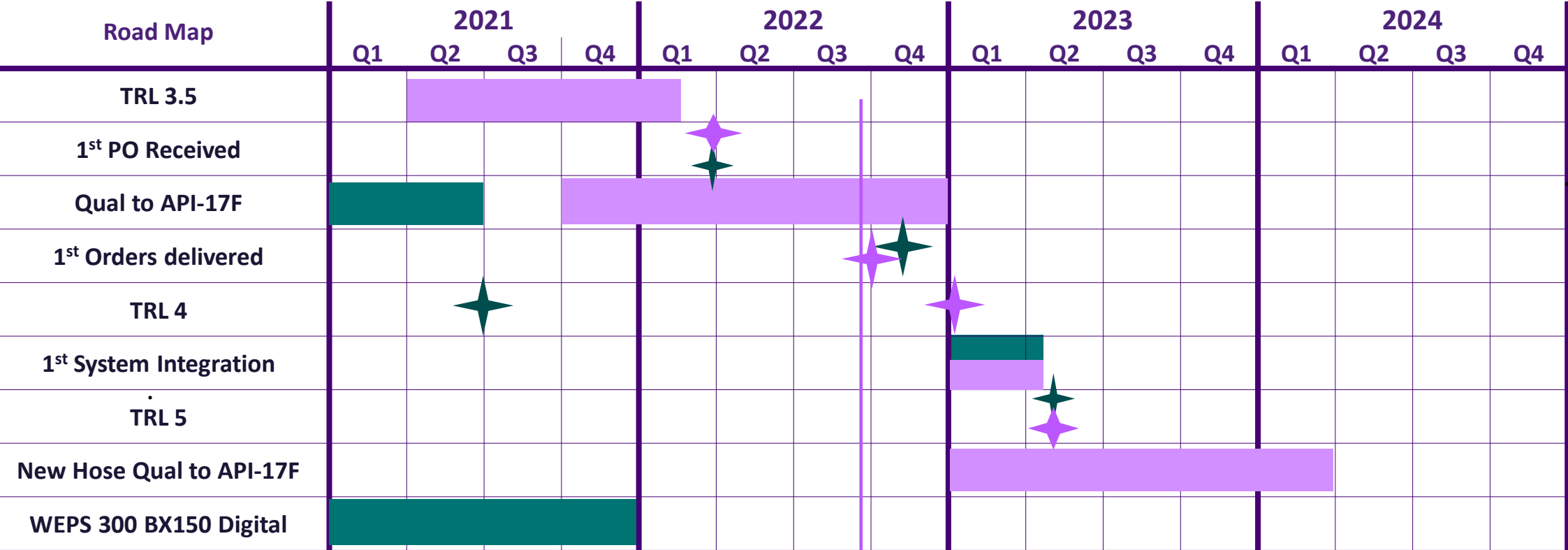


Shorter delivery time

- Reduced upfront engineering
- Fewer parts (less variants)
- Enhanced manufacturing methods
- Automated testing
- More flexible scheduling

All products designed with sustainability at their core. Reduction in part count and manufacturing time, improved packaging, reduced inventory and material wastage all help to reduce our Co2 impact.

Product Roadmap



Tuesday, 08 November 2022

- WEPS 300
- DigiTRONnx

Thank you Any Questions?



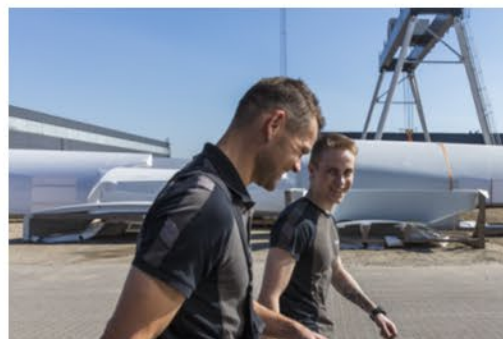
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