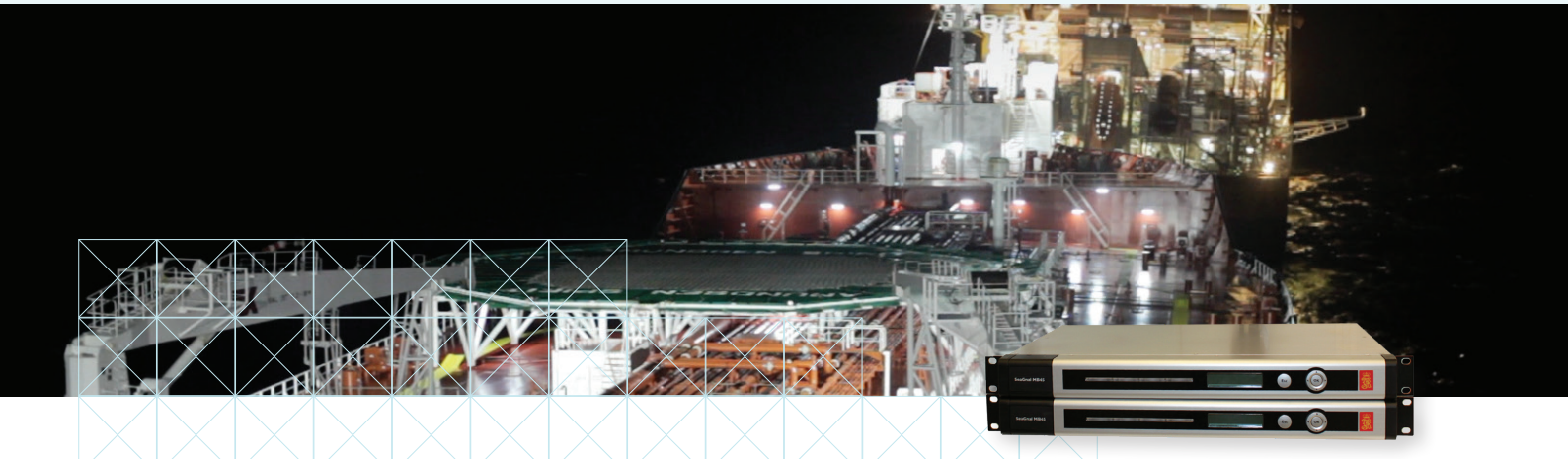
DARPS 900B TELEMETRY

KONGSBERG



KONGSBERG TELEMETRY SYSTEM

Kongsberg Telemetry system is based on dual (fault tolerant) SeaGnal MB45 controller units with built-in UHF transceivers for safe and reliable 'Green-line' control in offloading operations.

Kongsberg Telemetry system enhances control and safety during offloading operations by providing real-time 'green-line' offloading control activated manually or automatic.

The system is based on dual SeaGnal MB 45 controllers operating in parallel on different frequencies for enhanced redundancy. SeaGnal MB 45 is a software defined radio and provides internal processing capacity for complex computations.

Exclusive 'one-to-one' communication links are established between the Telemetry systems on the FPSO and the Shuttle Tanker in the 450 MHz frequency band.

A built-in mechanism preventing 2 or more SHT to connect to the same FPSO, to avoid false 'Green-line' status received by the FPSO. Unapproved attempt to connect to the FPSO will be rejected by the FPSO.

Kongsberg Telemetry can be interfaced to the vessel's control or automation system for automatic control of the 'Pumping permitted' signal.

The Telemetry system can work as a standalone system on both the FPSO and the Shuttle Tanker, but can also be integrated with the vessel's DARPS system for control and monitoring of 'Green-line' status.

FEATURES

- Reliable two-way communication using two separate controllers with UHF at different frequencies in parallel
- Robust against in-band interference due to specialized communication protocol with low latency
- Exclusive 'one-to-one' communication links established between FPSO and SHT
- Unique ID ensures integrity
- Well-marked Emergency Stop switch
- Supports both analogue and digital interface to external equipment
- Easy installation and maintenance
- Ease of operation with 2-line display and keypad, limited operator training needed
- Flexible configuration
- Green-line' status can be monitored on DARPS
- Portable solution available
- ANATEL approved

Example shuttle set-up

Example FPSO set-up

Portable set-up

TECHNICAL SPECIFICATIONS

DARPS 900B TELEMETRY

INTERFACE SPECIFICATIONS 1)

Serial ports	1 x RS-232 2 x RS-232 galvanically isolated with common ground, rear mounted
Network	1 connection, rear mounted
USB	1 connection, front mounted

INTERFACE SPECIFICATION 2)

Controller module	
Network	2 connections, lower cabinet
Analogue input	0-20 mA, 4-20 mA, 0-10 V
Digital input	24 V

RADIO FREQUENCY SPECIFICATIONS

Frequency Range MB 45	450 to 470 MHz
Channel spacing	12.5 kHz
Sensitivity	<-115 dBm for BER=10^-5

WEIGHT AND OUTLINE DIMENSIONS
SeaGnal MB45

Width, height, depth	485 x 44 x 348 mm (incl. mounting bracket)
Weight	3 kg
Voltage	100 to 240 VAC, 50/60 Hz
Power consumption	7 W (typical)

WEIGHT AND OUTLINE DIMENSIONS
Controller module

Width, height, depth	400 x 150 x 150 mm
Weight	7 kg
Power	100 to 240 VAC 50/60 Hz
Power consumption	30 W (typical)

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-15 °C to +55 °C
Operating humidity	Max. 95 % non-condensing
Ingress protection	Front IP44, rear IP20

PRODUCT STANDARDS

Electrical safety	IEC 61010-1/EN 61010-1
Electromagnetic compatibility (immunity/radiation)	IEC 60945/EN 60945
Radio spectrum matters	ETSI EN 300 220-1 v2.4.1 ETSI EN 300 220-2 v2.4.1
Standards	Anatel, Australia and Russia

ENCRYPTION
This product contains no encryption.

January 2020

Specifications subject to change without any further notice.

KONGSBERG SEATEX
Switchboard: +47 73 54 55 00
Global support 24/7: +47 33 03 24 07
E-mail sales: km.seatex.sales@km.kongsberg.com
E-mail support: km.support.seatex@kongsberg.com
kongsberg.com/maritime

KONGSBERG