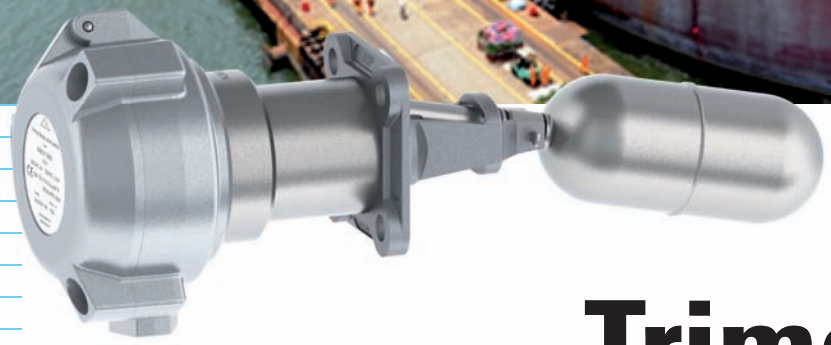
APPLICATION INFORMATION N° 201
OIL & GAS INDUSTRY



Trimod'Besta

Ex-proof Application in the Oil & Gas Industry
FPSO BW Pioneer, Gulf of Mexico, USA

SIL
IEC 61508/61511
SIL 3 Capable

Ex-proof Application

The BW Pioneer, a floating production storage and offloading (FPSO) vessel for the Gulf of Mexico is operated by BW Pioneer Ltd. an affiliate of BW Off-shore. The vessel is turret moored at a water depth of about 2600 meters - by far the deepest for an FPSO.
The concept of Submerged Turret Loading (STL) is an anchored submerged buoy with an integrated turret. The mooring lines and the riser for the fluid transfer are connected to the turret within the STL buoy. The tanker is connected to the system by pull-ing the STL buoy into a mating recess in the bottom of the ship. When the STL buoy is locked to the tan-ker the vessel can freely weather wane without the aid of propulsion.
With its advanced safety features the ship withstands environmental loads from currents, waves and wind, connects to the buoy in waves up to 6 meters high and makes the process of offshore loading weather independent.

Trimod Besta level switches are located in the BW Pioneer's «connection room», which gets flooded while the ship connects to the buoy.

Source: www.maritime-connector.com/NewsDetails/5422/lang/English/Keppel-Shipyard-on-track-to-complete-first-FPSO-for-US-Gulf-of-Mexico.wshtml

Why Trimod Besta?

The top quality of the switching mechanism, the stainless Trimod Besta level switches are trusted to start and stop the process of pumping the seawater out and to protect the pumps from running dry. The chosen explosion proof switches are certified acc. to EN 61079 and withstands very harsh conditions.

Ex-Approval

EPS 09 ATEX 1238 X

Requirement for level switches

- Flameproof design, hazardous area zone 1
- Wall mount in bilge well
- Operation in seawater
- Enclosure: IP68, submersed to 20m
- Relative air humidity 33% to 100% (tropical marine environment)
- Operating temperature T_o +17 to +45°C

Installed level switch types

Type X5U40B8 01 04
Stainless steel switch, IP68 enclosure, flameproof housing, 40 meter cable and gold plated microswitch contacts.

Source: http://www.apl.no

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