



SCM

Systèmes et Connectique du Mans



Optical series

MOD

FPSO Topside Quick Disconnect/Reconnect Turret
Explosion Proof, Splashzone Mateable, Optical Connector



ATEX

• Technical Characteristics

Optical

Number of Contacts : up to 8
Insertion Loss : $\leq 0,5$ dB typical (single mode & multimode)
 ≤ 1 dB max.
Back Reflection : ≤ -40 dB typical (single mode)
 ≤ -35 dB (multimode)


Environmental

Splashzone mateable connector
Receptacle rated pressure : 40 bar (580 psi)
Plug receptacle rated pressure : 5 bar (72 psi)
Operational temperature : 0 to 60°C (32 to 140°F)
Storage temperature : -20 to 50°C (-4 to 122°F)

Material

Shells : AISI 316L
Retaining nuts : Marine bronze
Insulators : PEEK
Optical Contacts : Stainless steel with ceramic ferrule and sleeve

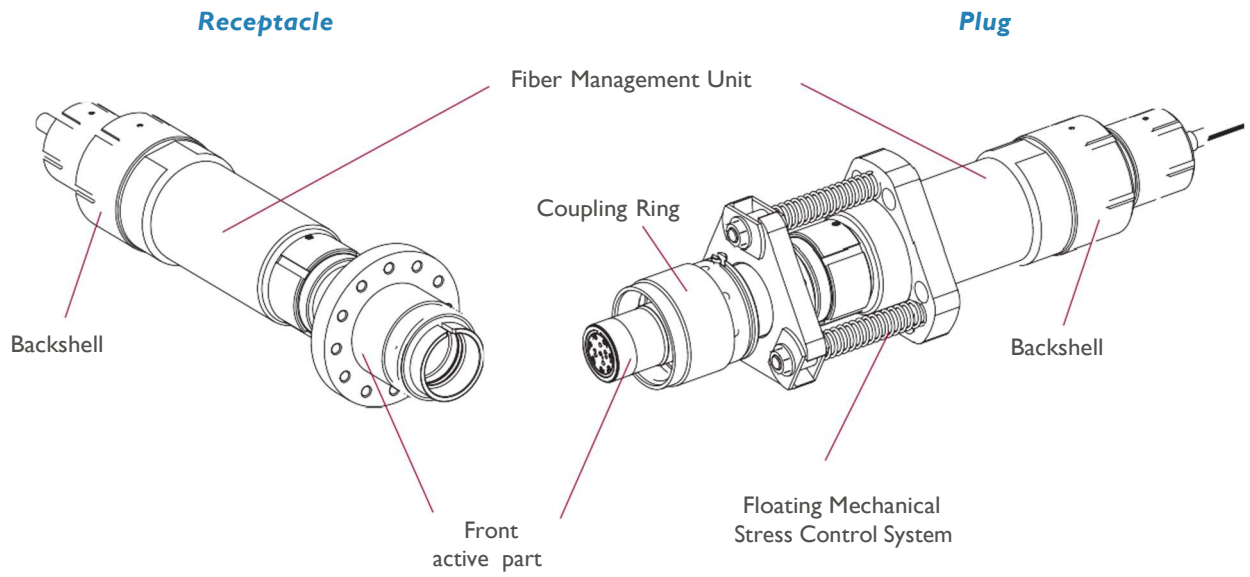
Standards

Connector and Backshell comply with IEC60079-28 & IEC60079-0 /  II G Ex op pr II T6
T6 if operating temperature : $< 113^{\circ}\text{F}$ (45°C)

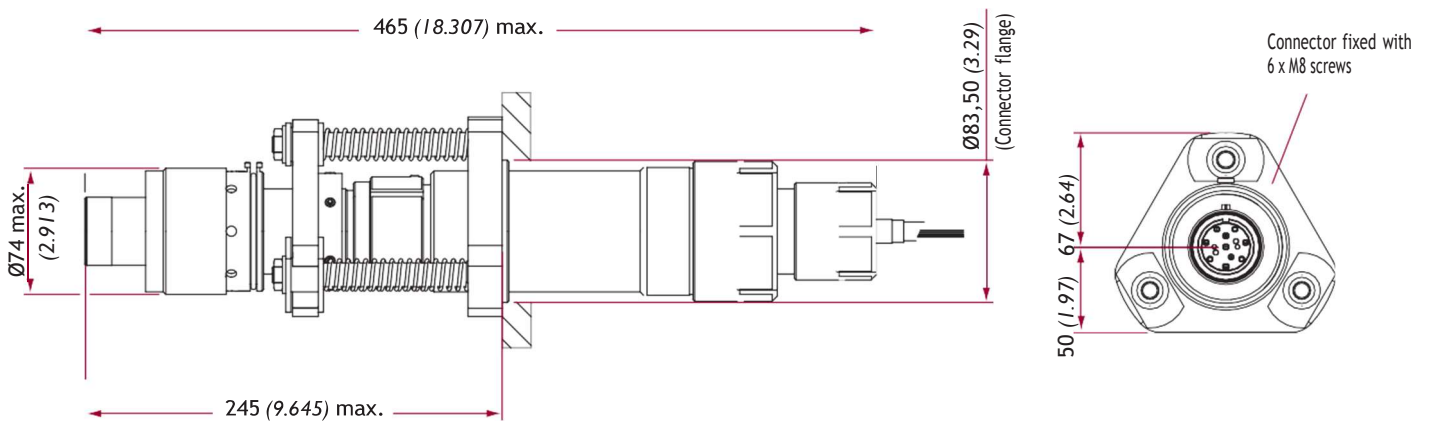
• Parts Numbers

Designation	Part Numbers
Plug	MOD-002-0301-XX
Receptacle	MOD-002-0302-XX

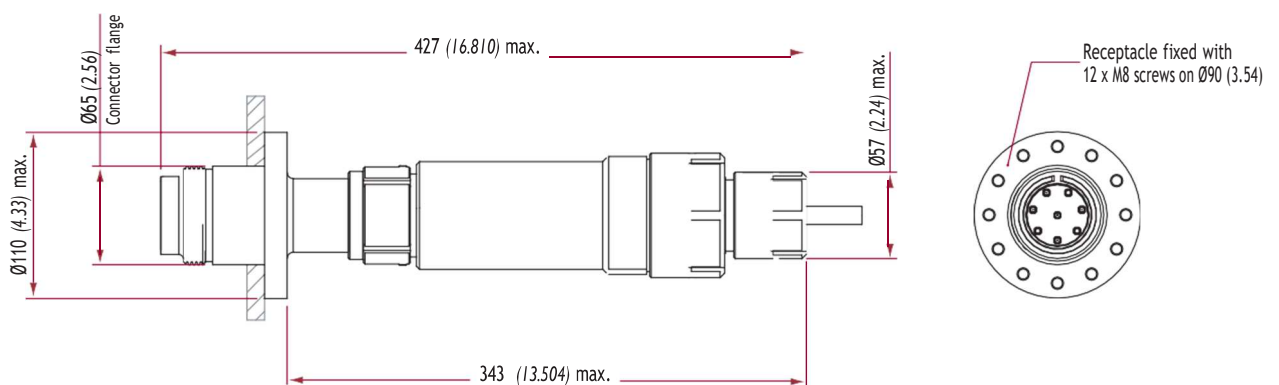
- **Plug and Receptacle**



- **Plug Dimensions - mm (inch)**



- **Receptacle Dimensions - mm (inch)**



- **Qualification Tests - Passed**

Test type	Qualification Tests	Standards	Test conditions Acceptance criteria
Visual & Dimensional Inspection	Dimension & Tolerance Check		Compliant with drawing
	Weight Measurement		Compliant with drawing
Optical Tests	Insertion Loss		0,5 dB typical ; < 1 dB max.
	Back Reflection		< -35 dB (Multimode) <-40 dB (Single Mode)
Mechanical Tests	Helium Leak Test		< 1.10-6 atm.cm ³ /s
	Pressure Integrity Test		100 cycles at 10 bar for plug 100 cycles at 60 bar for Receptacle
	Splashzone Mating Cycle Test		100 Splashzone Mating / Demating cycles
	Pulling Test		Axial load on cable
Atex Certification Tests	Tensile Test	IEC 60079-0	No slipping of cable
	Mechanical Test	IEC 60079-0	No damage
	Sealing Test	IEC 60079-0	No leak or no trace of water
Environmental Stress Tests	Thermal Shock Test		No Damage Optical Performance within specification before, during and after tests
	Mechanical Shock Test		
	Thermal Cycling Test		
	Vibration Test		