

Tubing Encapsulated Downhole Cables With Steel Bumper

Technical Datasheet

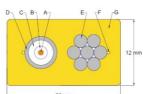
Part No: TEC2312SB

Description: The ENGELEC downhole cable for sensor application. It is designed to installed in the well and

withstand elevated temperatures, high pressure and corrosive environments. It is used in conjunction and connecting with a big range of permanently installed electronic downhole pressure sensor, temperature sensor or other electronic equipment. The downhole cable is

targeted to 150°C offshore and land-based wells where ruggedness is essential.









Construction

A.	Conductor	Annealed bare copper, sizes: solid 16 AWG to ASTM B3, IEC 60228	
B.	Insulation	FEP , Nominal O.D.: 2.59mm, wall thickness 0.65 mm	
C.	Filler	Composite Polypropylene, Nominal O.D.: 4.57mm, wall thickness 1.00 mm	
D.	Tubing	Alloy Inc 825 Tube; Wall Thickness: 0.89 mm (0.035"); Nominal O.D.: 6.35 mm (0.25")	
E.	Steel Wires	5/16" Galvanized steel wire, 7 strands of 2.64mm wire	
F.	Rip Cord	Two ENGELEC® rip cords are placed underneath jacket in contact with the tube and bumper	
Outer encapsulation		Material Composite Polypropylene, Rectangle Profile, dimension : 23mm x 12mm	
Encapsulation Color		• • • •	

Mechanical and Electrical Properties

Tube Wall Thickness, inch (mm)	0.035" (0.89)		
Tube Material	SS 316L	Alloy 825	
Part Number	TEC2312SB-S	TEC2312SB-A	
Continuous maximum operating pressure, psi (bar)	17000(1172)	20000(1279)	
Collapse pressure, psi (bar)	26000(1793)	30000(2069)	
Capacitance, conductor to tube, pf/ft. (pf/m)	25 (82)	29 (96)	
Conductor DC resistance at 20°C, $\Omega/kft.(\Omega/km)$	< 4.45 (14.6)		
Insulation resistance conductor to tube at 20°C M Ω /kft.(M Ω /km)	1006 (3300)		
Rated voltage	1000VDC		
Max operating temperature	Composite Polypropylene : 302°F (150°C)		

Standards

RoHS Compliance : Yes Abrasion Resistance : Excellent CE Compliant : Yes Brine Resistance : Excellent Manufactured in accordance to : BS 5308, ASTM B 3, IEC 60331-1 Hydrocarbon Resistance : Excellent

ENGELEC GROUP

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