

SEACON Fluoroelastomer Connectors

High Pressure, High Temperature, Downhole Connectors for Harsh Environments

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KEY FEATURES

- High temperature rating
- High pressure rating
- Excellent electrical properties
- Eight electrical contacts
- Harsh environment compatible
- Positive external grip for disconnection
- Small size and weight
- Field installable free halves
- Push-on pull-off design (sealing retention retains connectors)
- Keying achieved by contact face pattern
- Wet mateable

Description

This 8 way connector pair was designed for a wire line tool which is fitted within an arm leading to a sensing pad. This meant that when the tool was retrieved the sensing pad could be changed out quickly and easily without tooling or special training. As the connector would directly see wellbore fluids at high pressures and temperatures the connector is moulded in fluoroelastomer. The cable has an outer jacket of Ethylene Tetrafluoroethylene (ETFE) so a booting technique has been used to seal to the cable jacket. This gives the benefit that the free half connectors are field installable, but soldering is required.

The connection philosophy is based around our standard fluoroelastomer connector range. The pin contact has a sealing diameter and when this is connected into the socket bore two integrally moulded o-rings impinge onto this diameter. This means that there are two o-ring seals between contact and earth and four o-ring seals between different contacts. As there are no pressure differentials in the design the connector pair are pressure tolerant.

DESIGN SPECIFICATIONS

- Max Working Pressure: 1380 bar/20,000 psi (approx. 45,000ft/13,700m) mated or unmated
- Max Continuous Working Temperature: +200°C (392°F)
- Min Continuous Working Temperature: -17°C (1.4°F)
- Min Storage Temperature: -40°C (-40°F)
- Voltage: 600 VDC/440 VAC
- Current (Max): 2.5 amps

QUALIFICATION

- A pair of connectors has successfully been tested to 1725 bar (25,000 psi) and 200°C (392°F)
- A pair of connectors has successfully been installed in a wire line tool within a test well at a depth of 360m (1,200 ft)

TE Components . . . TE Technology . . . TE Know-how . . . AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem

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MATERIALS

- 1 Pin & Socket Contact: 22AWG Copper alloy, gold plated.
- **Connector Body:** Moulded in 100% fluroelastomer grade 'A'. It has a continuous temperature rating of -17°C to 250°C (1.4°F to 482°F)
- **Cable:** Raychem SPEC 55 cable. 22AWG with cross linked ETFE polymer jacket. It has a continuous temperature rating of -65°C to 200°C (149°F to 392°F) and short periods at 400°C (752°F) and combines the easy handling of a flexible wire with excellent scrape, abrasion and cut through characteristics. Contact TE for further details
- Solder: High temperature solder is used to solder the wire to the contact

Configuration





VS-8#22-ILFS-FI & VS-8#22-ILMP-FI

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Consult TE for the latest dimensions and design specifications.

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