

## Using Pressure Transducers with Packers

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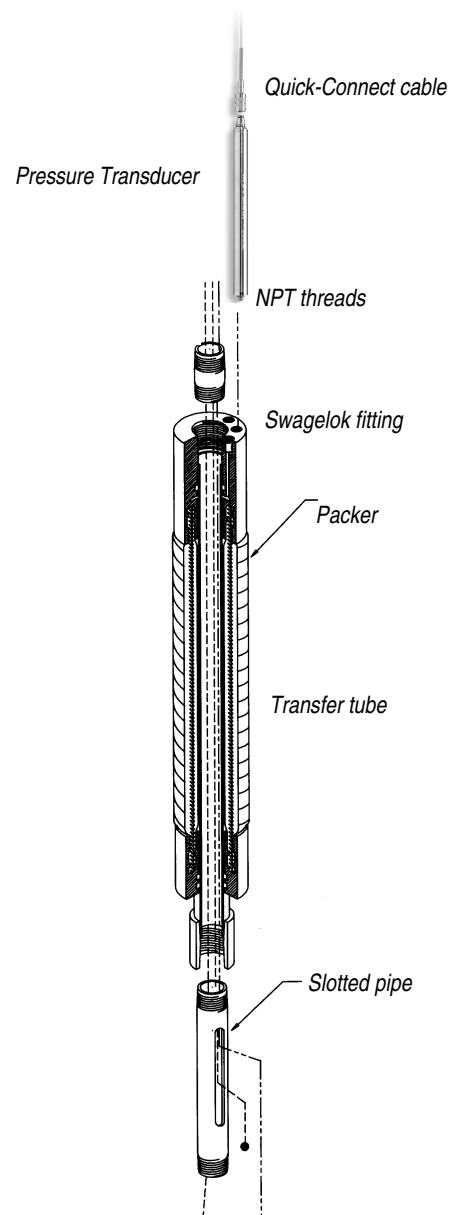
There are often circumstances that require monitoring of pressure in one or more formations simultaneously. When this is necessary, the use of an inflatable packer is required. The packer acts as a giant plug that allows a discrete zone or zones to be isolated and then pressure tested. The pressures in the zones are recorded and logged using a pressure transducer and a data logger.

The problem encountered in the past has always been: how to get the transducer into the packed-off zone? Traditionally, the cables for the transducers needed to be fed through the interior of the packer during its assembly at the factory. While this certainly works, it requires that the cable and usually the transducer be dedicated to the packer. In-Situ's PXD-261 Pressure Transducer and Quick-Connect Cable offer alternatives to the expense of dedicating a transducer and cable.

The Quick-Connect cable allows the transducer to be detached from the cable when not in use. The transducer is simply unscrewed from the cable. The transducer then may be attached to another Quick-Connect cable and used for other purposes, thereby greatly decreasing the cost associated with dedicating the entire system to the packer.

Some packer manufacturers (Baski and TAM) provide a Swagelok® fitting on the top of the packer. The underside of the fitting is attached to a transfer tube. The end of the tube is filled with water. A porous membrane covers the bottom of the tube and prevents the water from draining out during deployment. The water in the tube allows for more accurate readings of formation pressure since it negates the need to calculate an offset that is required with air-filled tubes.

The PXD-261 Pressure Transducer is readily adaptable to this arrangement. Simply remove the nose cone and locking washer to reveal the ½" male NPT fitting. The transducer may now be screwed into the Swagelok fitting on the top of the packer. The Quick-Connect Cable is then attached to the transducer.



This installation method has several advantages. The most obvious is that the system is no longer dedicated to the packer, thereby greatly decreasing project costs. Installation is quick and easy so the cost of the system is reduced since it is no longer necessary to have it assembled at the factory. Finally, the cost of the Quick-Connect cable is reduced because the it is no longer necessary to purchase as long a lengths of cable since it is only necessary to go to the top of the packer.

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