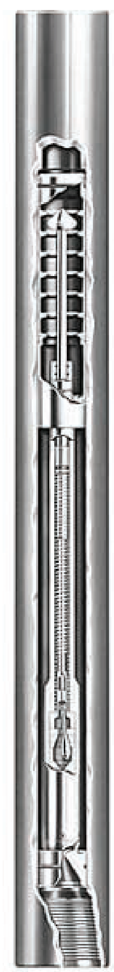
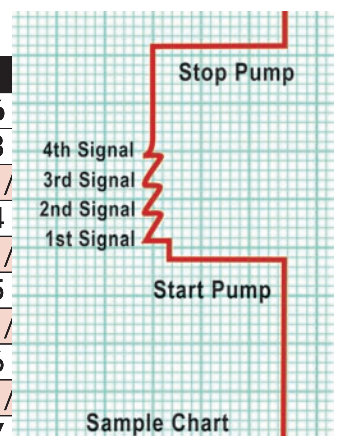
**THE WIRELESS DRIFT INDICATOR** speeds the drilling process by providing almost instantaneous surface recordings of wellbore deviations, thus eliminating the need for making round trips or running survey tools on wire line into the drill pipe at required intervals.

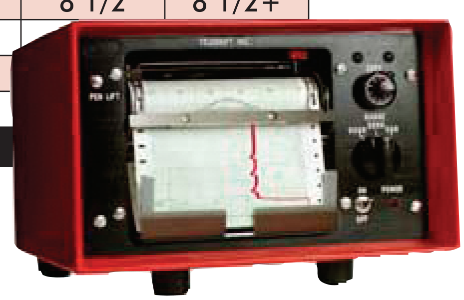
# INDUSTRY LEADER

The Teledrift Wireless Drift Indicator is the industry-recognized leader in low-cost drift only survey capabilities. The rugged, mechanical device measures well-bore angle in one-half degree or one degree increments and transmits that information from downhole to the surface electronic recorder via mud pulse telemetry. The first patients on mud pulse telemetry were issued for the Teledrift instrument, and the tool has been continuously improved to its current reliable, and proven state as a cost and time-saving alternative to single shot surveys.



| Angle Range | NUMBER OF SIGNALS | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| 1/2 - 3 | 1/2 | 1 | 1 1/2 | 2 | 2 1/2 | 3 | |
| 1-3 1/2 | 1 | 1 1/2 | 2 | 2 1/2 | 3 | 3 1/ | |
| 1 1/2-4 | 1 1/2 | 2 | 2 1/2 | 3 | 3 1/2 | 4 | |
| 2-4 1/2 | 2 | 2 1/2 | 3 | 3 1/2 | 4 | 4 1/ | |
| 2 1/2-5 | 2 1/2 | 3 | 3 1/2 | 4 | 4 1/2 | 5 | |
| 3-5 1/2 | 3 | 3 1/2 | 4 | 4 1/2 | 5 | 5 1/ | |
| 3 1/2-6 | 3 1/2 | 4 | 4 1/2 | 5 | 5 1/2 | 6 | |
| 4-6 1/2 | 4 | 4 1/2 | 5 | 5 1/2 | 6 | 6 1/ | |
| 4 1/2-7 | 4 1/2 | 5 | 5 1/2 | 6 | 6 1/2 | 7 | |
| 5-7 1/2 | 5 | 5 1/2 | 6 | 6 1/2 | 7 | 7 1/2 | 7 1/2+ |
| 5 1/2-8 | 5 1/2 | 6 | 6 1/2 | 7 | 7 1/2 | 8 | 8 + |
| 6-8 1/2 | 6 | 6 1/2 | 7 | 7 1/2 | 8 | 8 1/2 | 8 1/2+ |
| 6 1/2-9 | 6 1/2 | 7 | 7 1/2 | 8 | 8 1/2 | | |
| 7-9 1/2 | 7 | 7 1/2 | 8 | 8 1/2 | 9 | | |
| 7 1/2-10 | 7 1/2 | 8 | 8 1/2 | 9 | 9 1/2 | | |
| DEVIATION ANGLE IN DEGREES | | | | | | | |



# THE 'TELE' CONCEPT

The Wireless Drift Indicator speeds the drilling process by providing almost instantaneous surface recordings of wellbore deviations, thus eliminating the need for making round trips or running survey tools on wire line into the drill pipe at required intervals.

The Wireless Drift Indicator, which is operated by rig personnel, is a rugged, stainless steel, mechanical device that measures wellbore angle in one-half degree or one degree increments and transmits that information from down hole to the surface electronic recorder via mud pulse telemetry.

Teledrift offers two versions of the Wireless Drift Indicator. The first gives readings in one-half degree (½°) increments, with a maximum of seven pulses equating to 3 ½°. the range of the tool can be adjusted to give you a maximum reading to 10½°. The second version is configured to measure in one degree (1°) increments, with a maximum of seven pulses equating to 7°. The range of the 1° tool can be adjusted to give you a maximum reading to 9°. While on the surface at the rig site, the range on both tools can be quickly field adjusted, to read to greater maximum inclinations.

Teledrift also offers a 'Wide Angle' instrument that measures deviation in one-degree (1°) increments, up to 17°.

### Available Tool Sizes

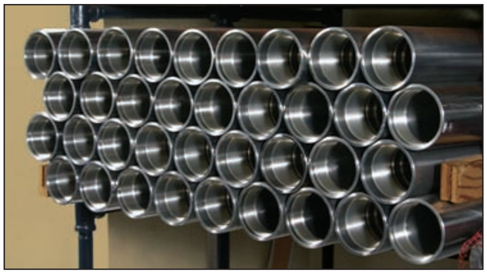
| | |
|---|---|
| 10.0" Collar | 6.75" Collar |
| 9.50" Collar | 6.50" Collar |
| 9.00" Collar | 6.00" Collar |
| 8.00" Collar | 4.75" Collar |
| 7.00" Collar | |

### Available Tool Ranges

1/2° - Tool Range ½° to 10 ½°

1° - Tool Range 1° to 9°

Wide Angle - Tool Range 1° to 17°



### Key Benefits

- Less chance of getting stuck – minimize non-drilling time.
- Faster surveys at any depth – not dependent on running instruments on wireline.
- More frequent surveys – can survey as often as desired
- Save costly down time – track your wellbore more precisely utilizing increased number of surveys.
- Resolution to one-half or one degree.
- No hydraulic hook-ups – simple transducer, cable, surface recorder.
- Permanent record of surveys – hard paper copy of all the surveys.
- Less costly than full MWD– pay only for the information that you require.

# HOW TELEDRIFT WORKS

The Wireless Drift Indicator consists of a pendulum at the bottom of the tool that moves along a series of graduated stop shoulders, and a signaling plunger at the top that traverses a series of seven annular restrictions to produce pressure pulses in the mud stream. Plunger travel is controlled by a patented coding system so that deviation of the hole from the vertical increases the number of pulses generated. A maximum of seven signals can be generated, each representing an increment of wellbore angle of one (1°) or one-half (½°) degree, depending on the tool being utilized.