

DigiTRAK FALCON F5[®] Wideband Transmitters



Available in 19", 15", and 8"

- The first and only sub-kHz frequencies in the industry for battling passive interference on the jobsite
- Falcon evaluates hundreds of frequencies for the best possible performance on every bore
- Scan for interference, select optimum frequencies, and pair transmitter at the jobsite
- Switch between paired bands mid-bore
- Full Scale Sensitive Pitch provides 0.1% resolution through $\pm 99.9\%$ slope for precision grade work
- Max Mode filters noise to boost weak data signals and stabilize depth readings
- Standard warranty for 19" and 15" transmitters is 3 years/500 hours

Aggressive on Passive Interference

The ability to choose the right transmitter frequency is more important than power in overcoming the effect of active interference. In October of 2015, DCI introduced Falcon technology, a significant new approach to overcoming active interference on HDD jobsites.

DCI now introduces a Falcon F5[®] transmitter that aggressively targets passive interference. The Falcon Sub-k[™] lets a locating specialist scan the jobsite and select the best frequency in the ultra-low 0.33–0.75 kHz (330–750 Hz) range. This new capability is exclusive to Falcon F5 and gives HDD crews the ultimate advantage over passive interference.

The Advantages of Wideband

A Falcon F5 transmitter provides versatility in all types of active interference at frequencies of 4.5–45 kHz. The Falcon F5 wideband design vastly outperforms single frequency transmitters of past generations. It also comes standard with fluid pressure measurement. No other guidance system allows an operator to scan for active interference and then pair optimized frequencies to a transmitter at every jobsite. This provides substantial cost savings and increases pilot bore productivity.



Falcon
Frequency
Optimizer

The Sub-k[™] Rebar Transmitter

The newest entrant into the Falcon F5 wideband transmitter lineup is the Sub-k Rebar transmitter. It uses frequencies below 1 kHz and provides frequency selection options from 0.33–0.75 kHz. This frequency range is ideal for addressing project scenarios that exhibit passive interference. Whether sidewalk, roadway, or runway, the Sub-k outperforms other options above 1 kHz. This transmitter includes fluid pressure measurement as a standard feature.

Band Number	DigiTrak Sub-kHz			The other guys	DigiTrak Wideband								
	0.3	0.5	0.7		7	11	16	20	25	29	34	38	43
Range in kHz	.33 - .40	.40 - .58	.58 - .75	1.5 - 4.0	4.5 - 9.0	9.0 - 13.5	13.5 - 18	18 - 22.5	22.5 - 27	27 - 31.5	31.5 - 36	36 - 40.5	40.5 - 45

Sub-kHz requires Sub-k receiver update.

Length	Wideband			Sub-k™ Rebar		
	8"	15"	19"	8"	15"	19"
Model Number	BTS	BTP	BTPL	BTS	BTP	BTPL
Product ID	FT2s	FT5p	FT5Lp	FTR5s	FTR5p	FTR5Lp
Bands	9			6		
Depth/Data Range, ft	25	100	125	25 ↑, 20 ↓	65 ↑, 50 ↓	80 ↑, 65 ↓
Data Range, Max Mode, ft	30	125	150	30 ↑, 25 ↓	80 ↑, 62 ↓	100 ↑, 80 ↓
Frequency Range	4.5 – 45.0 kHz			0.33 – 0.75, 4.5 – 18 kHz		
Roll Clock Positions	12	24				
Pitch Resolution, Standard Mode	0.1% at level, decreasing with increased pitch					
Pitch resolution, Full Scale Sensitive Pitch (FSSP) Mode	–	0.1% at ±99.9%		–	0.1% at ±99.9%	
Pressure Resolution 0–250 psi	–	Standard Mode: 1 at 0–75, 5 at 75–250 FSSP Mode: 5 at 0–50, 10 at 50–150, 20 at 150–250		–	Standard Mode: 1 at 0–75, 5 at 75–250 FSSP Mode: 5 at 0–50, 10 at 50–150, 20 at 150–250	
Battery Life Awake	up to 12 hours, 123 3V lithium	up to 20 hrs alkaline, 70 hrs SuperCell	up to 40 hrs, SuperCell only	up to 12 hours, 123 3V lithium	up to 20 hrs alkaline, 70 hrs SuperCell	up to 40 hrs, SuperCell only
Battery Life Asleep	200 hrs alkaline	200 hrs alkaline, 400 hrs SuperCell	400 hrs, SuperCell only	200 hrs alkaline	200 hrs alkaline, 400 hrs SuperCell	400 hrs, SuperCell only
Diameter	1"	1.25"	1.25"	1"	1.25"	1.25"

Range figures are based on SAE Standard J2520. Actual ranges and battery life will vary based on environment, transmitter housing, and frequency. A ↑ is standard-power Up mode. A ↓ is mid-power Down mode with sub-kHz frequencies to combat passive interference common around rebar.

Wideband vs. Sub-k™ Rebar

When active interference is a key consideration, go wideband. With a frequency range of 4.5–45 kHz, it provides the most flexibility and frequency coverage for addressing active interference. Use Max Mode in extreme interference.

When you suspect passive interference, use Sub-k Rebar. It uses frequencies in the 4.5–18 kHz range for data and the ultra-low 0.33–0.75 kHz range for the depth/locate signal. Using frequencies below 1 kHz greatly increases success at difficult bores with passive interference.

Battery Life

Use alkaline batteries with regular or Sub-k 15" transmitters, however, a SuperCell™ can triple the run time of alkalines. For 19" transmitters, use SuperCell batteries only.

3 Year/500 Hour Warranty

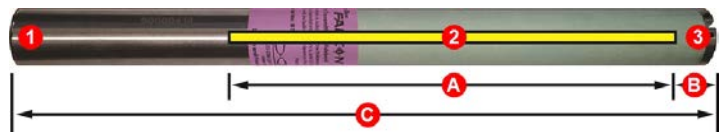
Register your new Falcon 19" or 15" transmitter within 90 days for an enhanced warranty of 3 years or 500 hours, whichever occurs first. Ask your dealer about an extended warranty option that provides 5 year/750 hour coverage.

DucTrak

Falcon F5 supports DDT12 and DDS12 DucTrak transmitters.

Transmitter Drill Head Requirements

For maximum transmitter range and battery life, the slots in the drill head must meet minimum length and width requirements and be correctly positioned. DCI's transmitters require a minimum of three slots equally spaced around the circumference of the drill head for optimal signal emission and maximum battery life. Measure slot lengths on the inside of the drill head; slots must be at least 1/16 inch wide. DCI transmitters fit standard housings but may require a battery cap adapter in some cases. To receive fluid pressure readings, drilling fluid must be able to reach the transmitter.



- 1. Battery cap
- 2. Slot position
- 3. Front end cap
- A. Slot length
- B. Distance
- C. Transmitter length

	A Minimum	B Maximum	C
19-inch Wideband	13.0"	1.0"	19"
15-inch Wideband	9.0"	1.0"	15"
8-inch Wideband	4.0"	1.0"	8"

While a Falcon transmitter is compatible with older housing slot dimensions, optimal performance requires the A and B measurements shown above.