

## 2 3/4" MULTI-ARM CALIPER TOOL (40 ARM) PART NUMBER 050-MAC40-0000

The Multi-arm Caliper MAC-40 is a state of the art, sophisticated logging tool that performs an accurate inspection of the inside of casing. When combined with a standard Warrior™ Cased Hole logging panel, it becomes an integrated logging system enabling downhole data acquisition, high speed data transmission to the surface, data processing and vivid imaging of the inspected casing. The data provided by the tool provides you with the knowledge necessary to plan cost-effective work-over and remedial operations.

The tool is designed with a small outside diameter with a large working range of measurement. The tool is capable of logging all weights of 4-1/2 inch through 7 inch casings. Each of the 40 arms sends an individual measurement to surface. The actuation of each arm is converted to an electrical signal and transmitted to surface in a data frame consisting of a frame identifier, 40 arm channels, an electronics temperature data and a checksum. The data is transmitted at a rate of 13 times per second. The surface equipment decodes the data frame and stores the data on disk. The operator has the option of presenting the data in a log form along with several different types of imaging presentations ranging from a cross section of the casing to a 3-D type, color enhanced visualization.

### SPECIFICATIONS

Tool Diameter	2 3/4" in.	6.9 cm.
Tool Length	83 4/5" in.	213 cm.
Tool Weight	71 lb	32.2 kg
Operating Voltage	110 V DC	
Operating Current	40 mA DC	
Open/Close Voltage	+/- 70 V DC	

### LIMITATIONS

Maximum Pressure	11,500 psi	80 MPa
Maximum Temperature	325°F	165°C

### OPERATING PARAMETERS

Signal Input:	Probe PTX Telemetry	
Logging Speed	30-60 ft./min.	900-1800 cm./min.
Data Transmission Rate	13 times per sec.	
Measuring Range	2 9/10" to 7 1/8 "	7.4 to 18.0 cm.
Typical Resolution	0.0003 in. per bit	7 μm per bit
Accuracy	0.005 in.	0.13 mm

