

How deep can I take TAPS?

The TAPS was originally designed for relatively shallow use: in the photic zone, down to perhaps had a substantial safety margin built-in, however. Since that time, various people have asked might put their TAPS. Our answer has always been, "it depends."

The table below was created to show just how the maximum safe depth for TAPS 'depends' up components. In general, the maximum operating depth is usually determined by the depth sensor. These sensors will withstand twice the rated pressure without damage and five times the rated failure. Exceeding the MAX SAFE DEPTH on a pressure sensor will damage the strain gauge, offsets and linearity errors. Exceeding the MAX DEPTH may cause catastrophic failure of TAPS.

Please note that the MAX DEPTH's shown here are the **FAILURE** depths, whereas the MAX SAFE DEPTH are the feasible maximum operating depths. **You should never send TAPS below the minimum MAX SAFE DEPTH applies to your TAPS** (except for the transducer rating).

COMPONENT	MAX PRESSURE (psi)	MAX DEPTH (m)	MAX SAFE DEPTH (m)	COMMENT
Case	4500	3000	1500	Compressive stress
Endcaps	>2500	>1700	>1500	> 10% safety margin
O-ring	2000	1360	1090	Using shore-90 hardened
Connectors	20,000	13,500	10,800	Presumes no nicks or scratches
Thermistor	3000	2000	1500	25% safety margin
100 psia depth sensor	500	330	125	Max safe depth is for no damage burst depth
300 psia depth sensor	600	995	398	Max safe depth is for no damage burst depth
500 psia depth sensor	2500	1650	660	Max safe depth is for no damage burst depth
1000 psia depth sensor	5000	3350	1340	Max safe depth is for no damage burst depth
Transducers	5000	3350	200	Calibrations not guaranteed unless optional calibrations included. Excursions to MAX DEPTH may cause damage.