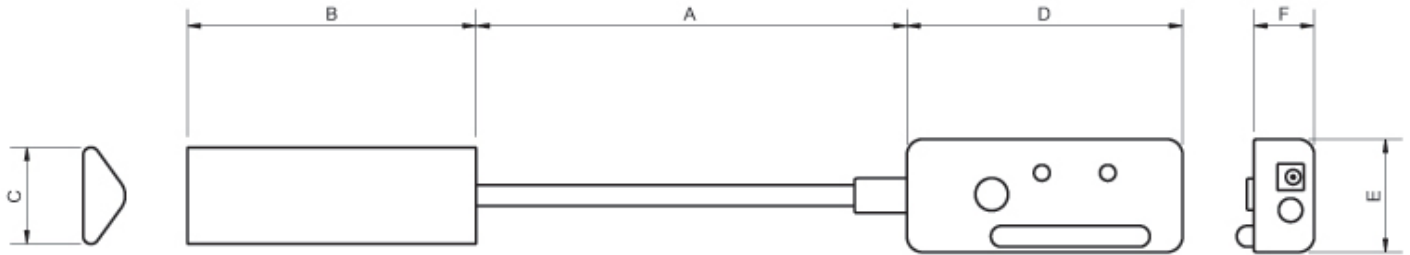


DataLITE Wireless Goniometer Specifications

In general, there are no fixed rules governing which size of sensor is most suitable for a particular joint; this depends on the size of the subject. The sensor must be capable of reaching across the joint so that the two end blocks can be mounted where least movement occurs between the skin and underlying skeletal structure. In certain circumstances more than one size of sensor will be appropriate. The following table is given for guidance only and refers to an adult population. Size used will vary within pediatrics.



	Joint	Output	No. of Channels	A Max	A Min	B	C	D	E	F	Weight (g)
W65	Wrist	Flexion/extension, radial/ulnar deviation	2	65	30	55	18	53	22	12	24
W75	Wrist (large)	Flexion/extension, radial/ulnar deviation	2	75	35	60	18	53	22	12	25
W110	Elbow or ankle	Flexion/extension, or dorsiflexion/plantarflexion and inversion/eversion	2	110	70	60	18	53	22	12	25
W150	Knee or hip	Flexion/extension and valgus/varus, or flexion/extension and abduction/adduction	2	150	100	70	18	53	22	12	27
W150/B	Back	Flexion/extension, lateral flexion	2	150	50	120	18	53	22	12	29

(measurements in mm)

Transducer type	strain gauge
Life¹	600,000 cycles
Accuracy^o	± 2° measured over a range of ± 90°
Repeatability	1° measured over a range of 90°
Operating temperature range	+10°C to +40°C
Temperature zero drift	0.15 degrees angle / °C

¹Life test results have been collected by cycling the sensors through movements that would happen during everyday use. For example, placing a sensor on an adult elbow and moving from the neutral position to maximum flexion and back to the neutral position, the unit will function for typically 600,000 cycles.

- > Up to 2 axis per sensor with up to 2 digital inputs suitable for pressure sensors
- > Resolution of better than **+0.1** degree in a range of +180 degrees
- > Selectable sampling rates of **1000, 500, 250 or 100 samples per second on both X and Y**
- > Bandwidth from **DC to 500Hz**, +0dB/-3dB (reduced by sampling rates lower than 1000)
- > Selectable sampling rates of **1000, 500, 200, 100 or 50 samples per second on the digital inputs**
- > Wireless transmission data loss tolerant for 100mS
- > Operates from a **rechargeable Li-Ion Polymer Battery** with integrated charging control
- > Fully charged battery life in excess of 12 hours

Attachment Tape T10

A pack of 10 rolls of medical grade double sided adhesive tape for attachment of all goniometers to the subject.