

ALC-01 Anchor Load Cell

Basic characteristic

- ▲ Fiber Bragg Grating-based Anchor Load Cell, specifically designed to be used as an anchor load cell in applications such as bolt constructions, pre-strained constructions, quay walls, etc.
- ▲ This sensor is designed to provide highly sensitive measurements for a nominal load of 240kN and is temperature compensated to ensure high stability.



Benefits

- ▲ Highly sensitive
- ▲ Double-ended
- ▲ Intrinsically temperature compensated
- ▲ Exceptionally long-term stability and durability
- ▲ Robust stainless-steel design for harsh

Applications

- ▲ Bolt constructions
- ▲ Pre-strained constructions
- ▲ Quay walls

Performance properties

Measurement range ¹⁾	50-240 kN
Sensitivity	30 pm/kN ± 5 pm/kN
Resolution	50 N
Accuracy	1 kN
Occupied bandwidth	20 nm
Operating Temperature range	-30°C to +70°C
Ingress Protection rating	IP 67

¹⁾ Maximum load of 320 kN.

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Physical properties

Housing material	Stainless Steel, 1.4404
Anchoring diameter	M24 / Ø24 mm
Dimensions (without cable) ¹⁾	101 x 60 x 51 mm
Weight (without cable)	650g
Cable type	3mm reinforced cable
Cable length ²⁾	1mtr
Cable Bend Radius (dynamic)	40mm
Cable Bend Radius (static)	30mm
Connector type ³⁾	FC/APC
Mounting method (recommendations)	<p>The sensor must be clamped between two flat parallel planes (maximum deviation 0.2°)</p> <p>The load can be applied no more than 0.5 mm out of the center of the load cell, for optimal performance</p>

¹⁾ For further dimensions details see the product drawing

²⁾ Cable length is extendable on request

³⁾ Other connector types available on request

Packaging

Cardboard box with dimensions: 370x290x45mm

Quality statement

The sensor is compliant with IEC 61757-1-1:2020 and IEC 61757:2018

All sensors are 100% tested and calibrated at SYLEX

The sensor is manufactured according to ISO 9001:2008 and ISO 14001:2004

Optional accessories

- ▲ **WCP-01 Watertight connector protection** – used for FC/APC connector protection during the installation against dust and water – IP67 rated.
- ▲ **LCP-03 Longer cable pigtails** – used to extend the cable lengths from 1mtr up to 20mtr.

* Specifications are subject to change without notice