

Description

The load cell LC-01 consists of an oil filled pad connected to the pressure sensor P-01. When subjected to load, the oil inside the pad is pressurised and this pressure change is transferred to the pressure sensor.



Features

- Pressure ranges from 1 up to 150 bar
- Temperature compensation by means of a second FBG

Applications

- The load cell can be applied to measure underground loads and stresses

Standard specifications

Parameter	Unit	Value
Load range	bar	1/5/10/20/50/100/150
Load accuracy ¹	-	1% FS
Load sensitivity	nm/FS	> 1
Temperature range	°C	-10 to +60
FBG wavelength ²	nm	1510 to 1590
Sensing head thread	-	M 18 x 1.0
Load cell dimensions (W x H)	mm	100 x 200
Housing material	-	SS316
Pigtail diameter	mm	3
Pigtail length ³	m	1.5
Pigtail material	-	LDPE
Connector type	-	FC/APC
Water tightness ⁴	-	IP68

¹ The sensor accuracy does not contain error sources originating from the read-out equipment.

² The FBG is in fact a Draw Tower Grating (DTG) i.e. written in the fibre while drawing it, see www.fbgs-technologies.com for further information.

³ Extended on request.

⁴ Watertight at 10 bar for 12 hours

Ordering information

Example:

L	C	0	1	-	0	1	0	-	5	-	0	0	-	F	A
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Product	
LC01	Load Cell

Pressure range	
Standard	
001	1bar
005	5 bar
010	10 bar
020	20 bar
050	50 bar
100	100 bar
150	150 bar
Custom: Contact sales department	

Wavelength range	
Standard	
1	1512 nm - 1517 nm
2	1522 nm - 1527 nm
3	1532 nm - 1537 nm
4	1542 nm - 1547 nm
5	1552 nm - 1557 nm
6	1562 nm - 1567 nm
7	1572 nm - 1577 nm
8	1582 nm - 1587 nm
Custom: Contact sales department	

Pigtail length	
Standard:	
00	1.5 m
Custom:	length in XX meters

Connector type	
Standard:	
FA	FC/APC
Custom: Contact sales department	

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