

## Diaphragm load cells | Available with SmartLoad® technology



V1.0



**Scotload's diaphragm load cells are ideal for a range of structural and industrial applications where height may be limited.**

Manufactured from high tensile stainless steel, our highly accurate diaphragm load cells have a low profile and a high resistance to offset loads.

The standard fixing arrangement includes six counter bored holes with an optional base plate, which allows the load to become an integral part of the structure they are monitoring. They can also be supplied with tapped holes for more specialised installations.

### Options

- SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 0, 1 and 2
- Subsea
- Bored or tapped holes
- Optional base plate

### Features and benefits

- Can be retrofitted
- High resistance to offset loads
- Versatile - ideal for applications where height may be limited
- High safety factor
- Fully welded and hermetically sealed
- Compatible with SmartLoad® COG system

Typical specifications	mV/V output	mA output	External wireless interface
Rated load	As required		
Proof load	150% of rated load		
Non linearity	< ± 0.25% of full scale		
Non repeatability	< ± 0.05% of full scale		
Zero balance	< ± 0.05% of full scale		
Environmental protection	IP68		IP66
Safety factor	As required		
Operating temperature	-20°C to +60°C		
Storage temperature	-30°C to + 80°C		
Cable connection	Gland or connector		N/A
Cable length	5m as standard		N/A
Output signal	mV/V	4-20mA	Wireless (Input signal mV/V)
Electrical connection	4 core	2 or 3 wire	N/A
Recommended excitation voltage	10V	N/A	N/A
Maximum excitation voltage	15V	N/A	N/A
Recommended supply voltage	N/A	24V	N/A
Maximum excitation voltage	N/A	30V	N/A
Bridge resistance	1000 Ohm	N/A	N/A
Sensitivity	1.5mV/V nominal	N/A	N/A
Data logging	N/A	N/A	In interface
Battery type	N/A	N/A	3 x D
Active battery life	N/A	N/A	Up to 500 hours
Standby battery life	N/A	N/A	Up to 1700 hours
Telemetry frequency	N/A	N/A	2.4Ghz ISM
System range	N/A	N/A	Up to 350m
Sampling rate	N/A	N/A	10Hz (500Hz max)



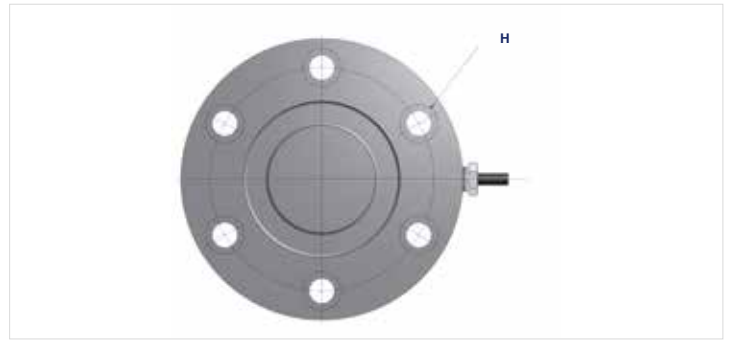
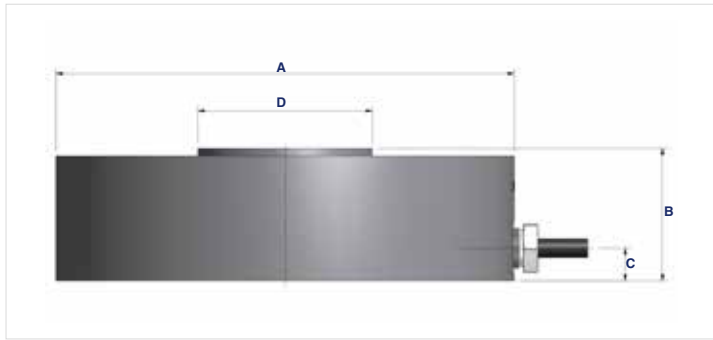
**SmartLoad® load cells are available for use in hazardous area Zones 0, 1 and 2**



Due to continuous development, Scotload reserves the right to change specifications without notice.

## Diaphragm compression load cell typical dimensions

### Diaphragm compression load cells



Diaphragm compression load cell typical dimensions			
Product code	DIA 2800	DIA 3356	DIA 3357
Load rating (tonnes)	0.1 to 20	10 to 50	40 to 100
A mm	112	150	184
B mm	25	45	53
C mm	11	12	12
D mm	50	60	70
Hole H	To suit 6 x M6 SKT CAP screws on 98 P.C.D	To suit 6 x M12 SKT CAP screws on 122 P.C.D	To suit 6 x M16 SKT CAP screws on 146 P.C.D

### A revolution in load measurement

# SmartLoad<sup>®</sup>

Scotload's ground-breaking SmartLoad<sup>®</sup> monitoring technology provides users with total system control and flexibility.

SmartLoad<sup>®</sup> uniquely incorporates intelligence and memory directly on the load cell itself, increasing functionality while enhancing the efficiency and safety of your lifting operations.

SmartLoad<sup>®</sup> delivers a standard technology platform for use across a range of products. Requiring only one handset to connect links, shackles and other load cells, it reduces operational costs. Fully compatible with existing equipment, SmartLoad<sup>®</sup> can also be retrofitted, removing the need for expensive full system upgrades.

Utilising the latest wireless technology for increased range and improved signal reliability, SmartLoad<sup>®</sup> provides assurance, improves data accuracy and enhances workplace safety as well as reducing downtime.



### Features and benefits of SmartLoad<sup>®</sup>:

- **Logging function** controlled from handset - no need for on-site laptop
- **Safety assurance** - automated overload monitoring
- Uniquely incorporates intelligence on load cells and handsets giving **total system control and flexibility**
- Significantly **increased range** and **signal reliability** over existing industry standard technology
- No training required - simple '**plug-and-play**' system
- No pairing required - '**select and connect**' technology
- Avoids downtime and unnecessary wastage - built in **system redundancy**
- Easily integrated with existing monitoring systems

**We are always happy to help find the appropriate, tailored solutions for your business needs. If you have any requests or suggestions please do not hesitate to contact us.**