

LOAD CELL SERIES 560QDT



DESCRIPTION

Series 560QDT is made up of load cells in high strength steel with measuring range from 0 to 350 Kg, up to 5000 Kg FS. These transducers are strain gauge load cells and they have high thermal stability and reliability, thanks to their Wheatstone bridge.

Series 560QDT is available both with non amplified output (mV/V) and with a built-in analog electronics. It allows high resolution and protection against electrical disturbance (electronics is shielded from the metal body of the cell and it has a CE/EMC certification).

Output signals are only positive and the load cells can be mechanically used to measure both tension and compression forces. It is possible to calibrate signal output starting from a central electrical zero, moving to signal zero or to maximal signal, matching the two different mechanical direction use.

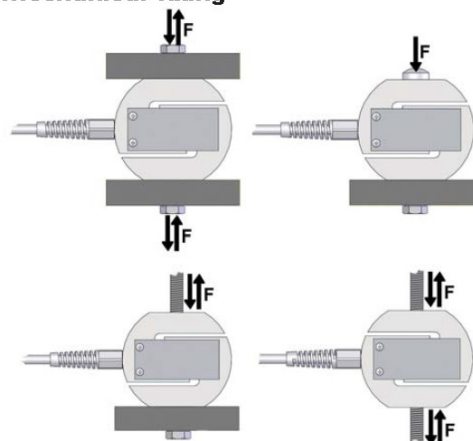
For example: +0,5 V= 350 Kg compression, +2,75 V=0 Kg e +5 V= 350 Kg tension or 4 mA= 350 Kg compression, 12 mA=0 Kg and 20 mA=350 Kg tension.

Calibration of the transducers is realized in S2Tech on two points (at 0 Kg and with tension or compression force FS).

The following output signals are available:

- 2 mV/V typical, non-amplified
- A1 = 0,5 a +10 V
Power supply 18 a 28 Vcc filt. stab.
- A5 = 0,5 a +5 V
Power supply 10,5 a 28 Vcc filt. stab.
- A = 0,5 V/4 mA=0 Kg e 5 V/10 V/20 mA= FS compression.
- B = 0,5 V/4 mA=0 Kg e 5 V/10 V/20 mA= FS tension.
- C = (bidirectional) 2,75 V/5,25 V/12 mA=0 Kg;
5 V/10 V/20 mA= FS compression
- D = (bidirectional) 2,75 V/5,25 V/12 mA=0 Kg;
5 V/10 V/20 mA= FS tension

Mechanical fixing



TECHNICAL CHARACTERISTICS

Measuring ranges (tension and compression): 0 to 350 - 500 - 1000 - 2000 - 3000 - 4000 - 5000 Kg FS

Sensitivity: 2mV/V typical

Total error: $\pm \leq 0,1\%$ FS

Repeatability error: $\pm \leq 0,03\%$ FS

Return to zero error: $\pm \leq 0,03\%$ FS

Zero thermal drift error: $\pm \leq 0,03\%$ FS/°C

Zero unbalance: 2% FS max

Wheatstone bridge impedance: 350 Ohm

Power supply: 10 Vcc/ca, max 20 Vcc/ca (2 mV/V typ. output)

Maximum overload: 150% FS, Breackage 300% FS (load aligned on measuring axis)

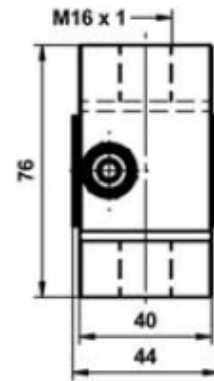
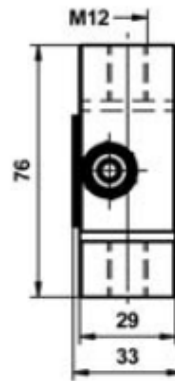
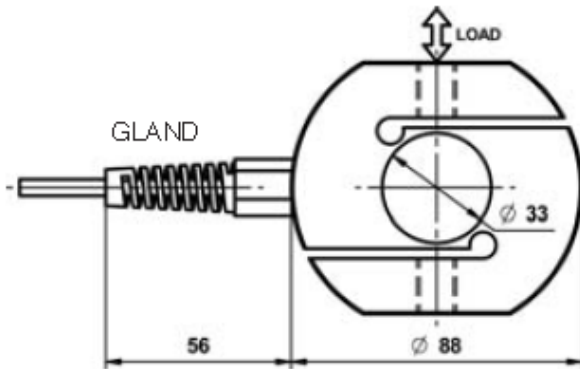
Working temperature range: -15°C up to +75°C

Environmental protection: IP65

Electrical connection: 2 m long shielded cable or connector

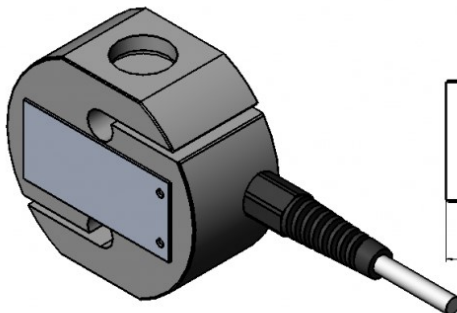
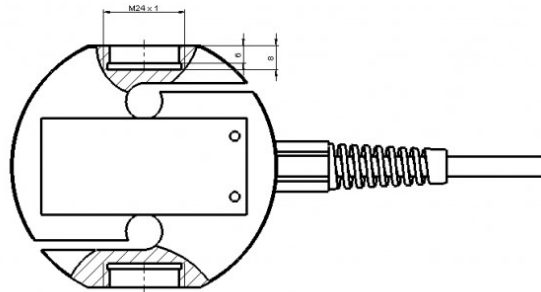
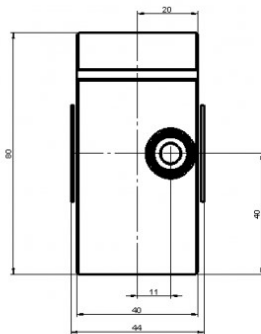
OVERALL DIMENSION

560QDT - 350 - 500 - 1000 - 2000 Kg



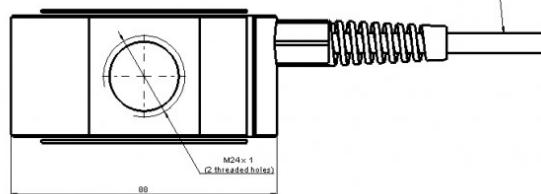
**350-400
500-1000 Kg.**

2000 Kg.



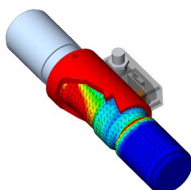
560QDT 3.000 to 5.000 Kg

Standard cable lenght = 2 mt



Transducer available as:
A0=Not amplified version
D21= RS485 Modbus
D41 = Canopen

DEVELOPMENT AND MANUFACTURING OF CUSTOM PRODUCTS



S2Tech technical department, with 30 years experience acquired with DS Europe, can develop products accordingly to customers specifications with the following tools:

- 3D mechanical design CAD software stations
- Finite Element Analysis FEA software stations
- **Digital and analog electronic development** accordingly to EMC (=CE) stricter industrial marking regulations (with tests in anechoic room at Competent Body third party laboratory)
- **Software and embedded firmware development** accordingly to most popular industrial bus systems (CANopen, Modbus, PROFIBUS...)
- Fast prototyping

S2Tech develops new products or modifies existing ones, in order to realize the fittest and more convenient product.

Specifications and prices may change without notice due to our continuous work to improve product performances