

CA 203 Series

Force Measuring Sensor with Dead Shaft Adapter

10 times overload protection

No recalibration required

20:1 force measuring range

Wide measuring range at high resolution

Nominal forces 50, 125, 250, 500, 1000, 1500 N

Covers a wide application range

Stainless steel sensor, Aluminium Cover

Corrosion resistant, ultra durable



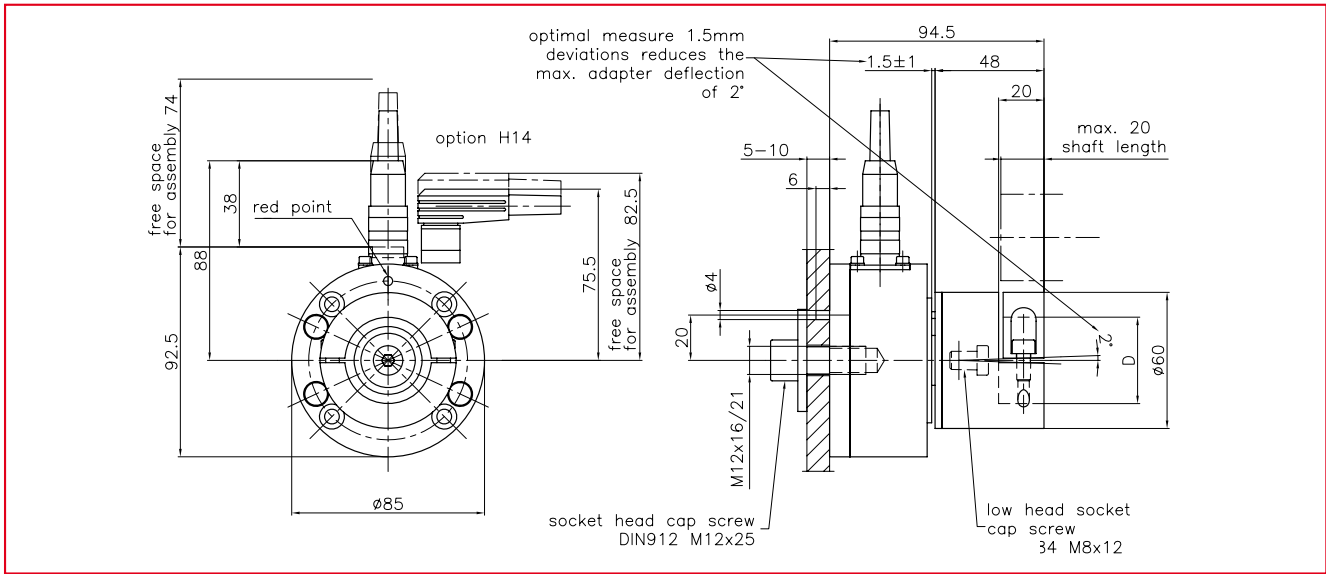
● CA 203 Series

The CA 203 Series is designed as dead shaft Force Measuring Sensors to allow easy roller change in continuous material processing applications. They can be easily mounted to the machine side frame with a single mounting screw or to the top frame utilizing optional mounting brackets. The range adapters covers the most popular shaft diameters. The red point at the connector indicates the positive measuring direction. CA 203 Force Measuring Sensors ensure that even with low material wrap angles and high roller weights, tension will still be measured accurately.

● Functional description

Foil type strain gauges mounted in a full Wheatstone Bridge configuration in each sensor perform the actual tension measurement. The dual flexion beam design eliminates angular deflection under load and ensures tension measurement with the highest accuracy and reliability under the most stringent requirements. A built in mechanical hard-stop provides high overload protection and ensures that frequent calibration is not required.

CA 203 Series • Dimensions in mm



CA 203 Series • Journal Specifications

| Sensor Type | Nominal force N | Weight incl. Adapter kg |
|-------------|-----------------|-------------------------|
| CA 203.50 | 50 | 1.690 |
| CA 203.125 | 125 | 1.690 |
| CA 203.250 | 250 | 1.690 |
| CA 203.500 | 500 | 1.690 |
| CA 203.1000 | 1000 | 1.690 |
| CA 203.1500 | 1500 | 1.690 |

CA 203 Series • Adapter Specification

| Inch adapter Type | D [inch] | Metric adapter Type | D [mm] |
|-------------------|----------|---------------------|--------|
| CA 203.DI 100 | 1.00" | CA 203.DM 25 | 25 |
| CA 203.DI 125 | 1.25" | CA 203.DM 30 | 30 |
| CA 203.DI 150 | 1.50" | - | - |

CA 203 Series • Technical Data

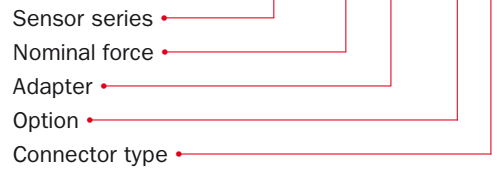
| | |
|-------------------------|---|
| Sensitivity | 1.8 mV/V ± 2 % |
| Accuracy class | ± 0.5 % |
| Temperature coefficient | ± 0.1 % / 10 K |
| Temperature range | -10...+ 60 °C |
| Input resistance | 350 Ω |
| Supply voltage | 1...12 VDC |
| Maximum overload | 10-times rated nominal force |
| Sensor material | Stainless steel sensor, aluminium cover |

Options:

- H14** = Right angle connector
- H22** = Temperature range up to 120 °C
- PH** = Pilot hole mounting option

Order code (example):

CA203.500.DM30.PH.H14



Scope of delivery:

Force measuring sensor, Spacer, mounting screws and washers, straight connector.

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