

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



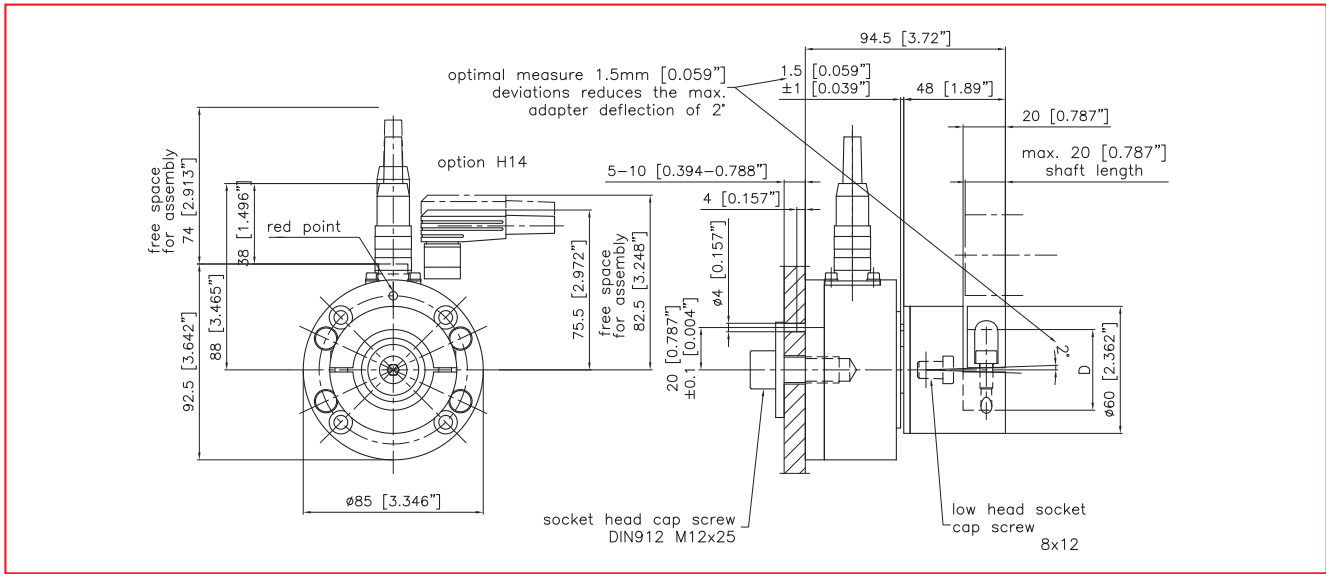
● CA 203 Series

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

Options:

- PH = Mounting option with centering pivot
- H14 = Right angle connector
- H16 = Temperature range for sensor with PG-gland up to 150 °C. Connectors up to 120 °C.

Order code (example):

CA203.500.DM30.PH.H14



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 % (F _{nominal})
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

Scope of delivery:

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

World Headquarters:

FMS Force Measuring Systems AG
 Aspstrasse 6
 8154 Oberglatt (Switzerland)
 Phone + 41 44 852 80 80
 Fax + 41 44 850 60 06
 info@fms-technology.com

FMS USA, Inc.
 2155 Stonington Avenue
 Suite 119
 Hoffman Estates, IL 60169
 Phone + 1 847 519 4400
 Fax + 1 847 519 4401
 fmsusa@fms-technology.com

FMS UK
 Highfield, Atch Lench Road
 Church Lench
 Evesham WR 11 4UG
 Phone + 44 1386 871023
 Fax + 44 1386 871021
 fmsuk@fms-technology.com

FMS Italy
 Via Baranzate 67
 20026 Novate Milanese
 Phone + 39 02 39487035
 Fax + 39 02 39487035
 fmsit@fms-technology.com