

PRESENTED BY



**AN ISO/IEC 17025:2017  
ACCREDITED CALIBRATION COMPANY**

DALLAS    FT WORTH    AUSTIN    HOUSTON

[NICOLSCALES.COM](http://NICOLSCALES.COM)

---

800.225.8181

[CONTACT US](#)

NICOL SCALES & MEASUREMENT IS AN ISO ACCREDITED CALIBRATION COMPANY THAT HAS PROVIDED CALIBRATION, REPAIR AND SALES OF ALL TYPES OF WEIGHING AND MEASUREMENT PRODUCTS SINCE 1931.



# DFX 3 Series

## Digital Force Gauge

# Functions and Features

The DFX3 Series from Chatillon is a powerful and easy-to-use digital force gauge designed for handheld or test stand use. Whether performing basic force measurements or capturing peak values in tension and compression, the DFX3 delivers dependable, accurate results. Its compact design, full-color display, and advanced usability make it ideal for quality assurance, production, and field applications.

## Test Results – Clear and Accurate

The DFX3 is designed for fast, easy force measurements with on-screen results – ideal for routine production testing.

- ◀ Live Force Readings in tension or compression, displayed with precision and unit of measure.
- ◀ Peak Force Capture automatically detects and holds the highest value observed during the test – ideal for break or limit testing.
- ◀ Timestamped Results ensure each reading is linked to a precise moment, simplifying audit trails and quality reporting.
- ◀ On-Gauge Storage of up to 100 readings.

## Battery Life – Built for Long Workdays

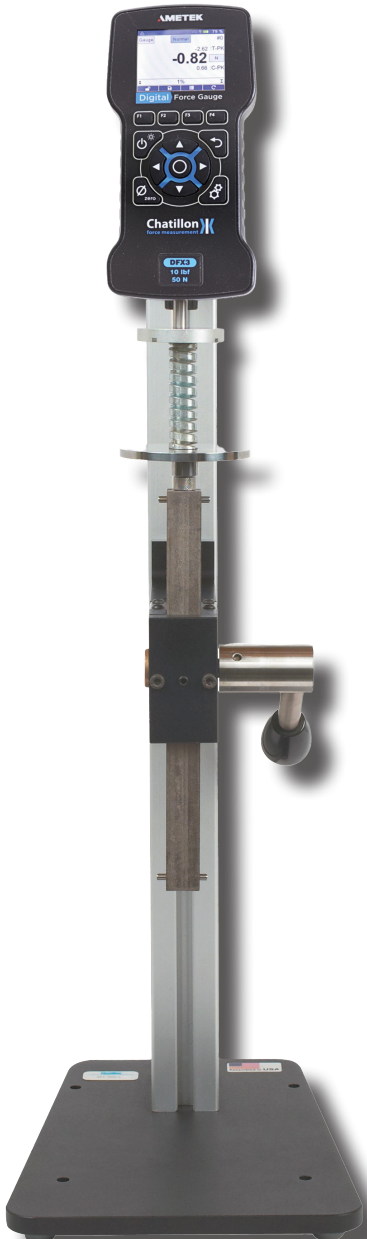
The extraordinarily long battery life of the DFX3 reduces the need for continuous recharging. The dimming functionality of the DFX3 provides a battery life of 30 hours when the dimming is off while turning the dimming on will provide a full 40 hours of battery life

## Accessories – Ready for Every Application

The gauge has either #10-32 or 5/16-18 male threads depending on the gauge capacity. As standard the gauge is supplied with Flat adapter and Hook. A wide assortment of optional accessories are available:

- ◀ Extension rods, pointed and chisel tips, notch adapters
- ◀ Eye-end adapters, pistol grips
- ◀ Test stand adapters for MT and TT series

Quick accessory changes make the DFX3 adaptable for virtually any handheld or fixture-mounted test setup.



# Expect more...

## Intuitive Operation with Smart Interface

The DFX3 features a single-layer user interface – no complex menu diving. Setup and testing are fast and frustration-free:

- ◀ Dedicated function keys adapt to the operation being performed
- ◀ Large, full-color LCD offers clear visuals of results, modes, and system status
- ◀ Display can be inverted for overhead or inverted mounting

Users can operate confidently with minimal training, improving productivity and reducing operator error.

## Dependable, Accurate Measurements

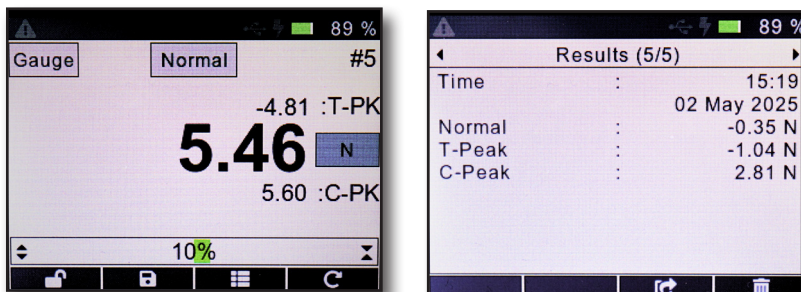
At the heart of the DFX3 is an integral loadcell sensor engineered for repeatable, high-accuracy results.

With mechanical overload protection up to 150% of full scale and advanced internal monitoring, the DFX3 not only measures force but also tracks overload history – a powerful tool for preventive maintenance and long-term reliability.

The dynamic color-coded load bar displays:

- ◀ Real-time force magnitude
- ◀ Force direction (tension/compression)
- ◀ Overload warning as you approach capacity
- ◀ These visual cues support safer, more controlled testing and reduce the risk of loadcell damage.

## Results – Always at Hand



### Color Display

A large, easy-to-read full color LCD can display readings, icons, and visually indicate gauge or test status using various colors.

### Cursor Keys

Use the cursor keys for set-up, navigation, mode, and unit change.

### Function Keys

The rubber keypad features dedicated and dynamic function keys.

The function keys correspond to displayed options and guide the user during operation.



# Ordering

## Choose the Right Model for Your Application

The DFX3 Series is available in a range of capacities to suit your specific testing needs. Whether you're measuring light forces or high-capacity loads, each model delivers the same high level of accuracy, reliability, and ease of use. Use the table below to identify the model that best fits your application, and choose between standard or NIST-certified versions for traceable calibration.

## Models

DFX3 Accuracy: 0.3% of FS

| Model    | lbf        |            | N          |            | kgf        |            | ozf        |            | gf         |            |
|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|          | Full Scale | Resolution | Full Scale | Resolution | Full Scale | Resolution | Full Scale | Resolution | Full Scale | Resolution |
| DFX3-010 | 10.00      | 0.01       | 50.00      | 0.01       | 5.000      | 0.001      | 160.0      | 0.1        | 500        | 1          |
| DFX3-050 | 50.00      | 0.01       | 250.0      | 0.1        | 25.00      | 0.01       | 800.0      | 0.1        | 25000      | 1          |
| DFX3-100 | 100.0      | 0.1        | 500.0      | 0.1        | 50.00      | 0.01       | 1600       | 1          | 50000      | 1          |
| DFX3-200 | 200.0      | 0.1        | 1000       | 1          | 100.0      | 0.1        |            |            |            |            |

## With Certificate of Calibration (NIST)

| Model         | lbf        |            | N          |            | kgf        |            | ozf        |            | gf         |            |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|               | Full Scale | Resolution | Full Scale | Resolution | Full Scale | Resolution | Full Scale | Resolution | Full Scale | Resolution |
| DFX3-010-NIST | 10.00      | 0.01       | 50.00      | 0.01       | 5.000      | 0.001      | 160.0      | 0.1        | 500        | 1          |
| DFX3-050-NIST | 50.00      | 0.01       | 250.0      | 0.1        | 25.00      | 0.01       | 800.0      | 0.1        | 25000      | 1          |
| DFX3-100-NIST | 100.0      | 0.1        | 500.0      | 0.1        | 50.00      | 0.01       | 1600       | 1          | 50000      | 1          |
| DFX3-200-NIST | 200.0      | 0.1        | 1000       | 1          | 100.0      | 0.1        |            |            |            |            |

All models include a rechargeable battery, USB cable, and standard accessories.  
Optional accessories can be ordered separately—see [Accessories page](#) for details

# Accessories

## Expand Your Testing Capabilities

The DFX3 Series is designed to adapt to a wide range of force measurement applications. With a comprehensive selection of optional accessories – including precision tips, extension rods, grip handles, and test stand adapters – you can tailor your setup for handheld or mounted use. Each accessory is engineered for durability and compatibility, ensuring seamless integration and reliable performance across various testing environments. Whether you're measuring tension, compression, or peak force, the right accessory makes all the difference.

## Accessories List (◆ Indicates an accessory included with the gauge.)

### Adapters

|                           |                |
|---------------------------|----------------|
| Flat Adapter, 110 lbf     | ◆ SPK-FMG-011A |
| Flat Adapter, 550 lbf     | ◆ SPK-FMG-011B |
| Hook, 50 lbf              | ◆ SPK-FMG-012A |
| Hook, 110 lbf             | ◆ SPK-FMG-012B |
| Hook, 550 lbf             | ◆ SPK-FMG-012C |
| Chisel Point, 110 lbf     | SPK-FMG-008A   |
| Chisel Point, 550 lbf     | SPK-FMG-008B   |
| Point Adapter, 110 lbf    | SPK-FMG-009A   |
| Point Adapter, 550 lbf    | SPK-FMG-009B   |
| Notch Adapter, 110 lbf    | SPK-FMG-010A   |
| Notch Adapter, 550 lbf    | SPK-FMG-010B   |
| Load Cell Shaft Protector | SPK-DFG3-001   |
| #10-32 to 5/16-18 Adapter | P-10020        |

### Extension Rods

|                                    |              |
|------------------------------------|--------------|
| Extension Rod, 6" (152mm), #10-32  | SPK-FMG-013A |
| Extension Rod, 6" (152mm), 5/16-18 | SPK-FMG-013B |

### Carrying & Storage

|               |              |
|---------------|--------------|
| Carrying Case | ◆ SPK-DF-118 |
|---------------|--------------|

### Handles

|                                  |                |
|----------------------------------|----------------|
| Handle Assembly, DF3             | SPK-DF3-HANDLE |
| Handle Assembly, DF3 Series      | 6873           |
| Grip Handle, MSC/FCE Rev. A      | NC002825       |
| Screw, Flat Head Socket Cap Rev. | E08-257        |
| Pistol Grip                      | SPK-FMG-141    |

### Grips & Hooks

|                      |          |
|----------------------|----------|
| Swivel Hook, 50 lbf  | ML3867   |
| Swivel Hook, 110 lbf | ML3850   |
| Swivel Hook, 225 lbf | ML3869   |
| Swivel Hook, 550 lbf | ML3868   |
| Hook, Latch          | NC002500 |

### Test Stand Adapters

|                       |              |
|-----------------------|--------------|
| MT150 Series, 150lbf  | SPK-MT-001   |
| MT500 Series, 500 lbf | SPK-MT-0004  |
| LTCM Series, 100 lbf  | Not Required |
| TT Tester, 500 lbf    | NC002582     |

### Mounting & Coupling Adapters

|                                                           |             |
|-----------------------------------------------------------|-------------|
| Kit, DF Metric Couplers #10-32_M6; 5/16-18_M6; M8_5/16-18 | SPK-TCM-033 |
| Coupling #10-32 Female to M6x1mm Female Rev –             | NC002652    |
| Coupling 5/16-18 Female to M6x1mm Female Rev –            | NC002658    |
| Adapter, Threaded, M8x1.25 to 5/16x18, DFG3               | NC003256    |

### Power & Connectivity

|                                           |                |
|-------------------------------------------|----------------|
| Battery Charger, Universal, with Cable    | ◆ SPK-DF3-UNIV |
| Cable, USB-C/USB-A, 3 FT, Black           | 6885           |
| Adapter, Wall Mount, AC/DC, 5V, 5W, USB-A | 6886           |
| Kit, AC Adapter for P/N 6886              | 6887           |

#### Notes

Accessories are capacity dependent.

Accessories used with capacities below 110 lbf (500N) will generally have a #10-32 thread.

Accessories for higher capacities generally have a 5/16-18 thread.

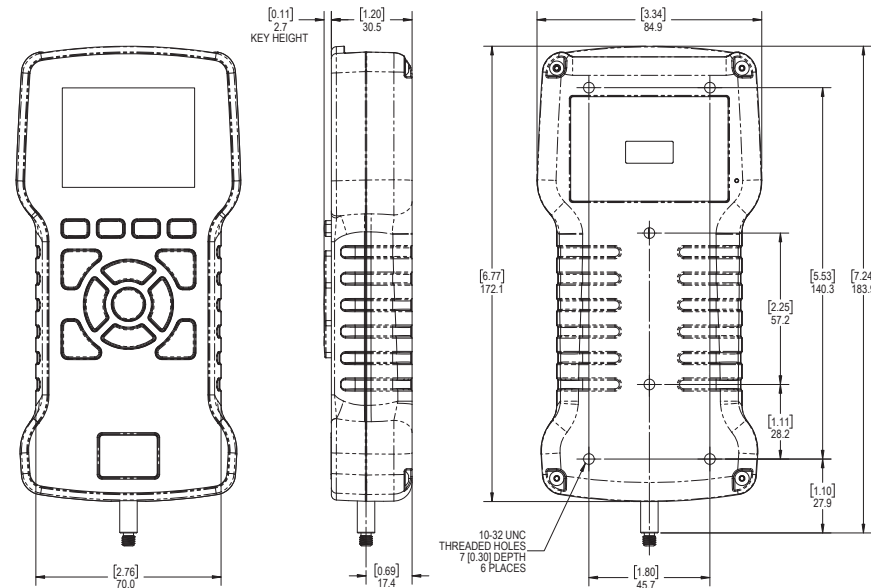


# Dimensions and Specifications

## Specifications

|                                                                         |                                             |
|-------------------------------------------------------------------------|---------------------------------------------|
| Accuracy                                                                | ±0.3 % of Full Scale                        |
| Certification                                                           | Certificate of Conformance (std.)           |
| Data Sampling Rate                                                      | 1000 Hz                                     |
| Peak Capture Rate                                                       | up to 1000 Hz                               |
| Tare Capacity                                                           | 110% full scale                             |
| Overload Protection                                                     | 150% full scale                             |
| Display Characteristics                                                 | Color LCD Display                           |
| Automatic Shutoff. Adjustable in 1 minute intervals and may be disabled |                                             |
| Power                                                                   | Battery (Lithium Ion) or via the USB-C port |
| Battery Life                                                            | With Dimming On: 40 Hours                   |
|                                                                         | With Dimming Off: 30 Hours                  |
| Instrument Weight                                                       | 1.1 lbs (0.5 kg)                            |
| Shipping Weight                                                         | 4 lbs (2 kg)                                |
| Warranty                                                                | 1 year                                      |
| Operating Temperature                                                   | 40 to 110°F (5 to 45°C)                     |
| Relative Humidity                                                       | 20% to 85%                                  |

## Dimensions



USA, Florida  
Tel +1 (800) 527 9999  
[test.sales@ametek.com](mailto:test.sales@ametek.com)

India  
Tel +91 22 2836 4750  
[test.sales@ametek.com](mailto:test.sales@ametek.com)

Singapore  
Tel +65 6484 2388  
[test.sales@ametek.com](mailto:test.sales@ametek.com)

China, Shanghai  
Tel +86 21 5886 5111  
[test.sales@ametek.com](mailto:test.sales@ametek.com)

China, Beijing  
Tel +86 21 8526 2111-19  
[test.sales@ametek.com](mailto:test.sales@ametek.com)

United Kingdom  
Tel +44 (0) 1243 833 370  
[test.sales@ametek.com](mailto:test.sales@ametek.com)

France  
Tel +33 (0) 30 68 89 40  
[general.lloyd-instruments@ametek.fr](mailto:general.lloyd-instruments@ametek.fr)

Germany  
Tel +49 (0) 2159 9136 510  
[info.mct-de@ametek.de](mailto:info.mct-de@ametek.de)

Denmark  
Tel +45 4816 8000  
[test.sales@ametek.com](mailto:test.sales@ametek.com)



**Chatillon**  
force measurement  
**AMETEK**

No part of this document may be reproduced or modified in any form or by any means, electronic or mechanical, without express written permission from AMETEK STC.

©2018 AMETEK Incorporated

**AMETEK**  
SENSORS, TEST & CALIBRATION