

DistAngular DA-20F

PENTAX[®]

Total Construction Solutions

2=1 electronic DistAngular theodolite

Light-weight

Measures angles and distances

Easy Zenith observation

Simple key operation

Water resistant



DistAngular 2=1

Electronic Theodolite with

An amazing concept for an amazing price

The Pentax DistAngular (Distance + Angles) combines an electronic theodolite with a built-in coaxial distance meter. Pentax DistAngular makes construction site measurements easy to do and is less time consuming.

Simple operation is the major design feature. The universal display and keyboard use universally understandable icons. The inclined handle allows the telescope to be positioned for straight up observations, for the alignment of tall buildings.

The DistAngular is compact and easy to handle. The 24x telescope has bright optics and a wide field of view to get on target quickly. Angle accuracy is very high and distance can be measured to 300m with only a single prism. Its waterproof construction keeps the DistAngular on the job in all weather conditions.

Ergonomic

- The DistAngular's operator interface is designed with **improved ergonomics** for increased usability.
- **Interaction** with the icons is **simple and fast**. Action is initiated by selecting the appropriate icon.
- Logical structure of the displayed functions makes it very **easy to learn and use**.

Display

- The large segment LCD screen enhances readability. (large characters)
- **Robust, compact and handy design** makes it the versatile construction measurement tool.
- **Comfortable grip**.
- **Water resistance** JIS 4.
- **Light weight** = The basic instrument weighs only 3.5 kg (7.7 lbs.)



DistAngular 2 = 1 measurement flexibility in the daily job



Time Saver



h co-axial Distance Meter



Co-axial Distance Meter and Digital Theodolite

- The DistAngular **combines** the capabilities of the state-of-the-art **electronic theodolite** and a **co-axial distance meter** in one compact, fully integrated, easy-to-use unit.
- DistAngular hits construction cost reduction targets and is an **incredible time-saver**.
- DistAngular adds measurement flexibility to your daily job.

Flexible & Productive

Integrated solution = Reducing Time & Increases Throughput.

- By adopting this unique multi-function Electronic Theodolite you can handle a **variety of measuring tasks** and **speed up** the measuring job by eliminating unproductive, time-consuming operations such as multiple instrument setups.
- Inclined Handle = Allows **Easy Zenith Observation**.

Powerful

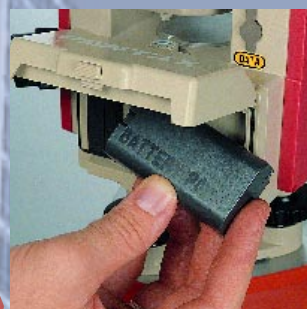
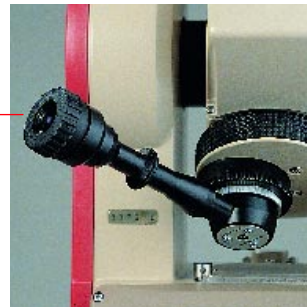
Data transfer

- An **RS -232C port** allows Data to be flexibly transferred by cable to any data collector or personal computer.



Speed & Performance

- The electronic distance measurement (EDM) feature works **coaxially** and with impressive **speed**.
- A Pentax long-life **BP01 Lithium-ion battery** is delivered with each instrument.



**Challenge
the
DistAngular**

DistAngular 2 = 1

Applications

It's a measurement tool that gathers all distance and angle data related to any stake out and alignment job done at the construction site.

- Alignments
- Stake out
- Distance control

Accessories

In addition to the comprehensive standard configuration, there is a range of optimized accessories and instrument options.

- **BC02** Charger
(Standard accessory)
- **BP01** Lithium-Ion Battery Pack
(Standard accessory)
- **CC01** Data Cord
- **SB11** Diagonal eye-piece
- **SC7** Tubular compass



General information

| | |
|--|---|
| Auto Power off | |
| Setting up time | 10 min |
| Ambient temperature | |
| Working range | -10° C to +50° C / -4° F to +122° F |
| Tripod thread 5/8" X 11 (JIS / B) | |
| Dimensions / Weight | |
| Instrument | 142 (W) x 303 (H) x 148 (L) mm / 3.5 kg |
| Carrying case | 300 (W) x 212 (H) x 465 (L) mm / 2.3 kg |

| | |
|--------------------------|------------------------------|
| Battery pack BP01 | |
| Power source | Lithium - ion (rechargeable) |
| Output voltage | DC 7.2 V |
| Operation time | Continuous approx. 2.5 hrs |
| Weight | Approx. 90 g |
| Charger | |
| Input voltage | AC 100 V - 240 V |
| Output voltage | DC 6.3 V |
| Charging time | Approx. 60 min |
| Weight | Approx. 270 g |

Certified ISO 9001 and ISO 14001

Printed in Belgium 01/2000

Technical information

| | |
|--|---------------------------------------|
| Telescope | |
| Image | Erect |
| Magnification | 24 x |
| Effective aperture | 30 mm (EDM 30 mm) |
| Resolving power | 3.5" |
| Field of view | 2.9 % (1° 38') |
| Minimum focus | 1 m |
| Distance measurement | |
| Measurement range | |
| I P | * 300 m |
| | ** 370 m |
| 3 P | * 450 m |
| | ** 550 m |
| * Normal conditions: 20 km visibility with slight haze | |
| ** Good conditions: 40 km visibility, overcast, no heat, no haze and moderate wind | |
| Accuracy | +/- (5+ 5 ppm x D) mm D = distance |
| Minimum count | |
| Normal: | 1 mm |
| Fast: | 10 mm |
| Measuring time | |
| Normal: | 2 sec (1 mm) |
| Fast: | 0.5 sec (10 mm) |
| Measuring system | |
| Automatically repeated or shot | |
| Maximum slope distance display | 900.000 m / 2952.755 ft |
| Atmospheric correction | |
| Temperature: | °C / °F |
| Atmospheric Pressure: | hPa / mmHg / inHg |
| Prism constant: | 0 mm, -30 mm |
| Atmospheric and earth curvature correction | |
| 0.2 | |

| | |
|-------------------------------------|-------------------------------------|
| Angle measurement | |
| Measuring method | Incremental rotary encoder |
| Detection method | |
| Horizontal angle: | Double |
| Vertical angle: | Double |
| Minimum count: | 20" (50 cc) / 10" (20 cc) |
| Accuracy (DIN18723) | 20" standard deviation |
| Measuring time | 0.2" (continuous) |
| Measuring mode | |
| H | R/L, Hold, Retention (in Power OFF) |
| V | Zenith 0 / Horizontal 0,%, Compass |
| Display section | |
| Display | Segment type LCD |
| Number of characters | 3 colmns, 7 or 8 rows |
| Sensitivity of vials | |
| Plate vial | 60" / 2 mm |
| Circular vial | 8" / 2 mm |
| Optical plummet | |
| Image | Erect |
| Magnification | 3 x |
| Focus range | 0.5 m - ∞ |
| Vertical axis. Tribrach type | |
| Vertical axis | Single |
| Tribrach | Fixed |
| Data Output | |
| Interface | RS-232C |
| Baud rate | 1200 |
| Data bits | 8 bit |
| Parity bits | Nil |
| Stop bits | 1 |
| Water protection | |
| JIS | class 4 |

Design and specifications are subject to change without notice.

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www.pentax.co.jp/apc

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www.pentaxsurvey.com

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www.pentaxcanada.ca

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www.pentaxeurope.com

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