



Pull Measurement Unit (PMU)

Pull & Push Measurement Unit

- Vertical force measuring applications
- Up to 500kgf, bi-directional
- Motorized and programmable rotation of tooling (up to 40kgf)
- Integrated dimmable cold light source
- Easy to change without use of tools
- Sensor accuracy $\pm 0.1\%$ of range

Cost effective solution that can be fitted to any XYZTEC bond tester



PMU on Condor EZ

With the Pull Measurement Unit (PMU), XYZTEC offers a dedicated single load cell cartridge for measuring all kinds of vertically tested bonds, using pull, peel or push methods; either destructive or non-destructive. Typical applications include **wire pull** testing using a hook, **solder ball pull testing using tweezers**, solar **ribbon peel testing** or 4-points wafer **bending tests**.

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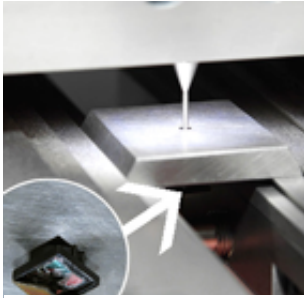
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Bond testers

- Condor *Sigma*
- Condor *Sigma Lite*
- Condor *Sigma W12*
- Condor *150HF*

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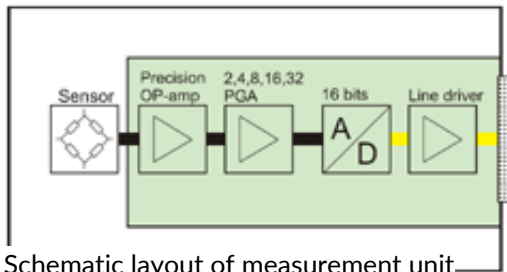
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Cell phone camera lens push test

For forces up to 40kgf, the PMU is equipped with a built-in 360° rotary motor for manual or automatic tool alignment to the sample under test.

The PMU has one sensor or load cell mounted. The Condor software automatically detects what measurement unit is installed on the system and knows even when to ask for another unit, if the required sensor does not match. Through software, five force ranges are available for the user.



Schematic layout of measurement unit

As the 16-bit AD circuitry is located inside the PMU, the connection to the Condor platform is pure digital. This provides a very robust, reproducible and accurate way of measuring. The serial number, manufacturing data and calibration data is stored in flash memory inside to offer full traceability according ISO-9001.

PMU specifications

Available measuring sensors	Software selectable force ranges
Pull 2N	50gf, 100gf, 200gf, 400gf, 800gf
Pull 20N	500gf, 1kgf, 2kgf, 4kgf, 8kgf
Pull 100N	2.5kgf, 5kgf, 10kgf, 20kgf, 40kgf
Pull 500N	12.5kgf, 25kgf, 50kgf, 100kgf, 200kgf
Pull 1000N	31.25kgf, 62.5kgf, 125kgf, 250kgf, 500kgf

Sensor accuracy ±0.1% of nominal force range

Specifications subject to change without prior notice.

Contact us

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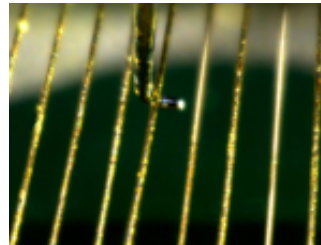
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Did we catch your attention? Please [contact us](#) for more information or to request a demonstration or a quotation.

Relevant applications

- Bending test
- Cold bump pull
- Fatigue test
- Ribbon peel
- Ribbon pull
- Stud pull
- Tweezer pull
- Vector pull
- Wire pull



Thin wire gold

Special applications

Please [contact us](#) if you have any special tweezer requirements.

Relevant test types

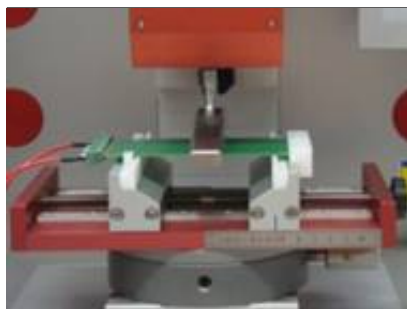
A wide variety of [test types](#) are relevant for this industry, among which are:

Pull tests

- Ribbon pull
- Thick wire
- Thin wire



Thick aluminium wire pull test



Bending test on FR4

Bending test

- 3 point
- 4 point
- Uni-axial

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