YOKOGAWA

3025
X-Y Recorder

3025 (Two-pen model)
483 × 299 × 152 mm 14.0 kg
(19 × 11-3/4 × 6" 30.9 lbs)

The 3025 is a fast, high-performance A4 X-Y recorder, available as a one- or two-pen model. Both models offer high slewing speed and high acceleration. The slewing speed and acceleration of the one-pen model in the Y axis is 2,200 mm/s 7.6 G, and 2,000 mm/s 5.1 G in the X axis.

FEATURES

- **Fast Pen Response — Slewing Speed of 2,200 mm/s in the Y axis, 2,000 mm/s in the X axis**
  The use of high-torque DC servomotors and new pen mechanism results in high slewing speed and excellent phase characteristics.
- **High Acceleration — 7.6 G in the Y axis and 5.1 G in the X axis (One-Pen Model)**
  By combining high slewing speed and high acceleration, the 3025 can follow fast-changing input signals.
- **High-Quality Traces by Using Disposable, Quick-Change Felt-Tip Pen Cartridges, and by a Lightweight Pen Mechanism**
- **Excellent Frequency Characteristics**
- **±0.25% Accuracy, 50 μV/cm MAX. Sensitivity**
- **Quick, Convenient Operation**
  Major design features include the addition of convenient servo ON/OFF and polarity reversal switches, and pre-amplifiers separated from the input terminals for safety input wiring.
- **Trouble-Free Electrostatic Paper Hold-Down with Back-Lighted Led for Accurate Paper Alignment**
- **10 Scales of Calibrated Offset (Standard), 16 Speeds of Time Base (Optional)**
- **Versatile Remote Controls**
  As a standrd feature, the 3025 provides remote controls of sweep start and reset, and pen lift by external contact or TTL-level signals.

SPECIFICATIONS

Drive System: Automatic null-balancing DC servo mechanism
Writing Area (Effective Recording Span): X-axis 254 mm (10"), Y-axis 180 mm (7-1/8")
Number of Pens: 1 (**302513**), or 2 (**302523**)
Writing System: Ink writing using disposable felt-tip pen cartridges
Ink Colors: Red for Y_1 1st pen, green for Y_2 2nd pen
Basic Accuracy: ±0.25% of effective recording span (including non-linearity and dead band) at 23 ±5°C on 50 mV/cm range
Error between Ranges: Less than ±0.1% of pen deflection
Deadband: Less than 0.1% of effective recording span
Slewing Speed (Nominal): X-axis 2,000 mm/s, Y-axis 2,200 mm/s
Acceleration (Nominal): One-pen model ... X-axis 5.1 G, Y-axis 7.6 G, two-pen model ... X-axis 4.5 G, Y-axis 7.0 G
Pen Lift: All pens simultaneously lifted or lowered by PEN UP-DOWN switch on the front panel, or by an external contact or TTL-level signal
Chart Paper: A4 size graph paper
Paper Holddown: Electrostatic paper holddown with LED spot paper alignment
Type of Input: Floating, guarded and shielded (polarity reversal switch on the front panel)
Input Ranges: 50 μV/cm, 0.1, 0.25, 0.5, 1, 2.5, 5, 10, 25, 50 mV/cm, 0.1, 0.25, 0.5, 1, 2.5, 5 V/cm (16 calibrated ranges plus continuous vernier between ranges)
Zero Set: Adjustable to any point on the writing area
Input Impedance: Approx. 1 MΩ constant on all input ranges
Maximum Source Resistance: 10 kΩ
Zero Stability (Nominal): ±(1.5 μV + 0.02% of effective recording span)/°C
Maximum Allowable Input Voltage (Continuous): 50 V DC on 50 μV/cm to 50 mV/cm ranges, or 250 V DC on 0.1 V/cm to 5 V /cm ranges
Maximum Common Mode Voltage: 250 Vrms AC, or 350 V DC
Common Mode Rejection: More than 140 dB at power line frequency or at DC
Normal Mode Rejection: More than 50 dB
Offset Input: Selectable to ±20, ±40, ±60, ±80, ±100 cm (10 ranges) or 0 (OFF) by front panel dial
Time Base (Optional): Sweep rates ... 0.25, 0.5, 1, 2.5, 5, 10, 25, 50 s/cm & min/cm (accuracy: ±0.5%), Pens automatically lifted after sweep or reset. Trial sweep available with pens lifted
Operating Position: Horizontal, vertical or inclined
Power Requirements: 100, 115, 200 or 230 V AC (must be specified), for both 50 and 60 Hz
Weight: One-pen model ... approx. 13 kg (28.7 lbs), two-pen model ... approx. 14 kg (30.9 lbs)

- **Remote Controls by External Contact or TTL-Level Signals (Standard)**

Function	Description
Remote pen lift control	All pens are simultaneously lifted or lowered.
Remote time base control	Remote control of sweep start (SWEEP TRIAL or SWEEP RECORD) and reset (RESET).