X-Act

Scale Controllers

AUTOTECH
WEIGHING SYSTEMS (PTY)LTD

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Autotech Weighing Systems' X-Act Scale Controller is a state-of-the-art indicator suitable for a wide range of weighing applications in harsh and demanding environments. A standard indicator is used for all applications and is expandable with option cards for extended functionality.

Application-specific software and configurations can be loaded in a matter of minutes through a USB drive so plant downtime is minimised and spares in stock are kept to a minimum.

Standard programs are available for several common weighing applications while Autotech can develop applications to suit special requirements.

X-Act Bagging

Extremely precise bag weighments for various bulk materials at speeds of up to 20 bags per minute. Automatic in-flight compensation maintains accuracies without operator interference.

Various bag types of sizes from 10kg to over 1t can be filled using single or multi-dump discharging.

Combine with Autotech's X-Act Net Weigher for the most cost - effective bagging system available.

Complete control with unprecedented efficiency, performance feedback, fine-tuning functions, statistical data and status information through an intuitive user interface.

X-Act Batching & Blending

Multiple scales can be controlled simultaneously from a single X-Act Controller while also interlocking with the downstream equipment.

Recipes are stored in the X-Act's onboard database and can be assigned access rights per user for security and privacy.

X-Act Check Weighing

Accurate dynamic weighing of individual containers on inline check scales, with digital IO for external equipment to manage unit acceptance or rejection.

X-Act Throughput

Efficiently control feed rate on throughput weighers and loss-in-weight feeders with continuous flow monitoring and adjustment, automatic refilling with level control, and accurate dosing.
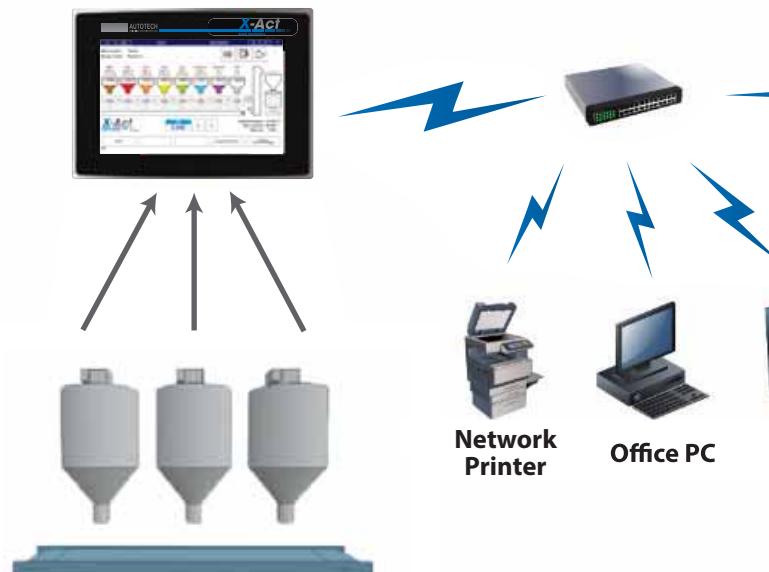
Combine with Autotech's compact and versatile X-Act Throughput weigher which was specifically designed for the modern flour mill and is capable of freestanding operation.

X-Act Custom Applications

The X-Act controller software is fully developed and supported in-house by Autotech. We can therefore accommodate special requirements which are not available in our off-the-shelf software, or develop complete solutions from the ground up in partnership with the end user.

Blending Plant

Network Printer

Office PC

Display panel shows:
Scale 1

Batch name: Order No. 24680
Program name: 50KG BAG
Target mass: 50.00kg
Last checked mass: 50.00kg
Total mass: 2200.00kg
Finish Batch | Cancel
Ready to discharge

Versatile weighing & control

Bagging • Batching • Blending • Check Weighing • Throughput • Custom Applications

Operator friendly

- 7 or 12" colour touch screen which adjusts for ambient light conditions and can be used with gloves.
- Scale operations, data entry and program navigation through a built-in keypad, on-screen keyboard or an external USB keyboard.
- Configurable users with roles and access rights.
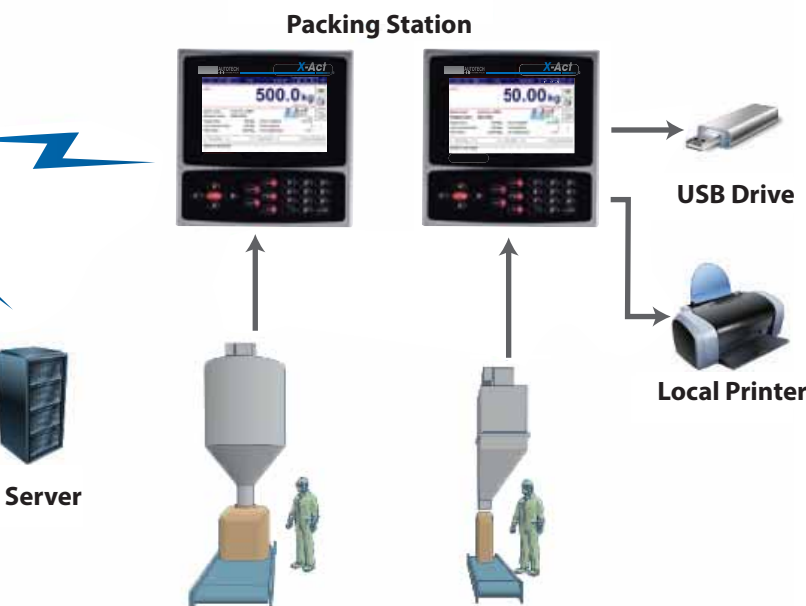- Multi-language operation.

Practical

- Quick and simple backing up and restoring of the application program and configurations with a USB flash drive for minimal downtime when swapping out a controller.
- Simple to upgrade from older generations of controllers.

Efficient

- Signal processing, IO control, network communications and the operator interface are all combined in a single indicator, reducing the need for peripheral equipment such as PLCs.

Seamless integration

- Industry-Leading onboard capabilities
  - USB
  - Ethernet TCP/IP
  - Wi-Fi® and Wi-Fi Direct
  - RS-232 and RS-485 serial ports
- Other industrial communication interface options available through option cards.
- Built-in web server for remote access, systems integration and data monitoring.
- Printing to a wide variety of printers via USB or TCP/IP.

Packing Station

USB Drive

Local Printer

Server

Adaptable

- Modular design for expandability with six option slots that support:
  - A/D scale channels (up to 8 individual scales)
  - Analogue Input/Thermocouple
  - Digital input and outputs
  - Analogue outputs
  - Serial ports
  - Dry-contact relay outputs
  - Various industrial protocol interfaces

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Autotech manufacture a range of net and gross weighers, hopper scales and throughput weighers with special finishing standards for pharmaceutical, chemical and food industries.

The X-Act controller can be combined with these and additionally control:

- Gravity, belt, vibrator and screw feeders to the weigh hopper.
- Peripheral equipment such as discharge vibrators, bag inflators and quick release ear hooks.
- Interfacing with automatic bag placers or manually operated bag holders.

Specifications

Power:
- AC voltages: 100-240 VAC; 50-60 Hz
- Consumption: 60 W

Display:
- 7", 800 x 480-pixel TFT
- 12", 1280 x 800-pixel TFT

Keys/Buttons:
- 22-key membrane panel, tactile buttons
- On-screen keyboard for text and numeric entry

Digital I/O:
- Eight I/O channels onboard
- I/O expansion boards available

Communication Ports:
- Port 1 & 2: Full duplex RS-232 with CTS/RTS
- RS-422/485 full and half duplex
- Port 3: USB 2.0 Device (Micro)
- Ethernet: Wired 10/100 Auto-MDX
- Ethernet: Wireless 802.11 b/g/n 2.4GHz

Other Ports:
- 2 USB 2.0 Host (type A) for mass storage, keyboard and printers

Excitation Voltage:
- 10 ± 0.5 VDC
- 16 x 350Ω or 16 x 700Ω load cells per A/D card

Analogue Signal Input Range:
- -60 mV to 60 mV

Analogue Signal Sensitivity:
- 0.3 µV/graduation minimum at 7.5 Hz–120 Hz
- 1.0 µV/graduation recommended

A/D Sample Rate:
- 7.5 to 960 Hz, software selectable

Resolution:
- Internal: 8 million counts
- Display: 9,999,999

System Linearity:
- ± 0.01% full scale

Onboard:
- Selectable filters: Three stage, Adaptive or Damping
- Embedded Linux® OS
- 8 GB eMMC
- 1 GB DDR3 RAM
- 460 MB onboard database (SQLite) storage
- Up to 32 GB micro SD card

Temperature Range:
- Certified: -10°C to 40°C
- Operating: -20°C to 55°C

Circuit Protection
- RFI, EMI, EFT, ESD protection

Approvals:
- SANS 1649
- OIML R76
- NTEP
- Measurement Canada
- UKCA
- CE Marked

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