IND9D57 Conveyor Scale Controller
for reliable in-motion weighing

Multiple I/O options for easy, flexible operation
including visible and audible status indicators, and direct operator control of operating mode.

High speed dynamic weighing
controller provides weights and measures-approved weighing accuracy at conveyor speeds of up to 73 m/min (240 fpm – NTEP-certified), allowing for use in high-volume transport and logistics application.

Data integration
allows for automatic integration of package-specific information such as bar code, RFID tag data, and dimensional data. Data communication to peripheral devices via serial, Ethernet and PLC interface is available.

Superior in-motion performance
The METTLER TOLEDO 9477 scale conveyor is an in-motion scale for weighing large packages such as boxes, cartons, cases, bags or sacks. The robust frame and conveyor construction withstands the impact of heavy packages, so the system is ideal for tough environments.

IND9D57 Conveyor Scale Controller

The IND9D57 controller provides a robust, reliable and flexible interface to conveyor scales for in-motion weighing. Items can be weighed while crossing an analog load cell-based conveyor at speeds up to 73m/minute. A variety of I/O controls and indicators ensure easy and accurate operation. Data from bar code scanners, RFID readers, or dimensioning equipment can be integrated with the IND570dyn to provide a complete transaction record. A target can be recalled and weights compared against target values to trigger an output or identify in the transaction record out of tolerance items. Optional Ethernet and PLC connectivity provides flexibility for interface to other control or data analysis equipment.

METTLER TOLEDO

IND570dyn
Conveyor Scale Controller
Features and benefits

- High-speed A/D plus TraxDSP™ filtering achieves accurate weighments in the shortest possible time, even under adverse conditions with high vibration
- Flexible interface to peripheral data sources allows user to integrate bar code and dimensional data with package weight into the transaction record. Input data string can be parsed automatically, allowing user customization
- Multiple connectivity options allow communication of transaction data to a wide variety of Ethernet-enabled devices, and to communicate with automation equipment via Ether-Net/IP, PROFIBUS or PROFINET protocol
- Objects of analysis such as daily weighments, number of in-tolerance items weighed by product ID, error logging and tracking, can be recalled or exported to a PC-based application
- IND9D57 packaged system includes IND570dyn with power supply and I/O for photo-eye interface
- High-contrast, high-resolution OLED display with 25 mm high weight indication and decreased power consumption
- 500-target ID memory with tolerance check allows user to program and monitor 3-zone toleranced ranges specific to each target ID. A discrete output can be configured for out-of-tolerance weighments, to trigger reject timers
- Bright, multi-line OLED display ensures easily readable scale data and status information, error messages, last package average weight, and setup menu
- Error logging is configurable, to provide flexible handling of scale alarms and errors
- Weights and Measures approvals permit use in legal-for-trade applications

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Technical data
9477 Scale Conveyor
In-motion weighing of large packages

Construction	Powder-coated mild steel or stainless steel for washdown			
Line speed and rate*	30 - 240 fpm NTEP			
Conveyor belt materials	Seamless Habasit black for mild steel, USDA white for washdown			
Fixed speeds	30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 150, 160, 180, 200, 220, 240 fpm			
Variable speeds	30 to 100, 80 to 160, 120 to 200, 150 to 240 fpm; up to 600 fpm (Mach II option)			
Photoeyes	Send/receive type, IP67			
Operating environment[1]	14°F to 104°F (-10°C to 40°C), 10% to 95% humidity, non-condensing			
Power requirements[2]	230/3φ, 460/3φ		230/3φ, 460/3φ, 575/3φ	
Motor and drive[3]	0.4 HP IP65 motor with in-line reducer. Taper-lock timing belt drive		1/2 HPIP55[3] motor with right angle reducer. Taper-lock timing belt drive	
Load cells	Four 5000 division, 50 kg load cells		Four 5000 division, 250 lb load cells	
Rate capability	Up to 100 ppm	Up to 80 ppm	Up to 60 ppm	Up to 50 ppm
Conveyor belt widths	12"	18"	24"	30"
Conveyor belt lengths[4]	21, 24, 30"	24, 30, 36"	36, 48, 60"	48, 60, 72"
Line height[5]	18 - 36, ±2"	18 - 40, ±2"	24 - 44", ±2"	24 - 44", ±2"
Nominal weighing capacities	40 kg	40 kg	100 kg	100 kg
Accuracy**	From ±10 g	From ±15 g	From ±30 g	From ±45 g
Pulley diameter	2.5"	2.5"	4"	4"

* Depends on the design and dimensions of the weighing belt used
** Depends on the weight, dimensions and transport of the product to be weighed
1 Describes environment for a mild steel construction. Stainless steel construction is rated IP65, and suitable for clean-up with low pressure and mild detergent
2 575V option is special order
3 Motor for stainless steel construction is IP56
4 Conveyor length sizes are also available as non-weighing infeed and outfeed conveyors
5 Heights given are the standard range. For special lower or higher machines, consult factory

Standard Features
- Powder-coated mild steel construction
- Seamless Habasit black conveyor belt
- IP54 ingress protection
- Unique design makes belt replacement simple and easy

Options and Accessories
- Remote display
- Stainless steel washdown construction
- IP65 ingress protection
- Infeed and outfeed conveyors to match speed
- Heavy duty push-off rejector (requires compressed air supply, 60 to 115 psi)
- Special power requirements available upon request

IND9D57 Enclosure dimensions (L x W x D)	406.4 x 406.4 x 152.4 mm (16 x 16 x 6 in.)
Shipping weight	14 kg (30 lb)
Enclosure construction/ environmental protection	304 stainless steel, certified IP65 Mounts to wall or a machine using integrated brackets
Display	High-contrast OLED, 25 mm high weight display
Power	Universal power supply, 87 to 264 VAC at 49 to 61Hz, 750 mA consumption maximum (IND570 terminal only)
Scale types	Analog scale: 10 VDC excitation interfaces to 4 350Ω load cells, 2 or 3 mV/V
Keypad	5 programmable softkeys, 4 scale function keys, numeric keys, navigation keys
Photo-eye interface	Interface provided via connection within IND570dyn terminal to two external photo-eyes
Package throughput	Up to 130 ppm
Connectivity	**Standard**: COM1 - RS-232/422/485; USB Host port; Ethernet TCP/IP **Optional**: COM2: RS-232; COM3: RS-232/422/485 (by changing I/O card from 5/8 to 2/5+COM2+COM3)
I/O	**Five standard discrete inputs**: entrance photo-eye, exit photo-eye, run permissive, silence alarm **Eight standard discrete outputs**: scale running, scale empty, fatal error, non-fatal error, weighment complete, reject output **Optional inputs**: clear alarm, send weight data
Serial interface	**Outputs**: METTLER-TOLEDO Continuous or Demand; continuous template using 1 of 5 configurable templates
PLC optional interface	EtherNet/IP, PROFIBUS, PROFINET
Operating environment	0°C to 40°C (32°F to 104°F), 10% to 95% relative humidity, non-condensing
Approvals	cUL_US, CE, 3000d, NTEP COC # 05-065

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www.mt.com/IND570

For more information