

# MSI-9000 CellScale™



## Standard Features

- 2.4 GHz frequency hopping spread spectrum
- Two scale inputs and excitation with remote sensing (see formatting connector accessory)
- Power/switch cable, 13 ft (4 m) for 9-30 VDC input with two programmable switch inputs
- RS-232, RS-422 and RS-485 I/O with 13 ft (4 m) interface cable
- Three internal solid state relays for setpoint control
- Real-time clock
- NEMA Type 4, IP65 enclosure (NEMA Type 6, IP67 with long -range antenna)

## Approvals



## Specifications

### Enclosure:

NEMA Type 4, IP65 milled anodized aluminum with O-ring gaskets  
NEMA Type 6, IP67 with optional long range antenna

### Weight:

3.5 lb (1.6 kg)

### Annunciators:

8 LED status lamps for Power, Setpoints, Comm Port, Excitation & RF Modem

### Real-Time Clock:

USA or European format programmable

### Power Input:

9-30 VDC (Internal 85-265 VAC power supply optional)

### Operating Temperature:

-4°F to 158°F (-20°C to 70°C)

### Scale Inputs:

2 sensor inputs and 6 terminal connections

### Excitation:

5 V (+5 V relative to ground)

### Calibration:

Digital via input comport or RF with other CellScale weighing components  
Programmable calibration settings, include: AZM, Motion, Filter, Zero, Units, Capacity and Divisions

### Digital Filtering:

Two-stage programmable digital filtering

### Totalization, Statistics and Product IDs:

Push-button or automatic with each ID register. Up to 32 alphanumeric ID registers

### Radio Link:

FHSS at 2.4 GHz (up to 64 network selections)

### Radio Link Effective Range:

Typically 500 ft (150 m) indoor, 1,000 ft (300 m) outdoor with standard antennas (see optional antennas for longer range)

### Standard Antenna:

1/2 wave 2dBi, articulated

### RFI/EMI Shielding:

Exceeds NIST HB44 and CE Standards

### Data I/O:

2 programmable comports supporting RS-232 or RS-422

### Push Button Inputs:

2 inputs on power connector and 1 isolated input on setpoints connector

### Connectors:

12-pin MIL-C-26482 for load sensor input Turck compatible Pico for RS-232 output

### Math Channels:

8 math channels programmable for arithmetic formula processing

### Internal Setpoints:

3 60 V at 350 mA internal programmable solid state relay contacts

### Warranty:

One-year limited

### Approvals:

NTEP CC 05-077

# MSI-9000 CellScale™

## Part Number/Price

Part #	MSI Part #	Description	Est. Weight	Price
138366		Two channel A/D 85-265VAC 47-440Hz, 130-300 VDC, 7-25 VDC (consult factory for other configurations)		Consult

## Options/Accessories (Contact MSI for application consultation)

Part #	MSI Part #	Description	Price
Consult	Consult	NTEP Certified (contact factory for specifications)	Consult
Consult	Consult	Internal AC/DC power supply (85-265 VAC, 47-440 Hz/130-300 VDC) includes a separate, independent 9-30 VDC power input	Consult
137467	Consult	External 85-265 VAC, 47-440 Hz/130-300 VDC power supply for indoor and outdoor installations	Consult
144331	Consult	Five dBi gain vehicle/cab mount whip antenna, includes 17 ft/5.2 m coaxial cable	Consult
Consult	Consult	Single or dual 4-20 mA output. Provides programmable current output for direct connection to PLC's and other data acquisition equipment. Note: See 4-20 mA option specification sheet for available product configurations.	Consult
144091	Consult	Non-terminated 4-20 mA cord set, 13 ft/4 m (longer lengths available by special order)	Consult
143343	Consult	Setpoints output cable, 13 ft/4 m for access to internal SS relays	Consult
Consult	Consult	Non-terminated serial cable for communication port connection, 13 ft/4 m (longer lengths available by special order)	Consult
Consult	Consult	Pre-wired load cell cable (various lengths for single and dual channel available)	Consult
Consult	Consult	Second A/D module (4 scale inputs - adds second 12-Pin connector)	Consult
Consult	Consult	CellScale Virtual Monitor (CVM) application software (enables PC to emulate scale indicator, contact factory for assistance)	Consult
Consult	Consult	Modem-only equipped version (CellScale A/D removed)	Consult
Consult	Consult	Non-RF equipped version (CellScale RF modem removed)	Consult
137096	Consult	MSI-9002 breakout/summing box; 4 in (1 out or 4 in (2 out)	Consult
137370	Consult	MSI-9008 multiplexer; 8 in (1 out (expands single channel into 8)	Consult
Consult	Consult	Wi-Fi Ethernet Connectivity (802.11b - contact factory for assistance)	Consult
143297	Consult	12-Pin mating connector for single or dual scale input	Consult
Consult	Consult	Long range antenna, 300-500 m omni-directional with 9 dBi gain, includes 10 ft/3 m coaxial cable	Consult
143466	12147	Antenna, 9 dBi	Consult
144330	13205	Antenna, 9 dBi corner reflector	Consult
144329	13204	Antenna, 14 dBi corner reflector	Consult
144334	13209	Antenna cable, 3 m	Consult
143977	12750	Antenna, YAGI, 15 dBi	Consult
144332	13207	Vehicle antenna cable	Consult
148624	501705-0001	Serial cable DB9	Consult
150990		RF Remote option (must be ordered with PN 153549 to work properly)	Consult