520 — HMI Digital Weight Indicator

Panel mount

Desktop

APPROVALS

SPECIFICATIONS

STANDARD FEATURES

- 0.75 in (19 mm), seven-digit Vacuum Fluorescent Display (VFD)
- 16-character 0.25 in (6.3 mm) VFD prompting display
- Eight configurable operator prompts
- Three digital inputs and four digital outputs
- Selectable A/D measurement rates up to 120/second
- Two communication ports:
  EDP port—full duplex, RS-232 and RS-485
  Printer port—full duplex, RS-232 or 20 mA current loop
- Five programmable ticket formats for Gross, Net, Setpoints, Count, and EDP format
- Eight setpoint kinds
- Programmable stream print format
- Time and date
- Push-button or scrolled tare entry
- Over/accept/under checkweigh mode
- Front panel or serial configuration/calibration
- Five point linearization calibration
- Millivolt calibration
- Gravitational compensation calibration
- Power for eight 350 Ω load cells or 16, 700 Ω load cells**
- Expansion port for option card
- Key functions: zero, gross/net, tare, units, print
- Desktop model with panel mount kit can be mounted in existing UMC2000 cutouts
- Peak hold
- Accumulator

POWER:
Line voltages: 115 or 230 VAC
Power consumption: 200 mA @ 115 VAC
160 mA @ 230 VAC
Frequency: 50 or 60 Hz

EXCITATION VOLTAGE:
10 VDC, 8 x 350 Ω or 16 x 700 Ω load cells

ANALOG SIGNAL INPUT RANGE:
0.3 mV/V – 4 mV/V

ANALOG SIGNAL SENSITIVITY:
0.3 µV/graduation @ 7.5 Hz,
1.5 µV/graduation @ 120 Hz

A/D SAMPLE RATE:
7.5 – 120 Hz, software selectable

RESOLUTION:
Internal resolution: Approximately 8 million counts
Display resolution: 100,000 dd

SYSTEM LINEARITY:
0.01% of full scale

DIGITAL I/O
Digital inputs: 3 inputs, TTL or switch closure, active-low
Digital outputs: 4 outputs, current limited with TTL pull-up

UPDATE RATE:
60 times/seconds

CIRCUIT PROTECTION:
RFI, EMI, ESD protection

SERIAL OUTPUT:
EDP port: Full duplex RS-232 or RS-485
Printer port: Full duplex RS-232 or active 20mA current loop output, 2 wire
Both ports: 300 to 19,200 bps; 7 or 8 data bits; even, odd or no parity

DISPLAY:
Vacuum Fluorescent Display (VFD), 7-digit,
14-segment primary weight display. 2 character unit descriptions
16-character dot matrix display for additional symbols, user prompts

KEYBOARD:
5-key membrane panel, tactile feel

OPERATING TEMPERATURE:
Legal: 14°F to 104°F (-10°C to 40°C)
Industrial: 14°F to 122°F (-10°C to 50°C)

WEIGHT:
6 lb (2.7 kg)

RATING/MATERIAL:
NEMA 4X/IP66 exterior panel surface, stainless steel (panel mount only)
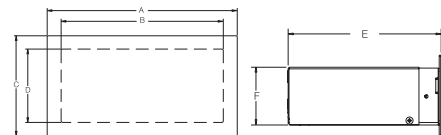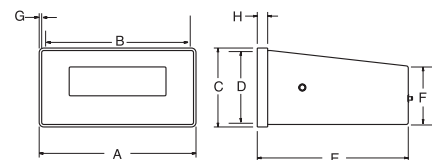Non-NEMA, painted steel (desktop)

APPROVALS:
NTEP - certified at 10,000 Divisions, Class III/IIIL, CC# 01-087
Measurement Canada approved, AM-5425; Class III/III HD at 10,000 divisions
OIML at 10,000 divisions (GB-1160)
Desktop CUL listed
Panel mount RU recognized
CE marked

WARRANTY:
Two-year limited warranty

DIMENSIONS - PANEL MOUNT

A	7.36 in (186.9 mm)	D	2.84 in (72.1 mm)
B	6.22 in (157.9 mm)	E	7.35 in (186.6 mm)
C	3.88 in (98.5 mm)	F	2.75 in (69.8 mm)
Dashed line represents cutout in panel			

DIMENSIONS - DESKTOP

A	7.55 in (191.7 mm)	E	7.27 in (184.6 mm)
B	7.34 in (186.4 mm)	F	2.75 in (69.8 mm)
C	3.80 in (96.5 mm)	G	0.12 in (3.05 mm)
D	3.56 in (90.4 mm)	H	0.50 in (12.7 mm)

** Option cards reduce the number of load cells that can be powered

(Specifications continued on next page)

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PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
115 VAC			
68715	520 panel mount*, stainless steel	7 lb	Consult factory
100386	520 panel mount* (68715) with analog output (78068)	7 lb	Consult factory
100387	520 panel mount* (68715) with DeviceNet (78290)	7 lb	Consult factory
100389	520 panel mount* (68715) with A-B remote I/O (78371)	7 lb	Consult factory
100392	520 panel mount* (68715) with Ethernet IP (93010)	7 lb	Consult factory
103206	520 panel mount* (68715) with Ethernet TCP/IP (77205)	7 lb	Consult factory
79734	520 desktop, painted steel with panel mount†	7 lb	Consult factory
70153	520 desktop, painted steel with tilt stand†	7 lb	Consult factory
100396	520 desktop (70153) with Analog output (78068)†	7 lb	Consult factory
100397	520 desktop (70153) with Ethernet IP (93010)†	7 lb	Consult factory
96969	520 desktop (70153) with Ethernet TCP/IP (77205)†	7 lb	Consult factory
230 VAC			
71873	520 panel mount*, stainless steel	7 lb	Consult factory
71876	520 desktop, painted steel w/USA 3-pin plug†	7 lb	Consult factory
79735	520 desktop, painted steel with panel mount†	7 lb	Consult factory
230 VAC for Europe			
71868	520 panel mount*, stainless steel	7 lb	Consult factory
71869	520 desktop, painted steel w/Euro 2-pin plug††	7 lb	Consult factory
79736	520 desktop, painted steel with panel mount††	7 lb	Consult factory

OPTIONS/ACCESSORIES

78068	Analog output: selectable 0-10V, 0-20 mA, 4-20 mA	Consult factory
77205	Ethernet TCP/IP 10 Base-T module	Consult factory
65383	Ethernet TCP/IP 10 Base-T module (external)	Consult factory
93010	Ethernet/IP (internal) for A-B PLC	Consult factory
104011	ControlNet Interface (modified enclosure, side access)	Consult factory
78290	DeviceNet™ interface	Consult factory
78371	Allen-Bradley Remote I/O interface	Consult factory
78305	Profibus® DP interface	Consult factory
68386	BCD output	Consult factory
78433	Wall mount bracket (desktop)	Consult factory
78425	Panel mount kit, UMC2000 replacement (desktop)	Consult factory
15436	Power cord, NEMA 5-15 plug pattern (panel mount)	Consult factory
105382	Power cord, CEE 7/7 plug pattern (panel mount)	Consult factory
77925	Revolution® III scale software*	Consult factory
68973	Additional operating manual	Consult factory
83567	Clear protective overlay for panel mount (package of five)	Consult factory
92777	Filter, PreVent™ vent kit	Consult factory

Relay Products Can Be Found on Page 39

Primary Component Parts

75063	CPU board, 115 VAC	Consult factory
75064	CPU board, 230 VAC, fused for USA	Consult factory
75065	CPU board, 230 VAC, fused for Europe	Consult factory
69024	Display board	Consult factory
68718	Membrane switch panel (panel mount)	Consult factory
77198	Membrane switch panel (desktop)	Consult factory

* Revolution III can be downloaded for FREE at www.ricelake.com

* Does not include power cord

†† CEE 7/7 plug   † NEMA 5-15 plug