

720i™ Series Programmable Weight Indicator and Controller

RICE LAKE
WEIGHING SYSTEMS

As of: Thursday, February 13, 2025



Standard Features

- LCD display
- Four softkeys
- Truck In/Out, 1,000-ID memory (PCE software version)
- 32 setpoints, 26 configurable types (Batch software version)
- Process control engine ProAction PCE define conditions and actions
- Data storage onboard, ProAction DBE user-defined
- Eight digital I/O (expandable)
- One option slot for pluggable options
- 20 auxiliary print formats
- Time and date
- Audit trail tracking and alibi storage
- Peak hold
- Rate of change
- Accumulator
- Multi-range/interval
- Local/remote
- Two full duplex serial ports
- Header for fiber-optic, Ethernet or USB

Approvals



Measurement
Canada
Approved



WARNING: Cancer and
Reproductive Harm
California Proposition
65

Functional and Controllable Digital Weight Indicator

The 720i indicator/controller proves its ability to control more processes, more equipment and more information than other basic models. Automate entire systems by commanding batch formulation, inventory management and traceability. Capture and store weight data, link more peripheral equipment and do it all with ease. The 720i design presents an operator keypad in either universal or panel-mount enclosures. Programmable softkeys and operator prompts offer more functionality and control for busy industrial settings.

Utilize the standard configurable batch engine of the 720i Batching version or explore the programming capabilities of the 720i Advanced Truck version in advanced truck mode. Both versions feature local remote capability, allowing multiple indicators to simultaneously display the same data for effortless tracking. Whether used for truck scale operations, data collection, batching or networking, this versatile indicator/controller is an intelligent solution.

720i Weight Indicator Specifications

Power:

Line voltages: 100 to 240 VAC
 Frequency: 50 to 60 Hz
 DC voltages: 12 to 24 VDC

Power Consumption:

25 W

Excitation Voltage:

10 VDC (± 5 VDC), 16 \times 350 ohm or 32 \times 700 ohm load cells

Analog Signal Input Range:

-10 mV to +45 mV

Analog Signal Sensitivity:

0.3 μ V/graduation minimum at 7.5 Hz
 1.0 μ V/graduation recommended

A/D Sample Rate:

7.5 to 960 Hz, software selectable

Resolution:

Internal: 8,000,000 counts
 Display: 1,000,000

System Linearity:

$\pm 0.01\%$ full scale

Digital I/O:

Eight channels on CPU board; optional 24-channel I/O

Communication Ports:

Two ports on CPU board support up to 115,200 bps
 Port 2: Full duplex RS-232 with handshaking
 Port 4: Full duplex RS-232, simplex 20mA
 Optional dual-channel serial expansion boards
 Channel A: RS-232, RS-485, 20 mA
 Channel B: RS-232, 20 mA

Display:

240 \times 64 pixel, transfective LCD
 Panel mount: 3.8 \times 1.2 in (96 \times 30 mm)
 Universal: 5.3 \times 1.5 in (133 \times 39 mm)

Keys/Buttons:

Ten-key (panel mount) membrane panel
 22-key (universal) membrane panel tactile feel

Temperature:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)
 Operating: 14 °F to 122 °F (-10 °C to 50 °C)

Rating/Material:

NEMA Type 4X/IP66
 Stainless steel

Weight:

Universal enclosure: 9.5 lb (4.3 kg)
 Panel Mount enclosure: 8.5 lb (3.9 kg)

Warranty:

Two-year limited

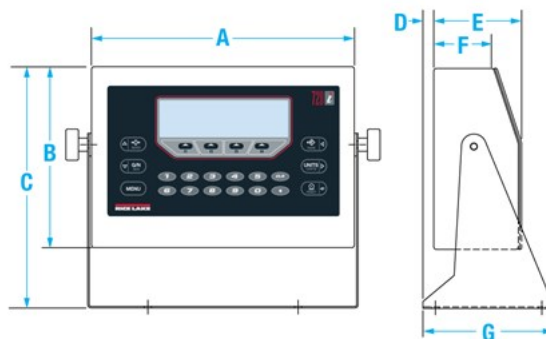
EMC Immunity:

3 V/m

Approvals:

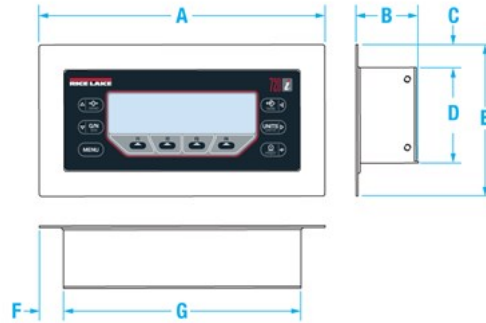
NTEP CC 08-022, Class III/IIIL 10,000d
 Measurement Canada AM-5677C
 Class III/IIIRD 10,000d
 CE Marked
 UL/cUL Listed (universal)
 UL/cUL Recognized (panel mount)

720i Universal Dimensions



720i Universal Dimensions					
A	10.50 in (267 mm)	D	0.44 in (11 mm)	G	5.25 in (133 mm)
B	7.25 in (184 mm)	E	3.51 in (89 mm)		
C	9.66 in (245 mm)	F	2.31 in (59 mm)		

720i Panel Mount Dimensions



720i Panel Mount Display Dimensions

A	7.36 in (187 mm)	D	2.45 in (62 mm)	G	6.12 in (155 mm)
B	1.60 in (41 mm)	E	3.88 in (99 mm)		
C	0.59 in (15 mm)	F	0.62 in (16 mm)		

720i Panel Mount CPU Enclosure

(L x W x H): 12.75 x 6.05 x 2.14 in (324 x 154 x 5 mm)

Parts

Part # Description

PCE Software

101230	Indicator,720i Universal With PCE Software ROHS Compliant, 115VAC
103459	Indicator,720i Universal With PCE Software ROHS Compliant 85VAC-260VAC CEE 7/7 Power Cord
107708	Indicator,720i Universal DC-DC Convertor, 12 - 36VDC, 25 Watt
101229	Indicator,720i Panel Mount ROHS Compliant, 85VAC-260VAC Loaded with PCE Firmware.
119116	Indicator,720i Panel Mount,OIML Marked,ROHS Compliant,85VAC-260VAC
107710	Indicator,720i Panel Mount with DC-DC Convertor, 12 - 36VDC Nominal, 25 Watts.

Batch Software

115447	Indicator,720i Universal With Batch Software, ROHS Compliant, 115VAC, NEMA 5-15 Power Cord
115448	Indicator,720i Universal With Batch Software, ROHS Compliant, 85-260VAC, CEE 7/7 Power Cord
115449	Indicator,720i Panel Mount, with Batch Software, ROHS Compliant, 85-260VAC

Options

Part # Description

Option Cards

67601	Ind OPT,I/O 24 Channel 720i, 820i, 920i
67602	Ind OPT,Analog Output 0-10V, 0-20mA, 4-20mA for 720i, 820i, 920i
67604	Ind OPT,Serial Port Dual Channel Full Duplex RS232 and 4 Wire RS485 720i, 820i, 920i

Network Cards

77142	Ind OPT,Ethernet Interface 720i, 820i, iQube, CW90, CW90X
71986	Ind Opt,Ethernet TCP/IP Interface Card, Embedded Device Server 10/100baseT 920i, 820i & 720.
206272	Ind Opt,Wireless LAN Card RS232/WiFi Interface 802.11 A/B 10/100 XPico for CW90,720i,iQube2
87803	Ind Opt,EtherNet/IP for 920i, 820i and 720i. Protocol for Allen-Bradley PLC.
68540	Ind Opt,PROFIBUS DP Interface Kit (Internal), 720i, 820i and 920i.
68541	Ind Opt,DeviceNet Interface 720i, 820i and 920i.

Hardware

15436	Power Cord,Pigtail 9ft 10in, Black, SVT, 18 gauge/3 conductor, CEE color code
105382	Power Cord,230VAC,CEE7/7 Continental Europe, Molded Plug, 8ft 2in with Pigtail, HO5RN-F, Harmonized
19369	Ind Opt,Start/Stop ASSY External FRP Nema 4X Box For Use Universal or Desktop units.
83569	Overlay, Clear Protective Window with Adhesive Edge, Package of Five Each, 820i, 920i
118975	Option,720 Panel Mount Universal Indicator, Bracket w/Gaskets, Non-Nema Seal
101923	I/O,Relay Rack Cased 4 Channel OPT022 Relay Rack, 7 Foot I/O Cable, 6 Cord Grips, Breather Vent. *** RELAYS NOT INCLUDED ***

Manuals and Software

103121	LIT,Manual 720i 720i Programmable HMI Indicator/Controller Technical Manual
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Primary Component Parts

106788	Board Assy,CPU 720i With PCE Software
195388	Board Assy,CPU 720i With Batching Software.
101244	Display Module,LCD 240x64 Small Format, FSTN Positive, 6:00 view, Wide Temp, Transflective White LED B/L, Header, ROHS Compliant, 720i
102888	Display Module,LCD 240x64 Large Format, FSTN Positive, 6:00 View, Wide Temp, Transflective White LED B/L and cable, Header + Current Limit Resistor, 720i ROHS Compliant
101239	Board ASSY,720i Remote ROHS Compliant, Remote Display, 240x64 w/Rice Lake Protocol int. LCD, Transflective, FSTN Gray.
102887	Board Assy,Display Host 720i ROHS Compliant W/Rice Lake protocol for Larger Format display
67613	Power Supply,+/- 6V 25W Board 920i Universal, 820i, and 720i. Protective Cover - PN 85494
132791	Power Supply,DC/DC 9-36 VDC Input +/- 6VDC Output,25 Watt,Onboard/Livestock/920i
101256	Overlay,720i Panel Mount Membrane Switch Panel for Remote Display,ROHS Compliant
101257	Overlay,720i Universal Membrane Switch Panel for Universal with full keypad,ROHS-Comp.

Replacement Parts

Part #	Description
720i Universal	
101257	Overlay,720i Universal Membrane Switch Panel for Universal with full keypad,ROHS-Comp.
101263	Enclosure,720i Universal SST, ROHS compliant
103988	Washer,Nylon .515 -.52 ID X 1.00 OD x .093 -.094 Thick White Nylon 6/6
103610	Knob,Tee, 1/4-20, Nylon, Brass or SST Insert, Black
67531	Stand,Tilt,720,820,920 Stainless Steel.
15628	Cord Grip,1/2 NPT Black Clamping Range = .197 - .472
15626	Cord Grip,PG9 Black Clamping Range .138 - .315 Nut: 15627. Torque at 3.75Nm (33.19 inch lbs.)
15630	Locknut,1/2 NPT Black
68600	Cord Grip,PG11 Black For Cable OD .20" - .39"
15627	Locknut,Black PCN9 Used on PG9 Cord Grips. (PN 15626)
68601	Nut,PG11 Cord Grip Black Nylon
45043	Wire ASSY,Ground 4 In. 16 AWG Green/Yellow Wire, w/#8 Eye Connector Both Ends
102887	Board Assy,Display Host 720i ROHS Compliant W/Rice Lake protocol for Larger Format display
102888	Display Module,LCD 240x64 Large Format, FSTN Positive, 6:00 View, Wide Temp, Transflective White LED B/L and cable, Header + Current Limit Resistor, 720i ROHS Compliant
85202	Power Cord Assy,120VAC W/PG11 Cord Grip And SL-156 Connector UL Certified Power Supply Cord Label Required
85203	Power Cord ASSY,220VAC Continental Europe Plug (CEE7/7) W/PG11 Cord Grip and SL-156 Connector
67885	Standoff,Male-FEM 4-40NC x 1.25 Long 3/16 Hex Steel Zinc Plated
14618	Nut,Kep 4-40NC HEX External Tooth Lockwasher Steel Zinc Plated Width Across Flats= 1/4 Thickness=1/8
103443	Mounting Strip,CPU Lower 720i Universal Indicator
106788	Board Assy,CPU 720i With PCE Software
102376	Gasket,Back Plate 720i Universal ROHS Compliant
75062	Washer,Bonded Sealing #8 7/16 (.4375) OD SST
14862	Screw,Machine 8-32NC x 3/8 Phillips Pan Head Fully Threaded 18-8 SST
14626	Nut,Kep 8-32NC HEX External Tooth Lockwasher Steel Zinc Plated Width Across Flats= 11/32 Thickness=5/32. 8-32
69291	Battery,3v Coin Lithium 16mm Diameter, 125(mAh), Metal
103989	Standoff,Fem-Fem 4-40 x 1.06 lg., 1/4 hex, brass.
14825	Screw,Machine 4-40NC x 1/4 Phillips Pan Head 18-8 SST with Nylon Patch on Thread
16861	Label,Warning High Voltage Adhesive
67796	Wire Harness,920i 25W PS to CPU, Universal, 5 inches
67613	Power Supply,+/- 6V 25W Board 920i Universal, 820i, and 720i. Protective Cover - PN 85494
132791	Power Supply,DC/DC 9-36 VDC Input +/- 6VDC Output,25 Watt,Onboard/Livestock/920i
103442	Bracket,Power Supply 720i Universal Indicator
103936	Component Plate,720i Universal
16892	Label,Ground Protective Earth Adhesive IEC 60417-5019 (DB:2002-10)
15134	Washer,Lock NO 8 Type A Internal Tooth Steel Zinc Plated ID=.168-.176 OD=.325-.340 Thickness=.018-.023
30376	Seal Ring,Nylon 1/2 NPT .77 ID X .98 OD X .07
30375	Seal Ring,Nylon PG9 .59 ID X .75 OD X .08
68599	Seal Ring,Nylon PG-11

Part #	Description
102377	Backplate,720i Universal ROHS Compliant
103458	Cable ASSY,Ribbon 7in. 20 Pin Female Each End
103609	Cable ASSY,720i Universal CPU to Display Host
85791	Fuse,2.5 amp, 5x20 mm 250 volt, Medium Time Lag
102375	Parts Kit,720i Universal
67601	Ind OPT,I/O 24 Channel 720i, 820i, 920i
67602	Ind OPT,Analog Output 0-10V, 0-20mA, 4-20mA for 720i, 820i, 920i
67604	Ind OPT,Serial Port Dual Channel Full Duplex RS232 and 4 Wire RS485 720i, 820i, 920i
77142	Ind OPT,Ethernet Interface 720i, 820i, iQube, CW90, CW90X
71986	Ind Opt,Ethernet TCP/IP Interface Card, Embedded Device Server 10/100baseT 920i, 820i & 720.
87803	Ind Opt,EtherNet/IP for 920i, 820i and 720i. Protocol for Allen-Bradley PLC.
68539	Ind Opt,Allen-Bradley Remote I/O Interface Kit (Internal) 720i, 820i and 920i.
68540	Ind Opt,PROFIBUS DP Interface Kit (Internal), 720i, 820i and 920i.
68541	Ind Opt,DeviceNet Interface 720i, 820i and 920i.

Components of Part# 102375

103988	Washer,Nylon .515 -.52 ID X 1.00 OD x .093 -.094 Thick White Nylon 6/6
103610	Knob,Tee, 1/4-20, Nylon, Brass or SST Insert, Black
42149	Bumper,Rubber Grommet .50 O.D. x .281 I.D.
30623	Screw,Machine 8-32NC x 7/16 Phillips Drive Drilled Fillister Head 18-8 SST
14626	Nut,Kep 8-32NC HEX External Tooth Lockwasher Steel Zinc Plated Width Across Flats= 11/32 Thickness=5/32. 8-32
14862	Screw,Machine 8-32NC x 3/8 Phillips Pan Head Fully Threaded 18-8 SST
15134	Washer,Lock NO 8 Type A Internal Tooth Steel Zinc Plated ID=.168-.176 OD=.325-.340 Thickness=.018-.023
15631	Cable Tie,3in Nylon
15665	Gland,Reducing 1/2NPT Clamping Range .157 - .354 When Used With Part 15628
19538	Plug,Post, Slotted, DIA = 1/4IN, Shank = 1/2 - 1IN, Plastic, Seals Inside Cord Grip
53075	Clamp,Ground Cable Shield Radius 0.078 inch
75062	Washer,Bonded Sealing #8 7/16 (.4375) OD SST
71344	CONN,10 Position Screw Terminal Pluggable, 3.81mm Centers 16 - 28 AWG, 7mm (0.275 in) strip length
76513	CONN,4 Pos Screw Terminal Pluggable 3.81mm Center 30 - 14 AWG .276 Strip Length Screw Torque 1.95 LB/IN Minimum - 2.213 LB/IN Maximum
76514	CONN,6 Pos Screw Terminal Pluggable 3.81mm Centers Phoenix 1803617 or Equivalent, 16-28AWG Strip length = .28
94422	Label,Capacity .40 X 5.00

720i Panel - A Parts

102380	Display,720i Panel Mount Remote LCD RoHS Compliant
101233	Controller,720i Panel Mt Enclosure with CPU & Power Supply for Panel Mount. With PCE Software ROHS Compliant 85-260VAC.
101256	Overlay,720i Panel Mount Membrane Switch Panel for Remote Display,ROHS Compliant
101265	Enclosure,720i Panel Mount Remote Display Housing & Faceplate, ROHS Compliant.
68719	Gasket,Faceplate 520&720 Panel Mount
102605	Backplate,720i Panel Mount
14822	Screw,MACH 4-40NCx1/4 Phillips Pan Head Internal Tooth Lock Washer SEMS Steel Zinc Plated
101239	Board ASSY,720i Remote ROHS Compliant, Remote Display, 240x64 w/Rice Lake Protocol int. LCD, Transflective, FSTN Gray.

Part #	Description
101244	Display Module,LCD 240x64 Small Format, FSTN Positive, 6:00 view, Wide Temp, Transflective White LED B/L, Header, ROHS Compliant, 720i
69787	Bracket,Clinching 720i 520, Panel Mount
82426	Plate,Backing 520 SST Panel Mount
83567	Overlay, Clear Protective Window with Adhesive Edge, Package of Five Each, 520, 720i panel
103121	LIT,Manual 720i 720i Programmable HMI Indicator/Controller Technical Manual
103580	Parts Kit,720i Panel Mount Remote Display

Components of Part# 103580

53075	Clamp,Ground Cable Shield Radius 0.078 inch
71522	Screw,Machine 8-32NCx1/4 Slotted Hex Head 18-8 SST
76514	CONN,6 Pos Screw Terminal Pluggable 3.81mm Centers Phoenix 1803617 or Equivalent, 16-28AWG Strip length = .28
82425	Screw,Machine 10-32NF x 1-1/2 Hex Head Slotted 18-8 SST
94422	Label,Capacity .40 X 5.00

720i Panel - B Parts

85791	Fuse,2.5 amp, 5x20 mm 250 volt, Medium Time Lag
103656	Parts Kit,720i Controller
103314	Cover,720i Controller box
103677	Label,720i Controller Box Connector Information RoHS Compliant
67796	Wire Harness,920i 25W PS to CPU, Universal, 5 inches
69291	Battery,3v Coin Lithium 16mm Diameter, 125(mAh), Metal
106788	Board Assy,CPU 720i With PCE Software
14822	Screw,MACH 4-40NCx1/4 Phillips Pan Head Internal Tooth Lock Washer SEMS Steel Zinc Plated
101264	Enclosure,720i Panel Mount Controller Housing, ROHS Compliant
14825	Screw,Machine 4-40NC x 1/4 Phillips Pan Head 18-8 SST with Nylon Patch on Thread
103681	Header,AC Feed Through
16892	Label,Ground Protective Earth Adhesive IEC 60417-5019 (DB:2002-10)
15601	Wire ASSY,Ground 6 In. 16 AWG Green/Yellow Wire, w/#8 Eye Connector Both Ends
67885	Standoff,Male-FEM 4-40NC x 1.25 Long 3/16 Hex Steel Zinc Plated
67613	Power Supply,+/- 6V 25W Board 920i Universal, 820i, and 720i. Protective Cover - PN 85494
132791	Power Supply,DC/DC 9-36 VDC Input +/- 6VDC Output,25 Watt,Onboard/Livestock/920i
85494	Cover, Protective Plastic Power Supply
16861	Label,Warning High Voltage Adhesive
54206	Screw,Machine 6-32x3/8 Slotted Drilled Fillister Head Steel Zinc Plated
14626	Nut,Kep 8-32NC HEX External Tooth Lockwasher Steel Zinc Plated Width Across Flats= 11/32 Thickness=5/32. 8-32
14839	Screw,MACH 6-32NCx1/4 Phillips Pan Head Internal Tooth Lock Washer SEMS Steel Zinc Plated
15134	Washer,Lock NO 8 Type A Internal Tooth Steel Zinc Plated ID=.168-.176 OD=.325-.340 Thickness=.018-.023
71698	Strip,Polyurethane Foam 3.5x.25x.25 w/Adhesive

Components of Part# 103656

14626	Nut,Kep 8-32NC HEX External Tooth Lockwasher Steel Zinc Plated Width Across Flats= 11/32 Thickness=5/32. 8-32
14862	Screw,Machine 8-32NC x 3/8 Phillips Pan Head Fully Threaded 18-8 SST
15134	Washer,Lock NO 8 Type A Internal Tooth Steel Zinc Plated ID=.168-.176 OD=.325-.340 Thickness=.018-.023

Part #	Description
15694	CONN, Ring Terminal #8 Stud 22-16 AWG Solid or Stranded Strip Length .203"-.234"
15888	Terminal Block, 3 Position FEM 5.08 Pitch Pluggable Phoenix 24-12AWG .276 Strip Length
30623	Screw, Machine 8-32NC x 7/16 Phillips Drive Drilled Fillister Head 18-8 SST
53075	Clamp, Ground Cable Shield Radius 0.078 inch
71344	CONN, 10 Position Screw Terminal Pluggable, 3.81mm Centers 16 - 28 AWG, 7mm (0.275 in) strip length
76513	CONN, 4 Pos Screw Terminal Pluggable 3.81mm Center 30 - 14 AWG .276 Strip Length Screw Torque 1.95 LB/IN Minimum - 2.213 LB/IN Maximum
76514	CONN, 6 Pos Screw Terminal Pluggable 3.81mm Centers Phoenix 1803617 or Equivalent, 16-28AWG Strip length = .28
94422	Label, Capacity .40 X 5.00

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