

# IND560 Process Weighing : Competition



**Cardinal Scale  
220**



**Avery  
Weigh-Tronix  
E1070**



**Rice Lake  
IQ520**



**Rice Lake  
IQ Plus710**



**GSE465**



**IND560**





**Sartorius  
CIS3N**






**AND  
4402**


<b>General</b>	SS Desk	Panel SS Desk	Panel 165x72x187	Panel 241x213x111 SS Desk	Panel 251x226x92 SS Desk	Panel 265x160x92 SS Desk	Ex version available	Panel 144x72x197
Enclosure	NEMA 4x / IP66	NEMA 6 / 4x	NEMA 4x /IP67	NEMA 4x /IP66	NEMA 4x	IP65 panel IP69k harsh	Plastic, ss	IP65
Divisions			10,000d	10,000d		10,000d		
<b>Display</b>								
Type	Backlit LED	LED	VF (1 line)	VF (1 line)	VF (2 line) LCD battery	VF	Backlit LCD, graphic	VF
Height of Wt Display	20 mm	20 mm	6 mm	19 mm	19 mm	21 mm		13 mm
<b>Keypad</b>								
# of Function Keys	14	11	5	13	10	4 and 3 set sof 5 softkeys	14	7
Numeric	Y	Y	-	Y	Y	Y	Y	Y
<b>Power Supply</b>								
Excitation	12V	5V	10V	10V excitation	10V	10V	9V	10V
A/D Sensitivity	0.5 uV	0.2 uV	0.3 - 1.5 uV	0.3 uV		0.1 uV	0.7 uV	0.3 uV
Max A/D	100	100 Hz	120 Hz	30 Hz	60 Hz	366 Hz		100 Hz
Filtering		2 settings				Notch, frequency		
<b>Platforms</b>								
Maximum Number	1	1	1	1	2	1	2	1
Scale Type	Analog	Analog	Analog	Analog	Analog	Analog, IDNet	Analog	
Max # 350 □ Analog Cells	14	8	8	8	12	8	4	8
<b>COM Interfaces Options</b>								
RS232	Y	Y	Y	Y	Y	Y	Y	Y
RS422	-	-	-	-	-	Y	Y	Y
RS485	-	-	Y	Y	Y	Y	Y	Y
20mA Current Loop	-	-	Y	Y	Y	-	-	Y
USB	-	-	-	-	-	-	-	-
EtherNet	Y	Y	-	-	Y	Y	Y	-
WLAN	-	-	-	-	-	Y	-	-
Bluetooth	Y	-	-	-	-	-	-	-
Internal Analog Output	Y	Y	Y	Y	Y	Y	Y	Y
Allen-Bradley RIO	Y	-	Y	Y	-	Y	-	-
Profibus-DP	Y	Y	Y	Y	Y	Y	Y	-
<b>Max, Discrete I/O</b>	8 In / 8 Out	3 In / 3 Out	3 In / 4 Out	8 In / 8 Out	8 In / 8 Out	12 In / 18 Out		11 In / 11 Out
<b>Printing</b>								
# of Customizable Templates	6	1	7	6	4	5	2	
Time & Date			Y	Y	Y	Y	Y	


## IND560 Process Weighing: Competition

General	Competitor Strength	METTLER TOLEDO Solution	Competitor Weakness	METTLER TOLEDO Solution
 <b>GSE465</b>	LCD battery option	Utilize the technologies of the Hawk, IND425/435/445, or PUMA. METTLER TOLEDO future battery option solution in Progress.	Awkward panel mount	The IND560 panel version mounts parallel against the panel with a minimal lip to avoid collecting food or other residue.
	Macro programming language – in User 'C'	Utilize the technologies of the JagXtreme, JagBASIC, and ID7 terminals. METTLER TOLEDO future programmable tool in Progress.	Rubber keypad	The IND560 1.22 mm polyester overlay resistive to chemicals and harsh cleaning unlike rubber
	2 <sup>nd</sup> scale option 12 350Ω load cells	GSE 2 <sup>nd</sup> scale decreases the 60 hz update rate. The IND560 supports 8 350Ω load cells with the expedient 366 hz update rate at a competitive price. Currently, utilize the technologies of the JagXtreme and ID7 terminals	Max 60 updates/sec internal A/D (slower with 2 <sup>nd</sup> scale)	The IND560 provides maximized updates and process control when compared to competitive equipment: 366 updates/sec internal A/D, 50 updates/sec target and I/O control, and 20 updates/sec PLC control.
	Rate computation	Utilize the technologies of the JagXtreme terminal. METTLER TOLEDO future rate computation in progress.	2 year limited warranty	Standard 1 year METTLER TOELDO full warranty and 7 year service parts
	15 independent programmable database structures	The IND560 supports 3 internal database tables with 25 records each for Tare, Target, and User defined strings.	15 Variable Data Registers	The IND560 internal memory table holds 25 user defined memory locations; the terminal provides access to the internal memory (shared data variables)
	200 APW recall for counting applications	Utilize the technologies of the IND465 (1500 records) or the IND445 (100 records) for large database APW recall counting applications.	8 stored targets	The IND560 supports 25 stored targets including target value, tolerances, alphanumeric description, 2-digit ID. Stored target values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.
 <b>Rice Lake IQ520</b>	Checkweighing, discharge, filling, truck In/Out applications supported	The standard IND560 offers over/under checkweighing, single material fill, and basic weigh functionality with a robust graphical display. The future Fill-560 Application module offers eight advanced filling sequences	GSE Reflash Software to flash software upgrades  &&  Rabbit Software Configuration Software (List \$199)	InSite Configuration and Template PC tool used to flash upgrades, to configure both online and offline then upload into the terminal, to graphically create a template, and to store a backup copy of the terminal setup.
	Counting application supported	Utilize the technologies of the IND435, IND465 (1500 records) or the IND445 (100 records) for large database APW recall counting applications	8 stored targets  1 tare / target storage	The IND560 supports 25 stored targets including target value, tolerances, alphanumeric description, 2-digit ID. Stored target values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.
	Checkweighing, counting, filling applications supported	The standard IND560 offers over/under Checkweighing, single material fill, and basic weigh with a graphical display. The future Fill-560 Application module offers eight advanced filling sequences	Max 120 updates/sec internal A/D	The IND560 provides maximized updates and process control when compared to competitive equipment: 366 updates/sec internal A/D, 50 updates/sec target and I/O control, and 20 updates/sec PLC control.
	Revolution III Scale Software	Utilize the technologies of the JagXtreme, JagBASIC, and ID7 terminals. METTLER TOLEDO future programmable tool in Progress.		

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 <p><b>Rice Lake IQ Plus710</b></p>	300 record tare memory	The IND560 supports 25 stored tares including tare value, alphanumeric description, 2-digit ID. Stored tare values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.	8 stored targets	The IND560 supports 25 stored targets including target value, tolerances, alphanumeric description, 2-digit ID. Stored target values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.
	Built in prompt / message library	The IND560 internal memory table holds 25 user defined memory locations; the terminal provides access to the internal memory (shared data variables)	16 screws used to attach rear panel	The IND560 harsh desk enclosure uses 4 spring clips rather than screws, for fast, easy maintenance and avoidance of dropping a screw.
	2 serial ports standard	IND560 comes standard with one serial port for RS232/ RS422/ RS485 and offers an option card to include an additional 2 serial ports and an Ethernet TCP/IP	Max 30 updates/sec internal A/D	The IND560 provides maximized updates and process control when compared to competitive equipment: 366 updates/sec internal A/D, 50 updates/sec target and I/O control, and 20 updates/sec PLC control.
	Built in batching	Utilize the technologies of the JagXtreme, JagBASIC, and ID7 terminals. METTLER TOLEDO future batching solution in Progress.	No barcode input	The IND560 provides a customizable barcode input template with preamble, data, and postable parameters to parse extraneous data to receive the necessary information only. The barcode input is an excellent way to recall a stored target value by the 2-digit ID.
	Revolution III Scale Software 4 30-step macros	Utilize the technologies of the JagXtreme, JagBASIC, and ID7 terminals. METTLER TOLEDO future programmable tool in Progress.	3 templates	The IND560 supports 5 customizable templates with a maximum of 1,000 bytes each. The standard unit comes with three default templates. The InSite Template PC tool offers a way to graphically create a template, and to store a backup copy.
			Large panel mount	The IND560 panel version mounts parallel against the panel with a minimal lip to avoid collecting food or other residue.

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 <b>AND</b> <b>4402</b>	Small panel mount package	The IND560 panel version mounts parallel against the panel with a minimal lip to avoid collecting food or other residue.	No desk mount version	The IND560 offers both a harsh desk and panel mount enclosure.
	Two lines of alpha for prompts & information	IND560 display provides graphical representation for material transfer and over/under applications, as well as user feedback, errors, and softkeys for one touch applications	No serial ports standard	The IND560 comes standard with one serial port and offers an option card to include an additional 2 serial ports and an Ethernet TCP/IP
	100 recipes	Utilize the technologies of the JagXtreme, JagBASIC, and ID7 terminals. METTLER TOLEDO future recipe batching solution in Progress.	Limited fieldbus connectivity	The IND560 offers internal options for advanced communication including: RIO, Profibus DP, Analog Output. It also connects to an external DeviceNet Bridge
	100 tare / target memory storage	The IND560 supports 3 internal database tables with 25 records each for Tare, Target, and User defined strings. Use the Free InSite configuration tool to create setup while offline or online to upload into the terminal	No programming language	InSite Configuration and Template tool used to flash upgrades, to configure both online and offline then upload into the terminal, to graphically create a template, and to store a backup copy of the terminal setup. Configure two user prompts, the graphical display, and memory tables.
 <b>Cardinal Scale</b> <b>220</b>	200 IDs, record tare memory	The IND560 supports 25 stored tares including tare value, alphanumeric description, 2-digit ID. Stored tare values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.	No panel mount	The IND560 panel version mounts parallel against the panel with a minimal lip to avoid collecting food or other residue.
	2 serial ports standard	IND560 comes standard with one serial port for RS232/ RS422/ RS485 and offers an option card to include an additional 2 serial ports and an Ethernet TCP/IP	Bulky NEMA 4X/IP66 enclosure	The IND560 is an IP69k rated unit which is tested for heavy washdown and high pressure cleaning.
	6 custom templates	The IND560 supports 5 customizable templates with a maximum of 1,000 bytes each. The standard unit comes with three default templates. The InSite Template PC tool offers a way to graphically create a template, and to store a backup copy.	Max 100 updates/sec internal A/D	The IND560 provides maximized updates and process control when compared to competitive equipment: 366 updates/sec internal A/D, 50 updates/sec target and I/O control, and 20 updates/sec PLC control.
	Built in applications: counting, checkweighing	The standard IND560 offers over/under checkweighing, single material fill, and basic weigh functionality with a robust graphical display. Utilize the technologies of the IND465 (1500 records) or the IND445 (100 records) for large database APW recall counting applications.	8 In / 8 Output	The IND560 provides the ability to communicate to 12 Inputs and 18 outputs utilizing the internal I/O card and/or the external ARM100 (4 input/6 output) DIN rail mountable units.
	Multipoint Calibration	IND560 supports three modes of calibration: traditional weight, step calibration, and CalFREE without test weights for non-Approved applications	Infrared port for remote operation	The IND560 provides functionality to Issue remote clear, tare, print, zero commands to the IND560 via serial, Ethernet, or PLC networks

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 <p><b>Avery Weigh-Tronix E1070</b></p>	DeviceNet and Profibus Standard	IND560 offers options for advanced communication including: RIO, Profibus DP, Analog Output for both weight/integer format and floating point format which transfers a greater amount of information.	No panel mount	The IND560 panel version mounts parallel against the panel with a minimal lip to avoid collecting food or other residue.
	2 serial ports standard	IND560 comes standard with one serial port for RS232/ RS422/ RS485 and offers an option card to include an additional 2 serial ports and an Ethernet TCP/IP	Only 3 In / 3 Out	The IND560 provides the ability to communicate to 12 Inputs and 18 outputs utilizing the internal I/O card and/or the external ARM100 (4 input/6 output) DIN rail mountable units.
	Applications: counting, batching, peak measurement, checkweighing	The standard IND560 offers over/under checkweighing, single material fill, and basic weigh functionality with a robust graphical display. The future Fill-560 Application module offers eight advanced filling sequences	Only lbs, kg, custom units	The IND560 includes three selectable unit selections including; g, kg, lb, t, ton, and a user-definable custom unit.
	Interface digital j-box with SensorComm at 20 Hz	Utilize the technologies of the IND310drive for vehicle applications	NEMA 6/4x rated enclosure	The IND560 is an IP69k rated unit which is tested for heavy washdown and high pressure cleaning.
	10 recipes up to 3 ingredients	The IND560 supports 25 stored targets and tares including target value, tolerances, alphanumeric description, 2-digit ID. Stored target values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.	Max 100 updates/sec internal A/D	The IND560 provides maximized updates and process control when compared to competitive equipment: 366 updates/sec internal A/D, 50 updates/sec target and I/O control, and 20 updates/sec PLC control.
			Only 1 customizable template	The IND560 supports 5 customizable templates with a maximum of 1,000 bytes each. The standard unit comes with three default templates. The InSite Template PC tool offers a way to graphically create a template, and to store a backup copy.
			11 tare or target memory records	The IND560 supports 25 stored targets and tares including target value, tolerances, alphanumeric description, 2-digit ID. Stored target values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.

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 <p><b>Sartorius</b> <b>CIS3N</b></p>	Graphic display very flexible	IND560 display provides graphical representation for material transfer and over/under applications	No panel mount version	The IND560 panel version mounts parallel against the panel with a minimal lip to avoid collecting food or other residue.
	Optimized for use with bench scale bases	Standard IND560 offers over/under Checkweighing with bench scale bases including column, graphical display, and compliance with regulations	Fieldbus interfaces based on serial communications	The IND560 offers internal options for advanced communication including: RIO, Profibus DP, Analog Output. It also connects to an external DeviceNet Bridge
	Ex version available	Utilize the technologies of the PUMA, ID7. METTLER TOLEDO future battery option solution in Progress.	Filling: single material, no blend, no refill, no aux output, relays in separate box	The future Fill-560 Application module offers eight advanced filling sequences
	Optional 2 <sup>nd</sup> scale	The IND560 supports 8 350Ω load cells with the expedient 366 hz update rate at a competitive price. Currently, utilize the technologies of the JagXtreme and ID7 terminals	Single fixed position template for printing	The IND560 supports 5 customizable templates with a maximum of 1,000 bytes each. The standard unit comes with three default templates. The InSite Template PC tool offers a way to graphically create a template, and to store a backup copy.
	Counting	Utilize the technologies of the IND465 (1500 records) or the IND445 (100 records) for large database APW recall counting applications.	Four IDs: name and value	The IND560 supports 25 stored targets and tares including target value, tolerances, alphanumeric description, 2-digit ID. Stored target values can be recalled by the 2-digit ID and if necessary, updated at the beginning of the process.
			Alpha characters by toggling numeric keypad: ex. 5 presses of the #2 = a	The IND560 Alpha characters are accessible using the Softkeys
			Two layers of security : general, service	The IND560 provide 4 levels of security to control general use users to complete technician access.