

1:1 PLC Communication Replacement IND131/331 Compatibility



Backward Compatibility

The IND360legacy indicator delivers backward compatibility for existing IND131/331 installations when it is impossible to change your existing PLC program. IND360legacy users benefit from the advanced color display, error logging and a web interface.



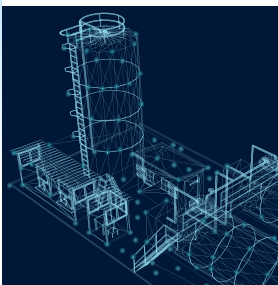
Simplified Integration

IND360legacy supports connectivity to PROFINET, ProfibusDP, EtherNet/IP and ModBus RTU automation buses using the IND131/331 protocol and its device description files. Optional discrete I/O and 4-20mA provide further backward compatibility.



Brownfield Installation

IND360legacy provides you the capability to replace damaged units in validated systems or allows you to add one more unit to an existing setup for operational continuity.



Greenfield Installation

Choosing the IND360 non legacy versions allows you to benefit from super high speed, deterministic communication, fast integration and connectivity to a large portfolio of smart sensors for improved performance and condition monitoring.



IND360legacy Indicators

Designed for IND131/331 Replacement

IND360legacy is designed to support a seamless transition to next-generation indicators without the need to change your PLC program.

Features include:

- Large, color operator display and network status LEDs.
- Web interface for service and monitoring.
- Integrated logging of errors and configuration changes.
- Backup, restore and cloning of device configuration through web interface.
- Improved weighing performance with existing analog scales and load cells.





Technical Features

IND360legacy Automation Scale Indicator

Parameter	Detail	Units of Measurement	DIN	Panel	Harsh
Housing	Enclosure type		DIN-Rail mount, quick connection with automatic grounding	Panel mount with detachable electronics	VESA 100 desk/wall/column mount (not compatible with existing IND331 harsh mounting)
	Material		Rugged ABS plastic	Stainless steel front panel with hygienic drip edge including mounting hardware	Stainless steel, includes fixed-angle brackets
	Ingress protection		IP20, Type 1	IP65 display, IP20 electronics	IP66 and IP69K
	W × H × D	mm / in	40 × 130 × 100 / 1.6 × 5.1 × 3.9	175 × 94 × 16 / 6.9 × 3.7 × 0.6	275 × 85 × 200 / 10.8 × 3.3 × 7.9
	Shipping weight	kg / lb	0.5 / 1.1	1.7 / 3.7	3.6 / 7.9
	Legal for Trade	°C / °F	-10 to 40 / 14 to 104; 10% to 90% relative humidity, non-condensing		
	Operation	°C / °F	-10 to 50 / 14 to 122; 10% to 90% relative humidity, non-condensing		
	Storage	°C / °F	-40 to 60 / -40 to 140; 10% to 90% relative humidity, non-condensing		
Power Requirements	DC powered	VDC / W	20 – 28 VDC ¹ / 12 W ²		
	AC powered	VAC / Hz	NA	100 – 240 VAC / 49 – 61 Hz	
Power Dissipation	DC powered	W	3	4.5	4.5
	AC powered	W	NA	6	6
Scale	Number of scales		1		
	Strain gauge (analog) type		Max. 8 × 350 Ω (20 × 1,000 Ω) load cells; 1 – 4 mV/V sensitivity; 5 VDC excitation voltage		
	µV build recommended / approved		0.1 µV/d recommended; 0.3 µV/e Weights and Measures approved		
	Adjustment / calibration		Zero / span; step; CalFree™		
	Primary unit		g, kg, lb, t and ton		
	Calibration unit		g, kg, lb, t and ton		
	Capacity and increment		1,000,000 maximum capacity, maximum 100,000 display increments		
Connectivity	Automation interface		Optional: Interface 1: EtherNet/IP, Profibus DP®, PROFINET®, Modbus RTU Interface 2: Digital I/O and Analog Output (4 – 20 mA and 0 – 10 VDC, 16-bit resolution)		
	Protocol		Legacy (compatible to IND131/IND331)		
	Protocol type		32-bit floating point, integer, divisions; cyclical, or acyclical		
	Automation Bus drivers - Siemens		Compatible with IND131/IND331 (not certified with Profibus International)		

Technical Features Continued

IND360legacy Automation Scale Indicator

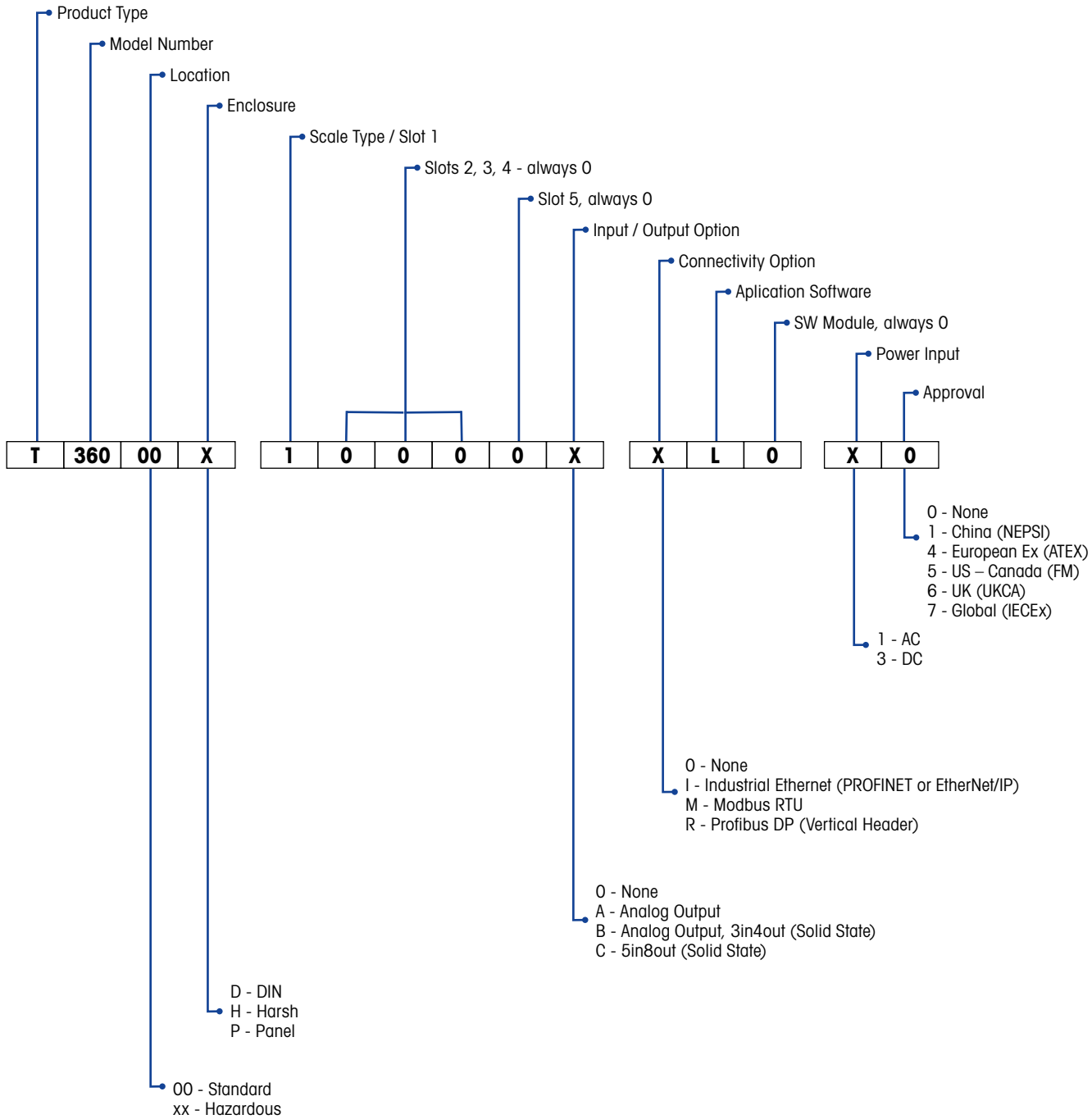
Parameter	Detail	Units of Measurement	DIN	Panel	Harsh
Connectivity	Automation device drivers ODVA / Rockwell		Compatible with IND131/IND331 (not certified with ODVA)		
Service Interfaces	Service interfaces		Web interface over Ethernet TCP/IP and/or keypad and display		
	Service functions		Configuration, adjustment, parameter backup and restore, cloning and monitoring		
Automation Bus Update Rate		Hz	20		
Filtering	Strain gauge (analog)	Weighing Mode	Normal, dynamic		
		Environment	Very stable, stable, standard, unstable, very unstable		
		Limit Frequency	Low pass filter, 1 – 20 Hz		
Inputs / Outputs	Optional inputs (selectable polarity)		Max. 5 inputs - functions: none, clear tare, tare, zero, keypad disable, silence alarm. Voltage range high: 5 ~ 30 VDC; voltage range low 0 ~ 3 VDC		
	Optional Outputs		Max. 8 outputs - functions: none, center of zero, comparators (1 – 3), alarm, motion, net, over capacity, under zero. Voltage range high: 5 ~ 30 VDC, max current 150 mA		
Display	Type		1.04" Green OLED	4.3" Color TFT	
	On-display status indicators		Weight units, gross/net indication; graphic symbols for motion, center of zero		
	Tri-color status LEDs		System (SYS), Network 1 (NW1), Network 2 (NW2)	Status information displayed on main display	
	Weight display	Characters	Maximum 9 digits including sign		
Keyboard	Keys		4 keys (Up, Down, Left, Enter)	5 keys (Up, Down, Left, Right, Enter)	
	Overlay		0.9 mm thick polyester overlay (PET) with 0.178 mm thick polycarbonate display lens	0.9 mm thick polyester overlay (PET) with 0.178 mm thick polycarbonate display lens	
User Security			3 levels: administrator, maintenance and operator		
Logs	Alibi		27,000 records		
	Error log		500 records		
	Maintenance log		2,500 records		
	Change log		2,500 records		
Approvals	Product safety		UL, cUL, CE, FCC, CB		
	Hazardous		European Ex (ATEX), US/Canada (FM), UK (UKCA), Global (IECEX)		
	Metrology approval		Europe: Class  , TC11949 T11060 USA: CLASS  L n max. 10,000 CC No. 21 – 002 Canada: Class  HD n max. 10,000 AM-6161 China: Class  n max. 10,000 Additional certifications may be found at www.mt.com/compliance		
Availability			Sold and serviced worldwide		

Ordering Information

IND360legacy Automation Scale Indicator

IND360legacy is available in different variants with the main item number 30601194.

Choose options according to the variant configuration structure, and contact your METTLER TOLEDO Sales representative for detailed ordering information.



Ordering Information

IND360legacy Automation Scale Indicator

Base Unit	Descriptions
Item Number	IND360 in different enclosures, xx = Hazardous Version
30601194	IND360 DIN Mount
	IND360 Panel Mount
	IND360 Harsh

Input/Output Options

	0 = None
	A = Analog output (4 – 20mA)
	B = Analog output (4 – 20mA) plus 3 digital inputs / 4 digital outputs (solid state)
	C = 5 digital inputs / 8 digital outputs (solid state)

Connectivity Options

	0 = None
	I = Industrial Ethernet (PROFINET or EtherNet/IP)
	M = Modbus RTU
	R = Profibus DP (vertical header - connector)

Power Options

	1 = AC (AC/DC power module included)
	3 = DC

Hazardous Options

	0 = None
	1 = China (NEPSI)
	4 = European Ex (ATEX)
	5 = US – Canada (FM)
	6 = UK (UKCA)
	7 = Global (IECEX)

Accessories

Item Number	Descriptions
30601149	4 – 20 mA analog output PCBA kit for IND360 DIN and Panel mount version including enclosure opening tool
30601150	4 – 20 mA analog output PCBA kit for IND360 Harsh version
30601151	PCBA kit of 4 – 20 mA analog output, 3 discrete inputs, 4 discrete outputs (solid state) for IND360 DIN and Panel mount version including enclosure opening tool
30601152	PCBA kit of 4 – 20 mA analog output, 3 discrete inputs, 4 discrete outputs (solid state) for IND360 Harsh version
30601153	PCBA kit of 5 discrete inputs, 8 discrete outputs (solid state) for IND360 DIN and Panel mount version including enclosure opening tool
30601154	PCBA kit of 5 discrete inputs, 8 discrete outputs (solid state) for IND360 Harsh version
30601155	PCBA kit of Industrial Ethernet connection (PROFINET or EtherNet/IP) for IND360 DIN and Panel mount version including enclosure opening tool
30601156	PCBA kit of Industrial Ethernet connection (PROFINET or EtherNet/IP) for IND360 Harsh version
30601159	PCBA kit of Modbus RTU connection for IND360 DIN and Panel mount version including enclosure opening tool
30601160	PCBA kit of Modbus RTU connection for IND360 Harsh version
30601161	PCBA kit of Profibus DP connection for IND360 DIN and Panel mount version including enclosure opening tool
30601162	PCBA kit of Profibus DP connection for IND360 Harsh version
30617714	AC/DC Power Module APS324
30617716	Power supply cable from the APS324 power module to IND360
30624028	Complete set of IND360 connectors.
30624029	Display cable (3 m) from IND360 module to the panel. Use this when the IND360 module is not mounted to the back of the panel.
30624030	Display cable (11 cm) from IND360 module to the panel.
30462051	VESA 100 Bracket to mount a IND360 Harsh version on desk or on wall
22020286	Adjustable Column Bracket VESA 100 for IND360 Harsh version
30624077	Opening tool for IND360 DIN mount version enclosure



Special Migration Notes

The IND360legacy is mechanically compatible with the IND131 and IND331 Panel. The IND360 harsh enclosure complies to VESA 100.

Compared to IND131/331, the following functionality has been replaced by other methods:

- SD card (Replaced by a web interface)
- MT-SICS serial command interface (Now supported by IND360base)
- Legacy filling application (Now supported by IND360fill/dose)

The following functionality previously supported by IND131/331 is not supported by IND360:

- Connectivity to ModBus TCP (Similar interface is available on IND360base)
- Connectivity to DeviceNet, ControlNet and CCLink
- Serial port printers
- While solid state digital inputs are supported by IND360legacy, the dry contact relay option is no longer available.

The following functions are supported in the IND360base and application versions, but not in legacy:

- Up to 960 Hz ultra-high cyclical PLC update rate.
- Up to 7 simultaneous floating-point variables.
- CalFree Plus™, as well as automatic PLC/DCS-driven calibration of precision scales.
- Clearly structured, easy-to-use Standard Automation Interface (SAI) for automation network connectivity.
- Detailed documentation and automation drivers including Rockwell EDS, AOPs and Siemens function blocks to save you time and money on implementation and maintenance.
- Fully integrated Smart5™ alarming, also accessible through the automation interface.
- Connectivity to all scales: analog, POWERCELL® and precision.

www.mt.com/IND360

For more information

METTLER TOLEDO Group

Industrial Division
Local contact: www.mt.com/contacts



Subject to technical changes
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