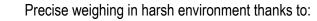
## **METTLER TOLEDO**

### Data Brief

# EX-weighing terminals: IND429xx - IND439xx - IND449xx - IND439xx check - IND449xx check+

Professional weighing technology for challenging environments



- Stainless steel enclosure
- IP69K protection
- Explosion proof for areas of Zone 2 and 22
- GMP Certification
- Weights and measures approved for Class II and III

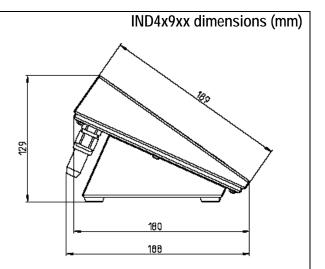
IND449xx

#### **Technical Data**

Technical Data					
Enclosure / Environn	nent				
Material		ome-nickel-steel (AISI 304, 1.4301)			
Ambient temperature	-10° to +40°C for Class III				
	0° to +40°C for Class II				
Humidity	Up to 80% rel., non condensing				
Level	Up to 2000m above sea level, indoors				
Terminal weight (net)	With AC power supply: approx. 2.2 kg With battery: approx. 2.8 kg				
_Display					
Backlit, 7-digit, 7-segmer	nt LC	-Display			
Character height	16mm (IND429xx), 21mm (IND439xx, IND439check xx, IND449xx, IND449check+ xx)				
Approvals / Assessm					
Metrology		P, OIML			
Hygiene	NSF	, EHEDG			
Pharma industry	GMP				
Electrical Safety	CSA – C US, CE, PSE (pending)				
Ignition protection					
Ignition protection	Hazardous area zone 2:				
IND4x9xx		tegory II 3G EEx nA II T4			
(acc. IEC 60079-15)	<ul> <li>Ambient temperature –10 °C +40 °C Hazardous area zone 22: Category II 3D IP6 70 °C</li> </ul>				
(					
Power supply	10				
Standard AC power supply		230 VAC +/- 10%, 47 to 63 Hz, 300 mA			
Standard AC power supply		Power cord: approx. 2.3 m long			
Optional 12 to 24 VDC		Connection cable (approx. 5m) with open			
connection, 1.0A)		ends fixed to the terminal			
Optional battery operatio	n				
Charger		100 to 240 V AC, 47 to 63 Hz, 300 mA			
		Power cord: approx. 2.3 m long			
Operation time		9h typ. (continuous operation) 90h typ. ("power off mode" 1 min)			
Charging time		6h typ.			
Life time		1000 charge-/ discharge cycles typ.			
Built-in options and peripherals	reduce	operation time!			
Keyboard					
Material		Polyester (PE)			
Number of keys		IND429xx: 6			
(keys with tactile feedback)		IND439xx / IND439xx check: 10 IND449xx / IND449xx check+: 25			

		IND429xx	IND439xx	IND449xx	IND439xx	IND449xx	
					check	check+	
Zero setting		•	•	•	•	•	
Tare		٠	•	•	•	•	
Dynamic weighing		•	•	•	-	-	
Unit switching		•	•	•	•	•	
Printing / data transfer		•	•	•	•	٠	
MinWeigh		•	•	•	•	•	
Counting		-	•	•	-	٠	
Checkweighing		-	-	٠	•	٠	
Classifying (5 classes)		-	-	-	-	٠	
Totalising		-	-	•	-		
TakeAway Mode		-	-	-	-	٠	
100 memories for tare values,							
targets and average piece weights		-	-	•	-	-	
99 memories for target weights					-		
and tolerances		-	-	-	•	•	
99 memories for class parameters		-	-	-	-	٠	
2 scales operation		-	•	٠	-	-	
Identification (2 IDs)		-	-	•	-	•	
Recall gross, tare and height				-			
resolution weight		-	•	•	-	•	
Graphic indication of weighing			•			•	
range utilisation		-	•	•	•	•	
Multi color display		-		_	•	•	
(colorWeight®)		-	-	-	•	•	
Numeric keypad		-	-	•	-	•	
Date / time		-	-	•	-	•	
Beeper		-	-	•	-	٠	
Interfaces							
Standard	1 x RS232						
Optional: <u>one</u> more	- RS232 - RS422 / RS485						
interface:	- Ethernet						
	- USB (Slave)						
- WLAN							
- Digital I/O (4 In / 4 Out)							
		ond scale c		ι (onlv INΓ	439 and I	ND449)	
The interfaces are accessible							
erminal.	THU II	our protoc			no rour di		

# 



Weighing technology           Number of connectable platforms         IND429xx, IND439xx check, IND449xx check+: 1 IND439xx, IND449xx: 2 (optional)           Standard scale connection         Analogue or IDNet           IDNet compatibility         IDNet platforms manufactured as from 2003 can be connected           Possible 2-scales solution         Analogue terminal: Extension with second analogue scale possible IDNet terminal : Extension with second IDNet scale possible           Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.           Technical Data analogue scale connection Impedance           min. 80 Ohm           Excitation           8.2 V           Sensitivity           Q to 3 mV/V           Max. resolution           0.5 μV / e (approvable)           Digital I/O           4 digital In           galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC)           IND429xx IND439xx IND439xx IND439xx IND439xx IND449xx
connectable platforms       IND439xx, IND449xx: 2 (optional)         Standard scale connection       Analogue or IDNet         IDNet compatibility       IDNet platforms manufactured as from 2003 can be connected         Possible 2-scales solution       Analogue terminal: Extension with second analogue scale possible IDNet terminal : Extension with second IDNet scale possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.       Technical Data analogue scale connection Impedance         Min. 80 Ohm       8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) B mA (max. 30 V DC) internal: 3 mA (at 12 V DC)         IND429xx IND439xx IND449xx       IND449xx IND439xx IND449xx
Standard scale connection       Analogue or IDNet         IDNet compatibility       IDNet platforms manufactured as from 2003 can be connected         Possible 2-scales solution       Analogue terminal: Extension with second analogue scale possible IDNet terminal : Extension with second IDNet scale possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.       Recompatibility         Technical Data analogue scale connection       min. 80 Ohm         Excitation       8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC)         IND429xx IND439xx IND449xx       IND449xx IND449xx
connection       IDNet compatibility       IDNet platforms manufactured as from 2003 can be connected         Possible 2-scales solution       Analogue terminal: Extension with second analogue scale possible         IDNet terminal: Extension with second IDNet scale possible       IDNet terminal: Extension with second IDNet scale possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.       Technical Data analogue scale connection         Impedance       min. 80 Ohm         Excitation       8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC)         IND429xx IND439xx IND439xx       IND449xx IND439xx
IDNet compatibility       IDNet platforms manufactured as from 2003 can be connected         Possible 2-scales solution       Analogue terminal: Extension with second analogue scale possible IDNet terminal : Extension with second IDNet scale possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.         Technical Data analogue scale connection Impedance         min. 80 Ohm         Excitation         8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       4 digital In galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC)
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solution       analogue scale possible IDNet terminal : Extension with second IDNet scale possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.       Technical Data analogue scale connection         Impedance       min. 80 Ohm         Excitation       8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       4 digital In         galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC)         IND429xx IND439xx       IND449xx
IDNet terminal : Extension with second IDNet scale possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via RS232/SICS-protocol.         Technical Data analogue scale connection         Impedance       min. 80 Ohm         Excitation       8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       4 digital In         galvanically isolated via opto coupler external:       1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal:         IND429xx IND439xx       IND449xx
possible         Remark: IND439xx / IND449xx allow the connection of a second scale also via         RS232/SICS-protocol.         Technical Data analogue scale connection         Impedance       min. 80 Ohm         Excitation       8.2 V         Sensitivity       2 to 3 mV/V         Max. resolution       10000d (NTEP) 7500e (OIML) 300000d – non-approvable         Min. verification interval       0.5 μV / e (approvable)         Digital I/O       4 digital In       galvanically isolated via opto coupler external:       1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal:       3 mA (at 12 V DC)         IND449xx IND449xx IND449xx IND449xx
RS232/SICS-protocol.           Technical Data analogue scale connection           Impedance         min. 80 Ohm           Excitation         8.2 V           Sensitivity         2 to 3 mV/V           Max. resolution         10000d (NTEP) 7500e (OIML) 300000d – non-approvable           Min. verification interval         0.5 μV / e (approvable)           Digital I/O         galvanically isolated via opto coupler external:         1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal:         3 mA (at 12 V DC)           IND429xx         IND439xx         IND439xx         IND439xx
Technical Data analogue scale connection           Impedance         min. 80 Ohm           Excitation         8.2 V           Sensitivity         2 to 3 mV/V           Max. resolution         10000d (NTEP) 7500e (OIML) 300000d – non-approvable           Min. verification interval         0.5 μV / e (approvable)           Digital I/O         4 digital In           galvanically isolated via opto coupler external:         1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal:           IND429xx         IND449xx           IND449xx         IND449xx
Impedance         min. 80 Ohm           Excitation         8.2 V           Sensitivity         2 to 3 mV/V           Max. resolution         10000d (NTEP) 7500e (OIML) 300000d – non-approvable           Min. verification interval         0.5 μV / e (approvable)           Digital I/O         4 digital In           galvanically isolated via opto coupler external:         1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal:           Min. Verification interval         3 mA (at 12 V DC)
Excitation         8.2 V           Sensitivity         2 to 3 mV/V           Max. resolution         10000d (NTEP) 7500e (OIML) 300000d – non-approvable           Min. verification interval         0.5 μV / e (approvable)           Digital I/O         galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC)           IND429xx         IND449xx
Max. resolution         10000d (NTEP) 7500e (OIML) 300000d – non-approvable           Min. verification interval         0.5 μV / e (approvable)           Digital I/O         4 digital In           galvanically isolated via opto coupler external:         1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal:           3 mA (at 12 V DC)         1ND449xx
7500e (OIML)     300000d – non-approvable       Min. verification interval     0.5 μV / e (approvable)       Digital I/O     4 digital In       galvanically isolated via opto coupler external:     1 mA (min. 5 V DC)       8 mA (max. 30 V DC)     internal:     3 mA (at 12 V DC)       IND429xx     IND449xx     IND449xx
300000d – non-approvable       Min. verification interval     0.5 μV / e (approvable)       Digital I/O     galvanically isolated via opto coupler external:     1 mA (min. 5 V DC)       8 mA (max. 30 V DC)     internal:     3 mA (at 12 V DC)       IND429xx     IND449xx     IND449xx
Min. verification interval     0.5 μV / e (approvable)       Digital I/O     galvanically isolated via opto coupler external:       1 mA (min. 5 V DC)     8 mA (max. 30 V DC)       internal:     3 mA (at 12 V DC)       IND429xx     IND449xx
Digital I/O       galvanically isolated via opto coupler         4 digital In       galvanically isolated via opto coupler         external:       1 mA (min. 5 V DC)         8 mA (max. 30 V DC)       internal:         3 mA (at 12 V DC)       IND429xx         IND429xx       IND449xx
4 digital In galvanically isolated via opto coupler external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC) IND429xx IND439xx IND449xx IND439xx IND449xx
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external: 1 mA (min. 5 V DC) 8 mA (max. 30 V DC) internal: 3 mA (at 12 V DC) IND429xx IND439xx IND449xx IND439xx IND449xx
internal: 3 mA (at 12 V DC) IND429xx IND439xx IND449xx IND439xx IND449xx
IND429xx IND439xx IND449xx IND439xx IND449xx
check check+
On / Off
Zero setting
Taring • • • • •
Printing / transfer
Clearing (Clear key)
Unit switching
Reference 10 / variable - • • - •
Info key • - •
ID1, ID2/REF key •
Target key • •
Recall key • •
Save key • •
Save key • • • • • • • • • • • • • • • •
Save key         -         -         •         •           Arrow right         -
Save key         -         -         •         •           Arrow right         -
Save key         -         -         •         •           Arrow right         -         -         -         -         -           Arrow up         -         -         -         -         -         -           Arrow down         -         -         -         -         -         -         -

4 digital Out	Galvanica	Galvanically isolated via relay contacts							
C C		external: 500 mA (max. 30 V DC) per out							
		internal: 400 mA (bei 12 V DC) total outs 1. IND429xx IND439xx IND449xx IND439xx							
	IND429xx	IND439xx	IND449xx		IND449xx				
<u></u>				check	check+				
Stable weight	•	•	٠	•	•				
≥ MinWeigh</td <td></td> <td colspan="8">• • • •</td>		• • • •							
Overload / underload									
Star display	• • • •								
< tolerance -	• •								
Inside tolerance									
Target weight	-	-	-	•	•				
≥ tolerance +	-	-	•	•	•				
< Max n	-	-	•	-	-				
Max n reached	-	-	•	-	-				
< Setpoint 1 (2)	•	•	•	-	-				
≥ Setpoint 1 (2)	•	•	•	-	-				
Class 15 Accessory for IN	-	-	-	-	٠				
IND439xx check	, IND449x	x chec	k		2200679				
RS232 – cable SICS second scale (3m, 8pin <-> 9pin Sub D plug) RS232 - cable for PC (3m, 8pin <-> 9pin Sub D female connector)									
RS232 counter plug, 8 pin									
RS422/RS485 - cable (3m, 6pin <-> open ends)									
RS485 counter plug, 6 pin									
Ethernet 10/100 Base T twisted pair cable (5m -> 8pin RJ45)									
Ethernet 10/100 Base T twisted pair cable (20m -> 8pin RJ45)									
USB adapter cable (0.2m -> USB series A female connector)									
USB adapter cable (3m -> USB series A female connector)									
USB cable (3m -> USB series A female connector)									
Cable digital I/O option and relay box (10m)									
Digital I/O counter plug, 19 pin									
Stand, stainless steel, for IND4x9 and PBA430, height 330mm									
Stand, stainless steel, for IND4x9 and PBA430, height 660mm									
Stand, stainless steel, for IND4x9 and KA-, KB, MA-, MB- and DB- platforms									
Pillar support, stainless steel, for IND4x9, for bench 00503632 and 00504854									
Bench (PBA430-B); stainless steel; height apprx. 560 mm									
Bench (PBA430-CC); stainless steel; height apprx. 560 mm									
Floor stand, stainless steel, for IND4x9					2201483 2201198				
Base for floor stand									
Wall adapter, stainless steel, for IND4x9, tiltable									
Wall mount, stainless steel, for IND4x9, turnable and tiltable									
GA46 mounting adapter, stainless steel, for pillar support, floor stand and wall mount (as for IND690)									
Mail mount (ao ior maboos	-)								



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