



# ICT 650

## Multichannel Process Display with Datalogger and Contacts

### Functional range

- ▶ sampling rate from 1 sec up to 1 h
- ▶ triggering of logging via digital input
- ▶ data and configuration transfer via USB, RS-485 or USB memory stick
- ▶ parameterizable alarms for exceeded input range
- ▶ adjustable contrast and brightness of the display
- ▶ software for parameterization and archiving of measured values

### Product characteristics

- ▶ 1/4/8 input channels
- ▶ input 0/4 ... 20 mA + 0/1/2 ... 5/10 V
- ▶ output 2 relays
- ▶ graphic LC display
- ▶ transducer power supply 24 V<sub>DC</sub>
- ▶ interface RS-485 (Modbus RTU)
- ▶ USB host front / rear
- ▶ front panel housing 96 x 96 mm

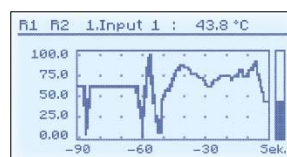
### Optional versions

- ▶ input Pt100/500/1000
- ▶ input thermocouples
- ▶ wall mounted housing 166 x 161 mm

### Display modes

R1	R2	12:02:28	MI. 21.02.2018
1.	Input 1	48.5	°C
2.	Input 2	7.417	mA
3.	Input 3	<<10000	mV
4.	Input 4	38.6	l/mir
5.	Input 5	185	°F
6.	Input 6	38.8	%
7.	Input 7	1.88	bar
8.	Input 8	18.2	nWs

- ▶ simultaneous display of max. eight channels with scaled value or standardized value and bargraph



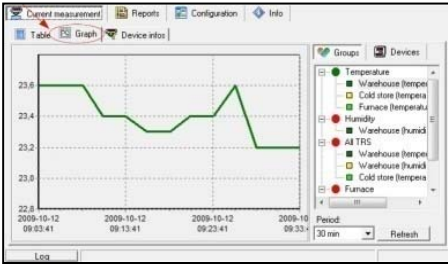




- ▶ chart display of one channel with scaled value and bargraph



- ▶ single channel display with scaled value, standardized value and bargraph



<b>Supply</b>		
Supply voltage / power consumption	85 ... 260 V <sub>AC</sub> / V <sub>DC</sub> / max. 12 W 16 ... 35 V <sub>AC</sub> / 19 ... 50 V <sub>DC</sub> / max. 12 VA	
Transducer supply <sup>1</sup>	24 V <sub>DC</sub> + 5%, - 10%, max. 200 mA	
<sup>1</sup> Transducer supply 24V <sub>DC</sub> only for current/voltage inputs		
<b>Signal input</b>		
Quantity	1, 4 or 8 inputs	
Input signal	0/4 ... 20 mA, 0/1 ... 5 V, 0/2 ... 10 V, common ground Pt100 / Pt500 / Pt1000, 2-/3-wire Thermoelement Typ K, S, J, T, N, R, B, E, 0 ... 60/75/100/150 mV	
Accuracy (25 °C)	± 0,1 % FSO, ± 0,2% FSO (TC N), ± 0,5 % FSO (TC S, T, R, B), stability: 50 ppm/°C	
Digital input	1 input 24 V <sub>DC</sub> (galvanically separated)	
<b>Contacts</b>		
Front panel housing	2 el. relays, max. 35 V <sub>DC</sub> / 24 V <sub>AC</sub> , max. 200 mA	
Wall mounted housing	2 SPST-relays, max. 30 V <sub>DC</sub> / 250 V <sub>AC</sub> , max. 1 A (cos φ 1)	
<b>Display</b>		
Display	graphic LCD, black/white, 128 x 64 points, with backlight	
Display range	0/4 ... 20 mA, 0/1 ... 5 V, 0/2 ... 10 V: - 9999 ... 9999 + decimal point Pt100 / Pt500 / Pt1000: -100, 0 ... 600,0°C thermocouple: -200 ... 1370 °C(K), -50 ... 1768 °C(S, R), -210 ... 1200 °C(J), -200 ... 400 °C(T), -200 ... 1300 °C(N), 250 ... 1820 °C(B), -200 ... 1000 °C(E)	
<b>Communication / Datalogger</b>		
Communication interface <sup>2</sup>	RS-485 (Modbus RTU), 8N1, 1200 – 115200 bit/s, USB PC (Mini-B), USB Host (A) front/rear	
Internal memory	8 MB, max. 3 million measurements (expandable with USB memory stick)	
<sup>2</sup> Interface USB PC und USB Host rear only with front panel housing		
<b>Ingress protection</b>		
Front panel housing	IP 65 (front side), IP20 (case and connectors) IP 65 (front side with additional sealing frame for panel cut-out), IP 20 (case and connectors) IP 40 (front side, USB front), IP20 (case and connectors)	
Wall mounted housing	IP 65	
<b>Permissible temperatures</b>		
Standard / Option	environment: 0 ... 50 °C, storage: -10 ... 70 °C / environment: -20 ... 50 °C, storage: -20 ... 70 °C	
<b>Electrical protection</b>		
Electrical safety / EMC / CE	EN 61010-1 / EN 61326-1 / 2014/30/EU	
<b>Housing</b>		
Housing type / dimensions	front panel mounting / 96 x 96 x 110 mm	wall mounted housing / 166 x 161 x 103 mm
Material	NORYL-GFN2S E1	ABS, PC
Weight	approx. 600 g	ca. 600 g
<b>Dimensions</b>		

Software	
<p><b>LoggySoft</b></p> <p>Program for display (table or chart), archiving, evaluation and export from stored data of ICT 650. The data are imported via USB memory stick or via interface USB PC / RS-485. Export of the data is in TXT format.</p> <p>This software is included in scope of supply.</p>	
<p><b>S-Toolkit</b></p> <p>Program for the complete configuration of ICT 650. The data are transferred via USB memory stick or via interface USB PC / RS-485.</p> <p>This software is included in scope of supply.</p>	
Accessories	
<p><b>Lockable door IP 54 for front panel housing 96 x 96 mm</b></p> <p>Prevents damage of display and increases access protection.</p> <p>Material number Z900002</p>	
<p><b>Hat rail adapter for front panel housing 96 mm</b></p> <p>Enables mounting on a hat rail TS35.</p> <p>Material number Z900030</p>	
<p><b>Mini USB Stick 8 GB</b></p> <p>Enables transfer of logged data and configuration to a PC (even with mounted front door).</p> <p>Material number Z900024</p>	

## Ordering code ICT 650 panel housing

ICT 650 -     -   -  -

<b>Number of inputs</b>								
	1	1						
	4	4						
	8	8						
<b>Input type</b>								
	0/4 ... 20 mA, 0/1 ... 5 V, 0/2 ... 10 V	8						
	Pt100, Pt500, Pt1000, thermocouple	T						
<b>Number of outputs</b>								
	2	2						
<b>Output type</b>								
	El. relay 200mA	8						
<b>USB interface</b>								
	Front USB host port		5	1				
	Rear USB host port		5	2				
<b>Supply</b>								
	16...35 VAC / 19...50 VDC				3			
	85...260 VAC / VDC				4			
<b>Special version</b>								
	standard				0	0	0	
	sealing frame IP65 <sup>1</sup>				0	1	0	
	operating temperature -20°C...50°C				0	8	0	
	sealing frame IP65 + -20...50°C <sup>1</sup>				0	P	0	
	customer				9	9	9	consult

<sup>1</sup> only for rear USB host port

## Ordering code ICT 650 wall mounted housing

ICT 650 -     -   -  -

<b>Number of inputs</b>								
	1	1						
	4	4						
	8	8						
<b>Input type</b>								
	0/4 ... 20 mA	1						
	0/1 ... 5 V, 0/2 ... 10 V	2						
	Pt100, Pt500, Pt1000	3						
	Thermocouple	A						
<b>Number of outputs</b>								
	2	2						
<b>Output type</b>								
	SPST relay 1A	1						
<b>USB interface</b>								
	Front USB host port		5	1				
<b>Supply</b>								
	16...35 VAC / 19...50 VDC				3			
	85...260 VAC / VDC				4			
<b>Special version</b>								
	wall mounted housing IP65				5	0	0	
	wall mounted housing IP65 + -20...50°C				5	8	0	
	customer				9	9	9	consult
<b>Accessories</b>								
	lockable, transparent door 96 x 96 mm				Z900002			
	hat rail adapter 96 mm				Z900030			
	mini USB stick 8GB				Z900024			