



CIT 700

Multichannel Process Display
with Datalogger, Contacts
and Analogue Outputs

Functional range standard

- configuration of max. 60 channels via inputs, outputs, controller, profiles
- connection of channels via mathematical / logical functions
- 8 integrated PD / PI / PID controller

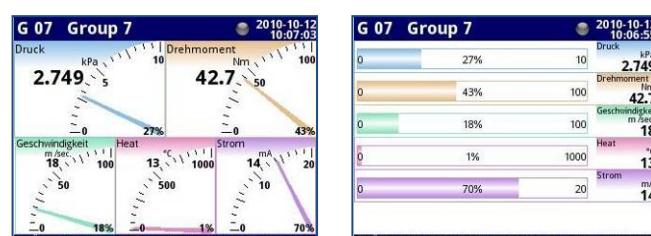
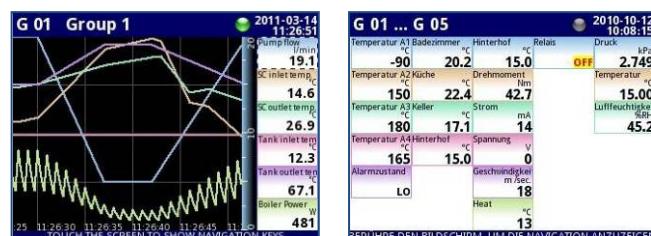
Datalogger

- logging of max. 60 channels
- 2 selectable measuring rates (max. 10Hz)
- extensive triggering functions
- internal memory 1,5 GB
- data transfer via USB stick / Ethernet

Product characteristics

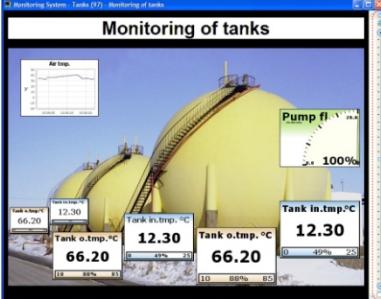
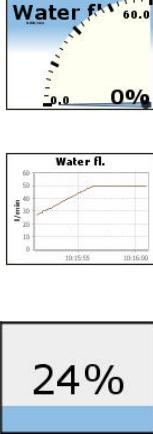
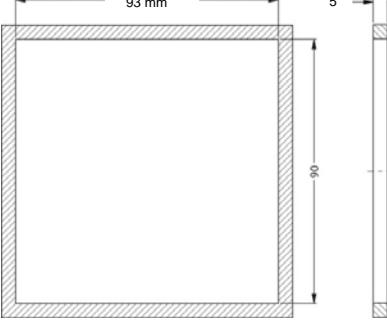
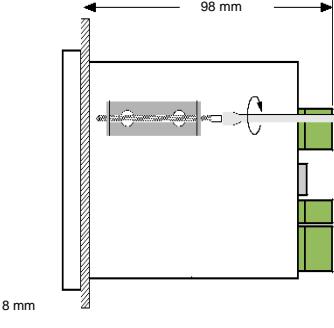
- front panel housing 96 x 96 mm
- graphic 3,5" TFT monitor, touchscreen
- 3 free fittable slots, 22 different input / output modules
- transducer supply 24 V_{DC}
- communication interface:
3 x RS-485, 1 x RS-232, (Modbus RTU)
2 x USB-Host-Port,
Ethernet (Modbus TCP, Java Applets)

Display modes



Signal input/output	
UI4, UI8, U16, I16	
Description	4/8/16 current/voltage inputs with common ground
Input range/Resolution	-2...13V / 1mV
Measurement ranges	0...5V, 1...5V, 0...10V, 2...10V
Accuracy	0,1% @25°C
Overload/Impedance	20% / 100kΩ
IS6	
Description	6 current inputs, isolated
Input range/Resolution	3...30mA / 1µA
Measurement ranges	4...20mA
Accuracy	0,25% @25°C
Overload/Impedance	50mA-resettable fuse / 1750Ω@4mA, 400Ω@20mA
TC4, TC8*	
Description	4/8 thermocouple inputs
Input range/Resolution	-30...30mV / 1µV
Overload/Impedance	20% / 1MΩ
Measurement ranges	Typ: K, S, J, T, N, R, B, E, L(GOST), -25...25mV, -100...100mV
RT4*	
Description	4 RTD inputs (resistance thermometer)
Input range/Resolution	0...325Ω / 0,01Ω
Measurement ranges	Pt100, Pt500, Pt1000, Pt'50, Pt'100, Pt'500, Cu50, Cu100, Cu'50, Cu'100, Ni100, Ni500, Ni1000, 0...300 Ω, 0...3kΩ, 2/3/4-wire
UN3	
Description	3 universal inputs with galvanically isolation for current, voltage, thermocouples and RTDs
Current/voltage inputs	
Input range/Resolution	-1...12V / 1mV
Measurement ranges	0...5V, 1...5V, 0...10V, 2...10V
Accuracy	0,1% @25°C
Overload/Impedance	20% / >100kΩ
Thermocouple inputs*	
Input range/Resolution	-10...30mV / 2µV
Measurement ranges	Typ: K, S, J, T, N, R, B, E, L(GOST), -25...25mV, -100...100mV
Overload/Impedance	20% / >1,5MΩ
RTD inputs*	
Input range/Resolution	0...325Ω / 0,01Ω
Measurement ranges	Pt100, Pt500, Pt1000, Pt'50, Pt'100, Pt'500, Cu50, Cu100, Cu'50, Cu'100, Ni100, Ni500, Ni1000, 0...300 Ω, 0...3kΩ, 2/3/4-wire
D8, D16	
Description	8/16 binary inputs, each 4 inputs with common ground
Input range	0...30V, Uin<1V = LOW, Uin>4V =HIGH
Curr. consumption/Isolation	15mA(24V), 5mA(10V), 2mA(5V) / 500V
Processing	8bit/2nibbles/1byte(D8), 16bit/4nibble/1integer(D16)
FI2, FI4	
Description	2/4 current inputs with balance counter(flowmeter) + 2/4 standard-current inputs with common ground
Input range/Resolution	-2...30mA / 1µA
Measurement ranges	0...20mA, 4...20mA
Accuracy	0,1% @25°C
Overload/Impedance	20%, 50mA-resettable fuse / 100Ω
Processing	Reset of counter: internal/external/autoreset
FT2, FT4	
Description	2/4 tachometer/flowmeter inputs(quadrature pulse inputs) or 2/4 tachometer/flowmeter inputs(each with one pulse input and one programmable function input) + 2/4 standard-current inputs with common ground
Pulse inputs	
Input range	0...30V, Uin<1V = LOW, Uin>5V =HIGH, 0,1Hz... 50kHz
Curr. consumption/Isolation	12mA(24V) / 2kV
Processing	Operation modes: tachometer + counter(up/down), reset of counter: internal/external/autoreset
Current inputs	
Input range/Resolution	-2...30mA / 1µA
Accuracy	0,1% @25°C
Overload/Impedance	20%, 50mA-resettable fuse / 100Ω
CP4	
Description	4 counters each with two pulse inputs with galvanically isolation, one programmable input and one reset input
Input range	0...30V, Uin<1V = LOW, Uin>10V =HIGH, max. 5kHz
Curr. consumption/Isolation	14mA(24V), 6mA(10V), 50mA-resettable fuse / 2kV
Processing	Operation modes: A+B/A-B/ counter(up/down)/quadrature counter, reset of counter: internal/external/autoreset

S8, S16				
Description	8/16 solid state relay outputs (SSR) with PWM-function, each 8 outputs (one group) with separate supply(internal/external)			
Max. current	Powered internally: 10mA, max. 50mA each group, powered externally: 100mA, max. 500mA each group			
Max. voltage	Powered internally: >8V, powered externally: >Uext.-0,5V			
External supply	10...30V			
PWM-Period/-resolution	0,1...1600s / 0,1s			
PWM-Frequency/duty factor	5kHz (internally), 20µs (output quantization) / 0...100%, resolution 15bit			
R45, R81				
Description	4 SPDT-relay outputs (SinglePoleDoubleThrow)	8 SPST- relay outputs (SinglePoleSingleThrow)		
Max. current/voltage	5A, cosφ =1 each output / 250VAC	1A, cosφ =1 each output / 250VAC		
Isolation strength	>1kV for 60s			
IO2, IO4				
Description	2/4 passive current outputs 4...20mA			
Output range/Resolution	3...22mA, 50mA-resettable fuse / 12bit			
Accuracy	0,1% @ 25°C			
Voltage dropout/ext. supply	Max. 9V / 9...30V			
*Accuracy depends on selected measurement range, please check manual of device				
Supply				
Supply voltage	standard: 85 ... 260 V _{AC} / V _{DC} option: 19 ... 50 V _{DC} / 16 ... 35 V _{AC}			
Power consumption	15 VA, max. 20 VA			
Transmitter supply				
DC	24 V _{DC} ± 5%, max. 200 mA (not possible for UN3)			
Communication / Performance				
Communication interface	standard: RS-485 (Modbus RTU), Master / Slave USB Host (on rear panel / front side), USB device (service) option: 3 x RS-485/RS-232, Master / Slave 2 x USB Host, 1 x USB device, (service) 1 x Ethernet 10 Mbit/s (RJ45, Modbus TCP, Java Applets, Webserver)			
Type of protection				
Version without / With USB-port	standard: IP 65 (front foil) IP40 (front USB) option: IP 54 (with lockable front)			
Permissible temperatures				
Operating temperature	0 ... 60 °C			
Storage temperature	-10 ... 70 °C			
Electrical protection				
Electrical safety	EN 61010-1			
EMC	EN 61326			
Miscellaneous				
Display	graphic TFT, 3.5", touchscreen, coloured (16 bit), 320 x 240 pixels			
Housing dimensions	96 x 96 x 100 mm			
Housing	panel mounting			
Housing material	NORYL-GFN2S E1			
Extended functions				
Integrated date and time display				
Adjustable contrast and brightness of display, Screensaver				
Programmable upper / lower deviation messages, traffic lights function (change of the background colour)				
Read out numeric (number) / binary (text)				
Multi lingual menu navigation (EN, DE, FR, CZ, HU, RO, RU, PL, ES)				
Password protection				
Allocation of channels in 10 groups (max. 6 channels per group)				
Programmable display filter + scaling (linear / user defined)				
Extensive mathematical / logical functions				
User defined time / event driven profiles				
Acoustical signal				
16 virtual relays				
Data and configuration transfer via USB stick / Ethernet				

Remote-Desktop	Java Applets	
	 	
Dimensions (in mm)		
		
panel cut-out	assembly	back side
Accessories		
Licence key for datalogging capabilities	material number LK-700	Enables data logging capabilities of CIT 700 for max. 60 channels. For additional activating of function for already delivered CIT 700 serial number is necessary.
Software DAQ-Manager	 material number SW-DAQ	Program for displaying (table or graph), archiving, evaluation and export data stored on CIT 700 with enabled data logging capabilities. Data are imported via USB flashdrive or Ethernet. Export of the data is performed in CSV format. This software is freeware and may be downloaded from our homepage.
Lockable, transparent front door	 material number Z900002	Prevents damage of display and increases access protection.
Mini USB flasdrive 4 GB	 material number Z900003	Enables transfer of data and configuration between PC and CIT 700 (also with mounted front door).

Ordering code CIT 700

CIT 700	SLOT A	SLOT B	SLOT C				
Basic version							
multichannel controller colour TFT display touchscreen	1						
Slot A / B / C	SLOT A	SLOT B	SLOT C				
empty	E 0 0	E 0 0	E 0 0				
4 x voltage input + 4 x current input	U I 4	U I 4	U I 4				
8 x voltage input + 8 x current input	U I 8	U I 8	U I 8				
16 x voltage input	U 1 6	U 1 6	U 1 6				
16 x current input	I 1 6	I 1 6	I 1 6				
6 current input (isolated)	I S 6	I S 6	I S 6				
8 binary input	D 0 8	D 0 8	D 0 8				
16 binary input	D 1 6	D 1 6	D 1 6				
4 x RTD input	R T 4	R T 4	R T 4				
4 x thermocouple input	T C 4	T C 4	T C 4				
8 x thermocouple input	T C 8	T C 8	T C 8				
3 x universal input	U N 3	U N 3	U N 3				
4 x pulse input	C P 4	C P 4	C P 4				
2 x current input (flowmeters) + 2 x current input	F I 2	F I 2	F I 2				
4 x current input (flowmeters) + 4 x current input	F I 4	F I 4	F I 4				
2 x puls input (flowmeters/ ratemeters) + 2 x current input	F T 2	F T 2	F T 2				
4 x puls input (flowmeters/ ratemeters) + 4 x current input	F T 4	F T 4	F T 4				
2 x analogue output	I 0 2	I 0 2					
4 x analogue output	I 0 4	I 0 4					
8 x SPST relay 1A	R 8 1	R 8 1					
4 x SPDT relay 5A		R 4 5					
8 x SSR output		S 0 8					
16 x SSR output		S 1 6					
Supply							
85 ... 260 V _{AC/DC}			1				
16 ... 35 V _{AC} / 19 ... 50 V _{DC}			2				
Communication interface							
RS-485 (Modbus RTU) + USB device USB host port (back side)			1				
RS-485 (Modbus RTU) + USB device USB host port (front side)			2				
RS-485 (Modbus RTU) + USB device 2x USB host port			3				
3 x RS-485 / RS-232 2 x USB host port 1 x USB device			4				
1 x Ethernet 10 Mbit/s							
Display foil							
neutral			1 0 0				
customer			9 9 9			consult	
Special version							
standard			0 0 0				
customer			9 9 9			consult	
accessories							
Licence Key for Datalogger			LK-700				
Software DAQ-Manager			SW_DAQ				
lockable, transparent door			Z900002				
Mini USB Stick 4 GB			Z900003				

This price list contains product specification; properties are not guaranteed. Detailed information about options are defined in the datasheet. Subject to change without notice.

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