



ITC 800

Levelpro Multichannel Process Display with Datalogger, Contacts and Analogue Outputs

Functionalrangestandard

- ▶ Configuration of max. 90 channels via inputs, outputs, controller, profiles
- ▶ connection of channels via mathematical / logical functions
- ▶ 8 integrated PD / PI / PID controller

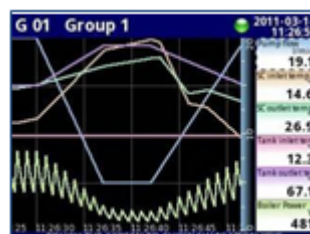
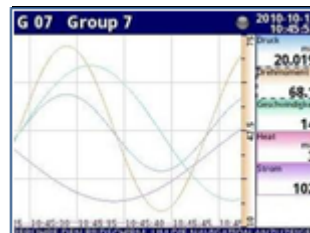
Datalogger

- ▶ logging of max. 90 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 144 x 144 mm
- ▶ graphic 5.7" TFT monitor, touchscreen
- ▶ 3 free fittable slots, 33 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)

Displaymodes



Signal input/output		
UI4, UI8, UI12, U16, I16, U24, I24		
Description	4/8/12/16/24 current/voltage inputs with common ground	
Input range/Resolution	-2...13V/ 1mV	-2...30mA / 1µA
Measurement ranges	0...5V, 1...5V, 0...10V, 2...10V	0...20mA, 4...20mA
Accuracy	0,1%@25°C	
Overload/Impedance	20%/ 100kΩ	20%, 50mA-resettable fuse / 100Ω
IS6		
Description	6current inputs, isolated	
Input range/Resolution	3...30mA/ 1µA	
Measurement ranges	4...20mA	
Accuracy	0,25%@25°C	
Overload/Impedance	50mA-resettablefuse/ 1750Ω@4mA, 400Ω@20mA	
TC4, TC8, TC12*		
Description	4/8/12 thermocoupleinputs	
Input range/Resolution	-30...30mV/1µV	-120...120mV / 4µV
Overload/Impedance	20%/ 1MΩ	20%/ 1MΩ
Measurement ranges	Typ:K, S, J,T,N,R, B,E, L(GOST), -25...25mV, -100...100mV	
RT4, RT6*		
Description	4/6 RTD inputs (resistance thermometer)	
Input range/Resolution	0...325Ω / 0,01Ω	0...3250Ω / 0,1Ω
Measurement ranges	Pt100, Pt500, Pt1000, Pt'50, Pt'100, Pt'500, Cu50, Cu100, Cu'50, Cu'100, Ni100, Ni500, Ni1000, 0...300Ω, 0...3kΩ, 2/3/4-wire	
UN3, UN5		
Description	3/5universal inputs with galvanically isolation for current, voltage, thermocouples and RTDs	
Current/voltageinputs		
Input range/Resolution	-1...12V/ 1mV	-2...30mA/ 1µA
Measurement ranges	0...5V, 1...5V, 0...10V, 2...10V	0...20mA, 4...20mA
Accuracy	0,1%@25°C	
Overload/Impedance	20%/ >100kΩ	20%/ <65Ω
Thermocoupleinputs*		
Input range/Resolution	-10...30mV/2µV	-10...120mV/ 4µV
Measurement ranges	Typ: K, S, J, T, N, R, B, E, L(GOST), -25...25mV, -100...100mV	
Overload/Impedance	20%/ >1,5MΩ	20%/ >1,5MΩ
RTD inputs*		
Input range/Resolution	0...325Ω/ 0,01Ω	0...3250Ω/ 0,1Ω
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,	
D8, D16, D24		
Description	8/16/24 binary inputs, each 4 inputs with common ground	
Input range	0...30V, U _{in} <1V= LOW, U _{in} >4V=HIGH	
Curr. consumption/Isolation	15mA(24V), 5mA(10V), 2mA(5V)/ 500V	
Processing	8bit/2nibbles/1byte(D8), 16bit/4nibble/1integer(D16) , 24bit/6nibble/1integer(D24)	
FI2, FI4		
Description	2/4 current inputs withbalancecounter(flowmeter)+ 2/4 standard-current inputs with commonground	
Input range/Resolution	-2...30mA/ 1µA	
Measurement ranges	0...20mA, 4...20mA	
Accuracy	0,1%@25°C	
Overload/Impedance	20%,50mA-resettablefuse/ 100Ω	
Processing	Reset ofcounter: internal/external/autoreset	
FT2,FT4		
Description	2/4 tachometer/flowmeterinputs(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	
Pulseinputs		
Input range	0...30V,U _{in} <1V=LOW, U _{in} >5V=HIGH, 0,1Hz... 50kHz	
Curr. consumption/Isolation	12mA(24V)/ 2kV	
Processing	Operationmodes: tachometer+counter(up/down),reset ofcounter: internal/external/autoreset	
Current inputs		
Input range/Resolution	-2...30mA/ 1µA	
Accuracy	0,1%@25°C	
Overload/Impedance	20%,50mA-resettablefuse/ 100Ω	
CP4 - 4 Counting-Inputs with galvanically Isolation		
Description	4 counters each with two pulse inputs with galvanically isolation, one programmable input and one reset input	
Input range	0...30V, U _{in} <1V = LOW, U _{in} >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:	

S8, S16, S24	
Description	8/16/24 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	Poweredinternally:>8V, poweredexternally: >Uext.-0,5V
Externalsupply	10...30V
PWM-Period/-resolution	0,1...1600s / 0,1s
PWM-Frequency/dutyfactor	5kHz(internally), 20μs(output quantization) / 0...100%, resolution 15bit
R45, R65, R81, R121	
Description	4/6 SPDT-relay outputs(SinglePoleDoubleThrow) 8/12 SPST- relay outputs (SinglePoleSingleThrow)
Max. current/voltage	5A, cosφ =1 each output / 250VAC 1A,cosφ =1each output/ 250VAC
Isolationstrength	>1kV for 60s >1kV for 60s
IO2, IO4, IO6	
Description	2/4/6 passive current outputs 4...20mA
Output range/Resolution	3...22mA, 50mA-resettable fuse / 12bit
Accuracy	0,1% @25°C
Voltagedropout/ext. supply	Max. 9V / 9...30V
*Accuracy depends on selected measurement range, please check manual of device	
Supply	
Supplyvoltage	standard: 85...260VAC/ VDC option: 19 ... 50 VDC / 16 ... 35 V _{AC}
Powerconsumption	15VA,max.20VA
Transmittersupply	
DC	24 VDC ± 5%, max. 200 mA (not possible for UN3, UN5, UI12, U24, I24, RT6, TC12, D24, R121, R65, S24, IO6)
Communication/ Performance	
Communicationinterface	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)
Typeof protection	
Versionwithout / With USB-port	standard: IP65(front foil) IP40(front USB) option: IP54(withlockablefront)
Permissible temperatures	
Operatingtemperature	0...60°C
Storage temperature	-10...70°C
Electrical protection	
Electricalsafety	EN 61010-1
EMC	EN 61326
Miscellaneous	
Display	graphic TFT, 5.7", touchscreen, coloured(16bit), 320x 240pixels
Housingdimensions	144x 144x 100 mm
Housing	panelmounting
Housingmaterial	NORYL-GFN2SE1
Extendedfunctions	
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 15 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

JavaApplets

Dimensions(in mm)

panel cut-out

assembly

back side

Accessories		
Licencekey for datalogging capabilities	materialnumber LK-700	Enables datalogging capabilities of ITC 800 for max. 90 channels. For additional activating of function for already delivered ITC 800 serial number is necessary.
Software DAQ-Manager	<p>materialnumber SW-DAQ</p>	<p>Program for displaying (table or graph), archiving, evaluation and export data stored on ITC 800 with enabled datalogging capabilities. Data are imported via USB flash drive or Ethernet. Export of the data is performed in CSV format.</p> <p>This software is freeware and may be downloaded from our homepage.</p>
Lockable, transparent frontdoor	<p>materialnumber Z900002</p>	Prevents damage of display and increases access protection.
Mini USB flasdrive 4 GB	<p>material number Z900003</p>	Enables transfer of data and configuration between PC and ITC 800 (also with mounted front door).

This data sheet contains product specifications, properties are not guaranteed. Subject to change without notice.

OrderingcodeITC 800							
ITC 800		SLOTA	SLOTB	SLOTC			
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Basic version							
multichannelcontroller							
Colour TFTDisplay	1						
touchscreen							
Slot A/B /C		SLOT	SLOT	SLOT			
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			
12 x voltage input+12 x current input		U I 12	U I 12	U I 12			
16 x voltage input		U 1 6	U 1 6	U 1 6			
24 x voltage input		U 2 4	U 2 4	U 2 4			
16 x current input		I 1 6	I 1 6	I 1 6			
24 x current input		I 2 4	I 2 4	I 2 4			
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			
24 binary input		D 2 4	D 2 4	D 2 4			
4 x RTD input		R T 4	R T 4	R T 4			
6 x RTD input		R T 6	R T 6	R T 6			
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			
12 x thermocouple input		T C 12	T C 12	T C 12			
3 x universal input		U N 3	U N 3	U N 3			
5 x universal input		U N 5	U N 5	U N 5			
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 pulse input(flowmeters/ratemeters)							
+2 x current input		F T 2	F T 2	F T 2			
4 x pulse 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	I 0 2			
4 x analogue output		I 0 4	I 0 4	I 0 4			
6 x analogue output		I 0 6	I 0 6	I 0 6			
8 x SPST relay 1A		R 8 1	R 8 1	R 8 1			
12 x SPST relay 1A		R 1 21	R 1 21	R 1 21			
4 x SPDT relay 5A		R 4 5	R 4 5	R 4 5			
6 x SPDT relay 5A		R 6 5	R 6 5	R 6 5			
8 x SSR output		R 0 8	R 0 8	S 0 8			
16 x SSR output		R 1 6	R 1 6	S 1 6			
24 x SSR output		R 2 4	R 2 4	S 2 4			
Supply							
85 ...260 V _{AC/DC}					1		
16 ...35V _{AC} /19...50V _{DC}					2		
Communication interface							
RS-485 (Modbus RTU) +USBdevice					1		
USBhostport(back side)							
RS-485 (Modbus RTU) +USBdevice					2		
USBhostport(frontside)							
RS-485 (Modbus RTU) +USBdevice					3		
2xUSBhostport							
3 xRS-485 /RS-232							
2 xUSBhostport					4		
1 xUSBdevice							
1 xEthernet10Mbit/s							
Display foil							
neutral					1 0 0		
customer					9 9 9		consult
Special version							
standard					0 0 0		
customer					9 9 9		consult
Accessories							
LicenceKeyfor Datalogger						LK-700	
Software DAQ-Manager						SW_DAQ	
lockable,transparentdoor						Z900002	
MiniUSBStick 4 GB						Z900003	

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