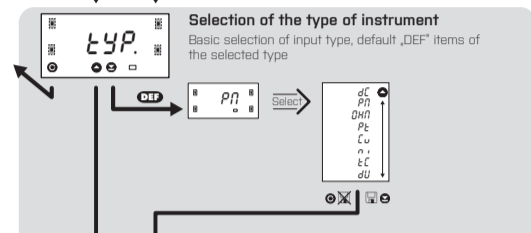
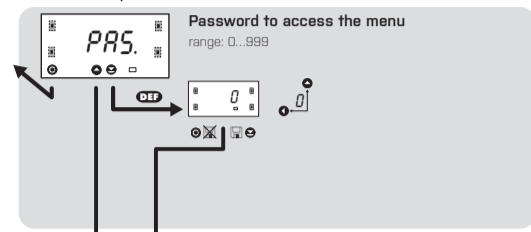
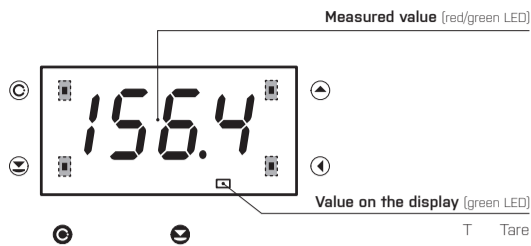
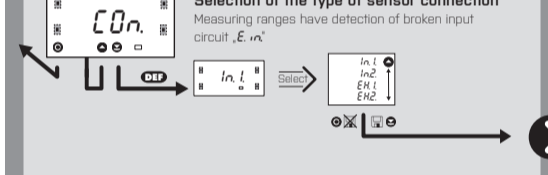
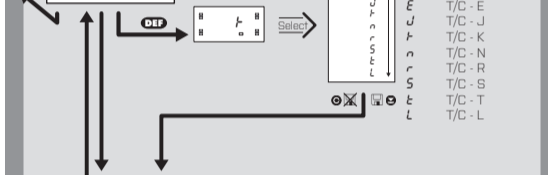
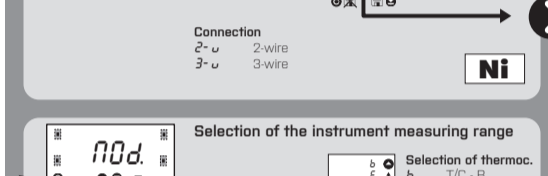
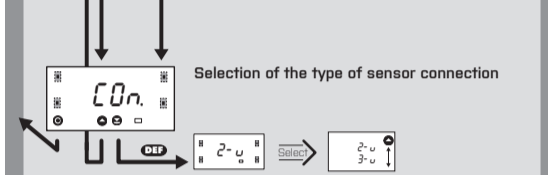
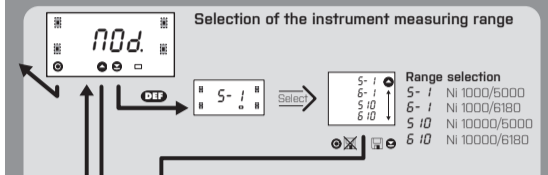
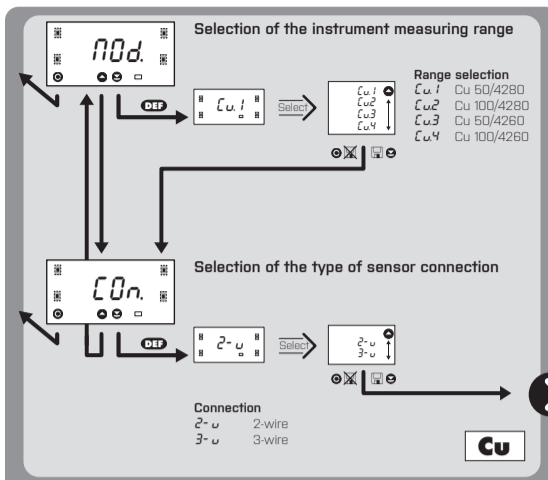
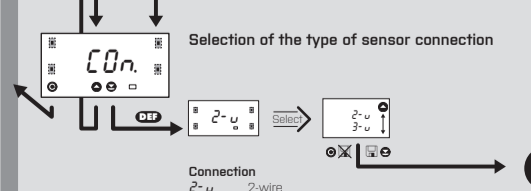
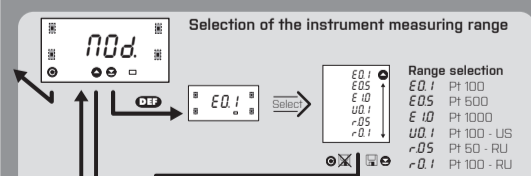
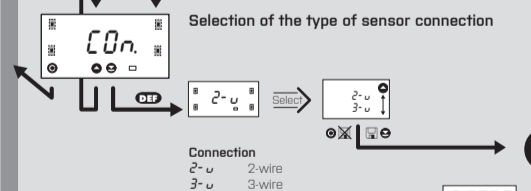
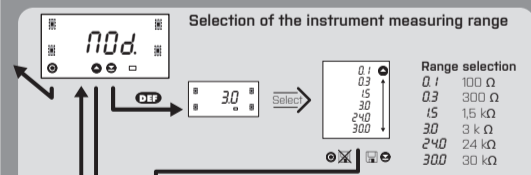
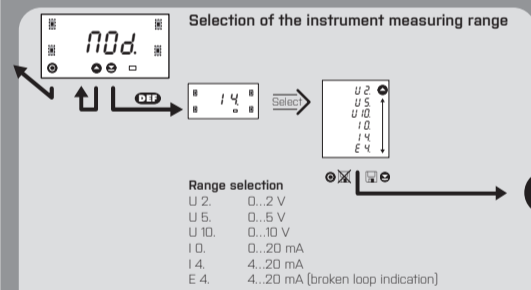
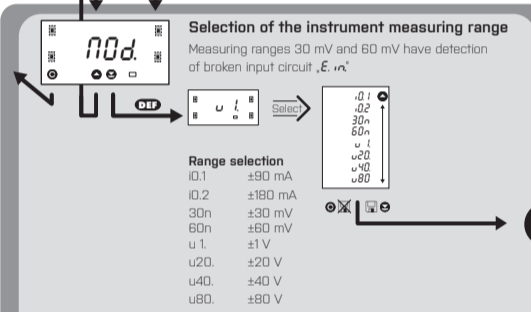


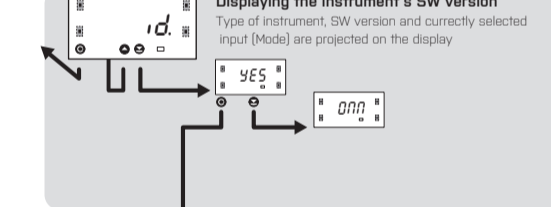
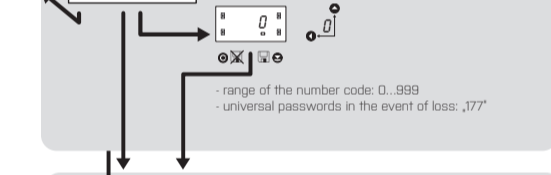
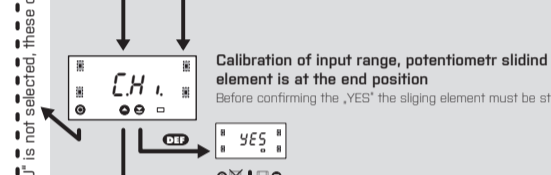
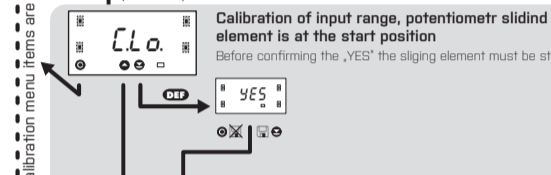
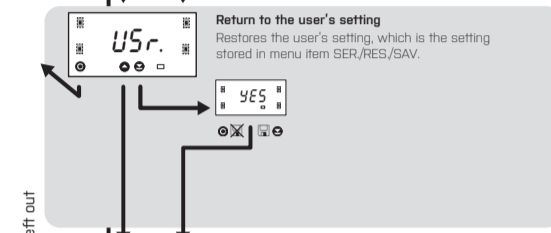
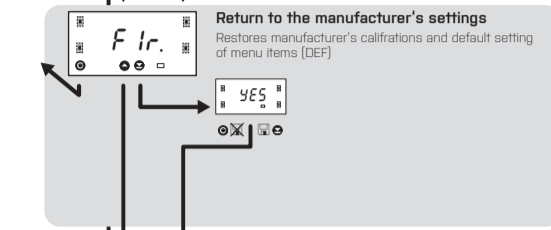
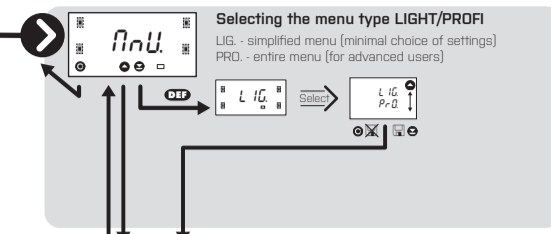
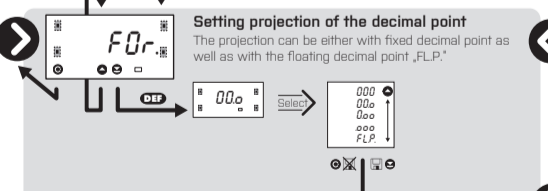
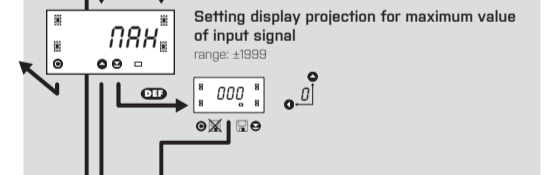
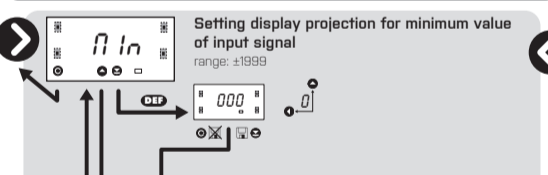
Programming diagram of the LIGHT MENU



- Selecting the instrument's mode**
- DC DC voltmeter
 - PM Process monitor
 - OHM Ohmmeter
 - Pt Thermometer for sensors Pt 100/500/1 000
 - Cu Thermometer for sensors Cu 50/100
 - Ni Thermometer for sensors Ni 1 000/10 000
 - TC Thermometer for thermocouples
 - DU Display for linear potentiometer



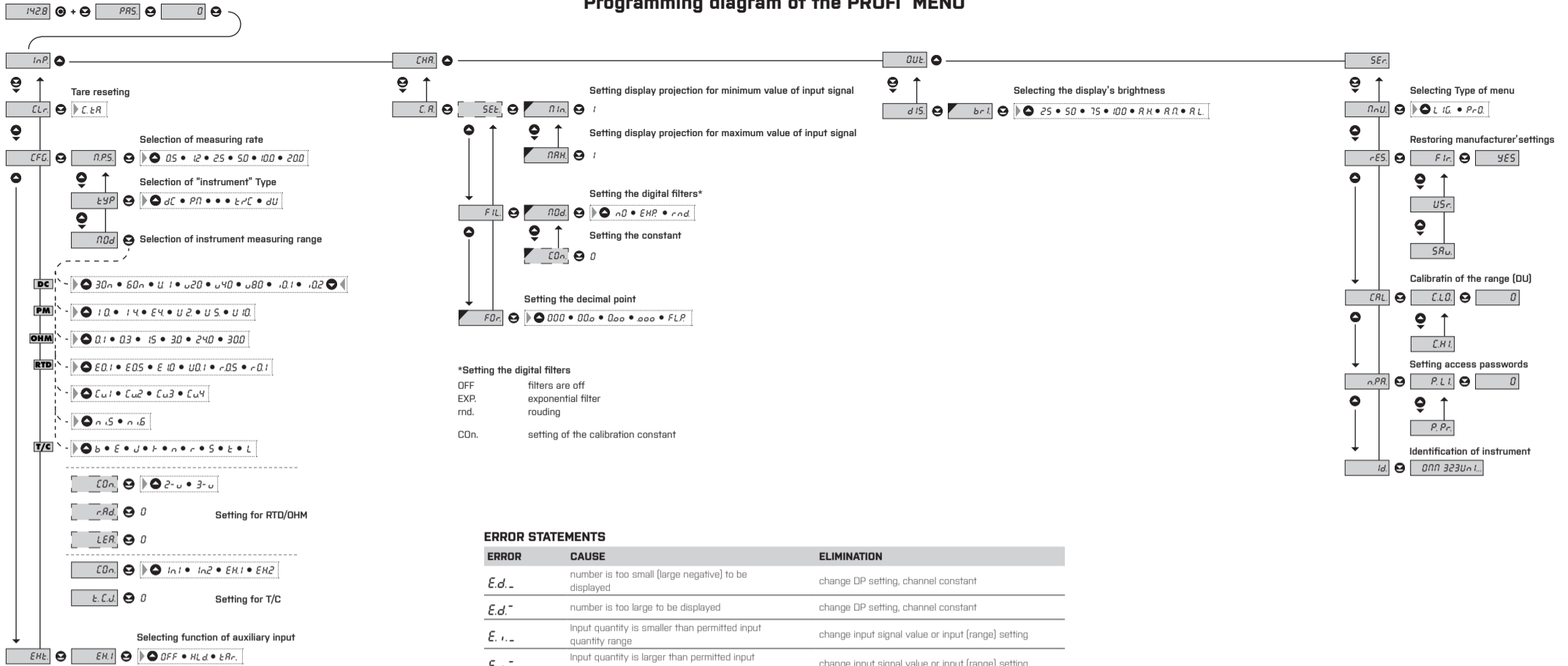
- Connection**
- In 1 measuring C.J. at instrument brackets
 - In 2 measuring C. J. at instrument brackets with anti-series connected ref. TC
 - EH 1 the entire measuring set is working under invaried and constant temperature
 - EH 2 when using compensation box
- For thermocouple type "B" the items CON. and C.J. T. are not available



if the mode „DU“ is not selected, these calibration menu items are left out

Only for mode „DU“

Programming diagram of the PROFI MENU



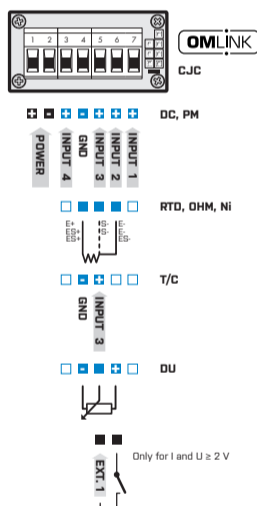
ERROR STATEMENTS

ERROR	CAUSE	ELIMINATION
E.d.	number is too small (large negative) to be displayed	change DP setting, channel constant
E.d.	number is too large to be displayed	change DP setting, channel constant
E.r.	Input quantity is smaller than permitted input quantity range	change input signal value or input (range) setting
E.r.	Input quantity is larger than permitted input quantity range	change input signal value or input (range) setting
E.H.u.	a part of the instrument does not work properly	send the instrument for repair
E.E.E.	data in EEPROM corrupted	perform restoration of manufacture setting, upon repeated error statement send instrument for repair
E.S.E.	data in EEPROM outside the range	perform restoration of manufacture setting, upon repeated error statement send instrument for repair
E.C.L.	memory was empty (presetting carried out)	upon repeated error statement send instrument for repair, possible failure in calibration
E.in.	disconnected input circuit	check wiring

Upon delay exceeding 60 s the programming mode is automatically discontinued and the instrument itself restores the measuring mode

CONNECTING AND CONTROLLING OF INSTRUMENT

TECHNICAL DATA



Power supply cord should not be near low voltage input signal leads. Contactors, large electrical motors and other power elements should not be operated in the vicinity of the instrument. Input signal leads (measured value) should be separated from all power devices. Our instruments are extensively tested and they comply with relevant standards for use in industrial environment, however, adhering to the above mentioned measures is strongly advised.

In 'RTD' or 'OHM' input with 2-wire connection it is necessary to link the unconnected inputs (No. 5 and 6) on the terminal block

MEASURING RANGES - CONNECTION

TYPE	INPUT 1	INPUT 3	INPUT 4
DC	±20/±40/±80 V	±30/60 mV/±1 V	±90/±180 mA
PM	±2/±5/±10 V		±20 mA, 4...20 mA
OHM	0...100/300 Ω/0...15/3/24/30 kΩ		
RTD-PT	Pt 50/100/1 000		
RTD-CU	Cu 50/100		
RTD-NI	Ni 1 000/10 000		
T/C		J/K/T/E/B/S/R/N/L	
DU		Linear potentiometer (min. 500 Ω)	

EXTERNAL INPUT

EXT. 1	DESCRIPTION	CONTROLS
	controlling input, its function is set in the menu (see. Menu > EX. 1) Only for inputs 1 and U ≥ 2 V	upon contact, terminal [No. 5 + 6]

MEASURING INPUT

Input	Range	Resolution	Accuracy
DC	±90 mA	< 1 V	Input 4
	±180 mA	< 2 V	Input 4
	±30 mV	> 10 MΩ	Input 3
	±60 mV	> 10 MΩ	Input 3
	±1 000 mV	> 10 MΩ	Input 3
PM	±20 mA	< 200 mV	Input 4
	4...20 mA	< 200 mV	Input 4
	±2 V	1 MΩ	Input 1
	±5 V	1 MΩ	Input 1
	±10 V	1 MΩ	Input 1
OHM	0...100 Ω		
	0...300 Ω		
	0...15 kΩ		
	0...3 kΩ		
	0...24 kΩ		
RTD	EU > Pt 50/100/1 000 Ω, with 3 850 ppm/°C	-50°...450°C	
	US > Pt 100 Ω, with 3 920 ppm/°C	-50°...450°C	
Ni	Ni 1 000/ Ni 10 000 with 5 000 ppm/°C	-50°...250°C	
	Ni 1 000/ Ni 10 000 with 6 180 ppm/°C	-200°...250°C	
Cu	Cu 50/ Cu 100 with 4 260 ppm/°C	-50°...200°C	
	Cu 50/ Cu 100 with 4 280 ppm/°C	-200°...200°C	
T/C	J (Fe-CuNi)	-200°...900°C	
	K (Ni-Cr-Ni)	-200°...1 300°C	
	T (Cu-CuNi)	-200°...400°C	
	E (Ni-Cr-CuNi)	-200°...680°C	
	B (PtRh30-PtRh6)	300°...1 820°C	
	S (PtRh10-Pt)	-50°...1 760°C	
	R (PtRhRh-Pt)	-50°...1 740°C	
DU	Lin. pot. supply	2.5 VDC/6 mA, min. potentiometer resistance is 500 Ω	

INSTRUMENT'S ACCURACY

TC	50 ppm/°C
Accuracy	±0,15% of the range + 1 digit ±0,3% of the range + 1 digit [T/C]
Accuracy of cold junction measurement:	±15°C
Rate	0,5...20 measurements/s
Overload capacity:	10x [t < 30 ms]; 2x
Resolution	0,0°C [RTD], 1°C [T/C]
Data back-up	stores the measured value after the device has been switched off [EEPROM]
Digital filters	exponential filter, rounding
Functions	Hold - 'freezing the measured value', Tare (upon contact), Only for ranges 1 and U ≥ 2 V
External inputs	1, with the possibility of assigning various functions in the instrument's menu
OM Link	Company communication interface for operating, setting and updating of instruments
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40% r.h.

PROJECTION

Display	1999, red or green 7-segment LED, digit height 9,1mm
Projection	±1999
Decimal point	setting - in menu
Brightness	0 %, 25 %, 50 %, 75 %, 100 % [selectable in the menu] or automatically at three steps Auto. H, Auto. M and Auto. L

POWER SUPPLY

	10...30 VDC/24 VAC, ±10 %, 0,2...1,5 VA, isolated
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MECHANICAL PROPERTIES

Material	Noryl GFN2 SE1, incombustible UL 94 V-1
Dimensions	48 x 24 x 72 mm
Panel cut out	43,5 x 22,5 mm

ENVIRONMENTAL

Connection	terminal board, section < 1,5 mm ²
Stabilization period	15 minutes after switch on
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
Cover	IP42 [front panel only]
Construction	security cases I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC after 1 min between supply and input
Insulation resistance*	for pollution degree II, measuring cat. III, power supply > 300 V [Pa]
EMC	EN 61326-1 [Industrial area]

*PI - Primary insulation, DI - Double insulation

MOUNTING AND DIMENSIONS

