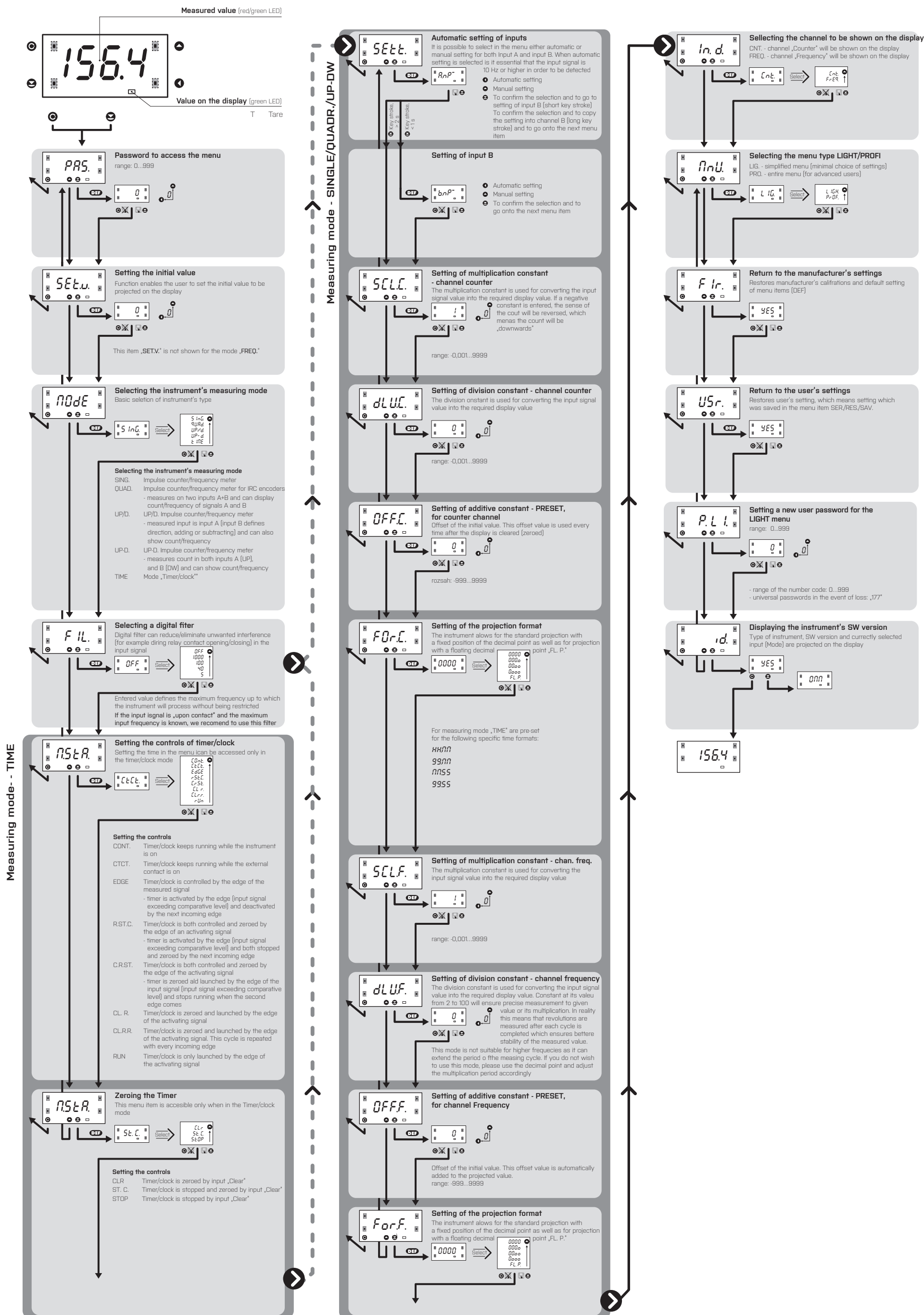
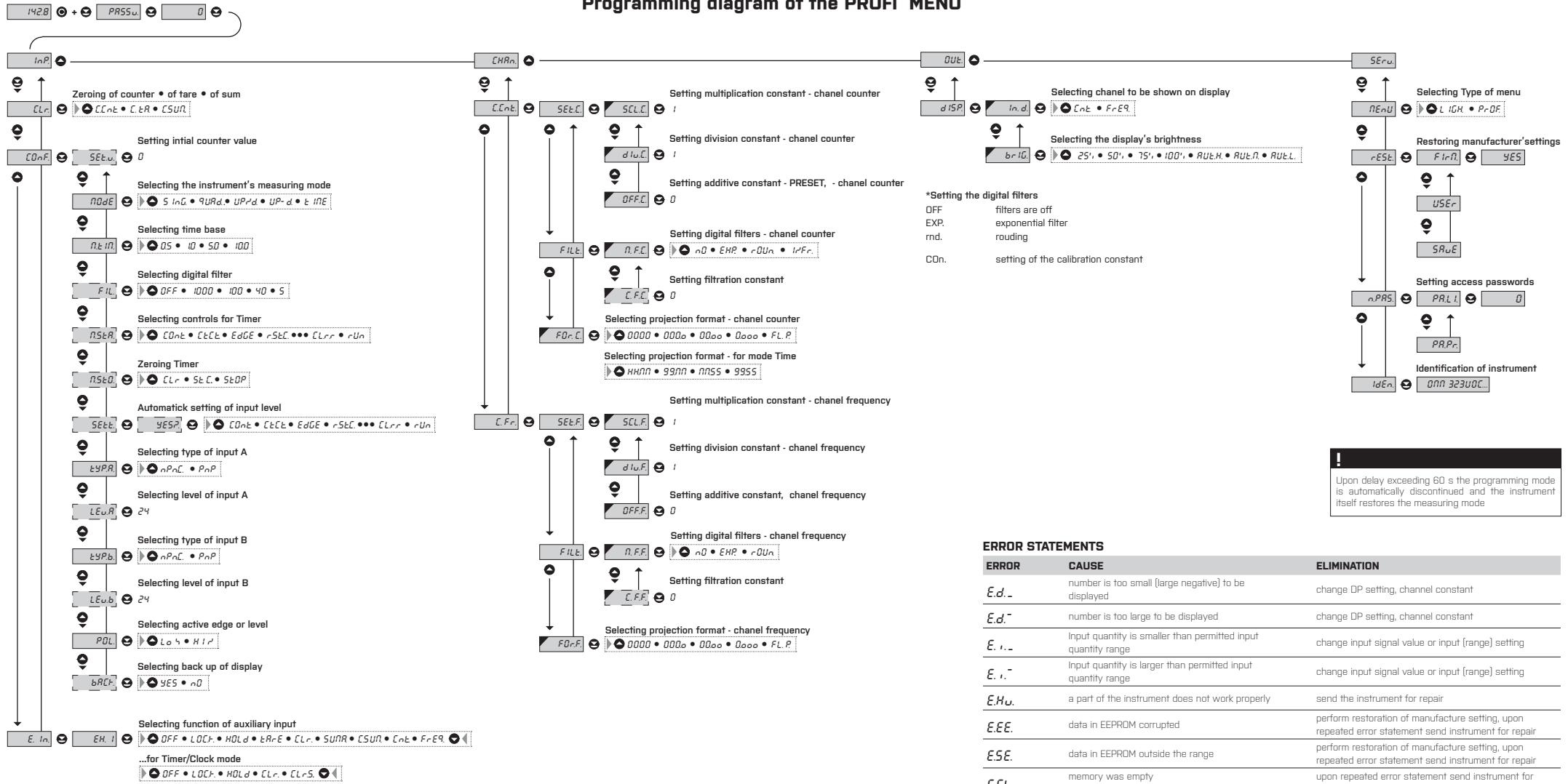


Programming diagram of the LIGHT MENU



Programming diagram of the PROFI MENU



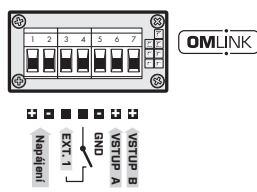
Upon delay exceeding 60 s the programming mode is automatically discontinued and the instrument itself restores the measuring mode

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.i.	input quantity is smaller than permitted input quantity range	change input signal value or input (range) setting
E.i.	input quantity is larger than permitted input quantity range	change input signal value or input (range) setting
E.H.	a part of the instrument does not work properly	send the instrument for repair
E.EE.	data in EEPROM corrupted	perform restoration of manufacture setting, upon repeated error statement send instrument for repair
E.EE.	data in EEPROM outside the range	perform restoration of manufacture setting, upon repeated error statement send instrument for repair
E.EE.	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

CONNECTING AND CONTROLLING OF INSTRUMENT

TECHNICAL DATA



CONNECTIONS

DESCRIPTION	CONNECTION
INPUT A	input signal < 60 V
INPUT B	input signal < 60 V

EXTERNAL INPUT

DESCRIPTION	CONTROLS
EXT. 1	controlling input, its function is set in the menu (see. Menu > EXT. IN.)

COMPARATOR LEVEL TABLE (V)

TYPE OF INPUT	MAXIMUM VOLTAGE (LEVEL A, B)	MAXIMUM COMPARISON LEVELS	
		L > H	H > L
NPN, Contact	xxx	0,5 V	4,5 V
PNP	9,7 V	0,5 V	4,5 V
PNP	14,4 V	1,0 V	9,0 V
PNP	19,2 V	1,5 V	13,3 V
PNP	23,9 V	2,0 V	17,8 V
PNP	28,7 V	2,5 V	22,1 V
PNP	33,5 V	3,0 V	26,6 V
PNP	38,3 V	3,4 V	31,0 V
PNP	43,0 V	3,9 V	35,5 V

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 executions without galvanic isolated power supply please beware of ground loops!

Terminals no. 2 and 5 are galvanic connected..

MEASURING INPUT

Type	upon contact, TTL, NPN/PNP
Measurement	1x counter/frequency UP or DOWN 1x counter/frequency UP/DOWN 1x counter/frequency for IRC encoders 1x timer/clock - measuring range is selectable
Input frequency	0,1..50 kHz (Mode SINGLE) 0,1..20 kHz (Mode UP/DW) 0,1..20 kHz (Mode UP-DW) 0,1..20 kHz (Mode QUADR. - frequency) 0,1..10 kHz (Mode QUADR. - counter)
Input levels	9,7 - 14,4 - 19,2 - 23,9 - 28,7 - 33,5 - 38,3 V

INSTRUMENT'S ACCURACY

TK	50 ppm/°C
Accuracy	±0,01% of the range + 1 digit (frequency)
Time base	0,5/15/10 s
Multiplication constant	±0,001...9999
Division constant	±0,001...9999
Filtration constant	enables the user to select maximum valid frequency, which is processed (OFF/5...1000 Hz)
Data back-up	stores the measured value after the device has been switched off (EEPROM)
Digital filters	exponential filter, rounding up/down, 1/frequency, measuring only completed revolutions (division constant)
Functions	Hold - "freezing the measured value" Lock - blocking the control buttons Tare Summation - adding values after each working shift is completed (upon contact)
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	9999, red or green 7-segment LED, digit height 9,1mm
Projection	-999..9999
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
	10...30 VDC/24 VAC, ±10 %, 0,2...1,5 VA, isolated

MECHANICAL PROPERTIES

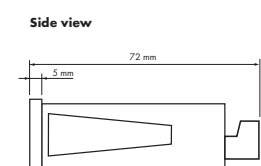
Material	Noryl GFN2 SE1, incombustible UL 94 V-1
Dimensions	48 x 24 x 72 mm
Panel cut out	43,5 x 22,5 mm

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 class 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



Panel thickness: 0,5...20 mm



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