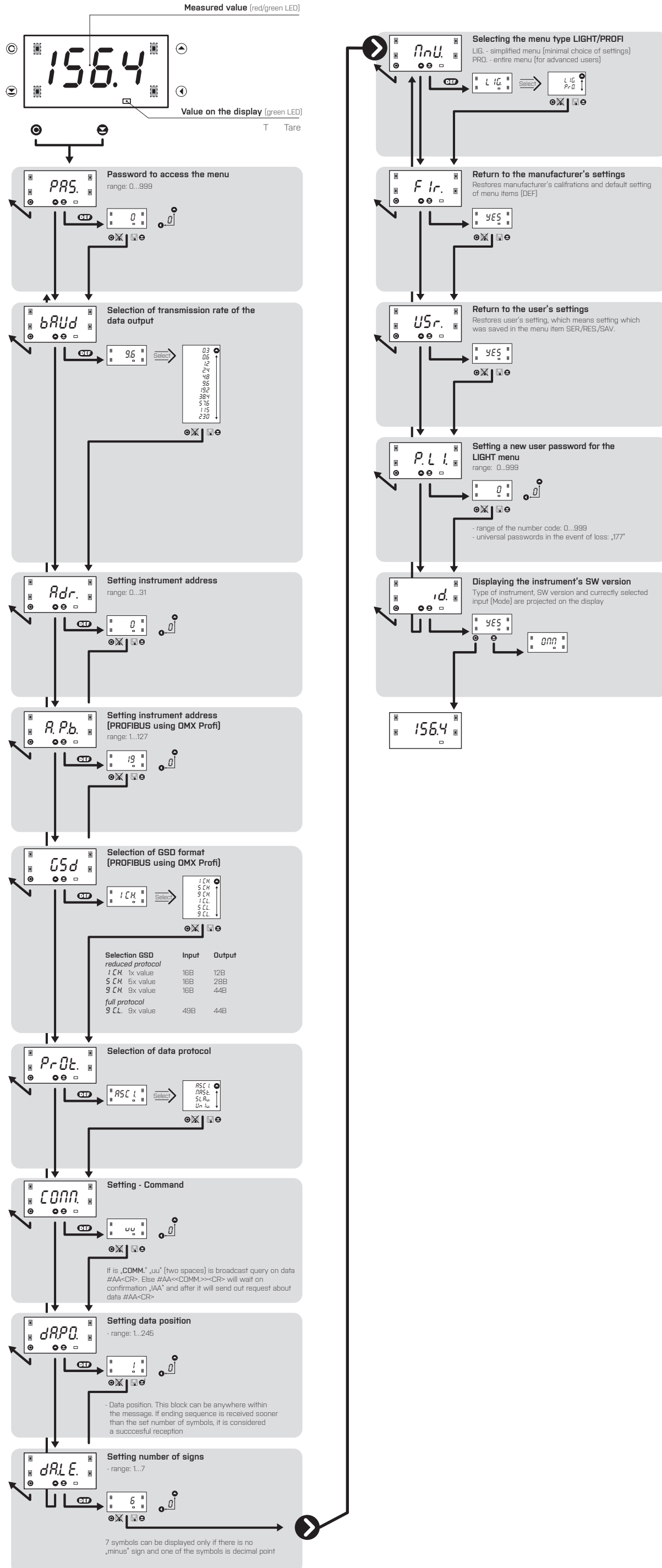


Programming diagram of the LIGHT MENU



Programming diagram of the PROFI MENU

Selection of data baud rate
 Selection of instrument address
 Selection of instrument address (PROFIBUS using DMX Profi)
 Setting format GSD (PROFIBUS using DMX Profi)
 Selection of data protocol
 Volba Selection of Command

Setting display projection for minimum value of input signal
Setting display projection for maximum value of input signal

Setting the digital filters*
Setting the constant
Setting the decimal point

Setting "integer" input range - Min
 - setting minimum value of input data, it is entered by individual bytes in range 0...255
 - the input data format is sign integer 32 bits
 - range: :2147483648...2147483647 [0x80000000...0x7FFFFFFF]

Setting "integer" input range - Max
 - setting minimum value of input data, it is entered by individual bytes in range 0...255
 - the input data format is sign integer 32 bits
 - range: :2147483648...2147483647 [0x80000000...0x7FFFFFFF]

Selection of "float" input range - min.
 - input data format is float according to standard IEEE 754, 32 bits

Selection of "float" input range - max.
 - range: 0.3*10³⁸ <= |x| <= 1.7*10³⁸

Setting the first introductory symbol
 - set directly in ASCII code
 - range: 1..127

Setting the second introductory symbol
 - if set to "0", it will not be used

Setting the address position
 - Position of the address and other symbols which have to have a set value. If set to 0, the block will not be taken into account. The block can be anywhere in the message.

First address symbol
 - set directly in ASCII code [0...127]

Druhý znak adresy
 - if set to "0", it will not be used

Setting number sign position (0...245)

Setting data position (1...245)
 - Data position. This block can be anywhere within the message. If ending sequence is received sooner than the set number of symbols, it is considered a successful reception.

Setting number of signs (1...7)
 - 7 symbols can be displayed only if there is no "minus" sign and one of the symbols is decimal point

Setting the first closing symbol (0...127)
 - set directly in ASCII code
 - if set to 0, the closing block will not be taken into account

Setting the second closing symbol (0...127)
 - set directly in ASCII code
 - if set to 0, the closing block will not be taken into account

First symbol of the request (0...127)
 - set directly in ASCII code
 - if set to "0", request is not sent

Eighth symbol of the request (0...127)
 - set directly in ASCII code
 - if set to "0", request is not sent

Setting of communication periode (0.1...1000 s)
 Item will not appear in "MAST." protocol

Selecting display mode in case of communication failure
 - n0 • bLRn • FLRS • dRSH • dDc • Err

Setting the time constant for Timeout (0...99,9s)
 - setting the time delay after which the indication of interrupted communication will appear on the display in the mode of "Mo.t.O."

Selection of data protocol

Menu	Description
ASCII	Data protocol ASCII
MAST	Instrument solicits data from subordinate system - instrument controls data transmission from subordinate system - "COMM." may be used for selection of received data [for commands see data protocol] - instrument asks 10 questions/s, if no response arrives within 2 s the display shows "...."
SLAV	Passive display - slave is used where there is communication of other instruments or a computer in the "MAST." mode. If "COMM." is correctly received, the instruments will display the data.
UNIV	Universal protocol - in dynamic v dynamických items [Start, Adr,Un, Num, Sign, Data, Stop, Request] custom protocol can be set up.

User data protocol
 For a broader usage of the instrument even in non-standard formats

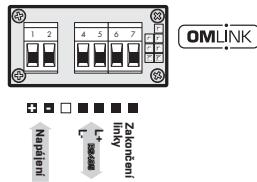
ERROR STATEMENTS

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.u.	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.SE.	data in EEPROM outside the range	perform restoration of manufacture setting, upon repeated error statement send instrument for repair
E.CL.	memory was empty [presetting carried out]	upon repeated error statement send instrument for repair, possible failure in calibration
E.i.n.	disconnected input circuit	check wiring

! If is „COMM.“ „uu“ (two spaces) is broadcast query on data #AA<CR>. Else #AA<<COMM.>><CR> will wait on confirmation „JAA“ and after it will send out request about data #AA<CR>

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

CONNECTING AND CONTROLLING OF INSTRUMENT



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.

INPUT

Type	RS 485
Protocol	ASCII, MODBUS-RTU, Master, Slave, Universal
Data format	8 bit + no parity + 1 stop bit
Rate	300...230 400 Baud
RS 485	isolated, two-way communication, addressing (max. 31 instruments)

INSTRUMENT'S ACCURACY

TC	50 ppm/°C
Data back-up	stores the measured value after the device has been switched off [EEPROM]
Digital filters	exponential filter, rounding
External inputs	1, termination of communication line RS 485
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	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

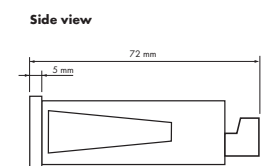
Material	Noryl GFN2 SE1, incombustible UL 94 V-1
Dimensions	48 x 24 x 72 mm
Panel cut out	43.5 x 21.5 mm

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 [Pi]
EMC	EN 61326-1 [Industrial area]

*Pi - Primary insulation, Di - Double insulation

MOUNTING AND DIMENSIONS



Panel thickness: 0.5...20 mm

TECHNICAL DATA



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