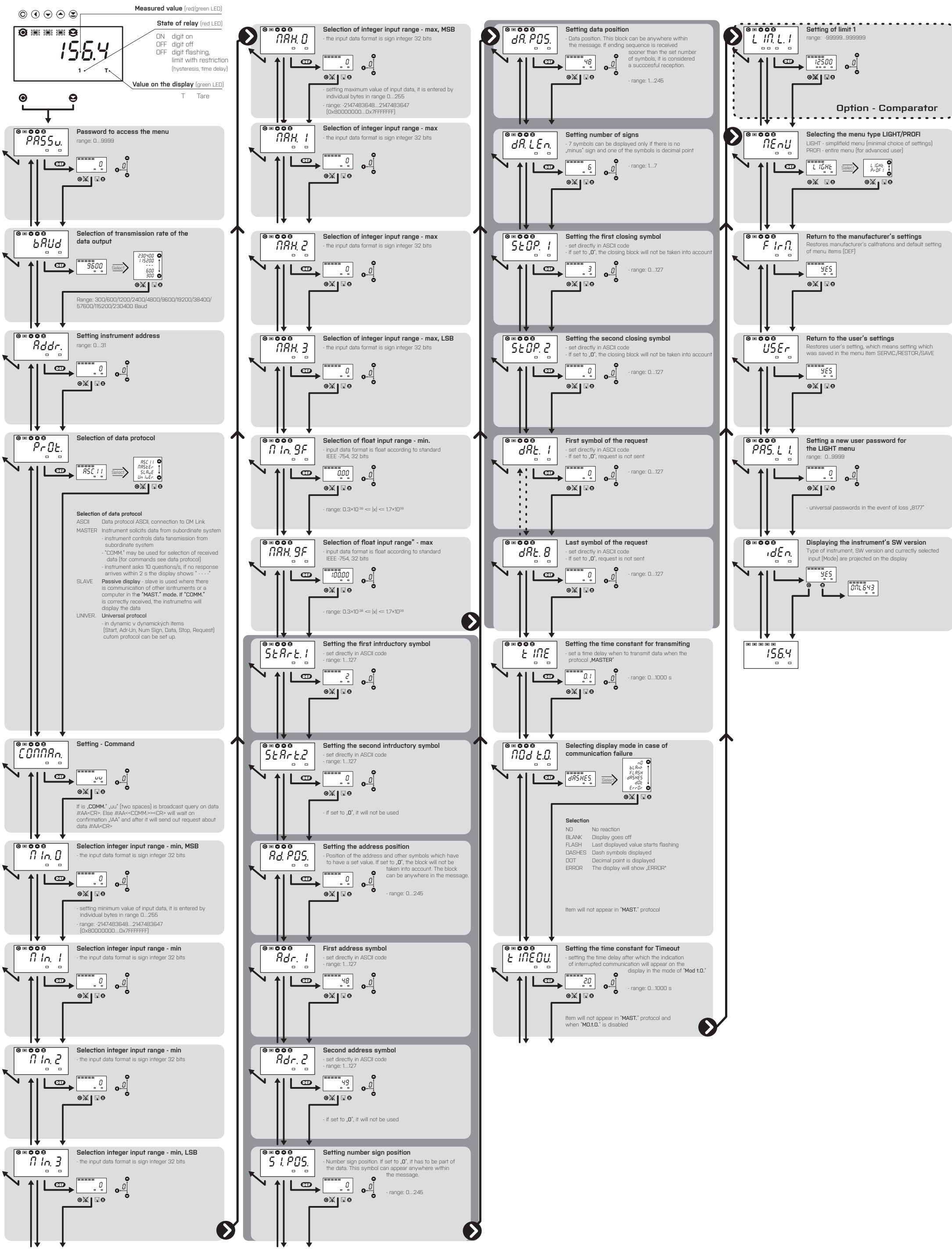
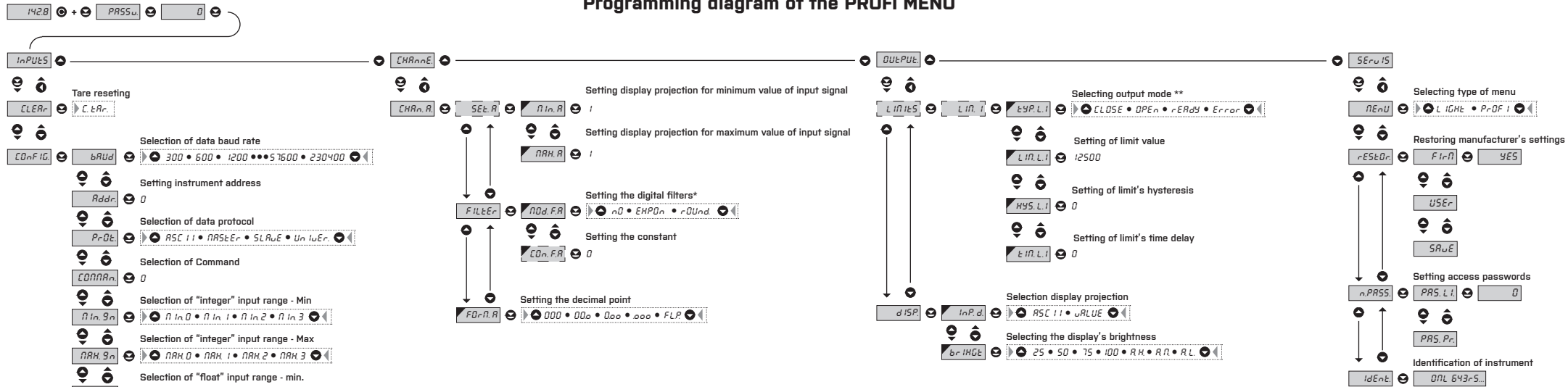


Programming diagram of the LIGHT MENU



Programming diagram of the PROFI MENU



\*Setting the digital filters  
 OFF filters are off  
 EXPON. exponential filter  
 ROUND rounding  
 CDn. FA setting of the calibration constant

\*\*Selecting output mode  
 CLOSE closing relay (normally open)  
 OPEN opening relay (normally closed)  
 READY all OK  
 ERROR error indication

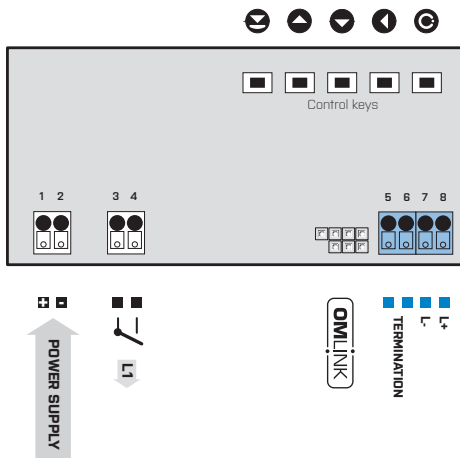
ERROR STATEMENTS

| 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.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.i.n. | 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



| EXTERNAL INPUT | DESCRIPTION                              | CONTROLS                           |
|----------------|--|------------------------------------|
| TERMINATION    | Termination of communication line RS 485 | upon contact, terminal (No. 5 + 6) |

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  |
| DM 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       | 999999, red or green 7-segment LED, digit height 14 mm   |
| Projection    | -99999...999999  |
| 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 |

COMPARATOR

|            |   |
|------------|---|
| Type       | digital, menu selectable  |
| Mode       | Hysteresis  |
| Limit      | -99999...999999   |
| Hysteresis | 0...999999  |
| Delay      | 0...99.9 s  |
| Output     | 1x relay with a switch on contact (Form A), (250 VAC/30 VDC, 3 A)*<br>1x open collector, (30 VDC/100 mA)* |
| Relay      | 1/8 HP 277 VAC, 1/10 HP 125 V, Pilot Duty D300  |

\* values given are for resistive load

POWER SUPPLY

|  |   |
|--|---|
|  | 10...30 VDC/24 VAC, ±10 %, 3 VA, isolated |
|--|---|

MECHANICAL PROPERTIES

|               |   |
|---------------|---|
| Material      | Noryl GFN2 SE1, incombustible UL 94 V-1 |
| Dimensions    | 96 x 48 x 30 mm                         |
| Panel cut out | 92 x 44 mm                              |

ENVIRONMENTAL

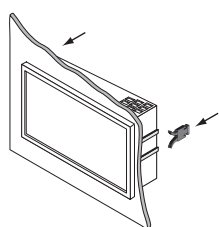
|                        |   |
|------------------------|---|
| Connection             | terminal board, section < 1.5 mm <sup>2</sup>   |
| Stabilization period   | 15 minutes after switch on  |
| Working temperature    | -20°...60°C   |
| Storage temperature    | -20°...85°C   |
| Cover                  | IP65 (front panel only), rear of the instrument is open!  |
| Construction           | security class I  |
| El. safety             | EN 61010-1, A2  |
| Dielectric strength    | 2.5 kVAC after 1 min between supply and input<br>4 kVAC after 1 min between supply and relay output     |
| Insulation resistance* | for pollution degree II, measuring cat. III,<br>power supply > 300 V [PI]<br>input, output > 300 V [DI] |
| EMC                    | EN 61326-1 (industrial area)  |

\*PI - Primary insulation, DI - Double insulation

MOUNTING AND DIMENSIONS

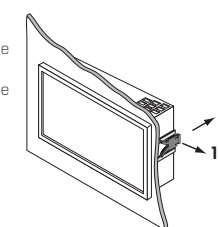
Mounting the instrument

1. insert the instrument into the panel cutout
2. insert the fixing sliders into side grooves of the enclosure as shown
3. press the sliders tightly against the rear side of the panel

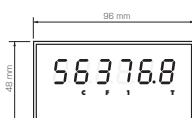


Removal of the instrument

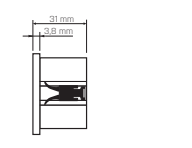
1. pry the rear end of the sliders away from the instrument's enclosure
2. slide the fixing sliders out of side grooves of the enclosure as shown
3. remove the instrument from the panel cutout



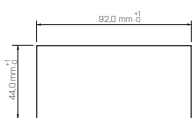
Front view



Side view



Panel cut



Panel thickness: 0.5...2.0 mm



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