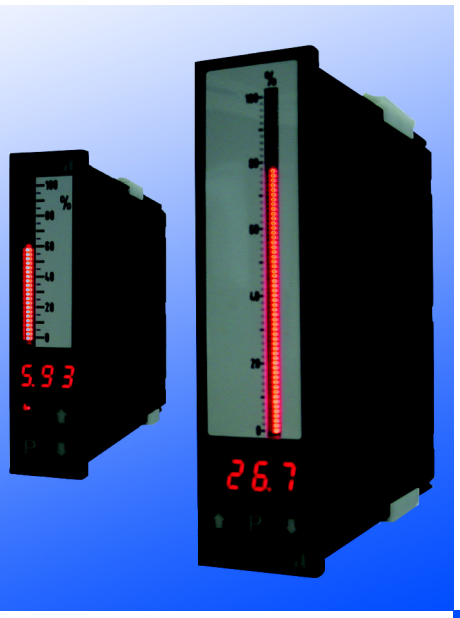
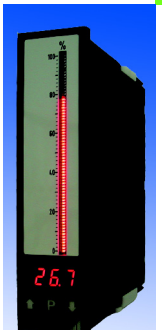
Light-strip indicator

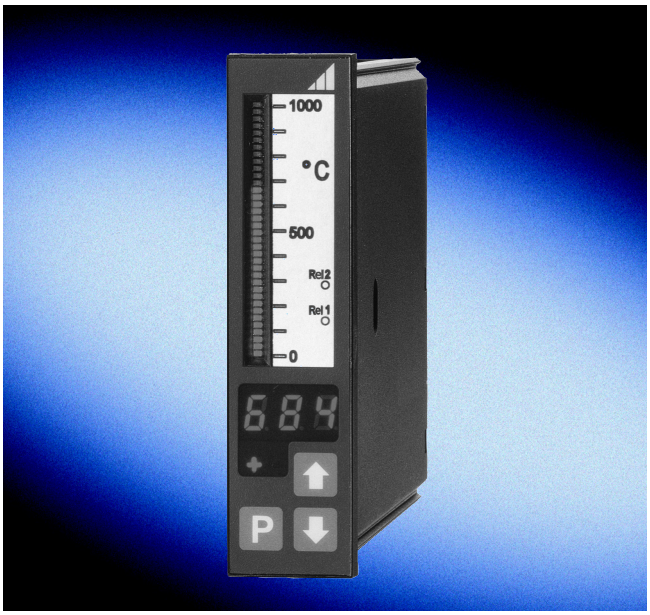
3





Light-strip indicator

PROLUX 96 x 24 mm with 35 segments, programmable



Light-strip indicator PROLUX 96 x 24

Overview

- Front dimensions 96 x 24 mm
- Display range of upright digital indicator ± 999
- Upright or transverse version
- 2 limit values for DC input
- Measuring span and limit values digitally adjustable
- Simple programming, lockable

Area of application

These devices are suitable for all applications where several indications need to be monitored simultaneously.

The high-contrast LED displays ensure good readability even in dimly lit environments. The display is designed so that the indications are easy to read, even from an unfavorable angle.

Each device can be equipped with a range of measuring modules for the following measuring tasks:

- DC measurement to ± 200 mA
- DC measurement 4 to 20 mA
- DC measurement 4 to 20 mA with incoming supply for 2-wire transducer
- DC voltage measurement to ± 300 V
- AC measurement also for direct connection to current transformers .../1 A or .../5 A
- AC voltage measurement to 700 V
- Temperature measurement with Pt 100 or with thermocouples of type J, K, R and S

Design

The PROLUX light-strip indicator, 96 x 24 comprises:

- Basic device with display and pushbutton unit
- Plug-in measuring range module
- Plastic ABS housing suitable for slot mounting
- Quick assembly due to tab fasteners

Degree of protection of front of housing is IP 65.

Electrical connection is over plug-in screw terminal blocks.

Functions

The basic device is a DC voltmeter with a full-scale reading of 2 V. Series-connected measuring modules convert the input signal into the corresponding direct voltage. This allows optimum adaptation of all devices to the required measuring task. The analog-digital conversion is implemented using the dual-slope method. The measuring cycle is approx. 200 ms.

The front-panel pushbuttons can be used to program the start of the measuring range and the measuring span for the digital indicator and the light strip. For limit monitors, additional limit value functions can be set. The setting of the limit values is carried out over the same pushbuttons, but at a different programming level, in order to prevent inadvertent resetting of the device function during the process.

All programmable values are retained in the event of a power failure. All set parameters can be protected from inadvertent adjustment by means of hardware configuration over an external contact.

Technical specifications

Display	
Type	LED
Florescent color	Red
Analog	35 segments 2 limit value diodes
Digital	3-digit, 7 segments/digits (only for upright version)
Brightness	Adjustable from 0 to 7
No. of digits	-999 to +999
Height of digits	Approx. 8 mm
Polarity	Displayed automatically
Decimal point	Programmable
Overload indicator	"----"
Underload indicator	"___"
Scale	
Format	Upright or transverse version
Scale length	45 mm
Scale color	Swan white
Graduation and labeling	Black, in accordance with measuring range

Light-strip indicator

PROLUX 96 x 24 mm with 35 segments, programmable

Technical specifications

Analog/digital conversion	
Measuring method	Dual slope
Measuring speed	8 x per second
Measuring time	Approx. 40 ms
Input	Potential-free, one measuring range corresponding to the installed measuring range module
Input resistance for voltage measurement	> 1 MΩ for measurements > 2 V > 70 kΩ for measurements < 2 V
Voltage drop for current measurement	Max. 2 V
Sensor current for temperature and resistance measurements	2 mA
Error limits for the basic device (with ref. to the indication, without measuring range module)	± (0.1 % + 2 digits)
Additional error limits of module (with ref. to the indication)	
• Direct voltage and direct current measuring ranges	± (0.1 % + 2 digits)
- Temperature coefficient	< 150 ppm/K
- Series-mode rejection ratio (SMRR)	> 30 dB at 50 Hz
- Common-mode rejection ratio (CMRR)	> 120 dB with ref. to measuring range 200 mV at 50 Hz
• Alternating voltage and alternating current measuring ranges, arithmetic	
- 45 to 65 Hz 30 Hz to 1 kHz	± (0.2 % + 3 digits) ± (0.3 % + 5 digits)
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
• Alternating voltage and alternating current measuring ranges, RMS	
- 45 to 65 Hz 20 Hz to 1 kHz	± (0.2 % + 3 digits) ± (0.3 % + 5 digits)
- DC measurements	± (2 % + 5 digits)
- Crest factor	6 (additional 0.5 %)
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
• Temperature measuring range with Pt 100	
- Overall errors	± (0.4 % + 3 digits)
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
- Ri	Max. 100 Ω
• Temperature measuring range with thermocouples	
- Overall errors	± (0.4 % + 3 digits)
- Linearization errors	< 1 K
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
- Cold spot compensation errors (10 to 50 °C)	< 2 K

For devices without a digital indicator, the error limits are generally ± 3 % of the measuring range

Control commands	Over potential-free contact
Device test (Reset)	Can be controlled externally
Display storage (Hold)	Can be controlled externally
Programming protection (Lock)	Can be controlled externally
Outputs	
Relay contacts	
• 2 relay contacts	1 NO contact (or NC contact) each
- Switching capacity	5 A/max. 30 V AC 5 A/max. 30 V DC
- Switching time	Max. 200 ms
- Switching hysteresis	Adjustable from 0 to ± 100 digits
Power supply	230/115 V AC ± 15 %, 50/60 Hz and 90 to 260 V DC or 24 V AC ± 15 %, 50/60 Hz and 18 to 36 V DC
Power consumption	Max. 3 W
Housing	Plastic, ABS
Front dimensions	96 mm x 24 mm or 24 mm x 96 mm
Bezel	Black
Front frame height	5 mm
Mounting depth	Max. 127 mm, plus wiring
Panel cutout	$92^{+0.8}$ mm x $22.2^{+0.3}$ mm
Panel thickness	1 to 45 mm
Weight	Max. 0.2 kg
Mounting	Tabs made of plastic
Mounting	In the case of butt-mounting, we recommend additional ventilation to ensure that the temperature does not exceed 50 °C
Electric connection	Screw terminal blocks for wires up to 2.5 mm^2
Ambient conditions	
Service temperature range	0 to 50 °C
Storage temperature range	-20 to +70 °C
Relative air humidity	Max. 85 %
Vibration resistance	IEC/EN 61 010-1
Regulations	
Versions	According to IEC/EN 61 010-1/ VDE 0411 Part 1
Degree of protection	
• Housing front	IP 65 according to IEC/EN 60 529
• Connections	IP 00 according to IEC/EN 60 529
Protective measures	Safety class II Overvoltage category II Degree of soiling 2
EMC immunity	IEC/EN 61 326-1/+A1
EMC emitted interference	IEC/EN 61 326-1/+A1

Light-strip indicator

PROLUX 96 x 24 mm with 35 segments, programmable

Selection and ordering data

	Order No.	Order Code
PROLUX light-strip indicator, 96 x 24, programmable Color of bezel, black, with operating instructions in German, English and French	7NC3005 - ■■■■■ - 1 ■■■	■■■
Design		
• 1 input	1	
Input variable over measuring range module, Signal range set to		
• DC current		
- 4 to 20 mA	AA	
- 0 to 20 mA	AB	
- 0 to ... mA or ± ... mA (min. 0.2 mA; max. 200 mA)	AC	-Z Y01 [1]
- 4 to 20 mA with supply voltage for two-wire transducers 24 V/20 mA	AD	
• DC voltage		
- 0 to 10 V	BA	
- 0 to ... V or ± ... V (min. 2 V; max. 300 V)	BB	-Z Y01 [1]
• AC arithmetic current/voltage		
- 0 to ... mA (min. 2 mA; max. 200 mA)	DA	-Z Y01 [1]
- .../1 A, connection over current transformer	DB	-Z Y01 [1]
- .../5 A, connection over current transformer	DC	-Z Y01 [1]
- 200 V	DD	
- 700 V	DE	
- 0 to ... V (min. 0.2 V; max. 300 V)	DF	-Z Y01 [1]
• AC-RMS current/voltage		
- 0 to ... mA (min. 2 mA; max. 200 mA)	EA	-Z Y01 [1]
- .../1 A, connection over current transformer	EB	-Z Y01 [1]
- .../5 A, connection over current transformer	EC	-Z Y01 [1]
- 200 V	ED	
- 700 V	EE	
- 0 to ... V (min. 0.2 V; max. 300 V)	EF	-Z Y01 [1]
• Pt 100, programmed for three-wire connections		
- -99.9 to +99.9 °C	FA	
- -200 to +800 °C	FB	
• Thermocouple		
- Type J (Fe/CuNi), -200 to +999 °C	GA	
- Type K (NiCr/Ni), -200 to +999 °C	GB	
- Type R (Pt13Rh/Pt), 0 to 999 °C	GC	
- Type S (Pt10Rh/Pt), 0 to 999 °C	GD	

1) Specifiy value in plain text, e.g. "7 to 13 mA".

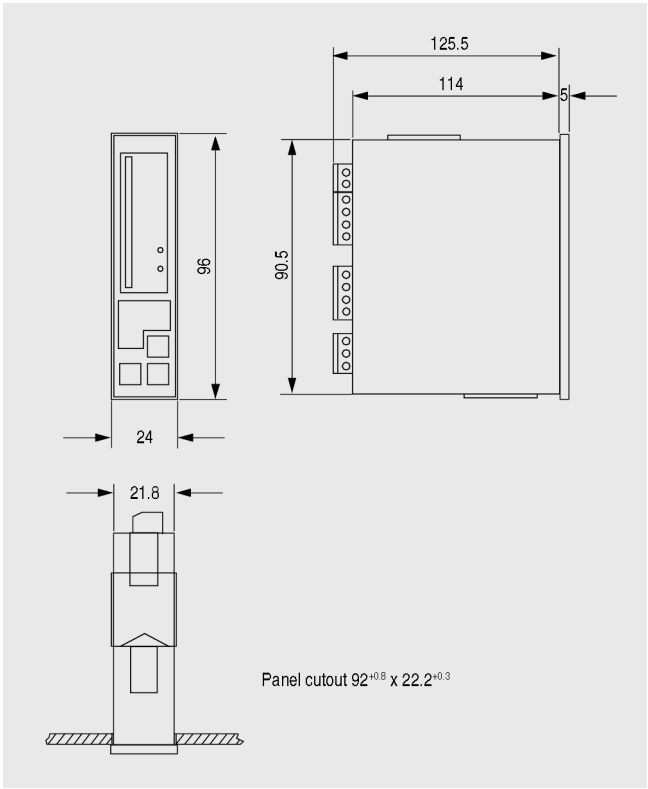
Selection and ordering data

	Order No.	Order Code
PROLUX light-strip indicator, 96 x 24, programmable Color of bezel, black, with operating instructions in German, English and French	7NC3005 - ■■■■■ - 1 ■■■	■■■
Design		
• 1 input with 2 limit values	2	
Input variable over measuring range module, Signal range set to		
• DC current		
- 4 to 20 mA	JA	
- 0 to 20 mA	JB	
- 0 to ... mA or ± ... mA (min. 0.2 mA; max. 200 mA)	JC	-Z Y01 [1]
• DC voltage		
- 0 to 10 V	KA	
- 0 to ... V or ± ... V (min. 2 V; max. 300 V)	KB	-Z Y01 [1]
Format, display		
• Transverse version (without digital indicator)	1	
• Upright version	2	
Power supply		
• 230/115 V AC or 90 to 260 V DC	1	
• 24 V AC or 18 to 36 V DC	2	
Display range of digital indicator/decimal point (min. 100 or ± 50)		
• Corresponding to signal range	A	
• 0 % to 100 %	B	
• Digital indicator: ... to ...	C	-Z Y02 [1]
Scale graduation/unit		
• Corresponding to signal range	A	
• 0 % to 100 %	B	
• Light strip: ... to ... unit	C	-Z Y03 [1]
Start of scale		
• Left or bottom	1	
• Right or top	2	
Additional designs Available for all Order Nos. Supplement Order No. with -Z	7NC3005 - ■■■■■ - 1 ■■■	■■■
Additional labeling on the front panel (specify in plain text)		-Z Y04
Additional labeling on the rear panel (specify in plain text)		-Z Y07

Light-strip indicator

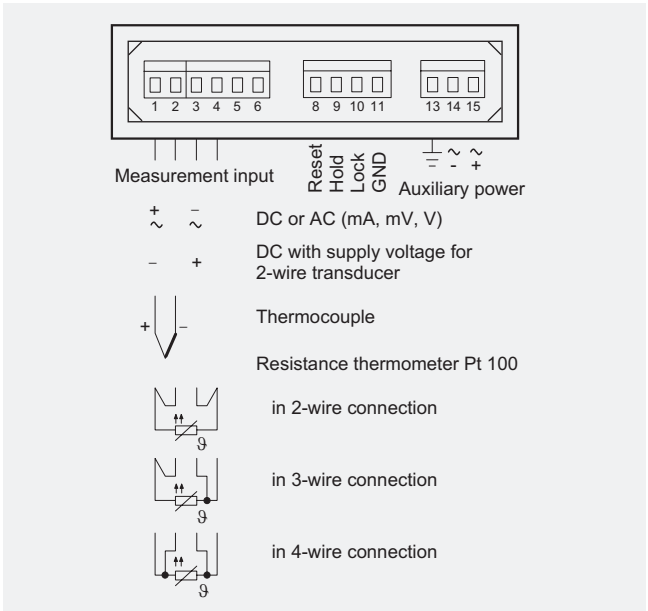
PROLUX 96 x 24 mm with 35 segments, programmable

Dimension drawings

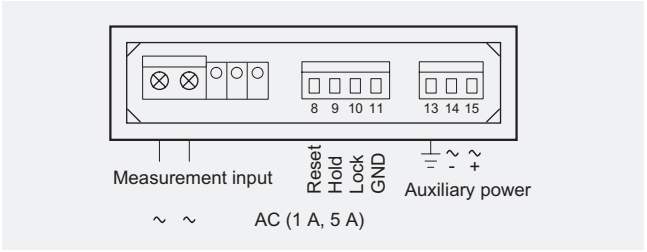


PROLUX light-strip indicator 96 x 24, dimensions in mm

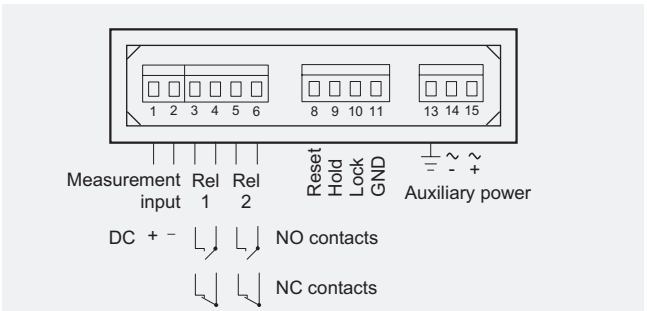
Circuit diagrams



PROLUX light-strip indicator 96 x 24, terminal diagram



PROLUX light-strip indicator 96 x 24, terminal diagram for version 1 A, 5 A AC

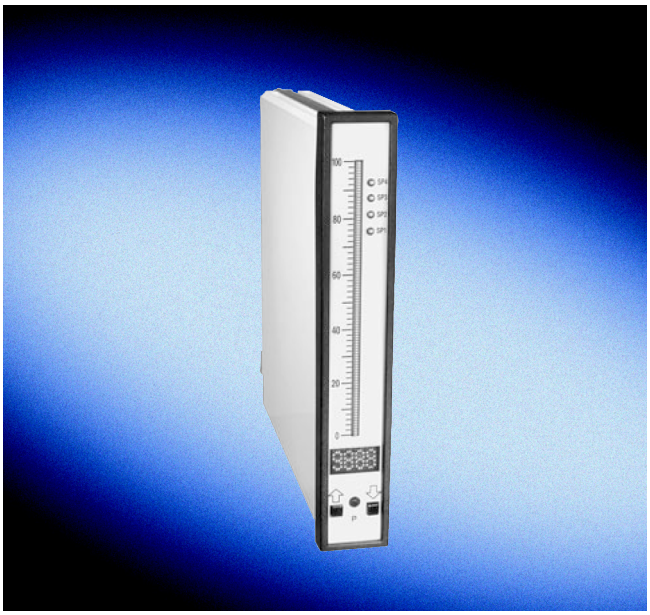


PROLUX light-strip indicator 96 x 24, terminal diagram for version with limit values

3

Light-strip indicator

PROLUX 144 x 24 mm with 101 segments, programmable



PROLUX light-strip indicator 144 x 24

Overview

- Front dimensions 144 x 24 mm
- Display range of digital indicator -1999 to +9999
- Upright version
- Up to 4 limit values
- Measuring span and limit values digitally adjustable
- Simple programming, lockable

Area of application

These devices are suitable for all applications where several indications need to be monitored simultaneously.

Each device can be equipped with a range of measuring modules for the following measuring tasks:

- DC measurement to ± 200 mA
- DC measurement 4 to 20 mA
- DC measurement 4 to 20 mA with incoming supply for 2-wire transducer
- DC voltage measurement to ± 200 V
- AC measurement also for direct connection to current transformers .../1 A or .../5 A
- AC voltage measurement to 600 V
- Temperature measurement with Pt 100 or with thermocouples of type J, K
- Frequency measurement 199.9 Hz or 400 Hz

Design

The PROLUX light-strip indicator 144 x 24 comprises:

- Basic device with display and pushbutton unit
- Plug-in measuring range module
- Polycarbonate housing suitable for slot mounting
- Quick assembly due to metal tabs

Degree of protection of front of housing is IP 40.

Electrical connection is over plug-in screw terminal blocks.

Functions

The basic device is a DC voltmeter with a full-scale reading of 5 V. Series-connected measuring modules convert the input signal into the corresponding direct voltage. This allows optimum adaptation of all devices to the required measuring task. The analog-digital conversion is implemented using the single-slope method.

The front-panel pushbuttons can be used to program the start of the measuring range and the measuring span for the digital indicator and the light strip. For limit monitors, additional limit value functions can be set. The setting of the limit values is carried out over the same pushbuttons, but at a different programming level, in order to prevent inadvertent resetting of the device function during the process.

All programmable values are retained in the event of a power failure. All set parameters can be protected from inadvertent adjustment by means of hardware configuration over an external contact.

Technical specifications

Display	
Type	LED
Florescent color	Red or green
Analog	101 segments 4 limit value diodes
Digital	4-digit with minus sign
Brightness	Adjustable from 1 to 4
No. of digits	-1999 to +9999
Height of digits	Approx. 6.85 mm
Polarity	"-" is displayed automatically
Decimal point	Programmable
Scale	
Format	Upright version
Scale length	89 mm
Scale color	Swan white
Graduation and labeling	Black, in accordance with measuring range
Analog/digital conversion	
Measuring method	14-bit, single-slope
Measuring speed	3 x per second, programmable to 16 x per second

Light-strip indicator

PROLUX 144 x 24 mm with 101 segments, programmable

Technical specifications

Input	Potential-free, one measuring range corresponding to the installed measuring range module
Input resistance for voltage measurement	> 1 MΩ
Voltage drop for current measurement	Max. 2 V
Error limits for the basic device (with ref. to the indication, without measuring range module)	± (0.05 % + 2 digits)
Additional error limits of modules	with ref. to measuring range
• Direct voltage and direct current measuring ranges	± (0.1 % + 2 digits)
- Temperature coefficient	< 150 ppm/K
- Series-mode rejection ratio (SMRR)	> 30 dB at 50 Hz
• Alternating voltage and alternating current measuring ranges, arithmetic	
- 45 to 65 Hz 30 Hz to 1 kHz	± (0.2 % + 2 digits) ± (0.3 % + 4 digits)
- Temperature coefficient	< 150 ppm/K
• Alternating voltage and alternating current measuring ranges, RMS	
- 45 to 65 Hz 20 Hz to 1 kHz	± (0.1 % + 2 digits) ± (0.2 % + 4 digits)
- Crest factor	6 (additional 0.5 %)
- Temperature coefficient	< 150 ppm/K
• Temperature measuring range with Pt 100 in two, three or four-wire connection	
- Overall errors	±2 K
- Temperature coefficient	≤ 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
• Temperature measuring range with thermocouples	
- Overall errors	± (0.2 % + 3 digits)
- Temperature coefficient	≤ 150 ppm/K
- Cold spot compensation errors (10 to 50 °C)	≤ 1K
• Frequency measuring range	199.9 Hz or 400 Hz
- Time base	± 50 ppm
- Temperature coefficient	± 1.5 ppm/K
Control commands	Over potential-free contact
Brightness (DIM)	Can be controlled externally
Programming protection (Lock)	Can be controlled externally
Outputs	
Relay contacts	
• 2 relay contacts	1 changeover contact and 1 NO contact each
- Switching capacity	10 A AC/DC changeover contact 5 A AC/DC NO contact
Power supply	230/115 V AC ± 15 %, 50/60 Hz and 95 to 370 V DC or 24 V AC ± 15 %, 50/60 Hz and 10 to 72 V DC
Power consumption	2.5 W, max. 4.2 W
Housing	Polycarbonate blend
Front dimensions	144 mm x 24 mm or 24 mm x 144 mm
Bezel	Black (RAL 9005), gray (RAL 7037) or pebble gray (RAL 7032)
Front frame height	8 mm
Mounting depth	Max. 155 mm, plus wiring
Panel cutout	138^{+1} mm x $22.2^{+0.3}$ mm
Panel thickness	to 5 mm
Weight	Max. 0.5 kg
Mounting	Metal tab
Mounting	In the case of butt-mounting, we recommend additional ventilation to ensure that the temperature does not exceed 50 °C
Electric connection	Screw terminal blocks for wires up to 2.5 mm^2
Ambient conditions	
Service temperature range	0 to 50 °C
Storage temperature range	-20 to +70 °C
Relative air humidity	Max. 85 % (no condensation)
Vibration resistance	IEC/EN 61 010-1
Regulations	
Versions	According to IEC/EN 61 010-1/ VDE 0411 Part 1
Degree of protection	
• Housing front	IP 40 according to IEC/EN 60 529
• Connections	IP 00 according to IEC/EN 60 529
Protective measures	Safety class II Overvoltage category II Degree of soiling 2
EMC immunity	IEC/EN 61 326-1/+A1
EMC emitted interference	IEC/EN 61 326-1/+A1

Light-strip indicator

PROLUX 144 x 24 mm with 101 segments, programmable

Selection and ordering data

	Order No.	Order Code
PROLUX light-strip indicator 144 x 24, programmable Upright version, with operating instructions in German and English	7NC3006 - ■■■■■ - ■■■■	■■■
Design		
• 1 input	1	
• 1 input with 2 limit values	2	
• 1 input with 4 limit values	3	
Input variable over measuring range module, Signal range set to		
• DC current		
- 4 to 20 mA	AA	
- 0 to 20 mA	AB	
- 0 to ... mA or ± ... mA (min. 2 mA; max. 200 mA)	AC	-Z Y01 [1]
- 4 to 20 mA with supply voltage for two-wire transducers 24 V/20 mA	AD	
• DC voltage		
- 0 to 10 V	BA	
- 0 to ... V or ± ... V (min. 2 V; max. 200 V)	BB	-Z Y01 [1]
• mV DC voltage		
- 0 to ... mV (min. 20 mV; max. 200 mV)	CA	-Z Y01 [1]
• AC arithmetic current/voltage		
- 0 to ... mA (min. 2 mA; max. 200 mA)	DA	-Z Y01 [1]
- .../1 A, connection over current transformer	DB	-Z Y01 [1]
- .../5 A, connection over current transformer	DC	-Z Y01 [1]
- 200 V	DD	
- 600 V	DE	
- 0 to ... V (min. 0.2 V; max. 20 V)	DF	-Z Y01 [1]
• AC-RMS current/voltage		
- 0 to ... mA (min. 2 mA; max. 200 mA)	EA	-Z Y01 [1]
- .../1 A, connection over current transformer	EB	-Z Y01 [1]
- .../5 A, connection over current transformer	EC	-Z Y01 [1]
- 200 V	ED	
- 600 V	EE	
- 0 to ... V (min. 0.2 V; max. 20 V)	EF	-Z Y01 [1]
• Pt 100, programmed for three-wire connections		
- -199.0 to +199.0 °C	FA	
- -200 to +800 °C	FB	
• Thermocouple		
- Type J (Fe/CuNi), 0 to 760 °C	GA	
- Type K (NiCr/Ni), 0 to 1260 °C	GB	
• Frequency		
- 50 to 500 V AC, 199.9 Hz	HA	
- 50 to 500 V AC, 400 Hz	HB	

1) Specifiy value in plain text, e.g. "7 to 13 mA".

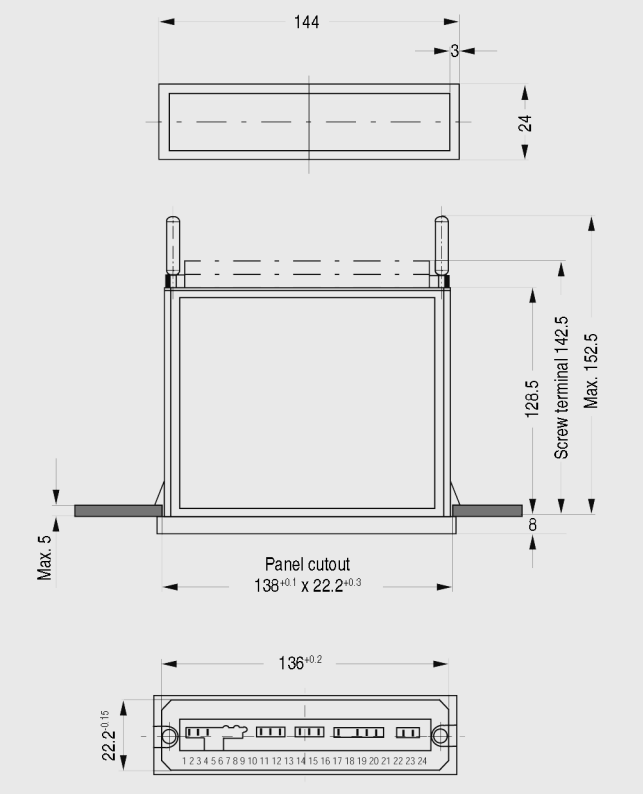
Selection and ordering data

	Order No.	Order Code
PROLUX light-strip indicator 144 x 24, programmable Upright version, with operating instructions in German and English	7NC3006 - ■■■■■ - ■■■■	■■■
Display		
• Red	1	
• Green	2	
Power supply		
• 230/115 V AC or 95 to 370 V DC	1	
• 24 V AC or 10 to 72 V DC	2	
Color of bezel		
• Gray, RAL 7037	1	
• Pebble gray, RAL 7032	2	
• Black, RAL 9005	3	
Display range of digital indicator/decimal point (min. 1000 or ± 500)		
• Corresponding to signal range	A	
• 0 % to 100 %	B	
• ... to ...	C	-Z Y02 [1]
Scale graduation/unit (min. 100)		
• Corresponding to signal range	A1	
• 0 % to 100 %	B1	
• ... to ... unit	C1	-Z Y03 [1]
Additional designs Available for all Order Nos. Supplement Order No. with -Z	7NC3006 - ■■■■■ - ■■■■	■■■
Additional labeling on the front panel (specify in plain text)		-Z Y04
Additional labeling on the rear panel (specify in plain text)		-Z Y07

Light-strip indicator

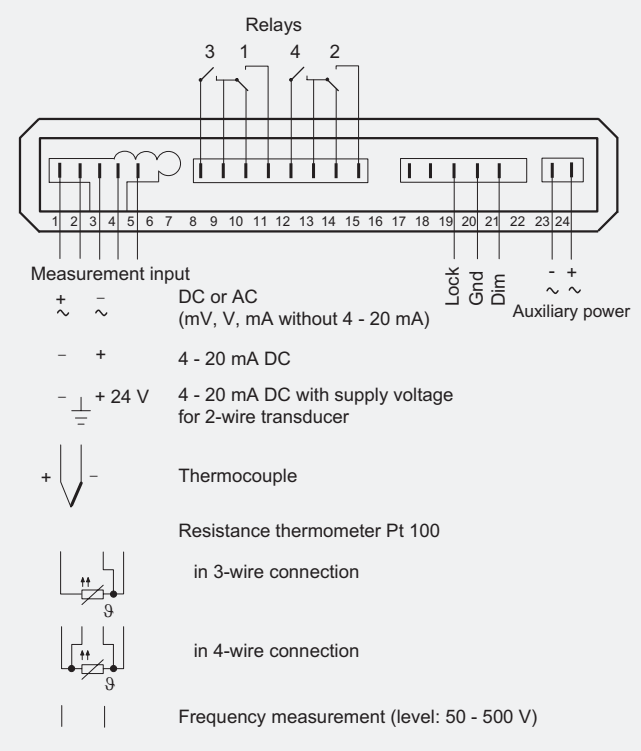
PROLUX 144 x 24 mm with 101 segments, programmable

Dimension drawings

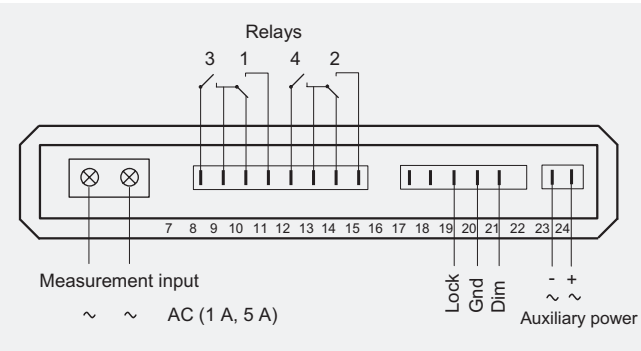


PROLUX light-strip indicator 144 x 24, dimensions in mm

Circuit diagrams



PROLUX light-strip indicator 144 x 24, terminal diagram

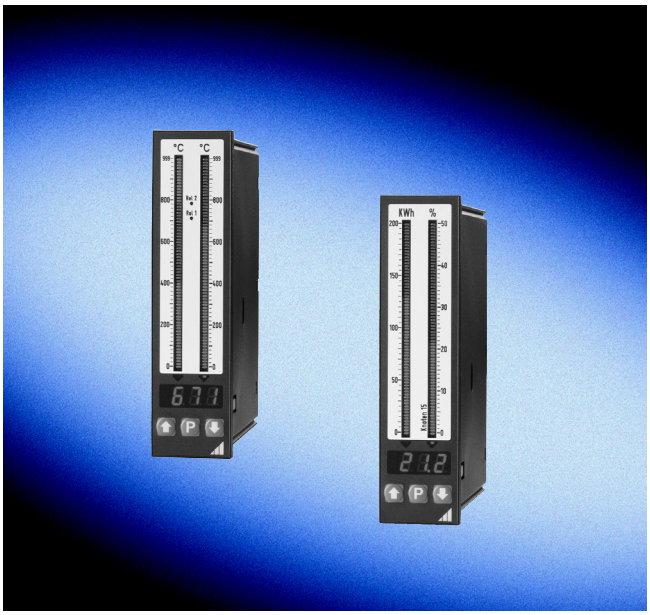


PROLUX light-strip indicator 144 x 24, terminal diagram for version 1 A, 5 A AC

3

Light-strip indicator

PROLUX 144 x 36 mm with 71 segments, programmable



PROLUX light-strip indicator 144 x 36

Overview

- Front dimensions 144 x 36 mm
- Display range of upright digital indicator ± 999
- Upright or transverse version
- One or two measurement inputs
- Slave pointer with min. und max. indication storage
- Up to 4 limit values
- Measuring span and limit values digitally adjustable
- Simple programming, lockable

Area of application

These devices are suitable for all applications where several indications need to be monitored simultaneously.

The high-contrast LED displays ensure good readability even in dimly lit environments. The display is designed so that the indications are easy to read, even from an unfavorable angle.

Each device can be equipped with a range of measuring modules for the following measuring tasks:

- DC measurement to ± 200 mA
- DC measurement 4 to 20 mA
- DC measurement 4 to 20 mA with incoming supply for 2-wire transducer
- DC voltage measurement to ± 300 V
- AC measurement also for direct connection to current transformers .../1 A or .../5 A
- AC voltage measurement to 700 V
- Temperature measurement with Pt 100 or with thermocouples of type J, K, R and S

Design

The PROLUX light-strip indicator 144 x 36 comprises:

- Basic device with display and pushbutton unit
- Plug-in measuring range module
- Plastic ABS housing suitable for slot mounting
- Quick assembly due to tab fasteners

Degree of protection of front of housing is IP 65.

Electrical connection is over plug-in screw terminal blocks.

Functions

The basic device is a DC voltmeter with a full-scale reading of 2 V. Series-connected measuring modules convert the input signal into the corresponding direct voltage. This allows optimum adaptation of all devices to the required measuring task. The analog-digital conversion is implemented using the dual-slope method. The measuring cycle is approx. 200 ms.

The front-panel pushbuttons can be used to program the start of the measuring range and the measuring span for the digital indicator and the light strip. For limit monitors, additional limit value functions can be set. The setting of the limit values is carried out over the same pushbuttons, but at a different programming level, in order to prevent inadvertent resetting of the device function during the process.

All programmable values are retained in the event of a power failure. All set parameters can be protected from inadvertent adjustment by means of hardware configuration over an external contact.

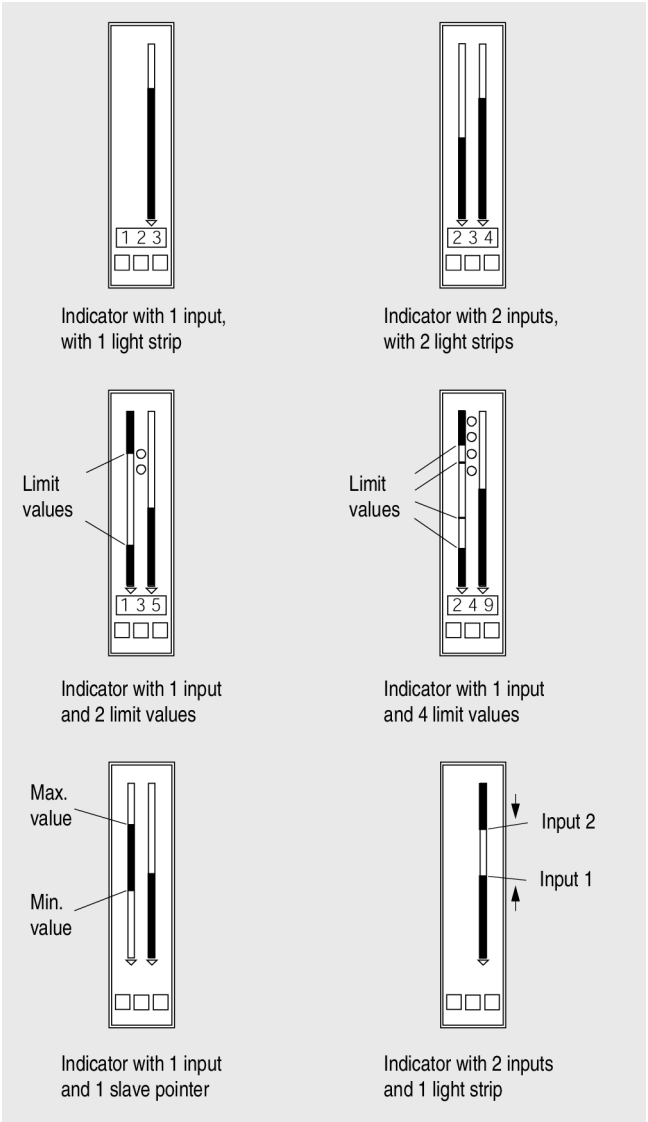


Illustration of various device types (upright versions shown here)

Light-strip indicator

PROLUX 144 x 36 mm with 71 segments, programmable

Technical specifications

Display	
Type	LED
Florescent color	Red
Analog	71 segments 2 channel-selection diodes 2/4 limit value diodes
Digital	3-digit with minus sign, 7 segments/digits (only with upright version)
Brightness	Adjustable from 0 to 7
No. of digits	-999 to +999
Height of digits	Approx. 8 mm
Polarity	"-" is displayed automatically
Decimal point	Programmable
Overload indicator	"---"
Underload indicator	"___"
Scale	
Format	Upright or transverse version
Scale length	91 mm
Scale color	Swan white
Graduation and labeling	Black, in accordance with measuring range
Analog/digital conversion	
Measuring method	Dual slope
Measuring speed	8 x per second
Measuring time	Approx. 40 ms
Input	Potential-free, one measuring range corresponding to the installed measuring range module
Input resistance for voltage measurement	> 1 MΩ for measurements > 2 V > 70 kΩ for measurements < 2 V
Voltage drop for current measurement	Max. 2 V
Sensor current for temperature and resistance measurements	2 mA
Error limits for the basic device (with ref. to the indication, without measuring range module)	± (0.1 % + 2 digits)
Additional error limits of module (with ref. to the indication)	
• Direct voltage and direct current measuring ranges	± (0.1 % + 2 digits)
- Temperature coefficient	< 150 ppm/K
- Series-mode rejection ratio (SMRR)	> 30 dB at 50 Hz
- Common-mode rejection ratio (CMRR)	> 120 dB with ref. to measuring range 200 mV at 50 Hz
• Alternating voltage and alternating current measuring ranges, arithmetic	
- 45 to 65 Hz 30 Hz to 1 kHz	± (0.2 % + 3 digits) ± (0.3 % + 5 digits)
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
• Alternating voltage and alternating current measuring ranges, RMS	
- 45 to 65 Hz 20 Hz to 1 kHz	± (0.2 % + 3 digits) ± (0.3 % + 5 digits)
- DC measurements	± (2 % + 5 digits)
- Crest factor	6 (additional 0.5 %)
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
• Temperature measuring range with Pt 100	
- Overall errors	± (0.4 % + 3 digits)
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
- Ri	Max. 100 Ω
• Temperature measuring range with thermocouples	
- Overall errors	± (0.4 % + 3 digits)
- Linearization errors	< 1 K
- Temperature coefficient	< 150 ppm/K
- Temperature offset drift	± 0.1 digit/K
- Cold spot compensation errors (10 to 50 °C)	< 2 K

For devices without a digital indicator, the error limits are generally ± 1.5 % of the measuring range

Control commands	Over potential-free contact
Device test (Reset)	Can be controlled externally
Display storage (Hold)	Can be controlled externally
Programming protection (Lock)	Can be controlled externally
Outputs	
Relay contacts	
• 2 relay contacts	1 changeover contact and 1 NO contact each
- Switching capacity	5 A/max. 250 V AC, 5 A/max. 30 V DC
- Switching time	Max. 200 ms
- Switching hysteresis	Adjustable from 0 to ± 100 digits
Power supply	230/115 V AC ± 15 %, 50/60 Hz and 90 to 260 V DC or 24 V AC ± 15 %, 50/60 Hz and 18 to 36 V DC
Power consumption	Max. 5 W
Housing	Plastic, ABS
Front dimensions	144 mm x 36 mm or 36 mm x 144 mm
Bezel	Black
Front frame height	5 mm
Mounting depth	Max. 127 mm, plus wiring
Panel cutout	138^{+1} mm x $33^{+0.6}$ mm
Panel thickness	1 to 54 mm
Weight	Max. 0.3 kg
Mounting	Tabs made of plastic
Mounting	In the case of butt-mounting, we recommend additional ventilation to ensure that the temperature does not exceed 50 °C
Electric connection	Screw terminal blocks for wires up to 2.5 mm^2

Light-strip indicator

PROLUX 144 x 36 mm with 71 segments, programmable

Technical specifications

Ambient conditions	
Service temperature range	0 to 50 °C
Storage temperature range	-20 to +70 °C
Relative air humidity	Max. 85 %
Vibration resistance	IEC/EN 61 010-1
Regulations	
Versions	According to IEC/EN 61 010-1/ VDE 0411 Part 1
Degree of protection	
• Housing front	IP 65 according to IEC/EN 60 529
• Connections	IP 00 according to IEC/EN 60 529
Protective measures	Safety class II Overvoltage category II Degree of soiling 2
EMC immunity	IEC/EN 61 326-1/+A1
EMC emitted interference	IEC/EN 61 326-1/+A1

Selection and ordering data

	Order No.	Order Code
PROLUX light-strip indicator, 144 x 36, programmable Color of bezel, black, with operating instructions in German, English and French	**7NC3007 -** ■■■■ **- 1** ■■■	■■■
Version with 1 input		
• 1 input	**1**	
• 1 input with 2 limit values	**2**	
• 1 input with 4 limit values	**3**	
• 1 input with slave pointer	**4**	
Input variable over measuring range module, Signal range set to		
• DC current		
- 4 to 20 mA	**AA**	
- 0 to 20 mA	**AB**	
- 0 to ... mA or ± ... mA (min. 0.2 mA; max. 200 mA)	**AC**	**- Z Y01** [1]
- 4 to 20 mA with supply voltage for two-wire transducers 24 V/20 mA	**AD**	
• DC voltage		
- 0 to 10 V	**BA**	
- 0 to ... V or ± ... V (min. 2 V; max. 300 V)	**BB**	**- Z Y01** [1]
• AC arithmetic current/voltage		
- 0 to ... mA (min. 2 mA; max. 200 mA)	**DA**	**- Z Y01** [1]
- .../1 A, connection over current transformer	**DB**	**- Z Y01** [1]
- .../5 A, connection over current transformer	**DC**	**- Z Y01** [1]
- 200 V	**DD**	
- 700 V	**DE**	
- 0 to ... V (min. 0.2 V; max. 300 V)	**DF**	**- Z Y01** [1]
• AC-RMS current/voltage		
- 0 to ... mA (min. 2 mA; max. 200 mA)	**EA**	**- Z Y01** [1]
- .../1 A, connection over current transformer	**EB**	**- Z Y01** [1]
- .../5 A, connection over current transformer	**EC**	**- Z Y01** [1]
- 200 V	**ED**	
- 700 V	**EE**	
- 0 to ... V (min. 0.2 V; max. 300 V)	**EF**	**- Z Y01** [1]
• Pt 100, programmed for three-wire connections		
- -99.9 to +99.9 °C	**FA**	
- -200 to +800 °C	**FB**	
• Thermocouple		
- Type J (Fe/CuNi), -200 to +999 °C	**GA**	
- Type K (NiCr/Ni), -200 to +999 °C	**GB**	
- Type R (Pt13Rh/Pt), 0 to 999 °C	**GC**	
- Type S (Pt10Rh/Pt), 0 to 999 °C	**GD**	

1) Specifiy value in plain text, e.g. "7 to 13 mA".

PROLUX 144 x 36 mm with 71 segments, programmable

Selection and ordering data

	Order No.	Order Code
PROLUX light-strip indicator, 144 x 36, programmable Color of bezel, black, with operating instructions in German, English and French	7NC3007 - ■■■■■ - 1 ■■■	■■■
Version with 2 inputs		
• 2 inputs	5	
• 2 inputs with one light strip, strips run counterdirectionally	6	
Input variable over measuring range module, Signal range set to		
• DC current		
- 2 x 4 to 20 mA	JA	
- 2 x 0 to 20 mA	JB	
- 2 x 0 to ... mA or ± ... mA (min. 0.2 mA; max. 200 mA)	JC	- Z Y01 [1]
- I1: 0 to ... mA; I2: 0 to ... mA (min. ± 0.2 mA; max. ± 200 mA)	JD	- Z Y01 [1]
• DC voltage		
- 2 x 0 to 10 V	KA	
- 2 x 0 to ... V or ± ... V (min. 2 V; max. 300 V)	KB	- Z Y01 [1]
- U1: 0 to ... V; U2: 0 to ... V (min. 2 V; max. 300 V)	KC	- Z Y01 [1]
Format, display		
• Transverse version (without digital indicator)	1	
• Upright version	2	
Power supply		
• 230/115 V AC or 90 to 260 V DC	1	
• 24 V AC or 18 to 36 V DC	2	
Display range of digital indicator/decimal point (min. 100 or ± 50)		
• Corresponding to signal range [2]	A	
• 0 % to 100 % [2]	B	
• Digital indicator 1: ... to ... [2]	C	- Z Y02 [1]
• Digital indicator 1: ... to ... digital indicator 2: ... to ...	D	- Z Y02 [1]
Scale graduation/unit		
• Corresponding to signal range [2]	A	
• 0 % to 100 % [2]	B	
• Light strip 1: ... to ... unit [2]	C	- Z Y03 [1]
• Light strip 1: ... to ... unit light strip 2: ... to ... unit	D	- Z Y03 [1]
Start of scale		
• Left or bottom	1	
• Right or top	2	

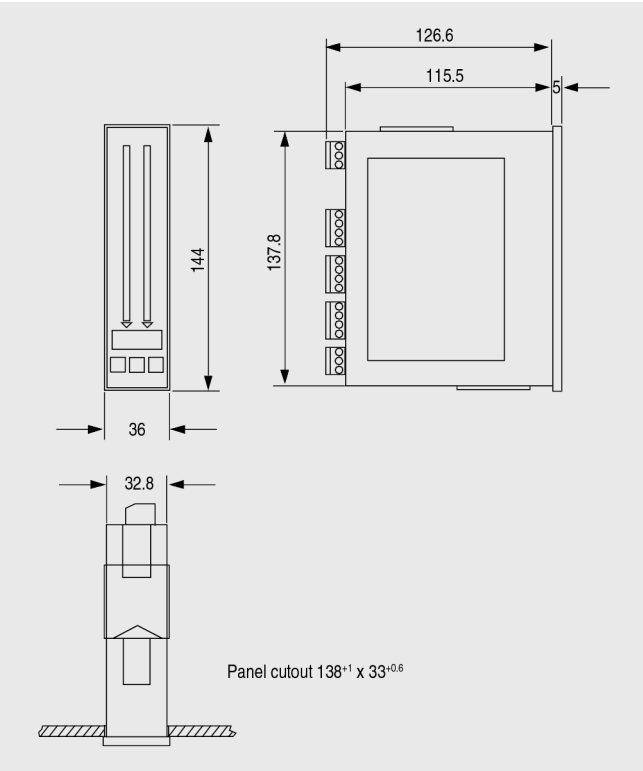
1) Specifiy value in plain text, e.g. "7 to 13 mA".

2) Not for units with 2 inputs.

Selection and ordering data

	Order No.	Order Code
Additional designs Available for all Order Nos. Supplement Order No. with -Z	7NC3007 - ■■■■■ - 1 ■■■	■■■
Additional labeling on the front panel (specify in plain text)		- Z Y04
Additional labeling on the rear panel (specify in plain text)		- Z Y07

Dimension drawings



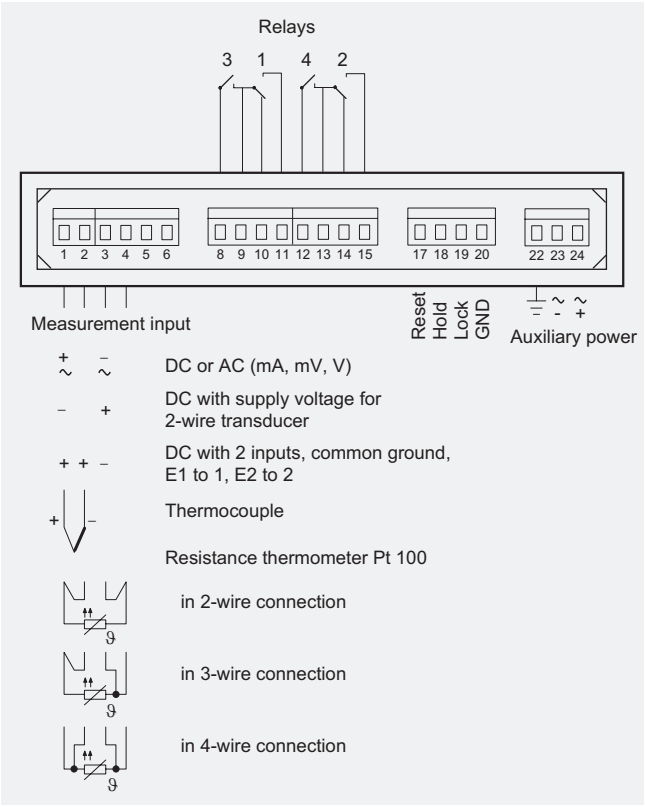
PROLUX light-strip indicator 144 x 36, dimensions in mm

3

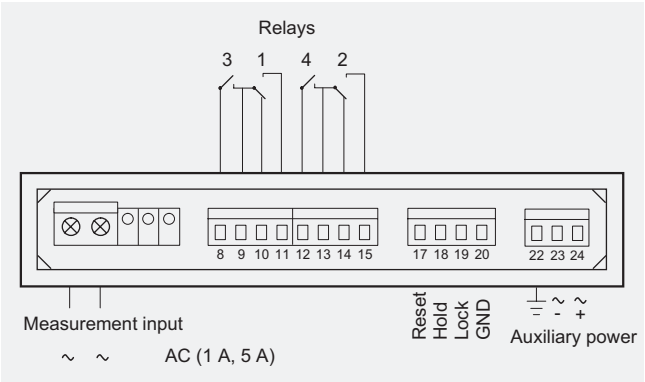
Light-strip indicator

PROLUX 144 x 36 mm with 71 segments, programmable

Circuit diagrams



PROLUX light-strip indicator 144 x 36, terminal diagram



PROLUX light-strip indicator 144 x 36, terminal diagram for version 1 A, 5 A AC