Signaling Indicators

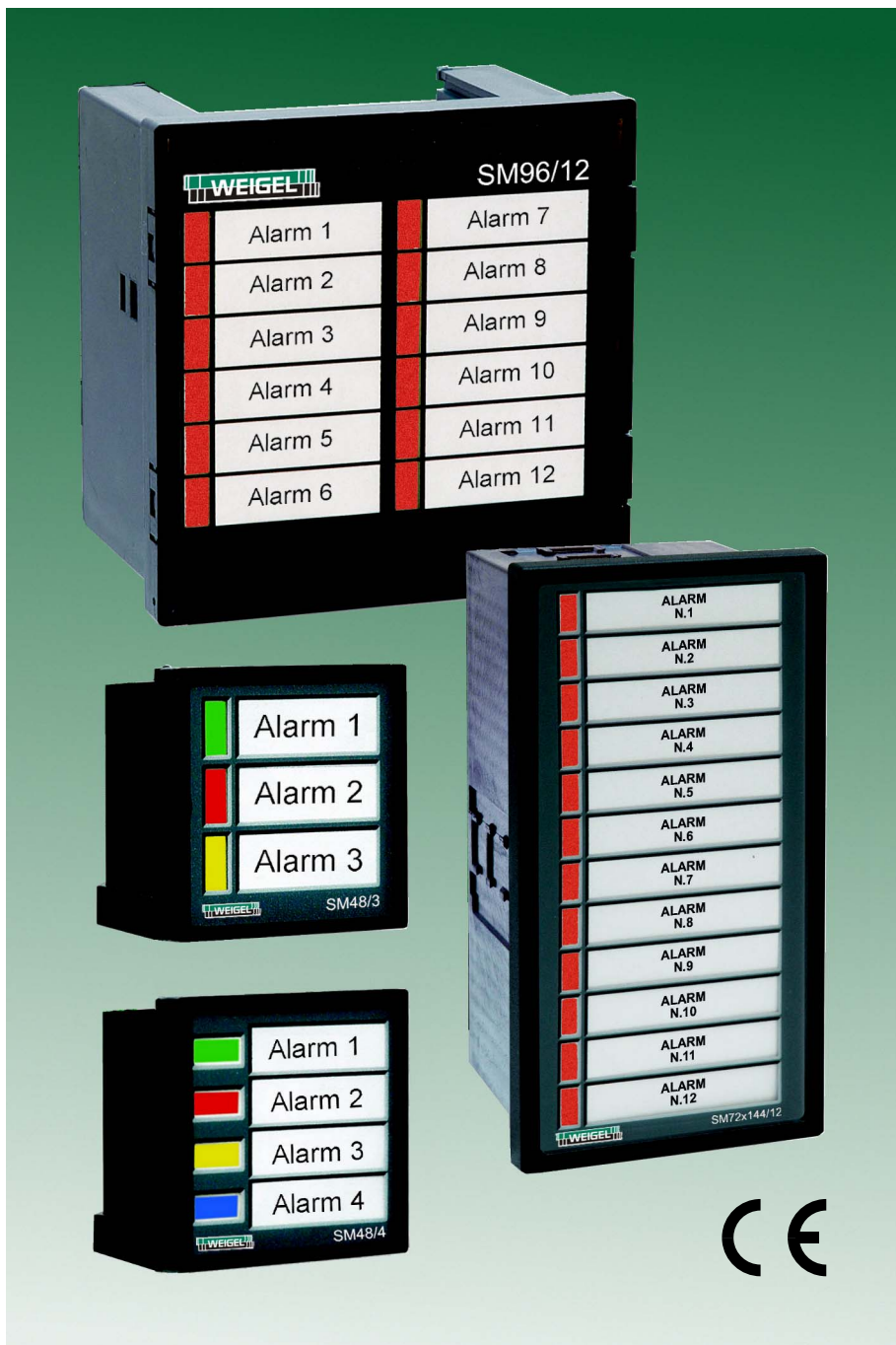**SM 48/3**
SM 48/4
SM 96/12
SM 72x144/12

CE

Application

The **SM 48/96/72x144** signaling indicators are an attractive and economical alternative to traditional signaling lamps. They are grouping 3, 4, or 12 light signals in a compact enclosure.

The indicators are available for various voltages accepting AC voltages and/or DC voltages.

Labels can be printed on normal paper, in order to place them under the polycarbonate front panel, which will be fixed by a frame.

The multi-LEDs are available in an exchangeable version, which can be easily substituted from the front side by red, yellow, green, blue, or white LEDs.

Operating Principle

The light emitting diodes are connected via a common return wire (cathode). The wiring is made in the same manner as for standard lamps.

Various models of the **SM 96/72x144** signaling indicators are equipped with a test input for functional testing the LEDs.

Mechanical Data

case details	case suitable to be mounted in control / switchgear panels
material of case	Noryl, self-extinguishing
colour of case	black
position of use	any
panel fixing	clamping screws (SM 48, SM 96) plastic clips (SM 72x144)
panel thickness	≤ 6 mm
connections	plug-in screw terminal block

dimensions (in mm)	**SM 48/3 SM 48/4**	**SM 96/12**	**SM 72x144/12**
bezel	□ 48	□ 96	72x144
case	□ 45	□ 92	67x137
depth	56	65	65
panel cutout	□ $45^{+0.6}$	□ $92^{+0.8}$	$68^{+0.7}$x138^{+1}
weight approx.	50 g	50 g	200 g

Electrical Data

rated voltage	24 V (20 ... 30 V AC/DC), 48 V (48 ... 60 V AC/DC), 110 V AC (100 ... 130 V AC), 110 V DC (100 ... 130 V DC) 230 V AC (220 ... 240 V AC)
frequency range	0 ... 1000 Hz
power consumption each input	max. 0.5 W max. 4 W during test
enclosure code	IP52

Indication

number of light signals	
SM 48/3	3 multi-LEDs
SM 48/4	4 multi-LEDs
SM 96/12	12 multi-LEDs
SM 72x144/12	12 multi-LEDs
LED colours	red, yellow, green, blue, or white

label sizes	
SM 48/3	30 mm x 10 mm
SM 48/4	24 mm x 10 mm
SM 96/12A, B	45 mm x 9 mm
SM 96/12C	70 mm x 61 mm (one single label)
SM 72x144/12	45 mm x 9 mm

Environmental

working temperature range	–20 ... +60˚C
storage temperature range	–20 ... +70˚C
relative humidity	30% ... 95% (non-condensing)
maximum vibration	0.5 g

Rules and Standards

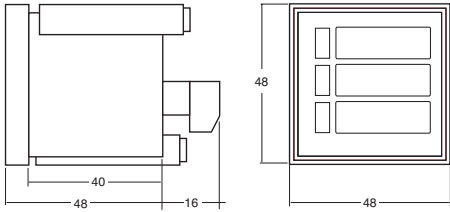| DIN 43 718	Measurement and control; front-frames and frontpanels of measurement and control equipment; principal dimensions
DIN EN 60 529	Enclosure codes by housings (IP-code)
EN 61 000	Electromagnetic compatibility (EMC) –
-6-2	Part 6-2: Generic standards – Immunity for industrial environments
-6-4	Part 6-4: Generic standards – Emission standard for industrial environments
DIN EN 61 010-1	Safety requirements for electrical measuring, control and laboratory equipment Part 1: General requirements

Options (on Request)

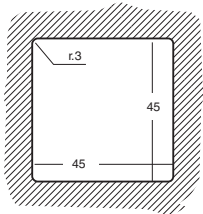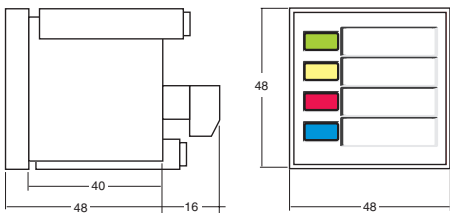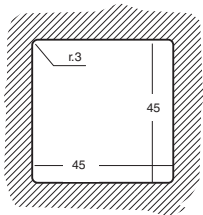| built-in test button	for SM 96/12 B, C
3 built-in buttons	for SM 96, SM 72x144 with rated voltage 24 V
common return wire anode (+) instead of cathode (–)	for SM 96, SM 72x144 with rated voltage 24 V
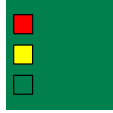
Dimensions

SM 48/3

48

40
48   16

48

panel cutout

r.3
45
45

SM 48/4

48

40
48   16

48

panel cutout

r.3
45
45

SM 72x144/12

144

72   53   12

panel cutout

8

138

68

SM 96/12

65   9   96

90   96

panel cutout

r.3
92
92
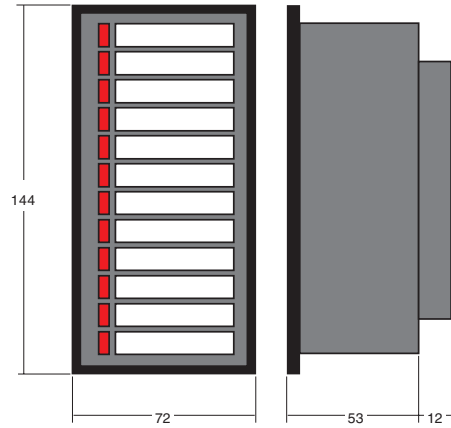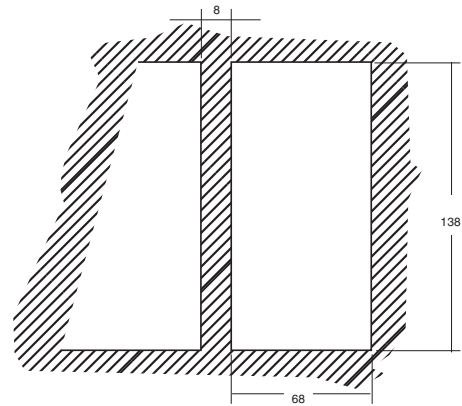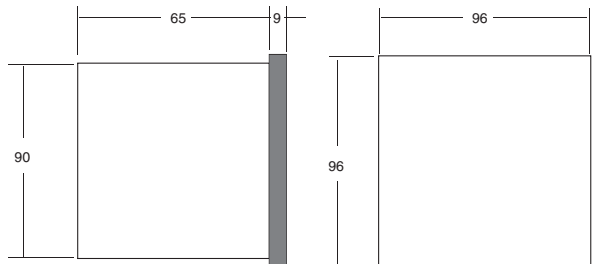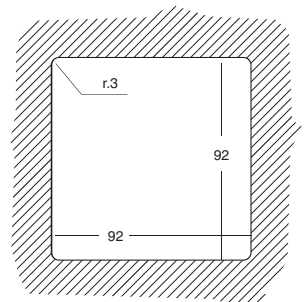
dimensions in mm

Ordering Information

| Type	
SM	Signaling Indicator
Front dimensions/Number of light signals	
48/3	48 mm x 48 mm, 3 multi–LEDs
48/4	48 mm x 48 mm, 4 multi–LEDs
96/12	96 mm x 96 mm, 12 multi–LEDs
72x144/12	72 mm x 144 mm, 12 multi–LEDs
LED arrangement SM 96/12	
A [1]	LED – Label – LED – Label
B	LED – Label – Label – LED
B–P	LED – Label – Label – LED + 3 buttons
B–T	LED – Label – Label – LED + built - in test button
C	LED – Single Label – LED
Rated voltage	
24 [1]	24 V (20 ... 30 V AC/DC),
48	48 V (48 ... 60 V AC/DC),
110AC	110 V AC (100 ... 130 V AC),
110DC	110 V DC (100 ... 130 V DC)
230	230 V AC (220 ... 240 V AC)
LED colours	
R [1]	red
Y	yellow
G	green
B	blue
W	white

[1] Standard

Ordering example

SM 96/12A 230 RGRGRGRGRGRG
Signaling indicator 96 mm x 96 mm, 12 multi–LEDs, 6x red, 6x green,
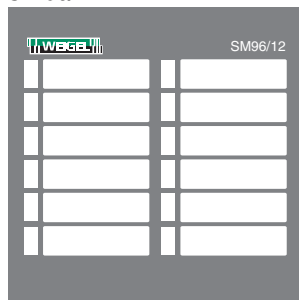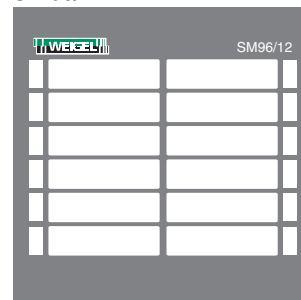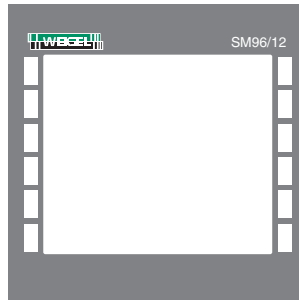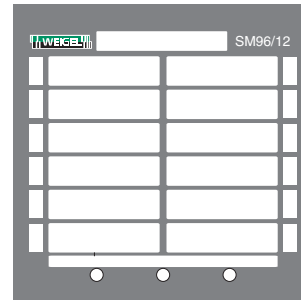LED – Label – LED – Label, 230 V AC

SM 48/3
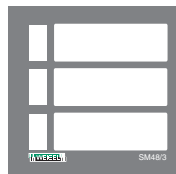
SM 48/4
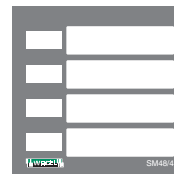
SM 96/12A

SM 96/12B

SM 96/12C

SM 96/12B–P

SM 72x144/12
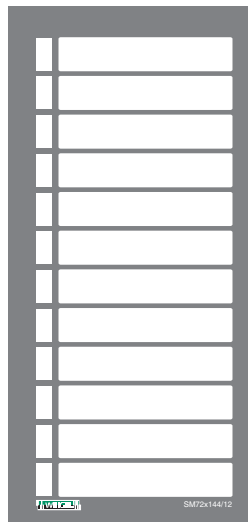
SM 96/12B–T
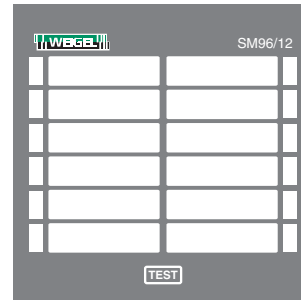
– specifications subject to change without notice; date of issue 09/14 –