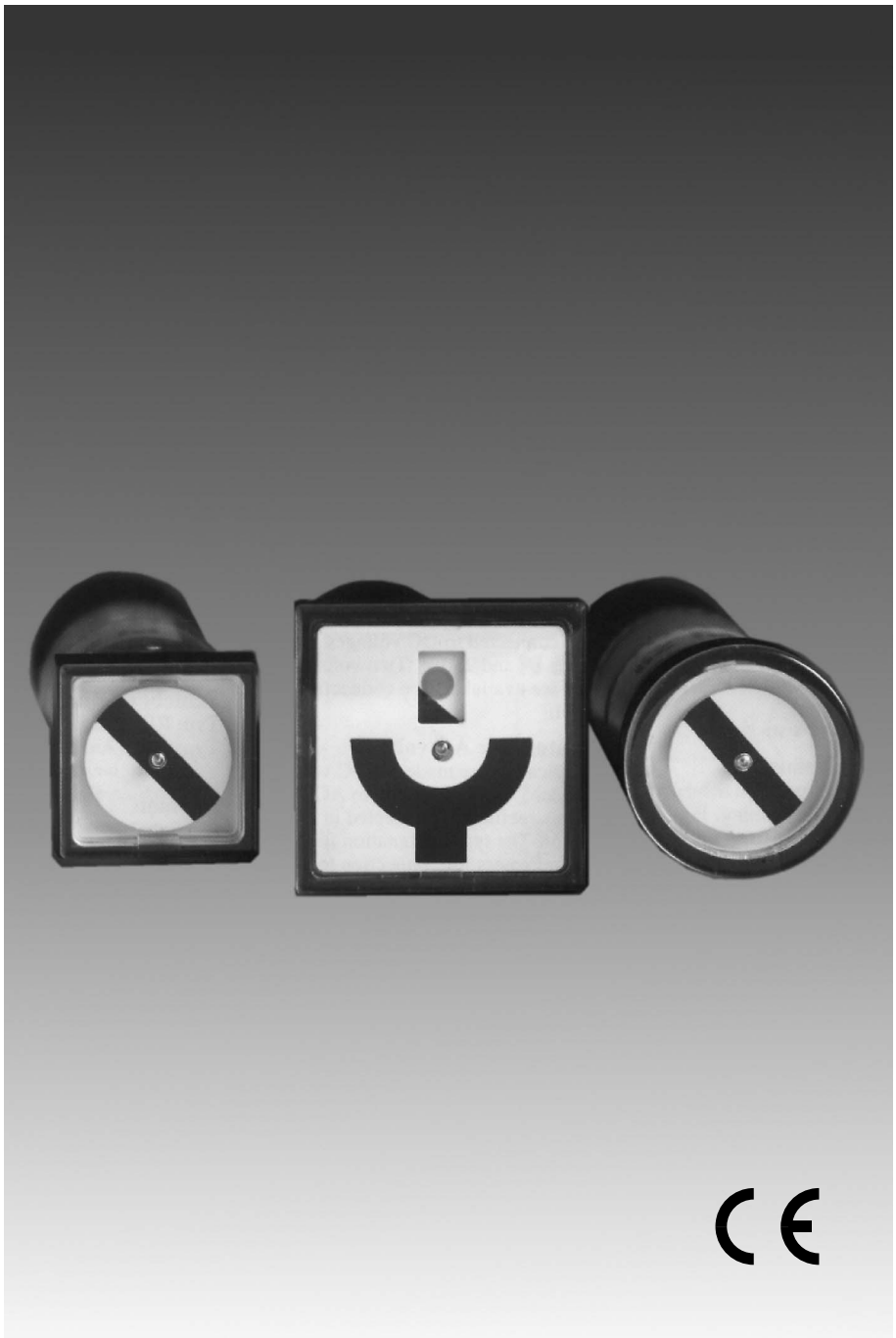
Data Sheet

644.D.101.09

Switch Position Indicators for DC or AC Voltage

PI 24
PI 25
PI 29
PI 36
PI 39
PIR 24
PIR 25
PIR 29
PIR 36
PIR 39



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Application

The switch position indicators **PI/PIR 24/25/29/36/39** are used for operation in mimic circuit diagrams of switch gears as well control panels, switchboards and mosaic technology to indicate the switching state in electrical installations.

The switch position indicators provide screw terminals for cable cross-section up to 1.5 mm^2.

Functional Principle

The switch position indicators are equipped with a rotary magnet system guaranteeing an accurate position of index symbols. Thermal development in the indicator is negligible due to the low power consumption.

The coil of the system generates a magnetic field. The rotary magnet is axially linked to the index symbol. The position of it is determined by the pole shoes. An external resetting is not necessary.

Mechanical Data

case format	round thermoplastic case with round or square front-bezel, suitable for mounting in switchboards (PI/PIR 25/29/36/39) or mosaic grid panels (PI/PIR 24)
material of case	polycarbonate UL 94 VO
front-bezel	thermoplastics
colour of bezel	black
position of use	any position permissible
panel fixing	sleeve nut
terminals	screw terminals up to 1.5 mm^2 with safety touch protection
enclosure code	IP 54

dimensions	**PI 24 PIR 24**	**PI 25 PIR 25**	**PI 29 PIR 29**	**PI 36 PIR 36**	**PI 39 PIR 39**
front-bezel	□ 24 mm	□ 25 mm	Ø 29 mm	□ 36 mm	Ø 39 mm
case	Ø 21.8 mm				
mounting depth	94 mm				
panel cutout	$\varnothing 22^{+0.5}$ mm				
panel thickness	0 ... 12 mm				
weight approx.	0.1 kg	0.1 kg	0.12 kg	0.15 kg	0.15 kg

option

sleeve 644.121 702	for fitting in mosaic grids, 24–39 mm.

Electrical Data

switch position indicators are available for use on DC or AC voltage ranging from 24 V to 230 V (see connection diagrams).

type: **PI**	for use on DC voltage
type: **PIR**	for use on AC voltage
power consumption	0.4 W based on 110 V 1.4 W based on 230 V
dielectric test	3.7 kV
frequency range (AC operation)	40 Hz ... 10 kHz
voltage variation permissible	±20%
measurement category	CAT III
operating voltage	300 V

Rules and Standards

DIN EN 61010–1	Safety requirements for electrical equipment for measurement, control, and laboratory use Part 1: General requirements
DIN EN 60051–1	Direct acting indicating analogue electrical measuring instruments and their accessories Part 1: Definitions and general requirements common to all parts
DIN EN 61000–6–2	Electromagnetic compatibility (EMC) – Part 6–2: Generic standards – Immunity for industrial environments
DIN EN 61000–6–3	Electromagnetic compatibility (EMC) – Part 6–3: Generic standards – Emission standard for residential, commercial and light-industrial environments

Indication

There are three positions of indication:

"ON"

out of operation: "DISTURBED" or "BLOCKED"

"OFF"

Bar Index Symbol

PI/PIR ... –1

PI/PIR ... –2

PI/PIR 29 –1
PI/PIR 39 –1

Break Contact (Circuit Breaker)

PI/PIR ... –5

Environmental

operating temperature range	–25 ... +50˚C
storage temperature range	–25 ... +65˚C
relative humidity	≤ 75% annual average, non–condensing

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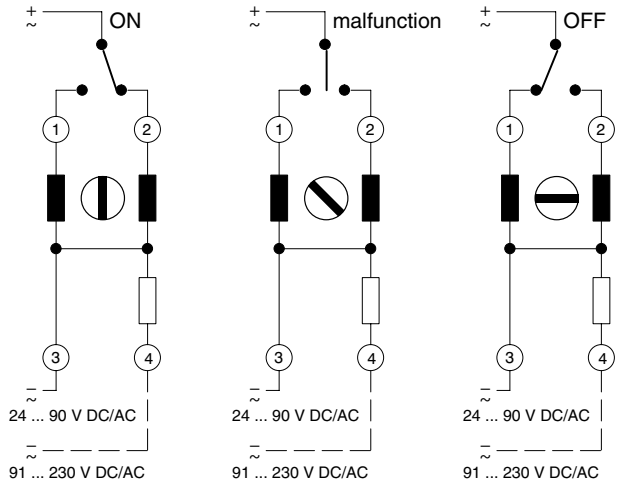
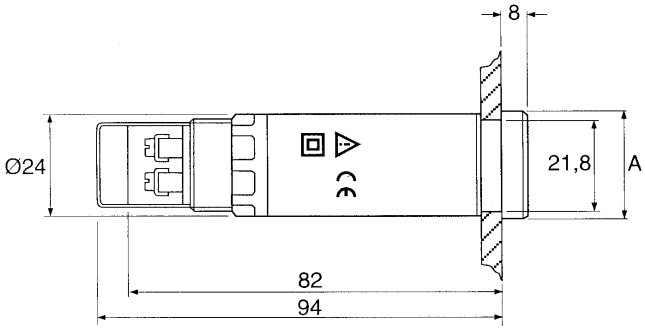
Connections

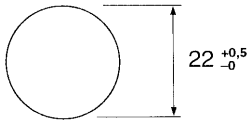


Dimensions



type	A
PI 24, PIR 24	□ 24
PI 25, PIR 25	□ 25
PI 29, PIR 29	Ø 29
PI 36, PIR 36	□ 36
PI 39, PIR 39	Ø 39

panel cut-out



(dimensions in mm)

Ordering Information

type	switch position indicators for use on DC voltage 24 ... 230 V
PI 24 ...	square 24 mm x 24 mm (suitable for mosaic grid panels)
PI 25 ...	square 25 mm x 25 mm
PI 29 ...	round Ø 29 mm
PI 36 ...	square 36 mm x 36 mm
PI 39 ...	round Ø 39 mm
–1	bar index, light background
–2 [1])	bar index, dark background
–5 [1])	break contact index, light background
type	switch position indicators for use on AC voltage 24 ... 230 V
PIR 24 ...	square 24 mm x 24 mm (suitable for mosaic grid panels)
PIR 25 ...	square 25 mm x 25 mm
PIR 29 ...	round Ø 29 mm
PIR 36 ...	square 36 mm x 36 mm
PIR 39 ...	round Ø 39 mm
–1	bar index, light background
–2 [1])	bar index, dark background
–5 [1])	break contact index, light background
option	
sleeve 644.121 702	for fitting in mosaic grids, 24–36 mm.

[1]) PI/PIR 24/25/36 only

ordering example **PIR 25 – 2**

switch position indicator 25 mm x 25 mm
with bar index symbol on dark background,
operating voltage 24 ... 230 V AC

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