

Universal Auxilliary Device ZSN

The universal **ZSN 1/dc - 1.60** auxilliary device for proximity switches is used for providing electrical isolation and for increasing the switching power. It can be used universally as a

- **three-pole switch** with either NO or NC behaviour and either plus- or minus-switching,
- **two-pole switch** with either NO or NC behaviour,
- switch conforming to **NAMUR** specifications and operating conditions according to DIN 19 234 or EN 50014/020.

The switching function of the relay outputs is reversible by inserting a jumper.

NAMUR switches are connected to input terminals E2 - M. In order to improve reliability, this input is provided with an extra **line break monitor**. Whenever a break is detected, the output relay K drops out.

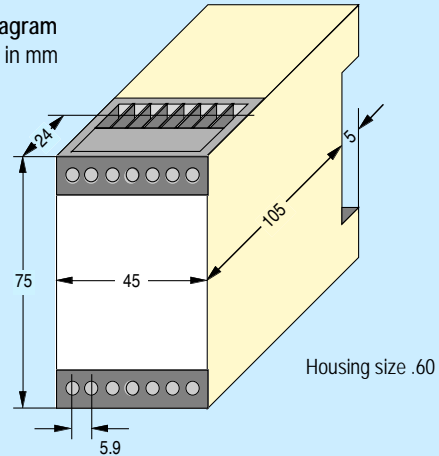
Technical data

Device conception	conform with VDE 0435
Input E1	for three and two-pole switches
- Input resistance	approx. 4.7 kΩ
- Input frequency	max. 1 Hz
- Minimum damping time of PS	25 ms
- Voltage level without switch	+ 12 V DC, relay dropped out for NAMUR switch
Input E2	approx. 1 kΩ
- Input resistance	approx. 1 kΩ
- Input frequency	max. 1 Hz
- Minimum damping time of PS	25 ms
- Voltage level without switch	+ 8.2 V DC, relay dropped out
- Line break detection	$I \leq 0.2 \text{ mA}$
Output	
- Relay output	1 reversal switch
- Switching voltage	24 ... 250 V AC or DC
- Switching current	0.05 ... 6 A
- Switching power with AC	max. 1.250 VA
- Switching power with DC	max. 50 W
- Switching frequency	max. 5.000 / h
- Mechanical lifespan	30.000.000 switching cycles
AC voltage supply	230/115 or 42 or 24 V AC,
- Tolerance	± 10 %
- Frequency	50 ... 60 Hz or
DC voltage supply	24 V DC
- Tolerance	± 15 %
- Residual ripple	≤ 10 %
Power consumption	approx. 3 VA
Permitted position for operation	any
Connection	min. 0.5 mm Ø solid or stranded
	max. 2 x 2.5 mm Ø solid or
	2 x 1.5 mm Ø stranded
Protection rating acc. to DIN EN 60 529	IP 40, clamps IP 20
Shock resistance	15 / 11 g / ms
with half sine wave acc. to IEC 68	
Permitted ambient temperature	
- for operation	0 ... + 55 °C
- for storage	- 40 ... + 85 °C
Mounting	snap mounting on standard rail
Housing size	conform with DIN 46 277 / EN 50 022
	.60, see dimension diagram
Weight	approx. 300 g

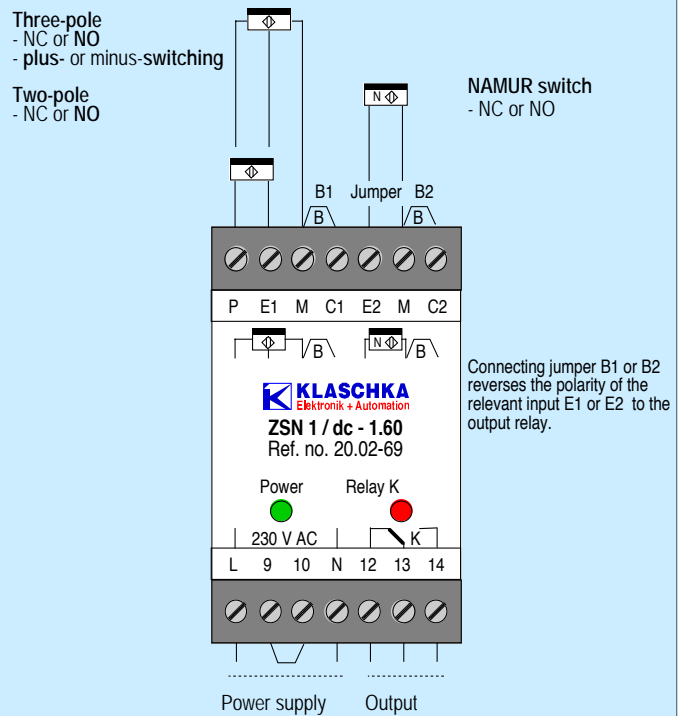
Ordering data

ZSN 1 / dc - 1.60 - (Vs) with indication of the voltage supply.	Ref. no. 20.02-69
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Dimension diagram
all dimensions in mm



Connection diagram



Proximity switch PS	type	p = plus- m = minus- switching	at input	without jumper when PS is damped, relay K is	with jumper when PS is damped, relay K is
three-pole	NO	p	P, E1, M	pulled-in	dropped out
three-pole	NO	m	P, E1, M	pulled-in	dropped out
three-pole	NC	p	P, E1, M	dropped out	pulled-in
three-pole	NC	m	P, E1, M	dropped out	pulled-in
two-pole	NO	p	P, E1	pulled-in	dropped out
two-pole	NC	p	P, E1	dropped out	pulled-in
NAMUR	NC	-	E2, M	pulled-in	dropped out
NAMUR	NO	-	E2, M	dropped out	pulled-in