

In indicating the switching function, we always follows the „working current principle“, i.e.

- control vane out of the slot sensor - relay energised
- control vane inside the slot sensor - relay de-energised

A technically perfect function will, of course, require an optimum adjustment of the contact. Kindly refer to our recommendations on catalogue page K 14-10.040.

Application

Due to their proximity type of switching, their switching accuracy and their high service life, inductive contacts may be used for almost all industrial applications, and should be given special preference for oil filled measuring instruments and in areas under a risk of an occasional explosive atmosphere.

If suitable isolating amplifiers, e.g. WE 77/Ex.. are used (re. catalogue group K 12), the operating material complies with the „I“ type of protection, i.e. intrinsically safe which is classified under EEx ib II C T6 and permitted in areas which are under a risk of explosion (zones 1 and 2). For general information on protection against explosion, re.catalogue pages K 14-30.010 to K 14-30.013).

PTB certificates

PTB no. Ex-79/2043x	for isolating amplifiers type WE 77/Ex
PTB no. Ex-95.D.2195x	for slot sensors types SJ (PTB No. Ex-83/2022x - valid up to 2003 only)
PTB no. Ex-95.D.2195x	for slot sensors types SJ 2 S1N
PTB no. Ex-86/2177x	for slot sensors types Si 2-K08-Y1

For installation in normal industrial equipment which does not require any ex-protection, we recommend our low priced multifunctional relay of the „MSR-I“ type series (re. catalogue group K-11).

Available models

Inductive contacts are supplied in standard series together with the following slot sensors:

DN 63 - 100 (2 mm slot width)

SJ 2 N (green)	-standard	(re. catalogue page K 03-00.030)
Si 2-K08-Y1 (yellow)	alternative to the SJ2N	(re. catalogue page K 03-00.035)
SJ 2 SN (green)	-safety sensors	(re. catalogue page K 03-00.040)
SJ 2 S1N (green)	-safety sensors	(re. catalogue page K 03-00.040)

reversed direction of action

DN 160 (3,5 mm slot width)

SJ 3,5 N (green)	-standard	(re. catalogue page K 03-00.030)
SJ 3,5 SN (green)	-safety sensors	(re. catalogue page K 03-00.040)
SJ 3,5 S1N (green)	-safety sensors	(re. catalogue page K 03-00.040)

reversed direction of action

The DN 160 inductive contacts may likewise be equipped with small slot sensors type SJ 2, if these are required or wanted for reasons of size (modular height). Safety sensors may be used together with safety amplifiers (WE 77 Ex-SH-03) or (KHA6-SH-Ex1) to set up self monitoring control systems (re. catalogue group 12). Free shoulder screws to fasten the contacts will be supplied upon request (re. catalogue page K 13-40.020).

Technical data:

Nominal voltage:	8 V = ($R_1 = 1k\Omega$)
Operating voltage:	5 - 25 V
Current consumption:	≥ 3 mA (active face uncovered) ≤ 1 mA (active face covered)
Switching accuracy:	approx. 0.5 % of the full scale value
Ambient temperature:	-20° C to +70° C
Adjusting range:	280° max.
Regulations:	EN 60947-5-2

Quality and operation of the contacts are subject to supervision within the scope of our internal inspections.

Availability:

- DN 63 up to double
- DN 100 up to quadruple
- DN 160 up to quadruple

Types I-1, I-2, and I-12 of DN 100 and DN 160 may also be supplied with a centre vane which has almost no effect on the measuring instrument.