# Type matrix of capacitive sensors

| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. | 17. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **K** | **C** | **N** | **-** | **T** | **1** | **2** | **N** | **S** | **/** | **0** | **0** | **4** | **-** | **K** | **L** | **P** |
| Product group | | | | Housing design | | | Output | | | Sensing distance | | | | Options | | |

**1** K = Non-contact proximity switch

**2** C = Capacitive

**3** B = Flush installation
N = Non-flush installation

**4** Dash

**5** M = Metric threaded barrel (metal housings)
T = Metric threaded barrel (plastic housings)
D = Cylindrical housings (metal)
R = Cylindrical housings (plastic)
Q = Rectangular housings (metal)
E = Rectangular housings (plastic)
N = Standard attachment according to DIN 50025/50037)

**6/7** Two-digit number
12 = M 12 x 1 mm threaded barrel
18 = M 18 x 1 mm threaded barrel
30 = M 30 x 1.5 mm threaded barrel
32 = M 32 x 1.5 mm threaded barrel
20 = 20 mm diameter
22 = 22 mm diameter
34 = 34 mm diameter
44 = 40 x 40 x 120 mm
68 = 68 x 30 x 15 mm

**8** P = PNP
N = NPN
A = AC 2-wire
R = Relay
G = Push/pull
D = Dual output switching device

**9** S = Normally-open contact
Ö = Normally-closed contact
P = Programmable switch
A = Analogue
U = Complementary

**10** Slash

**11/12/13** Sensing distance

Examples: 1.5 = 1.5 mm
002 = 2 mm
040 = 40 mm

**14** Slash

**15** K = Short-circuit proof

**16** L = LED

**17...** Cable length
Examples: 2 = 2 m
6 = 6 m

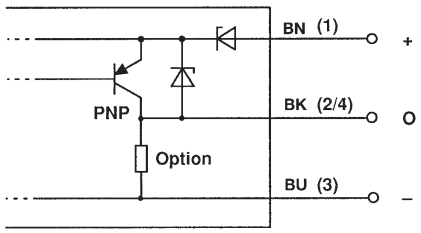
E = Extendible sensing distance
V = Short body design
P = Potentiometer
PU = Polyurethane cable
S = Detachable connection (terminal compartment)
SD = Plug connectors, according to DIN with fitted cable socket
SM = Mini socket snap fit
S8 = M 8 quick disconnect screw type
SM8 = M 8 quick disconnect universal snap and screw
S12 = M 12 quick disconnect screw type
N = Stainless steel housing
F = High switching frequency
T = High temperature resistance

# Wiring diagrams of DC output types

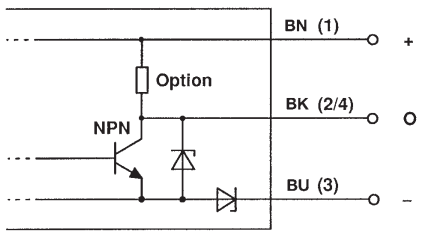
Key to colour coding of cable

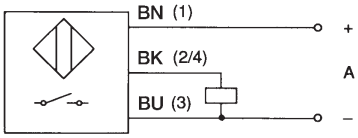
BN = brown
BU = blue
BK = black

**PNP output**
(Principle wiring diagram)



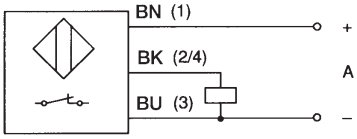

**NPN output**
(Principle wiring diagram)



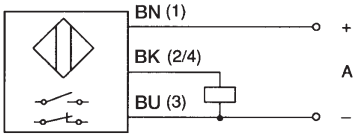

### 1) PNP Normally open

During operation, output of PNP transistor is switched to positive.



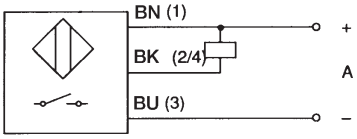

### 2) PNP Normally closed

During operation, output of PNP transisitor is separated from positive pole.



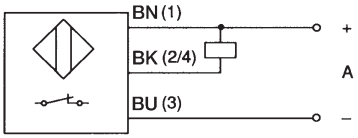

### 3) PNP Switch selectable

The 1) PNP normally-open and 2) PNP normally-closed functions can be selected via an integrated switch.



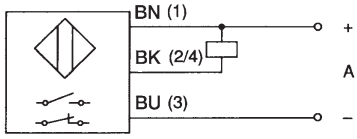

### 4) NPN Normally open

During operation, output of NPN transistor is switched to negative.



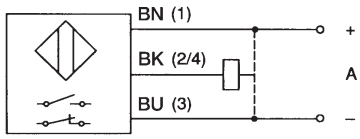

### 5) NPN Normally closed

During operation, output of NPN transistor is separated from negative pole.



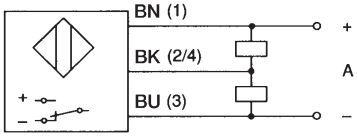

### 6) NPN Switch selectable

The 4) NPN normally-open and 5) NPN normally-closed functions can be selected via an integrated switch.



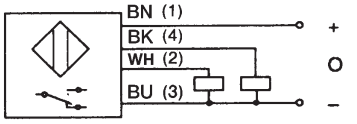

### 7) PNP/NPN Switch selectable

Two integrated switches selection between PNP/NPN switching and normally-open/closed functions.




### 8) Push/Pull-programmable

During operation, the output changes from negative to positive pole, invertable by integrated switch.



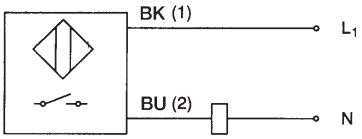

### 9) Complementary output PNP 4-wire

During operation, the positive operating voltage is applied alternatively to both outputs.

# Wiring diagrams of AC output types

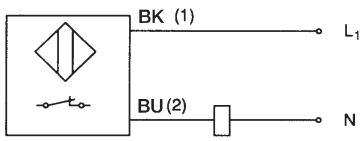
Key to colour coding of cable

BN = brown
BU = blue
BK = black




### 10) Normally open AC 2-wire

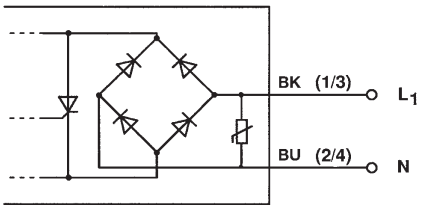
During operation, athyristor which is positioned above a rectifier bridge separates the load from the operating voltage.

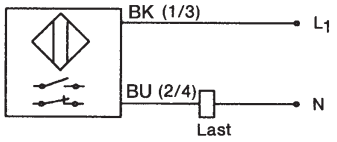



### 11) Normally closed AC 2-wire

During operation, a thyristor which is positioned above a recifier bridge separates the load from the operating voltage.

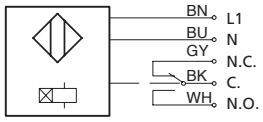
**AC 2-wire**
(Principle wiring diagram)




### 12) AC Switch selectable

The 10 normally-open, and 11 normally closed functions can be selected via an integrated witch.



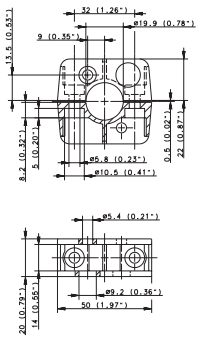

### 13) AC-Relay

with adjustable operate lag.

# Mounting brackets

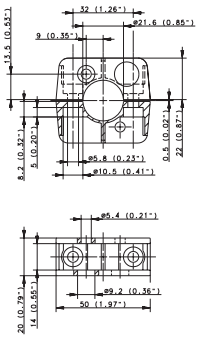
**Polyamid**

All dimensions in mm (inch)



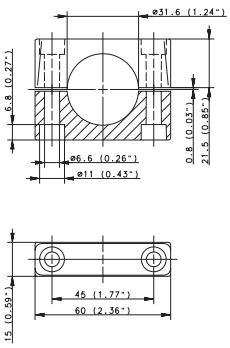
### 14) TYPE BKS D20 PA

**Part number:** **596.0223.085**
incl. 2 screws M 5 x 35 mm, DIN 912



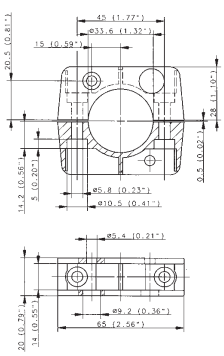
### 15) TYPE BKS D22 PA

**Part number:** **596.0223.040**
incl. 2 screws M 5 x 35 mm, DIN 912



### 16) TYPE BKS D32 PA

**Part number:** **596.0223.002**
incl. 2 screws M 6 x 45 mm, DIN 912



### 17) TYPE BKS D34 PA

**Part number:** **596.0223.041**
incl. 2 screws M 5 x 50 mm, DIN 912