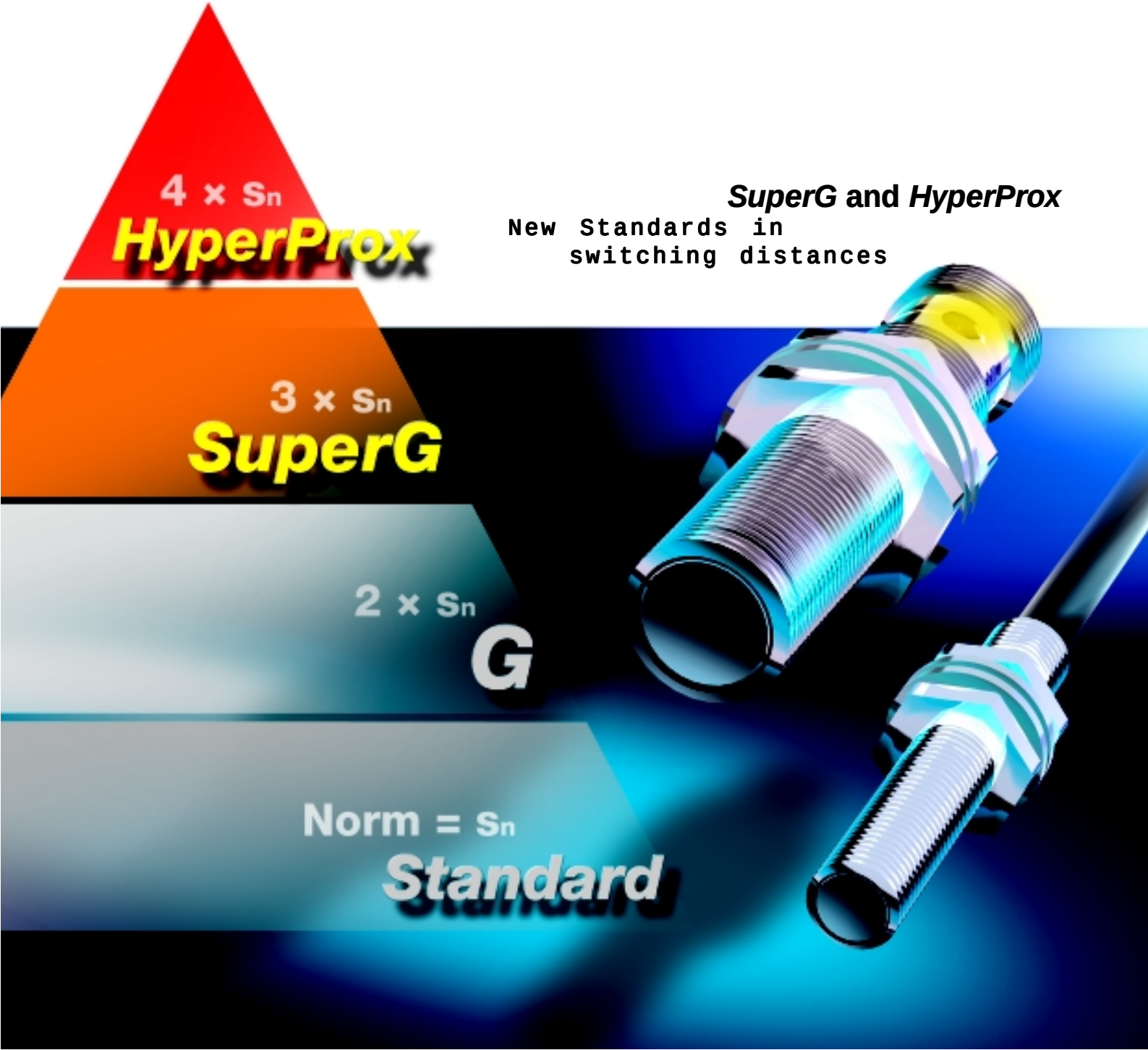
BALLUFF

# *SuperG* and *HyperProx*

## New Standards in switching distances



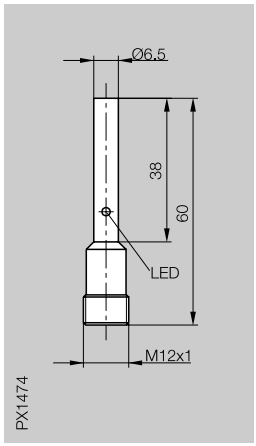
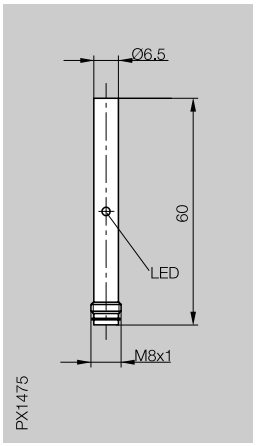
***SuperG* and *HyperProx***

are our problem solvers to your need for greater mechanical installation tolerances and increased distance to targets.

The main *HyperProx* sensors with 4× the switching distance are right here.

**Advantages**

- Extended switching distances
- Metal housings
- LED for status display
- Extremely resistant to aggressive media

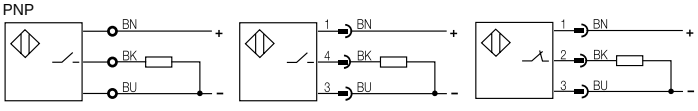
| | | | |
|---|---|---|---|
| Housing size | | ∅ **6.5 mm** | ∅ **6.5 mm** |
| Mounting | | flush | flush |
| Rated operating distance $s_n$ | | **3 mm** | **3 mm** |
| Assured operating distance $s_a$ | | 0...2.4 mm | 0...2.4 mm |
| | |  |  |
| PNP | Normally-open | BES G06MH1-PSC30B-S04G | BES G06MI-PSC30B-S49G |
| | Normally-closed | | BES G06MI-POC30B-S49G |
| NPN | Normally-open | BES G06MH1-NSC30B-S04G | BES G06MI-NSC30B-S49G |
| Rated operational voltage $U_e$ | | 24 V DC | 24 V DC |
| Supply voltage $U_B$ | | 10...30 V DC | 10...30 V DC |
| Voltage drop $U_d$ at $I_e$ | | ≤ 2 V | ≤ 2 V |
| Rated operational current $I_e$ | | 200 mA | 200 mA |
| No-load supply current $I_0$ max. | | ≤ 12 mA | ≤ 12 mA |
| Off-state current $I_r$ | | ≤ 100 µA | ≤ 100 µA |
| Protected against polarity reversal | | yes | yes |
| Short circuit protected | | yes | yes |
| Load capacity | | ≤ 1 µF | ≤ 1 µF |
| Repeat accuracy R | | ≤ 5 % | ≤ 5 % |
| Ambient temperature range $T_a$ | | –25...+70 °C | –25...+70 °C |
| Frequency of operating cycles f | | 1000 Hz | 1000 Hz |
| Utilization categories | | DC 13 | DC 13 |
| Function indication | | yes | yes |
| Degree of protection per IEC 529 | | IP 67 | IP 67 |
| Housing material | | CuZn chrome plated | CuZn chrome plated |
| Material of sensing face | | PBT | PBT |
| Connection | | connector | connector |
| No. of wires × conductor cross section | | | |
| Recommended connector | | BKS-B 19/BKS-B 20 | BKS-B 48/BKS-B 49 |

For sensors with **cable,** please indicate length in ordering code!
BV03, BV05 = PVC, 3 m or 5 m length
BP03, BP05 = PUR, 3 m or 5 m length

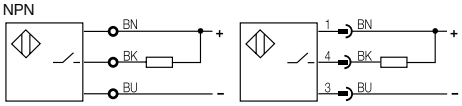
For sensors with **cable and connector,** please indicate length in ordering code!
00,2, 00,5 = PUR, 0.2 m or 0.5 m length

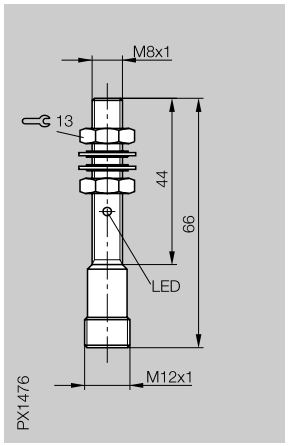
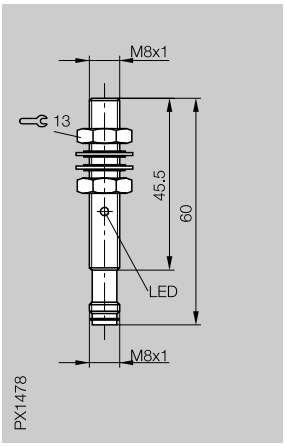
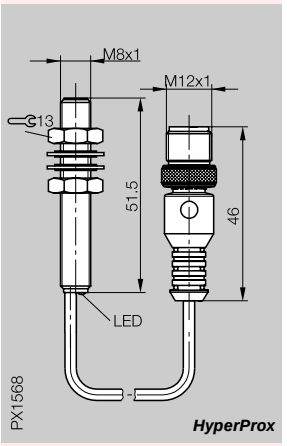
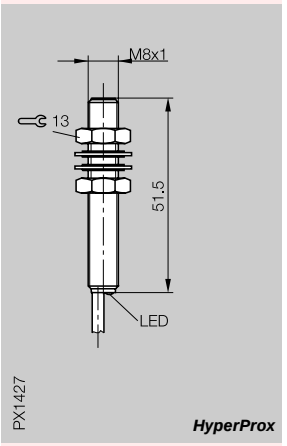
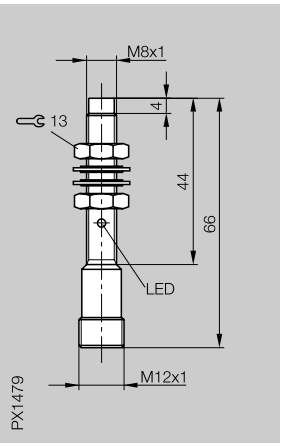
**Wiring Diagrams**

PNP




NPN



| | | | | | |
|---|---|---|---|---|---|
| | **M8×1** | **M8×1** | **M8×1** | **M8×1** | **M8×1** |
| | flush | flush | flush | flush | non-flush |
| | **3 mm** | **3 mm** | **4 mm** | **4 mm** | **6 mm** |
| | 0...2.4 mm | 0...2.4 mm | 0...2.9 mm | 0...2.9 mm | 0...4.9 mm |
| |  |  |  |  |  |
| | BES M08MH1-PSC30B-S04G | BES M08MH1-PSC30B-S49G | BES M08MI-PSC40B-BP____-GS04 | BES M08MI-PSC40B- | BES M08MG1-PSC60F-S04G |
| | BES M08MH1-NSC30B-S04G | BES M08MH1-NSC30B-S49G | BES M08MI-NSC40B-BP____-GS04 | BES M08MI-NSC40B- | BES M08MG1-NSC60F-S04G |
| | 24 V DC | 24 V DC | 24 V DC | 24 V DC | 24 V DC |
| | 10...30 V DC | 10...30 V DC | 10...30 V DC | 10...30 V DC | 10...30 V DC |
| | ≤ 2 V | ≤ 2 V | ≤ 2.5 V | ≤ 2.5 V | ≤ 2 V |
| | 200 mA | 200 mA | 200 mA | 200 mA | 200 mA |
| | ≤ 12 mA | ≤ 12 mA | ≤ 10 mA | ≤ 10 mA | ≤ 12 mA |
| | ≤ 100 µA | ≤ 100 µA | ≤ 10 µA | ≤ 10 µA | ≤ 100 µA |
| | yes | yes | yes | yes | yes |
| | yes | yes | yes | yes | yes |
| | ≤ 1 µF | ≤ 1 µF | ≤ 1 µF | ≤ 1 µF | ≤ 1 µF |
| | ≤ 5 % | ≤ 5 % | ≤ 5 % | ≤ 5 % | ≤ 5 % |
| | –25...+70 °C | –25...+70 °C | 0...+60 °C | 0...+60 °C | –25...+70 °C |
| | 1000 Hz | 1000 Hz | 600 Hz | 600 Hz | 500 Hz |
| | DC 13 | DC 13 | DC 13 | DC 13 | DC 13 |
| | yes | yes | yes | yes | yes |
| | IP 67 | IP 67 | IP 67 | IP 67 | IP 67 |
| | CuZn chrome plated | CuZn chrome plated | CuZn nickel plated | CuZn nickel plated | CuZn chrome plated |
| | PBT | PBT | PBT | PBT | PBT |
| | connector | connector | cable with connector | cable | connector |
| | | | | 3 × 0.14 mm² | |
| | BKS-B 19/BKS-B 20 | BKS-B 48/BKS-B 49 | BKS-B 19 | | BKS-B 19/BKS-B 20 |

