Inductive proximity switches

## IF5492

IFK3004-ANOG/US
Metal thread M12 x 1 Plug and socket

Sensing range 4 mm [ nf$]$ non-flush mountable


| DC NPN |
| :---: |
| normally open |
| $10 \ldots 30 \mathrm{DC}$ |
| 200 |
| no |
| no |
| no |
| $<1$ |
| $<15(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors
mild steel $=1$ / stainless steel approx. 0.7 / brass approx. 0.4 / Al approx. 0.3 /
$\qquad$
Operating temperature [ ${ }^{\circ} \mathrm{C}$ ]

| Protection |
| :--- |
| EMC |


| Housing material |
| :--- |


| $-25 \ldots 80$ |
| :---: |
| IP 67 |
| EN 60947-5-2; $\quad$ EN 55011 class B |

brass Optalloy-plated active face: PC (polycarbonate)

M12 connector

## Wiring



## Accessories (included)

ifm electronic gmbh • Teichstraße $4 \cdot$ D-45127 Essen
|elentranic
Inductive proximity switches

## IF5544

IFB3004-ANKG/US Metal thread M12 x 1 Plug and socket

Sensing range 4 mm [nf] non-flush mountable


| Electrical design |
| :--- |
| Output |


| DC NPN |
| :---: |
| normally open |
| $10 \ldots 36$ DC |
| 250 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<15(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

$$
\text { mild steel = } 1 \text { / stainless steel approx. } 0.7 \text { / brass approx. } 0.4 \text { / Al approx. } 0.3 \text { / }
$$ Cu approx. 0.2

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |

Housing material

Function display
Switching status LED
Connection
$\left.\begin{array}{c|}\hline 4 \pm 10 \% \\ 0 \ldots . .3 .25 \\ \hline-10 \ldots 10 \\ \hline 1 \ldots .15 \\ \hline 1400 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.4 / \text { Al approx. } 0.3 / \\ \text { Cu approx. } 0.2\end{array}\right]$

Wiring

Accessories (included)
ifm electronic gmbh • Teichstraße 4 • D-45127 Essen

Inductive proximity switches

## IF5622

IFA3004-APKG/US Metal thread M12 x 1 Plug and socket

Sensing range 4 mm [nf] non-flush mountable


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |


| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |

Housing material

Function display
Switching status LED
Connection
Wiring

$\qquad$

| DC PNP |
| :---: |
| normally closed |
| $10 \ldots 36 \mathrm{DC}$ |
| 250 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<15(24 \mathrm{~V})$ |


| $4 \pm 10 \%$ |
| :---: |
| $0 \ldots 3.25$ |
| $-10 \ldots 10$ |
| $1 \ldots .15$ |
| 400 |

mild steel $=1$ / stainless steel approx. 0.7 / brass approx. 0.4 / Al approx. 0.3 / Cu approx. 0.2
$\qquad$

| $-25 \ldots 80$ |
| :---: |
| IP 67 回 |
| EN 60947-5-2; EN 55011 class B |

brass Optalloy-plated PC (polycarbonate)

| yellow |
| :---: |
| M12 connector |

M12 connector

Accessories (included)
ifm electronic gmbh • Teichstraße 4 • D-45127 Essen


2 lock nuts

- We reserve the right to make technical alterations without prior notice. - GB - IF5622-/ - 06.03.2003

Inductive proximity switches
IF5670

IFK3002UBPKG/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune
Sensing range 2 mm [f] flush mountable


| Electrical design |
| :--- |
| Output |


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |


| DC PNP |
| :---: |
| normally open |
| $10 \ldots 36 \mathrm{DC}$ |
| 250 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<15(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors
mild steel $=1$ / stainless steel approx. 0.7 / brass approx. 0.4 / Al approx. 0.3 / Cu approx. 0.2

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |

Housing material

Function display
Switching status LED
Connection
Wiring
$-25 \ldots 70$

| IP 67 回 |
| :--- |

EN 60947-5-2; EN 55011 class B
brass Optalloy-plated
active face: PTFE

| yellow |
| :---: | :---: |
| M12 connector |

##  <br> C

(24 V)

| $2 \pm 10 \%$ |
| :---: |
| $0 \ldots 1.6$ |
| $-10 \ldots 10$ |
| $1 \ldots 15$ |
| 1000 |



Accessories (included)
ifm electronic gmbh • Teichstraße 4 • D-45127 Essen

Inductive proximity switches

## IF5675

IFK3004UBPKG/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune
Sensing range 4 mm [nf] non-flush mountable


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |



| DC PNP |
| :---: |
| normally open |
| $10 \ldots 36 \mathrm{DC}$ |
| 250 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<15(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |

Housing material

| Function display |
| :--- |
| Switching status LED |
| Connection |


| $4 \pm 10 \%$ |
| :---: |
| $0 \ldots 3.25$ |
| $-10 \ldots 10$ |
| $1 \ldots .15$ |
| 1000 |

mild steel $=1$ / stainless steel approx. 0.7 / brass approx. 0.4 / Al approx. 0.3 / Cu approx. 0.2

| $-25 \ldots 70$ |
| :---: |
| IP 67 回 |
| EN 60947-5-2; $\quad$ EN 55011 class B |

brass Optalloy-plated active face: PTFE

| yellow |
| :---: |
| M12 connector |

Wiring


Accessories (included)
ifm electronic gmbh • Teichstraße 4 • D-45127 Essen

Inductive proximity switches

## IF5750

IFK3002UBPKG/SC/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune
Sensing range 2 mm [f] flush mountable


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |
| Correction factors |


| $2 \pm 10 \%$ |
| :---: |
| $0 \ldots 1.6$ |
| $-10 \ldots 10$ |
| $1 \ldots 15$ |
| 1000 |
| mild steel $=1 /$ stainless steel approx. 0.7 / brass approx. $0.5 / \mathrm{Al}$ approx. 0.4 |


| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |
| Housing material |

Housing material

Function display

| $-25 \ldots . .70$ |
| :---: |
| IP 67 回 |
| EN 60947-5-2; EN 55011 class B |
| housing: brass PTFE-coated |
| active face: PTFE |
| yellow |
| M12 connector |

Wiring


Inductive proximity switches

## IF5751

IFK3004UBPKG/SC/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune
Sensing range 4 mm [nf] non-flush mountable


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |


| $4 \pm 10 \%$ |
| :---: |
| $0 \ldots 3.25$ |
| $-10 \ldots 10$ |
| $1 \ldots 15$ |
| 1000 |

Correction factors
mild steel $=1$ / stainless steel approx. 0.7 / brass approx. 0.4 / Al approx. $0.3 /$
$\qquad$

| $-25 \ldots 70$ |
| :---: |
| IP 67 回 |
| EN 60947-5-2; EN 55011 class B |
| brass PTFE-coated |
| active face: PTFE | active face: PTFE


| Function display |
| :--- |
| Switching status LED |
| Connection |


| yellow |
| :---: |
| M12 connector |

Wiring


Accessories (included)
ifm electronic gmbh $\cdot$ Teichstraße $4 \cdot$ D-45127 Essen

Inductive proximity switches

## IF5775

IFK3004BBPKG/M/US-100-DPS
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 4 mm [ $f]$ flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |

Housing material

Function display
Switching status LED
Connection

| $4 \pm 10 \%$ |
| :---: |
| $0 \ldots 3.25$ |
| $-10 \ldots 10$ |
| $1 \ldots 20$ |
| 700 |

mild steel $=1$ / stainless steel approx. 0.7 / brass approx. 0.5 / Al approx. 0.5 / Cu approx. 0.4

| $-25 \ldots 70$ |
| :---: |
| IP 68 *) 回 |
| EN 60947-5-2; EN 55011 class B |

housing: brass white bronze coated active face: LCP uncoloured

| yellow |
| :---: |
| M12 connector, gold-plated contacts |

Wiring


Accessories (included)
ifm electronic gmbh • Teichstraße $4 \cdot$ D-45127

## Remarks

 Essen
|elentranic
Inductive proximity switches

## IF5796

IFB3004-BPKG/V4A/US
Metal thread M12 x 1 Plug and socket

Sensing range 4 mm [nf] non-flush mountable


| DC PNP |
| :---: |
| normally open |
| $10 \ldots 36 \mathrm{DC}$ |
| $150\left(\ldots .50^{\circ} \mathrm{C}\right) / 125\left(\ldots 80^{\circ} \mathrm{C}\right)$ |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<15(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors
mild steel $=1 /$ stainless steel approx. $0.7 / \mathrm{Cu}$ approx. $0.4 / \mathrm{Al}$ approx. $0.3 / \mathrm{Cu}$ approx. 0.2

| $-25 \ldots 80$ |
| :---: |
| IP 67 |
| EN 60947-5-2; EN 55011 class B |
| stainless steel (320S31) <br> active face: PBT |
| yellow |
| M12 connector, gold-plated contacts |

Wiring

| $\pm \pm 10 \%$ |
| :---: |
| $0 \ldots 3.25$ |
| $-10 \ldots 10$ |
| $3 \ldots 15$ |
| 1400 |

$\qquad$
stainless steel (320S31)
active face: PBT
Function display
Switching status LED
Connection


Accessories (included)
ifm electronic gmbh • Teichstraße 4 • D-45127 Essen
|elentranic
Inductive proximity switches

## IF5813

IFK3004-BPKG/V4A/US
Metal thread M12 x 1 Plug and socket

Sensing range 4 mm [nf] non-flush mountable

| DC PNP |
| :---: |
| normally open |
| $10 \ldots 36 \mathrm{DC}$ |
| 250 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<15(24 \mathrm{~V})$ |


| $4 \pm 10 \%$ |
| :---: |
| $0 \ldots 3.25$ |
| $-10 \ldots 10$ |
| $3 \ldots 15$ |
| 1400 |

mild steel $=1$ / stainless steel approx. 0.7 / brass approx. $0.5 / \mathrm{Al}$ approx. 0.4 / Cu approx. 0.3

| $-25 \ldots 80$ |
| :---: |
| IP 67 回 |
| EN 60947-5-2; EN 55011 class B |

class B stainless steel (320S31) active face: CO-PC
Function display
Switching status LED
Connection
Wiring


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |
| EMC |

Housing material
$\qquad$
$\frac{\text { yellow }}{\text { M12 connector, gold-plated contacts }}$


Accessories (included)
ifm electronic gmbh • Teichstraße 4• D-45127 Essen

Inductive proximity switches

## IFC204

IFB3004BBPKG/M/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 4mm [f] flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |


 EMC
$\left.\begin{array}{c|}\hline 4 \pm 10 \% \\ \hline 0 \ldots 3.25 \\ \hline-10 \ldots 10 \\ \hline 3 \ldots 15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \mathrm{Al} \text { approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011: class B
Housing material

Function display
Switching status LED
Connection

| IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ <br> EN 55011: | class B |
| :---: | :---: |
| brass special coated <br> active face: LCP |  |
| yellow $\left(4 \times 90^{\circ}\right)$ |  |

Wiring

$\qquad$ *) "Coolant"


Inductive proximity switches

## IFC207

IFB3004BAPKG/M/US Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 4 mm [f] flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance $[\mathrm{mm}]$ |
| Switch-point drift $[\% / \mathrm{Sr}]$ |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |
| Correction factors |
| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| Protection |




EMC


| IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ <br> EN 55011: | class B |  |
| :---: | :---: | :---: |
| brass special coated <br> active face: LCP |  |  |
| yellow $\left(4 \times 90^{\circ}\right)$ |  |  |
| M12 connector, gold-plated contacts |  |  |

Wiring


| Electrical design |
| :--- |
| Output |


| Operating voltage [V] |
| :--- |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |


Housing material

Function display
Switching status LED
Connection
$\left.\begin{array}{c|}\hline 4 \pm 10 \% \\ \hline 0 \ldots . .3 .25 \\ \hline-10 \ldots 10 \\ \hline 3 . .15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \text { Al approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots . \mathrm{MHz}$ EN 55011:
brass special coated active face:LCP

M12 connector, gold-plated contacts


[^0]Inductive proximity switches

 Essen

Inductive proximity switches

## IFC245

IFK3003BBPKG/K1/M/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune gold-plated contacts Correction factor $=1$

Sensing range $3 \mathrm{~mm}[\mathrm{f}]$ flush mountable
$\qquad$

| Real sensing range [mm] |
| :---: |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |

Housing material

Function display

| Switching status LED |
| :--- |
| Connection |

Wiring


Remarks

Accessories (included)
ifm electronic gmbh $\cdot$ Teichstraße 4 • D-45127 Essen



| $3 \pm 10 \%$ |
| :---: |
| $0 \ldots 2.4$ |
| $-10 \ldots 10$ |
| $>2000$ |

mild steel = 1 / stainless steel approx. 1 / brass approx. 1 / Al approx. 1 / Cu approx. 1
$\frac{-25 \ldots 70}{\left.\mathrm{IP} 68{ }^{* *}\right) \text { 回 }}$

| housing: V4A (316S12) |
| :---: |
| active face: LCP |

yellow ( $4 \times 90^{\circ}$ )
M12 connector, gold-plated contacts

*) operating voltage "supply class II" to cULus.
**) "Coolant"
2 lock nuts

- We reserve the right to make technical alterations without prior notice. - GB - IFC245 -09.09 .2004

Inductive proximity switches

## IFC246

IFK3008-BPKG/K1/M/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune gold-plated contacts Correction factor $=1$

Sensing range $8 \mathrm{~mm}[\mathrm{nf}]$ non-flush mountable



Real sensing range [mm


| housing: V4A (316S12) |
| :---: |
| active face: LCP |


| yellow $\left(4 \times 90^{\circ}\right)$ |
| :---: |
| M12 connector, gold-plated contacts |


*) operating voltage "supply class II" to cULus. **) "Coolant"

- We reserve the right to make technical alterations without prior notice. - GB - IFC246 - 09.09.2004

Inductive proximity switches

## IFS204

IFB3004BBPKG/M/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 4 mm [f] flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |




EMC
$\left.\begin{array}{cc|}\hline 4 \pm 10 \% \\ \hline 0 \ldots 3.25 \\ \hline-10 \ldots 10 \\ \hline 3 \ldots 15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \text { Al approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV IEC 1000-4-6 / EN 61000-4-6: $\quad 10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011: class B
Housing material

Function display
Switching status LED
Connection

| IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ <br> EN 55011: | class B |  |
| :---: | :---: | :---: |
| brass special coated |  |  |
| active face: PBT |  |  |

Wiring



Inductive proximity switches

## IFS205

IFB3007-BPKG/M/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 7 mm [nf] non-flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |




EMC
$\left.\begin{array}{cc|}\hline 7 \pm 10 \% \\ \hline 0 \ldots 5.7 \\ \hline-10 \ldots 10 \\ \hline 3 \ldots 15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \text { Al approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV IEC 1000-4-6 / EN 61000-4-6: $\quad 10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011: class B
Housing material

Function display
Switching status LED
Connection

| IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ <br> EN 55011: | class B |  |
| :---: | :---: | :---: |
| brass special coated |  |  |
| active face: PBT |  |  |

Wiring



Inductive proximity switches

## IFS206

IFB3004BAPKG/M/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 4 mm [f] flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |




EMC
$\left.\begin{array}{cc|}\hline 4 \pm 10 \% \\ \hline 0 \ldots 3.25 \\ \hline-10 \ldots 10 \\ \hline 3 \ldots 15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \text { Al approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV
IEC 1000-4-6 / EN 61000-4-6: $\quad 10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011: class B
Housing material

Function display
Switching status LED
Connection
$\left.\begin{array}{cc}\begin{array}{c}\text { IEC 1000-4-6 / EN 61000-4-6: } 10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz} \\ \text { EN 55011: }\end{array} & \begin{array}{c}\text { class B }\end{array} \\ \hline \text { brass special coated } \\ \text { active face: PBT }\end{array}\right]$

Wiring



2 lock nuts

- We reserve the right to make technical alterations without prior notice. - GB - IFS206 - 06.03.2003

Inductive proximity switches
IFS207

IFB3007-APKG/M/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 7 mm [nf] non-flush mountable


| $\substack{\text { (UL) } \\ \text { (isita }}$ |
| :---: | :---: |
| DC PNP |
| normally closed |
| $10 \ldots 36 \mathrm{DC}$ |
| 100 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<10(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |




EMC
$\left.\begin{array}{cc|}\hline 7 \pm 10 \% \\ \hline 0 \ldots 5.7 \\ \hline-10 \ldots 10 \\ \hline 3 \ldots 15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \text { Al approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots . .80 \mathrm{MHz}$ EN 55011: class B
Housing material

Function display
Switching status LED
Connection
Wiring

| IEC 1000-4-6 / EN 61000-4-6: <br> EN 55011: | $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ |
| :---: | :---: |
| brass special coated <br> active face: PBT | class B |
| yellow $\left(4 \times 90^{\circ}\right)$ |  |
|  | M12 connector |




2 lock nuts

- We reserve the right to make technical alterations without prior notice. -GB - IFS207 -06.03 .2003

Inductive proximity switches

| IFS208 |  |
| :---: | :---: |
| IFKC004BASKG／M／US |  |
| Metal thread M12 $\times 1$ | 70 |
| Plug and socket | $\xrightarrow{+}$ |
|  |  |
| Operation as 3 －wire or 2 －wire possible | 为如－ |
| Increased sensing range |  |
| Optical setting aid（2 LED） gold－plated contacts | ${ }_{4 \times 90}$ |
| Sensing range $4 \mathrm{~mm}[\mathrm{f}]$ flush mountable |  |
|  | C $\in$（10） |
| Electrical design | 3－wire DC PNP；2－wire DC PNP／NPN |
| Output | normally open |
| Operating voltage［V］ | 10．．． 30 DC |
| Current rating［mA］ | 100 |
| Minimum load current［mA］ | 4 ＊） |
| Short－circuit protection | pulsed |
| Reverse polarity protection | yes |
| Overload protection | yes |
| Voltage drop［V］ | $<2.8$ |
| Leakage current［mA］ | ＜0．9＊） |
| Current consumption［mA］ | $<12$（24 V） |
| Real sensing range［mm］ | $4 \pm 10$ \％ |
| Operating distance［mm］ | $0 . .3 .25$ |
| Switch－point drift［\％／Sr］ | －10．．． 10 |
| Hysteresis［\％／Sr］ | 3．．． 15 |
| Switching frequency［ Hz$]$ | 500 |
| Correction factors | mild steel $=1 /$ stainless steel approx． $0.7 /$ brass approx． $0.5 /$ Al approx． $0.4 /$ Cu approx． 0.3 |
| Operating temperature［ ${ }^{\circ} \mathrm{C}$ ］ | －25．．． 70 |
| Protection | IP 67 回 |
| EMC | IEC 1000－4－2／EN 61000－4－2： $4 \mathrm{kV} / \mathrm{CD} / 8 \mathrm{kV} \mathrm{AD}$ |
|  | IEC 1000－4－3／EN 61000－4－3： $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ |
|  | IEC 1000－4－6／EN 61000－4－6：$\quad 10 \mathrm{~V} / 0.15 \ldots . .80 \mathrm{MHz}$ |
|  | EN 55011：class B |
| Housing material | brass special coated active face：PBT |
| Function display |  |
| Switching status LED Setting aid LED | yellow（ $4 \times 90^{\circ}$ ） |
|  | red |
| Connection | M12 connector |
| Wiring |  |

 Essen

Inductive proximity switches
IFS209

FKC007-ASKG/M/US
Metal thread M12 x 1 Plug and socket

Operation as 3-wire or 2-wire possible
Increased sensing range Optical setting aid (2 LED) gold-plated contacts


Sensing range 7mm [nf] non-flush mountable

|  |  |
| :---: | :---: |
| Electrical design | 3-wire DC PNP; 2-wire DC PNP/NPN |
| Output | normally open |
| Operating voltage [V] | 10... 30 DC |
| Current rating [mA] | 100 |
| Minimum load current [mA] | 4 *) |
| Short-circuit protection | pulsed |
| Reverse polarity protection | yes |
| Overload protection | yes |
| Voltage drop [V] | $<2.8$ |
| Leakage current [mA] | < 0.9 *) |
| Current consumption [mA] | $<12(24 \mathrm{~V})$ |
| Real sensing range [mm] | $7 \pm 10 \%$ |
| Operating distance [mm] | 0...5.7 |
| Switch-point drift [\% / Sr] | -10... 10 |
| Hysteresis [\% / Sr] | 3... 15 |
| Switching frequency [Hz] | 500 |
| Correction factors | $\begin{gathered} \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 \text { / brass approx. } 0.5 / \mathrm{Al} \text { approx. } 0.4 \text { / } \\ \text { Cu approx. } 0.3 \\ \hline \end{gathered}$ |
| Operating temperature [ ${ }^{\circ} \mathrm{C}$ ] | -25...70 |
| Protection | IP 67 回 |
| EMC | IEC 1000-4-2 / EN 61000-4-2: $4 \mathrm{kV} / \mathrm{CD} / 8 \mathrm{kV} \mathrm{AD}$  <br> IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$  <br> IEC 1000-4-4 / EN 61000-4-4: 2 kV  <br> IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$  <br> EN 55011:  class B |
| Housing material | brass special coated active face: PBT |
| Function display <br> Switching status LED <br> Setting aid LED | $\begin{gathered} \text { yellow }\left(4 \times 90^{\circ}\right) \\ \text { red } \end{gathered}$ |
| Connection | M12 connector |

 Essen

Inductive proximity switches

## IFT200

IFB3007-BPKG/M/V4A/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 7 mm [nf] non-flush mountable


|  | DC PNP |
| :---: | :---: |
|  | normally open |
|  | 10... 36 DC |
|  | 100 |
|  | pulsed |
|  | yes |
|  | yes |
|  | $<2.5$ |
|  | $<10$ (24 V) |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |

EMC

Function display
Switching status LED
Connection
Wiring
$\left.\begin{array}{c|}\hline 7 \pm 10 \% \\ \hline 0 \ldots 5.7 \\ \hline-10 \ldots 10 \\ \hline 3 . . .15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 \text { / brass approx. } 0.5 / \text { Al approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV
IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011: V4A (316S12) $\qquad$ EN 55011: V4A (316S12) active face: PEEK (polyether-etherketone)

| yellow $\left(2 \times 180^{\circ}\right)$ |
| :---: |
| M12 connector, gold-plated contacts |

M12 connector, gold-plated contacts


2 lock nuts

- We reserve the right to make technical alterations without prior notice. - GB - IFT200 -06.03 .2003

Inductive proximity switches

| IFT202 |  |
| :---: | :---: |
| IFKC007-ASKG/M/V4A/US |  |
| Metal thread M12 $\times 1$ | 70 |
| Plug and socket | 59 |
| Operation as 3-wire or 2-wire possible |  |
|  |  |
| Increased sensing range |  |
| Optical setting aid (2 LED) | LED $\mathrm{SO}_{\text {a }}$ |
| gold-plated contacts |  |
| Sensing range 7 mm [nf] non-flush mountable |  |
|  | $C \in \text { (UL) }$ |
| Electrical design | 3-wire DC PNP; 2-wire DC PNP/NPN |
| Output | normally open |
| Operating voltage [V] | 10... 30 DC |
| Current rating [mA] | 100 |
| Minimum load current [mA] | 4 *) |
| Short-circuit protection | pulsed |
| Reverse polarity protection | yes |
| Overload protection | yes |
| Voltage drop [V] | $<2.8$ |
| Leakage current [mA] | $<0.9$ * |
| Current consumption [mA] | $<12$ (24 V) |
| Real sensing range [mm] | $7 \pm 10$ \% |
| Operating distance [mm] | 0...5.7 |
| Switch-point drift [\% / Sr] | -10... 10 |
| Hysteresis [\% / Sr] | 3...15 |
| Switching frequency [ Hz ] | 700 |
| Correction factors | mild steel $=1 /$ stainless steel approx. $0.7 /$ brass approx. $0.5 / \mathrm{Al}$ approx. 0.4 / Cu approx. 0.3 |
| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ | $0 . .100$ |
| Protection | IP 68 / IP 69 K 回 |
| EMC | IEC 1000-4-2 / EN 61000-4-2: $4 \mathrm{kV} / \mathrm{CD} / 8 \mathrm{kV} \mathrm{AD}$ |
|  | IEC 1000-4-3 / EN 61000-4-3: $\quad 10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV |
|  | IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots . .80 \mathrm{MHz}$ |
| Housing material | V4A (316S12) |
|  | active face: PEEK (polyether-etherketone) |
| Function display |  |
| Switching status LEDSetting aid LED | yellow |
|  | red |
| Connection | M12 connector, gold-plated contacts |
| Wiring |  |

 Essen

Inductive proximity switches

## IFT203

IFB3004BBPKG/M/V4A/US
Metal thread M12 x 1 Plug and socket

Increased sensing range gold-plated contacts

Sensing range 4 mm [f] flush mountable


| Electrical design |
| :--- |
| Output |
| Operating voltage [V] |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |



| Operating distance [mm] |
| :--- |
| Hysteresis [\% / Sr] |
| Switching frequency $[\mathrm{Hz}]$ |
| Correction factors |


| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection | EMC


| $0 \ldots 3.25$ |
| :---: |
| $1 \ldots 20$ |
| 700 |
| mild steel $=1 /$ stainless steel approx. 0.7 / brass approx. $0.5 /$ Al approx. 0.4 / <br> Cu approx. 0.3 |
| $0 . .100$ |
| IP $68 /$ IP 69 K 回 |

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011: class B

V4A (316S12)
Housing material

Function display
Switching status LED
$\frac{\text { yellow }\left(4 \times 90^{\circ}\right)}{\text { M12 connector, gold-plated contacts }}$

Wiring


Accessories (included)
ifm electronic gmbh $\cdot$ Teichstraße $4 \cdot$ D-45127 Essen


2 lock nuts
— We reserve the right to make technical alterations without prior notice. — GB - IFT203 — 11.02 .2004

Inductive proximity switches

## IFT208

IFB3007-BPKG/M/V4A/6m Metal thread M12 x 1 Cable

Increased sensing range
Sensing range 7 mm [nf] non-flush mountable


| Electrical design |
| :--- |
| Output |
| Operating voltage [V] |
| Current rating [mA] |
| Short-circuit protection |
| Reverse polarity protection |
| Overload protection |
| Voltage drop [V] |
| Current consumption [mA] |


| $\substack{\text { (UL) } \\ \text { (Usitu }}$ |
| :---: | :---: |
| DC PNP |
| normally open |
| $10 \ldots 36 \mathrm{DC}$ |
| 100 |
| pulsed |
| yes |
| yes |
| $<2.5$ |
| $<10(24 \mathrm{~V})$ |


| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |

EMC
$\left.\begin{array}{cc|}\hline 7 \pm 10 \% \\ \hline 0 \ldots 5.7 \\ \hline-10 \ldots 10 \\ \hline 3 \ldots . .15 \\ \hline 700 \\ \hline \text { mild steel }=1 / \text { stainless steel approx. } 0.7 / \text { brass approx. } 0.5 / \mathrm{Al} \text { approx. } 0.4 / \\ \text { Cu approx. } 0.3\end{array}\right]$

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV
IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots . \mathrm{MHz}$ EN 55011:


V4A (316S12) active face: PEEK (polyether-etherketone)
Function display
Switching status LED
Connection
yellow $\left(4 \times 90^{\circ}\right)$
PVC cable / $6 \mathrm{~m} ; 3 \times 0.34 \mathrm{~mm}^{2}$
Wiring


Inductive proximity switches

## IFW200

IFK3003BBPKG/K1/SC/M/US
Metal thread M12 x 1 Plug and socket

Electromagnetic-field immune gold-plated contacts Correction factor = 1

Sensing range $3 \mathrm{~mm}[\mathrm{f}]$ flush mountable



| Real sensing range [mm] |
| :--- |
| Operating distance [mm] |
| Switch-point drift [\% / Sr] |
| Hysteresis [\% / Sr] |
| Switching frequency [Hz] |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |

EMC

|  |  |
| :--- | :--- |
| Housing material |  |
| Function display |  |
| Switching status LED |  |
| Connection |  |

Wiring

| $3 \pm 10 \%$ |
| :---: | :---: |
| $0 \ldots 2.4$ |
| $-10 \ldots 10$ |
| $3 \ldots .15$ |
| 4000 |
| mild steel $=1 /$ stainless steel approx. $1 /$ brass approx. $1 / \mathrm{Al}$ approx. $1 / \mathrm{Cu}$ <br> approx. 1 |
| $-25 \ldots .70$ |
| IP 67 回 |

IEC 1000-4-2 / EN 61000-4-2: 4 kV / CD / 8 kV AD
IEC 1000-4-3 / EN 61000-4-3: $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000-4-4 / EN 61000-4-4: 2 kV
IEC 1000-4-6 / EN 61000-4-6: $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011 class B
housing: brass safe-coated
active face: Duroplast (PF)
yellow ( $4 \times 90^{\circ}$ )
M12 connector, gold-plated contacts

| yellow $\left(4 \times 90^{\circ}\right)$ |
| :---: |
| M12 connector, gold-plated contacts |



Betriebspannung "supply class II" gemäß cULus

Inductive proximity switches

## IFW201

IFK3008－BPKG／K1／SC／M／US
Metal thread M12 x 1 Plug and socket

Electromagnetic－field immune gold－plated contacts Correction factor $=1$

Sensing range 8 mm ［nf］ non－flush mountable



| Real sensing range $[\mathrm{mm}]$ |
| :--- |
| Operating distance $[\mathrm{mm}]$ |
| Switch－point drift $[\% / \mathrm{Sr}]$ |
| Hysteresis $[\% / \mathrm{Sr}]$ |
| Switching frequency $[\mathrm{Hz}]$ |

Correction factors

| Operating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ |
| :--- |
| Protection |

EMC

| $8 \pm 10 \%$ |
| :---: | :---: |
| $0 \ldots 6.5$ |
| $-10 \ldots 10$ |
| $3 \ldots . .15$ |
| 4000 |
| mild steel $=1 /$ stainless steel approx． $1 /$ brass approx． $1 / \mathrm{Al}$ approx． $1 / \mathrm{Cu}$ <br> approx． 1 |
| $-25 \ldots 70$ |
| IP 67 回 |

IEC 1000－4－2／EN 61000－4－2： 4 kV／CD／ 8 kV AD
IEC 1000－4－3／EN 61000－4－3： $10 \mathrm{~V} / \mathrm{m}, 80 \ldots 1000 \mathrm{MHz}$ IEC 1000－4－4／EN 61000－4－4： 2 kV
IEC 1000－4－6／EN 61000－4－6： $10 \mathrm{~V} / 0.15 \ldots 80 \mathrm{MHz}$ EN 55011 class B
Housing material

Function display
Switching status LED
Connection
Wiring


Betriebspannung＂supply class II＂gemäß cULus


[^0]:    *) "Coolant"

