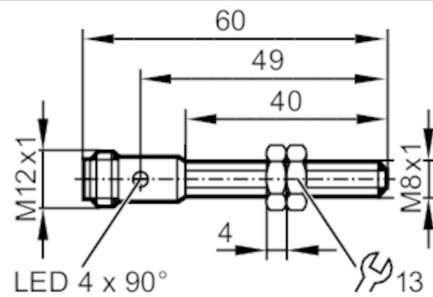




Inductive full-metal sensor

IEK3002BANKG/AM/US-104



Product characteristics

| | | |
|-------------------|------|-----------------|
| Electrical design | | NPN |
| Output function | | normally open |
| Sensing range | [mm] | 2 |
| Housing | | Threaded type |
| Dimensions | [mm] | M8 x 1 / L = 60 |

Application

| | | |
|-------------------------|---|--------|
| Special feature | gold-plated contacts; Increased sensing range; Full-metal housing | |
| Application | Industrial applications; Oils and coolants | |
| Pressure rating | 50 bar | 10 MPa |
| Note on pressure rating | sensing face | |

Electrical data

| | | |
|-----------------------------|------|------------|
| Operating voltage | [V] | 10...30 DC |
| Current consumption | [mA] | < 10 |
| Protection class | | III |
| Reverse polarity protection | | yes |

Outputs

| | | |
|---|------|---------------|
| Electrical design | | NPN |
| Output function | | normally open |
| Max. voltage drop switching output DC | [V] | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 100 |
| Short-circuit protection | | yes |
| Overload protection | | yes |

Monitoring range

| | | |
|-------------------------|------|----------|
| Sensing range | [mm] | 2 |
| Real sensing range Sr | [mm] | 2 ± 10 % |
| Operating distance | [mm] | 0...1.62 |
| Increased sensing range | | yes |

Accuracy / deviations

| | | |
|-------------------|-----------|--|
| Correction factor | | steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminum: 0.6 / copper: 0.5 |
| Hysteresis | [% of Sr] | 1...20 |

IEC203



Inductive full-metal sensor

IEK3002BANKG/AM/US-104

| | | |
|--------------------|-----------|----------|
| Switch-point drift | [% of Sr] | -10...10 |
|--------------------|-----------|----------|

Operating conditions

| | | |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...70 |
|---------------------|------|----------|

| | |
|------------|---------------------------|
| Protection | IP 67; IP 68; ("Coolant") |
|------------|---------------------------|

Tests / approvals

| | | |
|-----|------------------|-------------------|
| EMC | EN 61000-4-2 ESD | 4 kV CD / 8 kV AD |
|-----|------------------|-------------------|

| | |
|--------------------------|--------|
| EN 61000-4-3 HF radiated | 10 V/m |
|--------------------------|--------|

| | |
|--------------------|------|
| EN 61000-4-4 Burst | 2 kV |
|--------------------|------|

| | |
|---------------------------|------|
| EN 61000-4-6 HF conducted | 10 V |
|---------------------------|------|

| | |
|----------|---------|
| EN 55011 | class B |
|----------|---------|

| | |
|-------------------|-----|
| Impact resistance | 1 J |
|-------------------|-----|

| | | |
|------|---------|------|
| MTTF | [years] | 1389 |
|------|---------|------|

| | | |
|-------------|----|-------------|
| UL approval | Ta | -25...70 °C |
|-------------|----|-------------|

| | |
|----------------|--------|
| Enclosure type | Type 1 |
|----------------|--------|

| | |
|----------------|-------------------------|
| voltage supply | Limited Voltage/Current |
|----------------|-------------------------|

| | |
|--------------------|------|
| UL approval number | A028 |
|--------------------|------|

| | |
|----------------|---------|
| File number UL | E174191 |
|----------------|---------|

Mechanical data

| | | |
|--------|-----|------|
| Weight | [g] | 21.6 |
|--------|-----|------|

| | |
|---------|---------------|
| Housing | Threaded type |
|---------|---------------|

| | |
|----------|-----------------|
| Mounting | flush mountable |
|----------|-----------------|

| | | |
|------------|------|-----------------|
| Dimensions | [mm] | M8 x 1 / L = 60 |
|------------|------|-----------------|

| | |
|--------------------|--------|
| Thread designation | M8 x 1 |
|--------------------|--------|

| | |
|----------|--|
| Material | housing: stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PEI; lock nuts: stainless steel (1.4404 / 316L) |
|----------|--|

| | | |
|-------------------|------|-----|
| Tightening torque | [Nm] | < 5 |
|-------------------|------|-----|

| | |
|--------------------|-----|
| Full-metal housing | yes |
|--------------------|-----|

Displays / operating elements

| | | |
|---------|------------------|---------------------|
| Display | Switching status | 4 x 90° LED, yellow |
|---------|------------------|---------------------|

Accessories

| | |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

Remarks

| | |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 3, gold-plated; Moulded body: PA



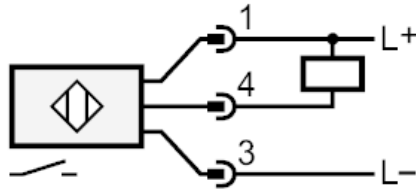
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Connection



Diagrams and graphs

Installation

