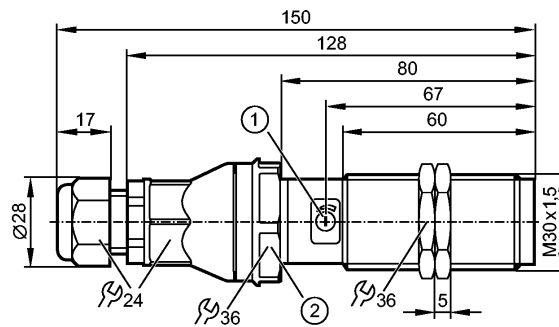


KI000A

KIE2150NFBOA/3D

Kapazitive Sensoren



- 1: Potentiometer
- 2: Anzugsdrehmoment 10 Nm



| Produktmerkmale | |
|---------------------------------------------------------------|----------------------------------------------------------------|
| Kapazitiver Sensor | |
| Kunststoffgewinde M30 x 1,5 | |
| Anschlussklemmen | |
| ATEX-Zulassung | |
| Gruppe II, Kategorie 3D | |
| Schaltabstand 15 mm; einstellbar; [nb] nicht bündig einbaubar | |
| Elektrische Daten | |
| Elektrische Ausführung | AC/DC |
| Betriebsspannung [V] | 20...250 DC / 30...250 AC |
| Schutzklasse | II |
| Verpolungsfest | ja |
| Ausgänge | |
| Ausgangsfunktion | Schließer / Öffner programmierbar |
| Spannungsabfall [V] | < 10 AC / < 8 DC |
| Mindestlaststrom [mA] | 5 |
| Reststrom [mA] | < 2,5 (250 V AC) / < 1,7 (110 V AC) / < 1,5 (24 V DC) |
| Strombelastbarkeit | |
| - Strombelastbarkeit (Dauer) [mA] | 100; 150 (...40 °C) |
| - Strombelastbarkeit (Kurz) [mA] | î: 1000 (20ms / 0,5Hz) |
| Kurzschlussfest | nein |
| Überlastfest | nein |
| Schaltfrequenz [Hz] | 10; nur für ohmsche Lasten; 2 Hz bei Gebrauchskategorie AC-140 |
| Erfassungsbereich | |
| Schaltabstand [mm] | 15, einstellbar |
| Realschaltabstand (Sr) [mm] | 15 ± 10 % |
| Genauigkeit / Abweichungen | |
| Korrekturfaktoren | Wasser = 1 / Glas ca. 0,4 / Keramik ca. 0,2 / PVC ca. 0,2 |
| Hysterese [% von Sr] | 1...15 |
| Schaltpunktdrift [% von Sr] | -20...20 |
| Umgebungsbedingungen | |
| Umgebungstemperatur [°C] | -20...60 |
| Schutzart | IP 65 / IP 67 |
| Zulassungen / Prüfungen | |

KI000A

KIE2150NFBOA/3D

Kapazitive Sensoren

| | | |
|--------------------|-----------------------------------|--------------------------------|
| Gerätekenzeichnung | Ex II 3D Ex tc IIIC T90°C Dc X | |
| EMV | EN 61000-4-2 ESD: | kV / 8 kV AD |
| | EN 61000-4-3 HF gestrahlt: | 3 V/m |
| | EN 61000-4-4 Burst: | 2 kV |
| | EN 61000-4-5 Surge: | 1 kV (line to line, Ri: 2 Ohm) |
| | EN 61000-4-6 HF leitungsgebunden: | 3 V |
| | EN 55011: | Klasse B |
| MTTF [Jahre] | 305 | |

| Mechanische Daten | | |
|-------------------|------------------------|--|
| Einbauart | nicht bündig einbaubar | |
| Gehäusewerkstoffe | PBT; PA | |
| Gewicht [kg] | 0,152 | |

| Anzeigen / Bedienelemente | | |
|---------------------------|-----|------|
| Schaltzustandsanzeige | LED | gelb |

| Elektrischer Anschluss | | |
|------------------------|------------------------------------------------------------------------------------------------|--|
| Anschluss | Klemmen 0,34 bis 2,5 mm ² ; Kabeldurchmesser 5...9 mm, Kabelverschraubung M20 x 1,5 | |

| Anschlussbelegung | | |
|-------------------|--|--|
| | | |

Hinweis: Miniatur-Sicherung gemäß IEC60127-2 Sheet 1, ≤ 2 A (flink)

Die Sicherung außerhalb des explosionsgefährdeten Bereichs platzieren.

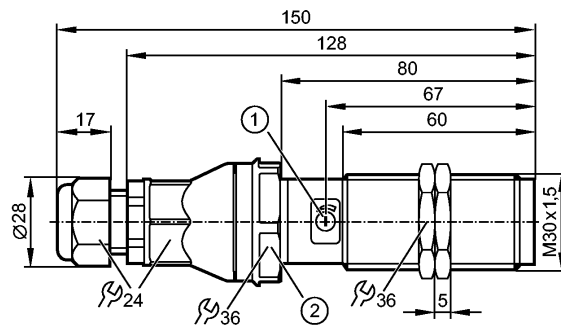
| Zubehör | | |
|------------------------|-----------------------|--|
| Zubehör (mitgeliefert) | 2 Befestigungsmuttern | |

| Bemerkungen | | |
|----------------------------|---------------------------------------------------------------------------|--|
| Bemerkungen | Empfehlung: Nach einem Kurzschluss das Gerät auf sichere Funktion prüfen. | |
| Verpackungseinheit [Stück] | 1 | |

KI000A

KIE2150NFBOA/3D

Capacitive sensors



1: potentiometer
2: tightening torque 10 Nm



Product characteristics

| |
|-----------------------------------------------------------|
| Capacitive sensor |
| Plastic thread M30 x 1.5 |
| Terminals |
| ATEX approval |
| Group II, category 3D |
| Sensing range 15 mm; adjustable; [nf] non-flush mountable |

Electrical data

| | |
|-----------------------------|---------------------------|
| Electrical design | AC/DC |
| Operating voltage [V] | 20...250 DC / 30...250 AC |
| Protection class | II |
| Reverse polarity protection | yes |

Outputs

| | |
|------------------------------------|--------------------------------------------------------------------|
| Output function | normally open / closed programmable |
| Voltage drop [V] | < 10 AC / < 8 DC |
| Minimum load current [mA] | 5 |
| Leakage current [mA] | < 2.5 (250 V AC) / < 1.7 (110 V AC) / < 1.5 (24 V DC) |
| Current rating | |
| - Current rating (continuous) [mA] | 100; 150 (...40 °C) |
| - Current rating (peak) [mA] | î: 1000 (20ms / 0.5Hz) |
| Short-circuit proof | no |
| Overload protection | no |
| Switching frequency [Hz] | 10; only for resistive loads; 2 Hz for utilisation category AC-140 |

Range

| | |
|------------------------------|----------------|
| Sensing range [mm] | 15, adjustable |
| Real sensing range (Sr) [mm] | 15 ± 10 % |

Accuracy / deviations

| | |
|------------------------------|------------------------------------------------------------------------|
| Correction factors | water = 1 / glass approx. 0.4 / ceramics approx. 0.2 / PVC approx. 0.2 |
| Hysteresis [% of Sr] | 1...15 |
| Switch-point drift [% of Sr] | -20...20 |

Environment

| | |
|--------------------------|---------------|
| Ambient temperature [°C] | -20...60 |
| Protection | IP 65 / IP 67 |

Tests / approvals

KI000A

KIE2150NFBOA/3D

Capacitive sensors

| | | |
|---------------------|--------------------------------|-------------------------------|
| Marking of the unit | Ex II 3D Ex tc IIIC T90°C Dc X | |
| EMC | EN 61000-4-2 ESD: | kV / 8 kV AD |
| | EN 61000-4-3 HF radiated: | 3 V/m |
| | EN 61000-4-4 Burst: | 2 kV |
| | EN 61000-4-5 Surge: | 1 kV (line to line, Ri: 20hm) |
| | EN 61000-4-6 HF conducted: | 3 V |
| | EN 55011: | class B |
| MTTF [Years] | 305 | |

Mechanical data

| | | |
|-------------------|---------------------|--|
| Mounting | non-flush mountable | |
| Housing materials | PBT; PA | |
| Weight [kg] | 0.152 | |

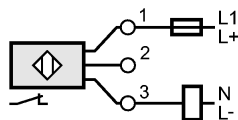
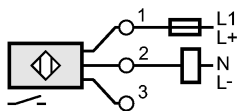
Displays / operating elements

| | | |
|--------------------------|-----|--------|
| Output status indication | LED | yellow |
|--------------------------|-----|--------|

Electrical connection

| | | |
|------------|-------------------------------------------------------------------------------------------|--|
| Connection | terminals 0.34 up to 2.5 mm ² ; cable diameter 5...9 mm, cable gland M20 x 1.5 | |
|------------|-------------------------------------------------------------------------------------------|--|

Wiring



Note: miniature fuse to IEC60127-2 sheet 1, ≤ 2 A (fast acting)
Place the fuse outside the hazardous area.

Accessories

| | | |
|------------------------|-------------|--|
| Accessories (included) | 2 lock nuts | |
|------------------------|-------------|--|

Remarks

| | | |
|---------|-----------------------------------------------------------------------------|--|
| Remarks | Recommendation: check the unit for reliable function after a short circuit. | |
|---------|-----------------------------------------------------------------------------|--|

| | | |
|-----------------------|---|--|
| Pack quantity [piece] | 1 | |
|-----------------------|---|--|

KI000A

KIE2150NFBOA/3D

Détecteurs capacitifs

Tests / Homologations

| | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marquage de l'appareil | Ex II 3D Ex tc IIIC T90°C Dc X |
| CEM | EN 61000-4-2 ESD (décharges électro.): kV / 8 kV AD EN 61000-4-3 rayonnement HF : 3 V/m EN 61000-4-4 transitoires électriques rapides : 2 kV EN 61000-4-5 ondes de choc : 1 kV (ligne à ligne, Ri: 2 Ohm) EN 61000-4-6 parasites HF conduits par le câble : 3 V EN 55011: classe B |
| MTTF [Années] | 305 |

Données mécaniques

| | |
|------------------|-----------------|
| Montage | non encastrable |
| Matières boîtier | PBT; PA |
| Poids [kg] | 0,152 |

Afficheurs / éléments de service

| | | |
|---------------------------|-----|-------|
| Indication de commutation | LED | jaune |
|---------------------------|-----|-------|

Raccordement électrique

| | |
|--------------|--------------------------------------------------------------------------------------------|
| Raccordement | bornes de 0,34 à 2,5 mm ² ; diamètre du câble 5...9 mm, presse-étoupe M20 x 1,5 |
|--------------|--------------------------------------------------------------------------------------------|

Branchement



Remarque : fusible miniature selon CEI60127-2 feuille 1, ≤ 2 A (rapide)
Positionner le fusible en dehors de la zone explosible.

Accessoires

| | |
|-----------------------|----------------------|
| Accessoires (fournis) | 2 écrous de fixation |
|-----------------------|----------------------|

Remarques

| | |
|-----------|---------------------------------------------------------------------------------------|
| Remarques | Recommandation : vérifier le bon fonctionnement de l'appareil après un court-circuit. |
|-----------|---------------------------------------------------------------------------------------|

| | |
|------------------|---|
| Quantité [pièce] | 1 |
|------------------|---|