

|                         |                |                             |
|-------------------------|----------------|-----------------------------|
| <b>3RG4022-0GB33-PF</b> | NO / Schließer | Cable / Kabel (eingegossen) |
| <b>3RG4022-3GB33-PF</b> | NO / Schließer | Connector / Stecker M12     |
| <b>3RG4022-0GA33-PF</b> | NC / Öffner    | Cable / Kabel (eingegossen) |
| <b>3RG4022-3GA33-PF</b> | NC / Öffner    | Connector / Stecker M12     |

|                          |  |                                   |
|--------------------------|--|-----------------------------------|
| <b>Size / Bauform</b>    |  | cylindrical M12 / zylindrisch M12 |
| <b>Mounting / Einbau</b> |  | non-embeddable / nichtbündig      |

|                                                         |                          |                  |
|---------------------------------------------------------|--------------------------|------------------|
| <b><u>Operating distance / Schaltabstand</u></b>        |                          |                  |
| Rated operating distance / Bemessungsschaltabstand      | sn                       | 4,0 mm           |
| Effective operating distance / Realschaltabstand        | sr                       | 3,6 ... 4,4 mm   |
| Assured operating distance / Gesicherter Schaltabstand  | sa                       | 3,24 mm          |
| Standard target mild steel / Meßplatte Stahlfahne St 37 |                          | 12 x 12 x 1 mm   |
| Repeat accuracy / Reproduzierbarkeit                    | R                        | 0,2 mm           |
| Hysteresis / Hysterese                                  | H                        | 0,03 ... 0,88 mm |
| Reduction factors / Reduktionsfaktoren                  | Al:                      | 0,50             |
|                                                         | Cu:                      | 0,40             |
|                                                         | Ms:                      | 0,50             |
|                                                         | Stainl. steel / Edlest.: | 0,80             |

|                                                          |    |                                  |
|----------------------------------------------------------|----|----------------------------------|
| <b><u>Power supply voltage / Versorgungsspannung</u></b> |    |                                  |
| Rated operational voltage / Bemessungsbetriebsspannung   | Ue | 24 V DC                          |
| Operating voltage range / Betriebsspannungsbereich       | UB | 15 ... 34 V DC                   |
| No-load supply current / Leerlaufstrom                   | Io | 17 mA (24 V DC); 30 mA (34 V DC) |
| max. ripple content / zul. Restwelligkeit                |    | 10%                              |

|                                                     |    |                                          |
|-----------------------------------------------------|----|------------------------------------------|
| <b><u>Output / Ausgang</u></b>                      |    |                                          |
| Output / Ausgangsart                                |    | 3 wire DC npn / 3 Leiter DC npn          |
| Rated operational current / Bemessungsbetriebsstrom | Ie | 200 mA (bis 50 Cel); 150 mA (bis 85 Cel) |
| Output voltage drop / Spannungsfall max.            | Ud | 2,5 V                                    |
| Off-state current / Reststrom                       |    | 0,01 mA                                  |
| Short-circuit strength / Kurzschlußfestigkeit       |    | built-in / eingebaut                     |
| Overload withstand capability / Überlastfestigkeit  |    | built-in / eingebaut                     |

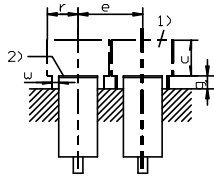
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|------------------------------------------------------|----|--------|
| <b><u>Times / Zeiten</u></b>                         |    |        |
| Frequency of operating cycles / Schaltfrequenz       | f  | 800 Hz |
| Time delay before availability / Bereitschaftsverzug | tv | 40 ms  |

|                                                      |    |               |
|------------------------------------------------------|----|---------------|
| <b><u>Temperatures / Temperaturen</u></b>            |    |               |
| Rated temperature / Bemessungstemperatur             | Tu | 25 Cel        |
| Ambient temperature range / zul. Umgebungstemperatur | Ta | -25...+85 Cel |
| Storage temperature range / zul. Lagertemperatur     | Ts | -40...+85 Cel |

|                                                                      |  |                          |
|----------------------------------------------------------------------|--|--------------------------|
| <b>Electrical protections /<br/>Elektrische Schutzmaßnahmen, EMV</b> |  |                          |
| Reverse voltage protection /<br>Verpolungsschutz                     |  | built-in / eingebaut     |
| Wire breakage protection /<br>Drahtbruchsicherheit                   |  | built-in / eingebaut     |
| Inductive overvoltage / Induktionsschutz                             |  | built-in / eingebaut     |
| Spurious switch-on pulse /<br>Einschaltfehlimpuls                    |  | suppressed / unterdrückt |

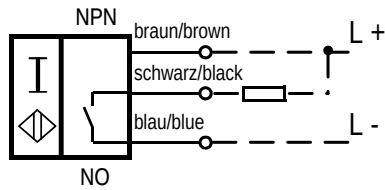
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|-----------------------------------------------------------------|--|-----------------------------------------|
| <b>Mechanical protections /<br/>Mechanische Schutzmaßnahmen</b> |  |                                         |
| Degree of protection / Schutzart                                |  | IP 67                                   |
| Shock / Schockbeanspruchung                                     |  | 30 x g; 11 ms duration / Einwirkdauer   |
| Vibration / Schwingbeanspruchung                                |  | 10 bis 55 Hz, 1mm amplitude / Amplitude |
| Max. tightening torque /<br>max. Anzugsdrehmoment               |  | 10 Nm                                   |

|                              |  |                                        |
|------------------------------|--|----------------------------------------|
| <b>Indicators / Anzeigen</b> |  | LED (switching status / Schaltzustand) |
|------------------------------|--|----------------------------------------|

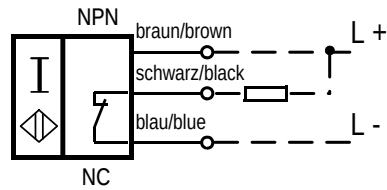
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|------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting conditions /<br/>Einbaubedingungen</b>                                                                                 |                            |                                                                                                                                                                                                                                                                |
| Side-by-side mounting possibility /<br>Aneinanderreihbarkeit<br>Influence metallic surroundings /<br>Einfluß metallischer Umgebung | e><br>r><br>g><br>w><br>c> | 27 mm<br>15 mm<br>8 mm<br>9 mm<br>8 mm<br><br><br>Remarks/Bemerkungen:<br>1) free space/Freiraum<br>2) sensing face/aktive Fläche<br>3) 4 x on circumference/4 x am Umfang |
| Max. Cable length /<br>max. zulässige Leitungslänge                                                                                |                            | 300 m                                                                                                                                                                                                                                                          |

|                                                           |  |                                                          |
|-----------------------------------------------------------|--|----------------------------------------------------------|
| <b>Design characteristics /<br/>Konstruktive Merkmale</b> |  |                                                          |
| Housing material / Gehäuse                                |  | brass / Messing                                          |
| Cable type / Leitungstyp                                  |  | 3 x 0,25 qmm, PUR LiYY11Y                                |
| Cable length / Leitungslänge, eingegossen                 |  | 2 m                                                      |
| Sensing face / Ansprechfläche                             |  | front side / stirnseitig                                 |
| Weight / Gewicht                                          |  | Cable / Kabel: 0,07 kg ,<br>Connector / Stecker: 0,02 kg |

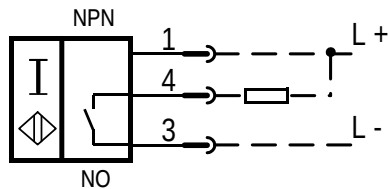
**3RG4022-0GB33-PF:**



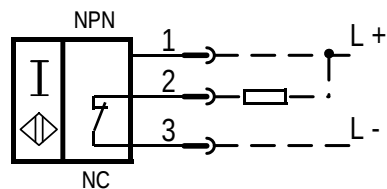
**3RG4022-0GA33-PF:**



**3RG4022-3GB33-PF:**



**3RG4022-3GA33-PF:**



Response characteristics/Ansprechkennlinie:

