



1) Sensing surface



**Basic features**

<b>Approval/Conformity</b>	CE EAC cCSAus FM WEEE
<b>Basic standard</b>	EN 60079-0 EN 60079-11 IEC 60079-0 IEC 60079-11 IEC 60079-26 IEC 60947-5-6
<b>Ex marking</b>	ATEX: II 1D Ex ia IIIC T90°C Da Ta: -20 °C ≤ Ta ≤ +70 °C II 2G Ex ia IIB T6 Gb Ta: -20 °C ≤ Ta ≤ +70 °C IECEX: Ex ia IIIC T90°C Da Ex ia IIB T6 Gb NEC: Class I, Division 1, Groups ABCD Class II, Division 1, Groups EFG Class III

**Explosion protection**

BVS 05 ATEX E 162 X  
 IECEx BVS 11.0021.X  
 II 1 D Ex ia IIIC T90°C Da Ta: -20 °C up to +70 °C  
 II 2G Ex ia IIB T6 Gb Ta: -20 °C bis +70 °C

**Display/Operation**

<b>Function indicator</b>	yes
<b>Power indicator</b>	no

**Electrical connection**

<b>Connection</b>	M12x1-Male
<b>Polarity reversal protected</b>	no

Inductive Sensors  
**BES Q40KFU-GNX35F-S92G-EEX**  
**Order Code: BES0300**



**Electrical data**

Current consumption max., damped	1 mA
Current consumption min., undamped	2.1 mA
Internal capacitance Ci max.	220 nF
Internal inductance Li max.	0.71 nH
Operating voltage Ub	7.7...9 VDC
Rated insulation voltage Ui	75 V DC
Rated operating voltage Ue DC	8.2 V
Rated series resistance Rv	1000 Ohm
Ready delay tv max.	30 ms
Switching frequency	100 Hz

**Environmental conditions**

Ambient temperature	-20...70 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP67

**Functional safety**

MTTF (40 °C)	2930 a
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**Material**

Housing material	PPE PPS
Material sensing surface	PPE

**Mechanical data**

Dimension	40 x 40 x 66 mm
Installation	non-flush
Size	40x40

**Output/Interface**

Interface	NAMUR
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**Range/Distance**

Assured operating distance Sa	28 mm
Rated operating distance Sn	35 mm
Real switching distance sr	35 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

**Remarks**

The operating guide document number 844836 must be observed.  
 Use only in approved intrinsically safe circuits with max. values Ui = 15 V, li = 50 mA, Pi = 120 mW.  
 For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

**Connector Drawings**



**Wiring Diagrams**

