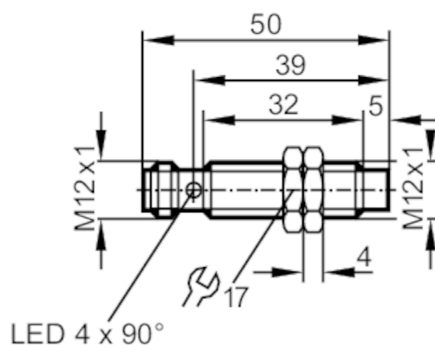


# NF500A



## Inductive NAMUR sensor

IFB2007-N/US/1G/1D



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | NAMUR            |
| Output function    | normally closed  |
| Sensing range [mm] | 7                |
| Housing            | Threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 50 |

### Electrical data

|                                 |                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|
| Connection at circuit amplifier | yes                                                                                                         |
| Switching amplifiers            | connection to certified intrinsically safe circuits with the max. values: U = 15 V / I = 50 mA / P = 120 mW |
| Nominal voltage DC [V]          | 8.2; (1k $\Omega$ )                                                                                         |
| Supply voltage DC [V]           | 7.5...30; (when used outside the hazardous area)                                                            |
| Current consumption [mA]        | < 1; (disabled; conductive: > 2,1)                                                                          |
| Protection class                | III                                                                                                         |

### Outputs

|                                                      |                                            |
|------------------------------------------------------|--------------------------------------------|
| Electrical design                                    | NAMUR                                      |
| Output function                                      | normally closed                            |
| Permanent current rating of switching output DC [mA] | 30; (when used outside the hazardous area) |
| Switching frequency DC [Hz]                          | 700                                        |

### Monitoring range

|                            |              |
|----------------------------|--------------|
| Sensing range [mm]         | 7            |
| Real sensing range Sr [mm] | 7 $\pm$ 10 % |

### Accuracy / deviations

|                              |                                                                            |
|------------------------------|----------------------------------------------------------------------------|
| Correction factor            | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3 |
| Hysteresis [% of Sr]         | 1...15                                                                     |
| Switch-point drift [% of Sr] | -10...10                                                                   |

### Operating conditions

|                          |          |
|--------------------------|----------|
| Ambient temperature [°C] | -20...70 |
| Protection               | IP 67    |

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| Tests / approvals                                                                              |                                                                   |                     |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|
| Approval                                                                                       | BVS 04 ATEX E 091 X; IECEx BVS 06.0003X                           |                     |
| ATEX marking                                                                                   | <div>II 1G Ex ia IIC T6 Ga</div>                                  |                     |
|                                                                                                | <div>II 1D Ex ia IIIC T200 90°C Da</div>                          |                     |
| EMC                                                                                            | EN 60947-5-6                                                      |                     |
| Shock/vibration resistance                                                                     | 30 g (11 ms) / 10-55 Hz (1 mm)                                    |                     |
| MTTF                                                                                           | [years]                                                           | 3119                |
| Safety classification                                                                          |                                                                   |                     |
| Max. internal capacitance                                                                      | [nF]                                                              | 210                 |
| Max. internal inductance                                                                       | [μH]                                                              | 145                 |
| Mechanical data                                                                                |                                                                   |                     |
| Weight                                                                                         | [g]                                                               | 72.5                |
| Housing                                                                                        | Threaded type                                                     |                     |
| Mounting                                                                                       | non-flush mountable                                               |                     |
| Dimensions                                                                                     | [mm]                                                              | M12 x 1 / L = 50    |
| Thread designation                                                                             | M12 x 1                                                           |                     |
| Material                                                                                       | housing: brass special coating; sensing face: PBT; LED window: PA |                     |
| 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                                                                  |                                                                   |                     |
| <div></div> |                                                                   |                     |

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### Connection



1 = connection to NAMUR-amplifier