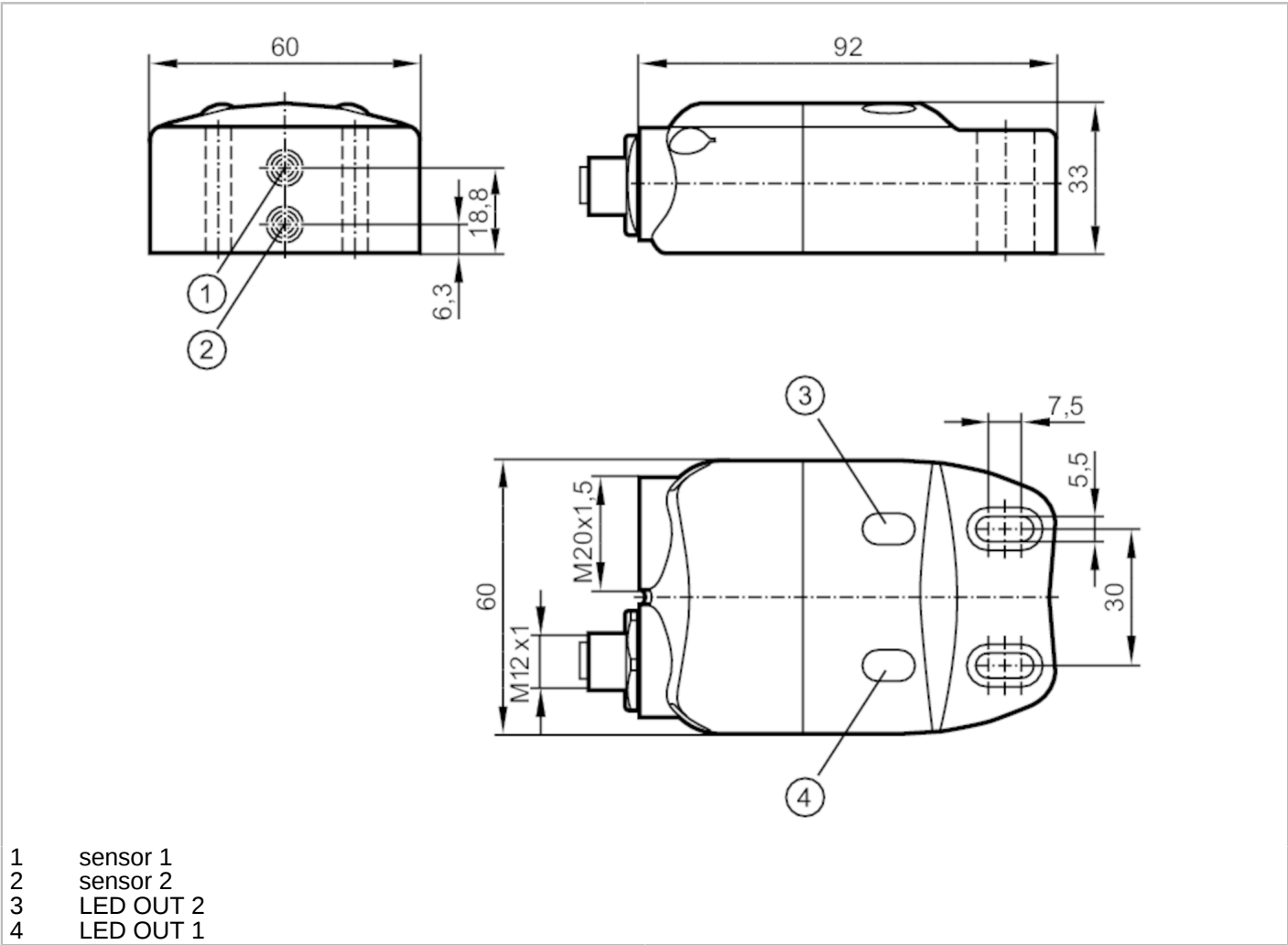


# NN505A



## Inductive sensor

INE2004DN/1D/1G/2G/SOCKET M12



- 1 sensor 1
- 2 sensor 2
- 3 LED OUT 2
- 4 LED OUT 1



| Electrical data                    |                                                                                                                                                                                                                                                                                                                      |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connection to switching amplifiers | yes                                                                                                                                                                                                                                                                                                                  |
| Switching amplifiers               | connection to certified intrinsically safe circuits with the max. values: U = 15 V / I = 50 mA / P = 120 mW                                                                                                                                                                                                          |
| Operating voltage [V]              | 8.2 DC; (1kΩ)                                                                                                                                                                                                                                                                                                        |
| Supply voltage DC [V]              | 7.5...15; (when used outside the hazardous area)                                                                                                                                                                                                                                                                     |
| Current consumption [mA]           | < 1; (disabled; conductive: > 2,1)                                                                                                                                                                                                                                                                                   |
| Protection class                   | III                                                                                                                                                                                                                                                                                                                  |
| Actuator wiring                    | connection to certified intrinsically safe circuits of solenoid valves with the max. values: U = 28 V / I = 250 mA / P = 750 mW (bis 40 °C) / P = 650 mW (bis 70 °C); (When used in gas atmospheres (group II) the following maximum values are permitted: U = 28 V / P = 1,1 W; These values must not be exceeded.) |
| Outputs                            |                                                                                                                                                                                                                                                                                                                      |
| Electrical design                  | NAMUR                                                                                                                                                                                                                                                                                                                |
| Output function                    | 2 x normally closed                                                                                                                                                                                                                                                                                                  |
| Switching frequency DC [Hz]        | 500                                                                                                                                                                                                                                                                                                                  |
| Overload protection                | yes                                                                                                                                                                                                                                                                                                                  |

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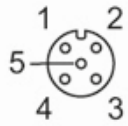
| Detection zone                                                                          |                  |                                                                                        |
|-----------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------|
| Sensing range                                                                           | [mm]             | 4                                                                                      |
| Real sensing range Sr                                                                   | [mm]             | 4 ± 10 %                                                                               |
| Operating distance                                                                      | [mm]             | 0...3.25                                                                               |
| Accuracy / deviations                                                                   |                  |                                                                                        |
| Correction factor                                                                       |                  | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3            |
| Hysteresis                                                                              | [% of Sr]        | 1...15                                                                                 |
| Switch point drift                                                                      | [% of Sr]        | -10...10                                                                               |
| Operating conditions                                                                    |                  |                                                                                        |
| Ambient temperature                                                                     | [°C]             | -25...70                                                                               |
| Protection                                                                              |                  | IP 65; IP 67                                                                           |
| Tests / approvals                                                                       |                  |                                                                                        |
| Approval                                                                                |                  | BVS 14 ATEX E 005 X; IECEx BVS 14.0005X                                                |
| ATEX marking                                                                            |                  | II 1G Ex ia IIB T4 Ga Ta: -25...70 °C                                                  |
|                                                                                         |                  | II 2G Ex ia IIC T4 Gb Ta: -25...70 °C                                                  |
|                                                                                         |                  | II 1D Ex ia IIIB T135 °C Da Ta: -25...70 °C                                            |
| EMC                                                                                     |                  | EN 60947-5-6                                                                           |
| Vibration resistance                                                                    |                  | 10...55 Hz (1 mm)                                                                      |
| Shock resistance                                                                        |                  | 30 g (11 ms)                                                                           |
| MTTF                                                                                    | [years]          | 1268                                                                                   |
| Safety classification                                                                   |                  |                                                                                        |
| Max. internal capacitance                                                               | [nF]             | 60; (per intrinsically safe circuit)                                                   |
| Max. internal inductance                                                                | [µH]             | 130; (per intrinsically safe circuit)                                                  |
| Mechanical data                                                                         |                  |                                                                                        |
| Weight                                                                                  | [g]              | 215.6                                                                                  |
| Housing                                                                                 |                  | rectangular                                                                            |
| Mounting                                                                                |                  | non-flush mountable                                                                    |
| Dimensions                                                                              | [mm]             | 33 x 60 x 92                                                                           |
| Materials                                                                               |                  | housing: PA                                                                            |
| Displays / operating elements                                                           |                  |                                                                                        |
| Display                                                                                 | switching status | 2 x LED, yellow                                                                        |
| Accessories                                                                             |                  |                                                                                        |
| Accessories (supplied)                                                                  |                  | socket head screws: 2 x M5 x 16                                                        |
|                                                                                         |                  | socket head screws: 2 x M3 x 25                                                        |
| Remarks                                                                                 |                  |                                                                                        |
| Remarks                                                                                 |                  | The unit is not approved for safety-related tasks in the field of operator protection. |
| Pack quantity                                                                           |                  | 1 pcs.                                                                                 |
| Electrical connection                                                                   |                  |                                                                                        |
| terminal strip in the terminal chamber: ...2.5 mm <sup>2</sup> ; Cable gland: M20 X 1.5 |                  |                                                                                        |
| Electrical connection - socket                                                          |                  |                                                                                        |
| Connector: 1 x M12                                                                      |                  |                                                                                        |

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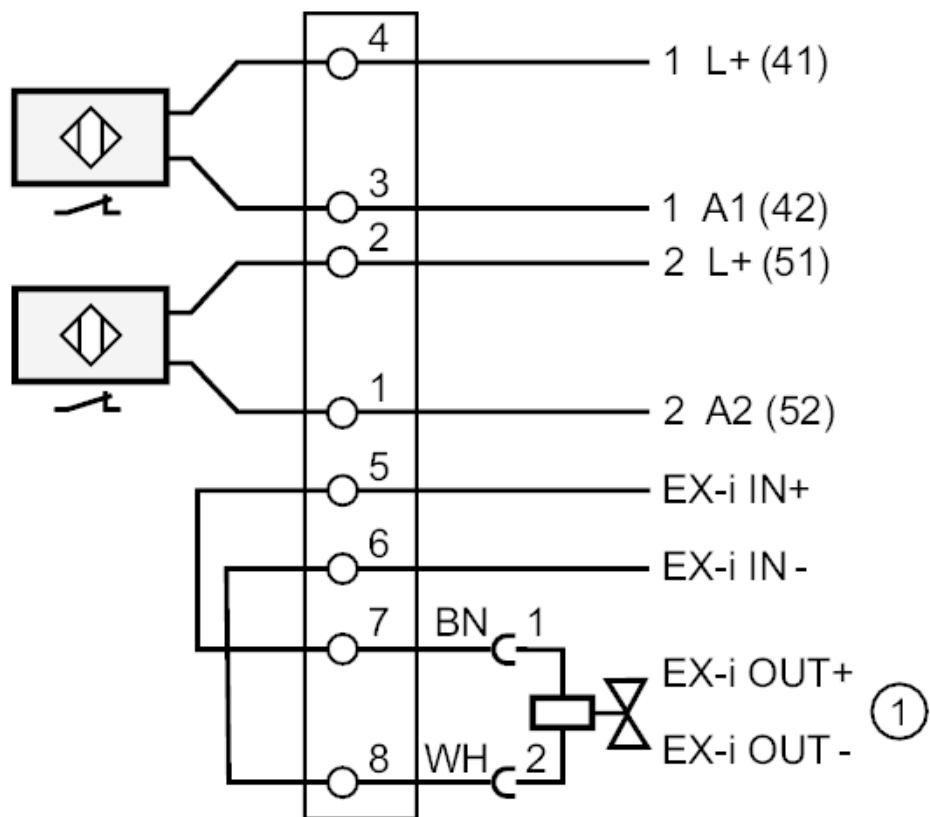


## Inductive sensor

INE2004DN/1D/1G/2G/SOCKET M12



### Connection



1 output solenoid valve