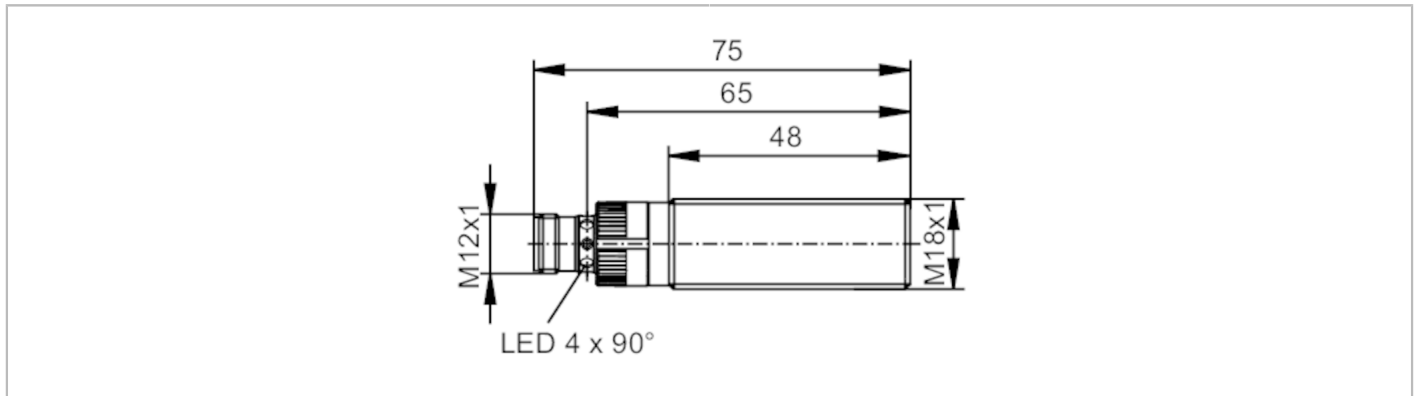


DI6005



Compact evaluation unit for speed monitoring

DGA4007-WRKG/IO/US



Product characteristics

| | |
|-------------------------|----------------------------------------------------|
| Electrical design | PNP/NPN; (parameterisable) |
| Output function | normally open / normally closed; (parameterisable) |
| Sensing range [mm] | 7 |
| Communication interface | IO-Link |
| Housing | threaded type |
| Dimensions [mm] | M18 x 1 / L = 75 |

Application

| | |
|-----------------|---------------------------------------------------------------------------------|
| Special feature | Gold-plated contacts |
| Application | evaluation of rotating and linear movements with regard to underspeed; blocking |

Electrical data

| | |
|-----------------------------|------------|
| Operating voltage [V] | 10...30 DC |
| Current consumption [mA] | < 15 |
| Protection class | II |
| Reverse polarity protection | yes |

Outputs

| | |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Electrical design | PNP/NPN; (parameterisable) |
| Output function | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC [V] | 2.5 |
| Factory setting | Electrical design: PNP Output function: normally open switch point: 100 Imp/min Output OUT2: Pulse output |
| Short-circuit protection | yes |
| Overload protection | yes |

Switching output (OUT1)

| | |
|------------------------------------------------------|------------------|
| Output signal | switching signal |
| Permanent current rating of switching output DC [mA] | 250 |

Pulse output / switching output (OUT2)

| | |
|---------------|---------------------------------------------------|
| Output signal | pulse signal; switching signal; (parameterisable) |
|---------------|---------------------------------------------------|

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| | |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Permanent current rating of switching output DC [mA] | 100 |
| Switching frequency DC [Hz] | < 500 |
| Pulse output | external evaluation of the damping pulses |
| Detection zone | |
| Sensing range [mm] | 7 |
| Measuring/setting range | |
| Measuring range [Imp/min] | 1...32000 |
| Setting range [Imp/min] | 3...24000 |
| Measuring principle | inductive |
| Accuracy / deviations | |
| Correction factor | stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4 |
| Hysteresis [% of Sr] | 10 |
| Hysteresis [% of Sp] | 10...30 |
| Repeatability IO-Link [%] | 1; (of the final value of the measuring range) |
| Temperature drift | ± 10 %; (of the final value of the measuring range) |
| Response times | |
| Start-up delay [s] | 0...15; (In steps of: 1 s; Default: 10 s) |
| Max. damping frequency [Imp/min] | 60000 |
| IO-Link | |
| Start-up delay [s] | 0...30; (In steps of: 100 ms; Default: 10 s) |
| Interfaces | |
| Communication interface | IO-Link |
| Transmission type | COM2 (38,4 kBaud) |
| IO-Link revision | 1.1 |
| SDCI standard | IEC 61131-9 |
| Profiles | Smart Sensor - SSP 4.2.1 Common - I&D Function Function |
| | Measuring and Switching Sensor, high resolution, 1 channel Identification and Diagnosis Locator ProductURI |
| SIO mode | yes |
| Required master port type | A |
| Min. process cycle time [ms] | 3.7 |
| IO-Link process data (cyclical) | function process value device status binary switching information |
| | bit length 32 4 2 |
| IO-Link functions (acyclical) | switch-on cycle counter; operating hours counter; internal temperature; application specific tag |
| Supported DeviceIDs | Type of operation default |
| | DeviceID 1444 |
| Note | For further information please see the IODD PDF file under "Downloads" |
| Operating conditions | |
| Ambient temperature [°C] | -25...85 |

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| | | |
|--------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Protection | IP 65; IP 66; IP 67; IP 68; IP 69K | |
| Tests / approvals | | |
| EMC | EN 61000-4-2 ESD | 4 kV CD / 8 kV AD |
| | EN 61000-4-3 HF radiated | 10 V/m |
| | EN 61000-4-4 Burst | 2 kV |
| | EN 61000-4-6 HF conducted | 10 V |
| | EN55011 | class B |
| Vibration resistance | EN 60068-2-6 Fc | 20 g (10...3000 Hz) 50 sweep cycles, 1 octave per minute, in 3 axes |
| Shock resistance | EN 60068-2-27 Ea | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Continuous shock resistance | EN 60068-2-27 | 42 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes |
| Fast temperature change | EN 60068-2-14 Na | TA = -25°C; TB = 80°C; t1 = 30 min; t2 = <10 s 50 cycles |
| Salt spray test | EN 60068-2-52 Kb | severity level 5 (4 test cycles) |
| MTTF [years] | | 471 |
| UL approval | Ta | -25...70 °C |
| | Enclosure type | Type 1 |
| | power supply | Limited Voltage/Current |
| | UL approval no. | A041 |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight [g] | | 52.78 |
| Housing | | threaded type |
| Mounting | | flush mountable |
| Dimensions [mm] | | M18 x 1 / L = 75 |
| Thread designation | | M18 x 1 |
| Materials | | housing: stainless steel (316L/1.4404); sensing face: PBT; LED window: PEI; lock nuts: stainless steel (316L/1.4404) |
| Tightening torque [Nm] | | 35 |
| Displays / operating elements | | |
| Display | operation | 4 x LED, green |
| | switching output | 4x LED, yellow |
| | error message | 4x LED, red |
| Accessories | | |
| Items supplied | | lock nuts: 2 x M18 |
| Remarks | | |
| Pack quantity | | 1 pcs. |

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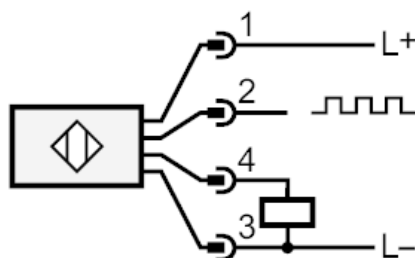
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



- | | |
|----|--------------------------------------|
| 1: | L+ |
| 2: | OUT2 Pulse output / switching output |
| 3: | L- |
| 4: | OUT1 IO-Link / switching output |