

## Compact evaluation unit for speed monitoring

DGK3012-WRKG/IO/US



## Product characteristics

|                         |                                                    |
|-------------------------|----------------------------------------------------|
| Electrical design       | PNP/NPN                                            |
| Output function         | normally open / normally closed; (parameterisable) |
| Sensing range [mm]      | 12                                                 |
| Communication interface | IO-Link                                            |
| Housing                 | threaded type                                      |
| Dimensions [mm]         | M18 x 1 / L = 60                                   |

## Application

|             |                                                                                       |
|-------------|---------------------------------------------------------------------------------------|
| Application | simple evaluation of rotating and linear movement with regard to underspeed; blocking |
|-------------|---------------------------------------------------------------------------------------|

## Electrical data

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

## Outputs

|                                                      |                                                    |
|------------------------------------------------------|----------------------------------------------------|
| Electrical design                                    | PNP/NPN                                            |
| Output function                                      | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC [V]            | 2.5                                                |
| Permanent current rating of switching output DC [mA] | 100                                                |
| Short-circuit proof                                  | yes                                                |
| Overload protection                                  | yes                                                |

## Detection zone

|                          |          |
|--------------------------|----------|
| Sensing range [mm]       | 12       |
| Sensing range adjustable | no       |
| Operating distance [mm]  | 0...9.72 |

## Measuring/setting range

|                         |           |
|-------------------------|-----------|
| Setting range [Imp/min] | 5...24000 |
| Measuring principle     | inductive |

## Accuracy / deviations

|                   |                                                                             |
|-------------------|-----------------------------------------------------------------------------|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
|-------------------|-----------------------------------------------------------------------------|

# DI5030



## Compact evaluation unit for speed monitoring

DGK3012-WRKG/IO/US

|                                      |                                    |                                                                                                                        |
|--------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Hysteresis                           | [X01]                              | 10                                                                                                                     |
| <b>Response times</b>                |                                    |                                                                                                                        |
| Start-up delay                       | [s]                                | 0...30; (In steps of: 100 ms; Default: 15 s)                                                                           |
| Max. damping frequency               | [Imp/min]                          | 30000                                                                                                                  |
| <b>Interfaces</b>                    |                                    |                                                                                                                        |
| Communication interface              |                                    | IO-Link                                                                                                                |
| <b>Operating conditions</b>          |                                    |                                                                                                                        |
| Ambient temperature                  | [°C]                               | -40...85                                                                                                               |
| Storage temperature                  | [°C]                               | -25...85                                                                                                               |
| Protection                           |                                    | IP 66; IP 67; IP 68; IP 69K                                                                                            |
| <b>Tests / approvals</b>             |                                    |                                                                                                                        |
| 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                                                                                                                   |
|                                      | EN 55011                           | class B                                                                                                                |
|                                      | EN 60947-5-2                       |                                                                                                                        |
| Shock resistance                     | EN 60068-2-27 Ea                   | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes                                       |
| Vibration resistance                 | DIN EN 60947-5-2                   | 20 g (10...3000 Hz)                                                                                                    |
|                                      |                                    | 50 sweep cycles, 1 octave per minute, in 3 axes                                                                        |
| MTTF                                 | [ANN]                              | 664                                                                                                                    |
| UL approval                          | UL Approval no.                    | A008                                                                                                                   |
| <b>Mechanical data</b>               |                                    |                                                                                                                        |
| Weight                               | [g]                                | 45.9                                                                                                                   |
| Housing                              |                                    | threaded type                                                                                                          |
| Mounting                             |                                    | non-flush mountable                                                                                                    |
| Dimensions                           | [mm]                               | M18 x 1 / L = 60                                                                                                       |
| Thread designation                   |                                    | M18 x 1                                                                                                                |
| Materials                            |                                    | housing: brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |
| Tightening torque                    | [Nm]                               | 25                                                                                                                     |
| <b>Displays / operating elements</b> |                                    |                                                                                                                        |
| Display                              | SIO mode                           |                                                                                                                        |
|                                      | output stage supplied with current | 4 x LED, yellow                                                                                                        |
|                                      | IO-Link mode                       |                                                                                                                        |
|                                      | target in measuring range          | 4 x LED, yellow                                                                                                        |
|                                      | target outside measuring range     | 4 x LED, yellow flashing                                                                                               |
| <b>Аксессуары</b>                    |                                    |                                                                                                                        |
| Items supplied                       |                                    | lock nuts: 2                                                                                                           |

# DI5030



## Compact evaluation unit for speed monitoring

DGK3012-WRKG/IO/US

### Electrical connection

Connector: 1 x M12; coding: A



### Connection



4: OUT / IO-Link