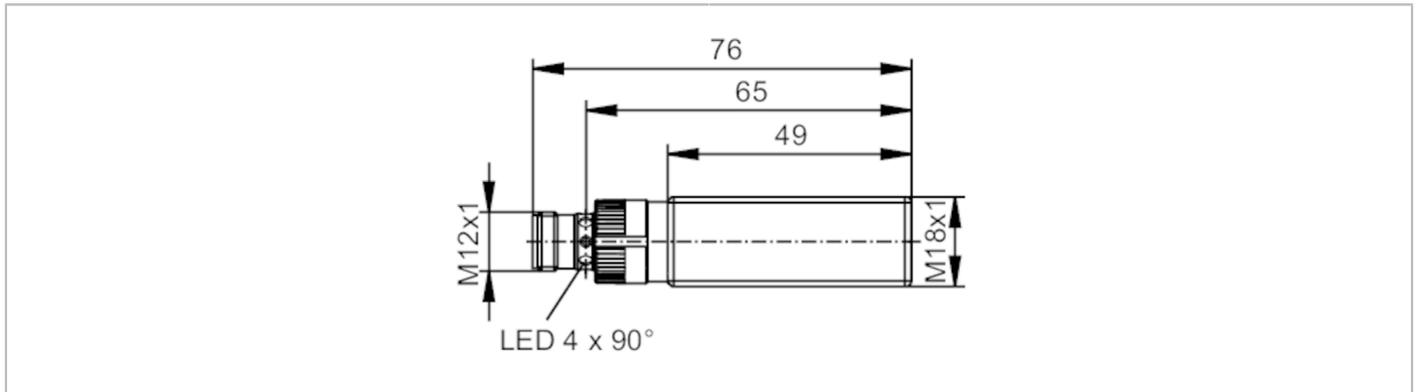


DI605A



Compact evaluation unit for speed monitoring

DGA4005-WRKG/IO/US/3D



Product characteristics

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (configurable)
Sensing range [mm]	5
Communication interface	IO-Link
Housing	Threaded type
Dimensions [mm]	M18 x 1 / L = 76

Application

System	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; (configurable)
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2.5
Factory setting	Electrical design: PNP Output function: normally open Set 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; (configurable)
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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

Monitoring range

Sensing range [mm]	5
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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: 0.4 / aluminum: 0.4 / copper: 0.3
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)

Reaction 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)
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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	Measuring and Switching Sensor, high resolution, 1 channel
	Common - I&D	Identification and Diagnosis
	Function	Locator
	Function	ProductURI
SIO mode	yes	
Required master port class	A	
Min. process cycle time [ms]	3.7	
IO-Link process data (cyclical)	Function	bit length
	process value	32
	device status	4
	binary switching information	2
IO-Link functions (acyclical)	switch-on cycle counter; operating hours counter; internal temperature; application specific tag	
Supported DeviceIDs	Type of operation	DeviceID
	default	1444
Note	For further information please see the IODD PDF file at "Downloads"	

Operating conditions

Ambient temperature [°C]	-20...60
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Protection	IP 67	
Tests / approvals		
Approval	BVS 17 ATEX E 112 X; IECEx BVS 17.0094X	
ATEX marking	 II 3D Ex tc IIIC T80°C Dc	
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 per frequency; 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	43 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	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	
Mechanical data		
Weight [g]	78.9	
Housing	Threaded type	
Mounting	flush mountable	
Dimensions [mm]	M18 x 1 / L = 76	
Thread designation	M18 x 1	
Material	housing: stainless steel (1.4404 / 316L); sensing face: PA; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L)	
Tightening torque [Nm]	35	
Displays / operating elements		
Display	Power	4 x LED, green
	Switching output	4x LED, yellow
	Error message	4x LED, red
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		

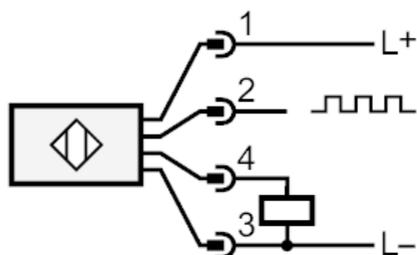
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Connection



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