Stator coupling / torque support Model series ZMS58

TWK ELEKTRONIK

Document No.: ZMS 12939 EE

Date: 16.01.2017



- Stator coupling / torque support for coupling a rotary encoder with blind hole (single-sided hollow shaft) to the drive shaft
- The stator coupling consists of permanently elastic plastic and offers high vibration and shock resistance
- The design of the fret-like spring elements enables high torsional strength and torsional rigidity
- Compensation of the installation-related axial and radial shaft offset between the rotary encoder and drive shaft
- Can be retrofitted, as standard dimensions in the area of the 58 rotary encoder design form the basis
- Operating temperature range: 40 °C to + 85 °C

3D view

Design

The basic body, which is cut from permanently elastic plastic in one milling operation, contains three fret-like spring elements which guarantee the stator coupling's torsional strength and torsional rigidity.

The stator coupling is fastened to the hollow shaft rotary encoder using 3 Allen screws M4 and permanently inserted plastic shims on the face end via the tapped flange holes. The drive shaft is secured in position in the hollow shaft using a clamp ring. On the drive side, the height adapter is secured by means of 2 Allen screws M4.

Function

The stator coupling fulfils the following tasks:

- Coupling of the drive shaft and rotary encoder shaft in terms of high torsional strength and torsional rigidity.
- Stator coupling as a spring mass system for highly accurate measuring systems.
- Compensation of radial and axial installation tolerances between the drive shaft and measurement shaft.
- Compensation of the angular offset between the drive shaft and measurement shaft.
- Variation of the axial space dimension between the drive unit and rotary encoder through the use of a height adapter - adaptive height adjustment.



Order number

ZMS	58 -	S -	H1 -	K 01			
	58		(andard		
					t adapter 9 mm umber of height adapters		
		S			ser flange lange		
		Design form: 8 ø 58 mm					
	Model series:						
ZMS	Stator coupling ZMS58						

^{*} The basic versions according to the data sheet bear the number 01. Deviations are identified with a variant number and are documented in the factory.

Accessories (scope of delivery)

Designation	Quantity	Remark
Allen screws M4x30, DIN 912, A2	2	
Lock washer S 4.3, A2	2	For height adapter H1
Shim DIN 9021-4.3	2	
Allen screws M4x12, DIN 912, A2	3	
Lock washer S4.3; A2	3	For fastening on the rotary encoder
Shim 4.3, PA	3	

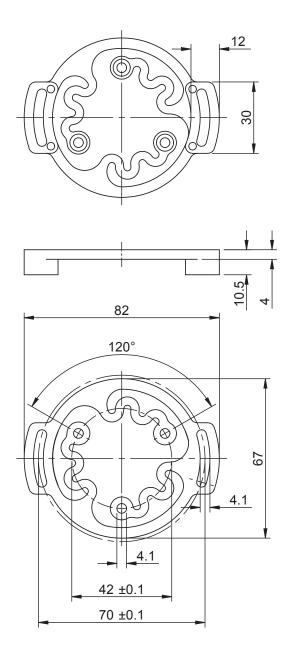
Date: 16.01.2017 Page 2 of 5 Document No. ZMS 12939 EE



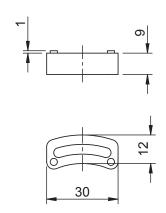
Installation drawing

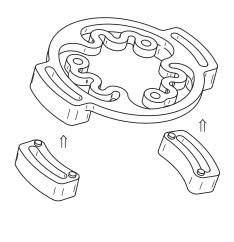
Dimensions in mm

Torque support ZMS58-S-H1-K01



Height adaptation for torque support (always 2x per torque support)





- U washer (PA)

 Torque support

 **

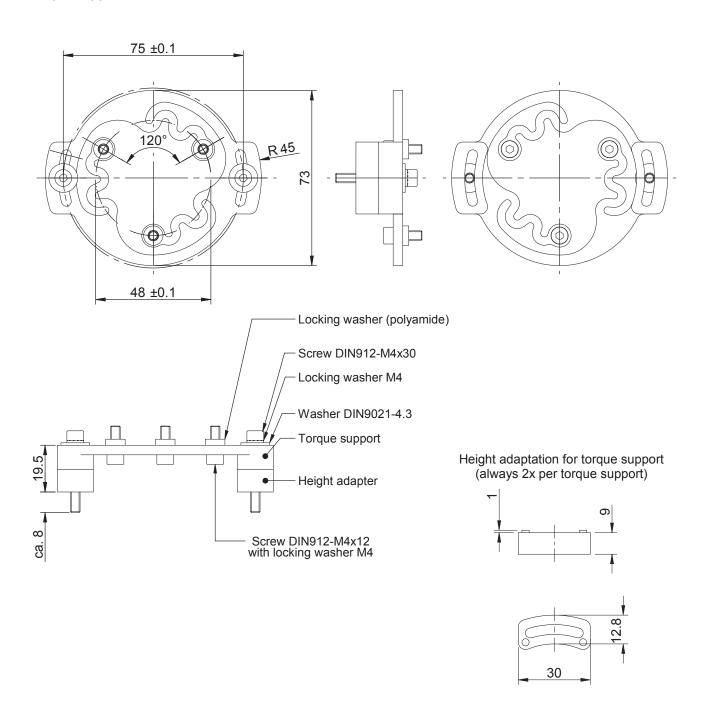
 Height adapter
- * 2x bolts DIN 912 M4x30 (VA) 2x lock washers S 4.3; A2 (VA) 2x U washers DIN 9021-4.3
- ** 3x bolts DIN 912 M4x10 (VA) 3x lock washers S 4.3; A2 (VA) 3x U washers (PA)
- *** Dimension for height adapter H1 = 9 mm



Installation drawing

Dimensions in mm

Torque support ZMS58-K-H1-K01





Example application

Dimensions in mm

