

## AC TACHOMETERS SOCITEC ST SERIES

### DESCRIPTION

The tachometers developed by Circor are alternate tachometric generators without brushes giving the velocity measurement of the wheels of aircraft for the control of braking. These devices are, in their principle, of the unipolar permanent magnet alternators delivering a sinusoidal signal, whose frequency is proportional to the speed of drive. They are designed to function in harsh environment.

The electric signal resulting from the coil is provided on the output connector. For matter of redundancy, some tachometers can have 2 coils providing 2 independent and electrically insulated signals.

There are three ranges of tachometers according to their sizes:  $\varnothing$  30,  $\varnothing$  45,  $\varnothing$  80.



**ST30**



**ST45**



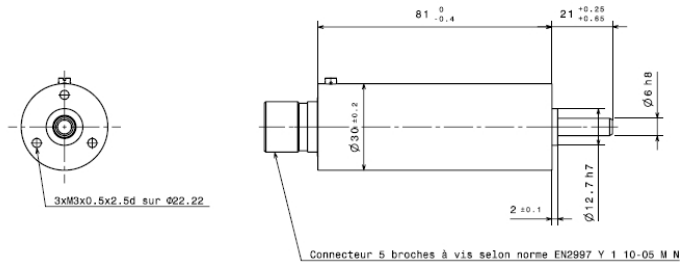
**ST80**

### MAIN CHARACTERISTICS

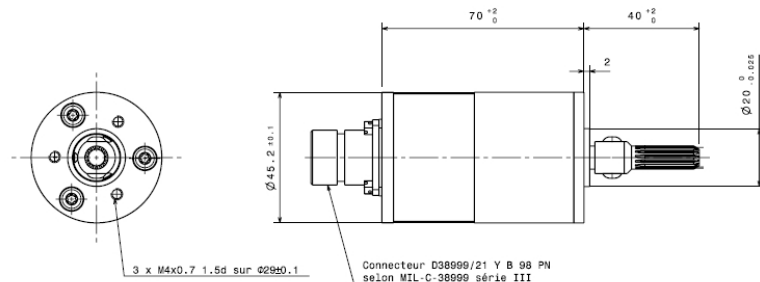
Characteristics		ST30	ST45	ST80
Diameter	(mm)	30	45	80
Length (overall)	(mm)	102	63	90
Mass	(kg)	0,3	0,4	0,6
Number of output signals		1 ou 2	1 ou 2	1
Resolution	(waves / rotation)	100	150	200
Speed Range	(rpm)	120 à 3600	60 à 3000	30 à 3000
Output Voltage @ 30 rpm	(V peak/peak)	> 1,2	> 1,2	> 1,5
Output Voltage @ 3000 rpm	(V peak/peak)	< 25	< 15	< 30
Typical Load	k $\Omega$	10	10	3
Internal resistance	$\Omega$	250	400	450
Connector type		MIL-C-38999	MIL-C-38999	EN 2997
Insulation	M $\Omega$	100	20	20
Bonding	m $\Omega$	8	8	20
Signal distortion		< 3%		

## DIMENSIONS

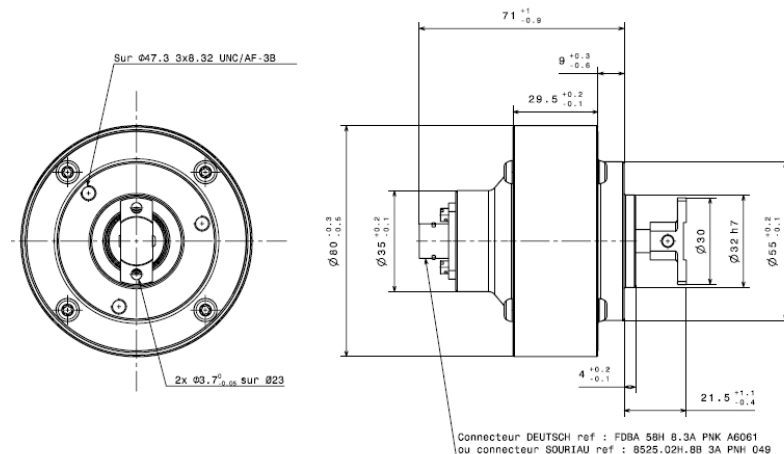
ST30



ST45



ST80



## ENVIRONMENT

Operating temperature: -55 to +200 °C  
 Vibratory levels: 40 G from 10 to 400 Hz; 20 G from 400 to 2000 Hz  
 Environmental standards: RTCA – DO160D

## APPLICATIONS

**ST30 and ST45** These two lines of product include two models, one simple and the second with a double magnetic circuit. The ST45 equips in particular the RAFALE whereas the ST30 equips the FALCON 2000.

**ST80** This line of product includes two models, of which one with reduced couple. It equips the AIRBUS range A300, A310, A319, A320, A321, A330 and A340. All these aircrafts, in daily exploitation in more than 100 airline companies, have a brake system equipped with our tachometers. More than 25 000 items are currently in service.