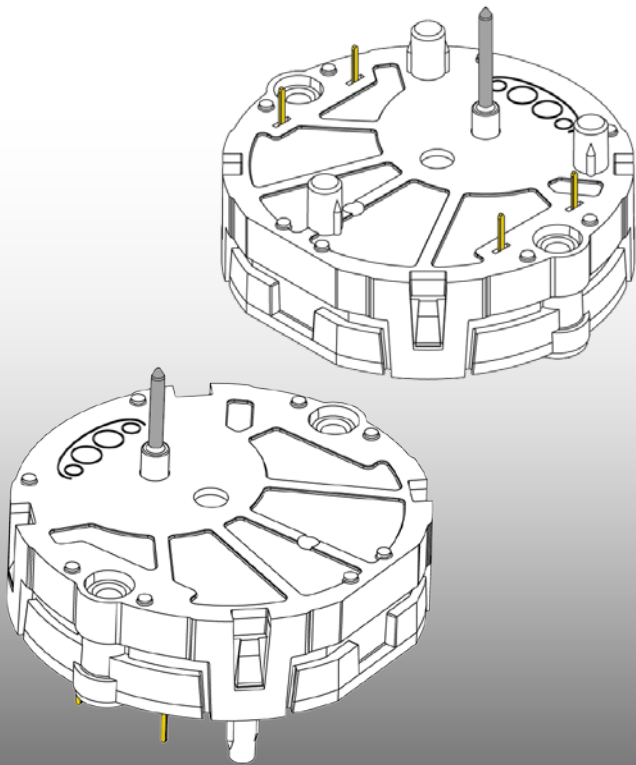


X27



Automotive instrumentation
stepper motor

1/3° resolution per partial step

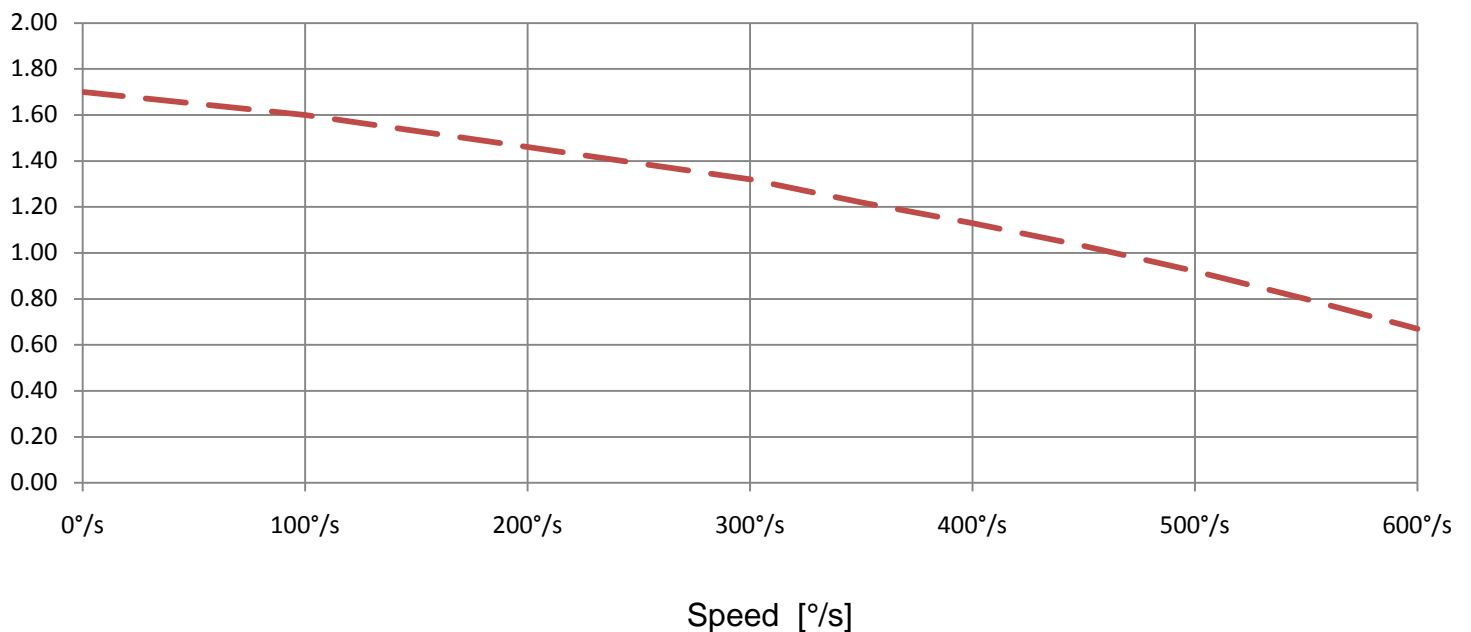
High rotation speed up to 600°/s

High efficiency over full automotive
Temperature range

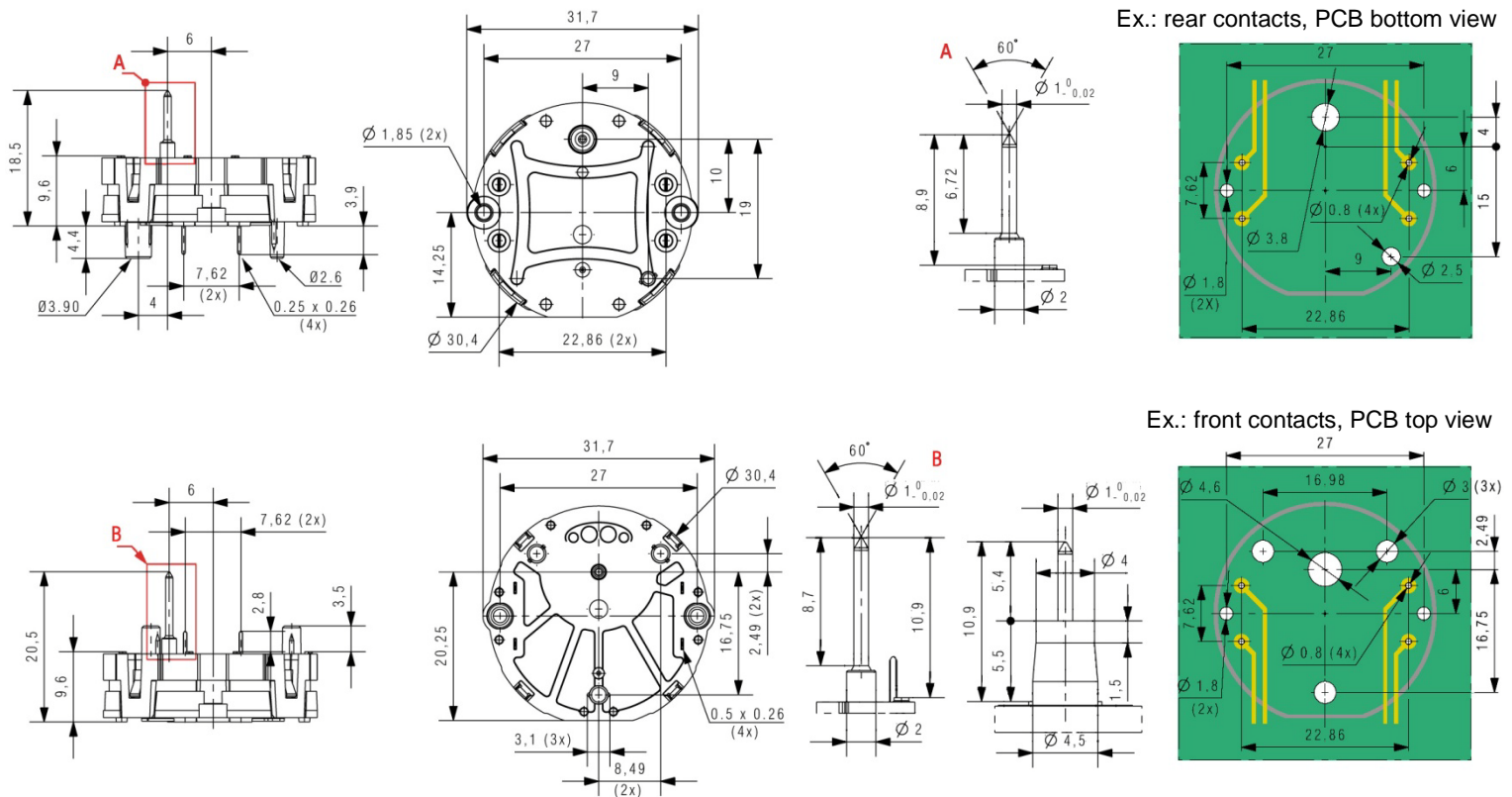
Dome option for large pointers

Front or rear contacts

Dynamic torque [mNm] on shaft



X27 – Technical data


$$T_{\text{amb}} = 25^{\circ}\text{C}$$

		Min.	Typ.	Max.	Unit
1	Dynamic torque on the pointer shaft at 200°/s and 5.0V _{DC} supply	1.0	1.45		mNm
2	Start-Stop frequency f _{ss} at pointer inertia load 0.2x10 ⁻⁶ kgm ²			200	°/s
3	Maximum operating speed f _{max} with appropriate acceleration			600	°/s
4	Angle of rotation with internal stop			315	degree
5	Holding torque powered	3.5	4.0		mNm
6	Operating voltage (phase shift 60°)		5.0	9.0	V _{DC}
7	Coil resistance per coil	230	260	290	ohm
8	Gear play on shaft		0.5	1	degree
9	Equivalent inertia (J _{M-S} reported to the indicator shaft)		6.1e-7		kgm ²
10	Rotating angle for an electrical period (gear ratio 1:180)		2		degree
11	Maximum axial force on the pointer shaft (stake-on) Maximum radial force on the pointer shaft			150 12	N N
12	Noise level of the motor, measurement distance 4 cm from top of shaft, not mounted, without load, angular speed 200°/s		40		dB(A)
13	Acceleration of sinus vibration test (5..250 Hz), 8h, each direction, at pointer inertia load 0.2x10 ⁻⁶ kgm ²		6g		m/s ²
14	Operating Temperature	-40		+105	°C
15	Soldering Temperature (10 sec)		260		°C