

GEFRAN

PME12

RECTILINEAR DISPLACEMENT TRANSDUCER WITH MAGNETIC DRAG



Main features

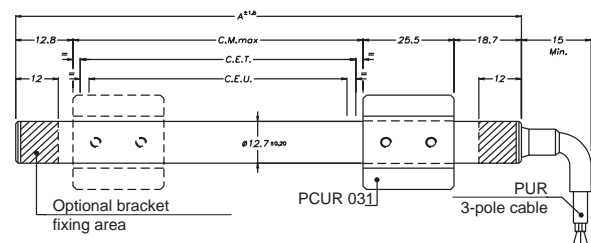
- Rectilinear displacement transducer without drag shaft, completely water-tight (IP67), designed to work in humid environments and in temporary immersion (CEI EN 60529)
- The PME series has an external magnetic actuator linked to an internal measurement cursor
- The magnetic cursor replaces the drag shaft used in traditional displacement transducers, making the instrument even more compact
- Installation is made simpler because there is no variation in the electrical output signal outside the Theoretical Electrical Stroke
- The instrument can be used in compressed air applications with max. working pressure of 20 bar; 50 bar peak

TECHNICAL DATA

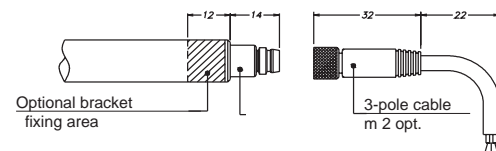
Useful electrical stroke (C.E.U.)	50 to 1000mm
Independent linearity (within C.E.U.)	see table
Resolution	infinite
Repeatability	≤ 0.08 mm
Hysteresis	≤ 0.25mm
Electrical connection	PME12 F 1 m 3-pole shielded cable PME12 C 3-pole connector M8
Protection level	IP67 (CEI EN 60529)
Life	> 25x10 ⁶ mstrokes, or > 100x10 ⁶ maneuvers, whichever is less
Displacement speed	≤ 5 m/s
Max. acceleration	≤ 10m/s ² displacement
Shock test DIN IEC68T2-27	50g, 11ms single stroke
Vibrations DIN IEC68T2-6	12g, 10...2000Hz
Cursor dragging force	≤ 0.5 N
Displacement sensitivity (no hysteresis)	0.05 to 0.1 mm
Tracking error	See table
Tolerance on resistance	±20%
Recommended cursor current	< 0.1 μA
Maximum cursor current in case of bad performances	10mA
Maximum applicable voltage	See table
Electrical isolation	>100MΩ at 500V~, 1bar, 2s
Dielectric strenght	< 100μA at 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	See table
Thermal coefficient of resistance	-200 +200 ppm/°C typical
Actual Temperature Coefficient of the output voltage	≤ 5 ppm/°C typical
Working temperature	-30...+100°C
Storage temperature	-50...+120°C
Material for transducer case	Anodised aluminium Nylon 66 G25
Material for cursor	Nylon 66 G25, Nickel-plated magnets
Mounting	Brackets with adjustable distance between centers

MECHANICAL DIMENSION

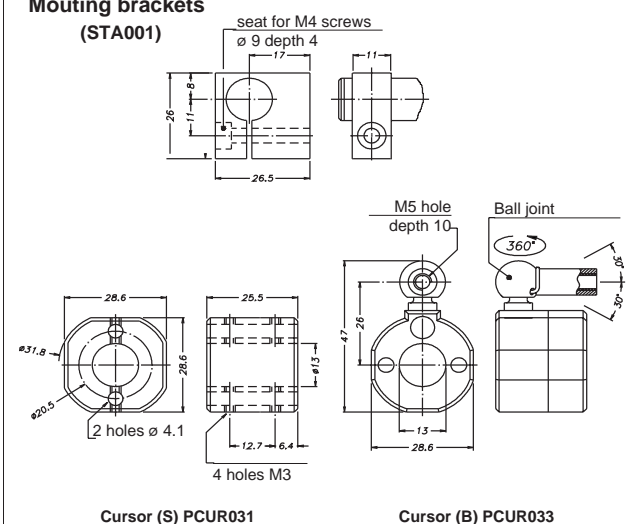
Cable output PME12 F version



Connector output PME12 C version



Mouting brackets (STA001)



Importante: All the data reported in the catalogue linearity and temperature coefficients are valid for sensor utilization as a ratiometric device with a max. current across the cursor circuit $I_c \leq 0.1 \mu A$.

