



Main features

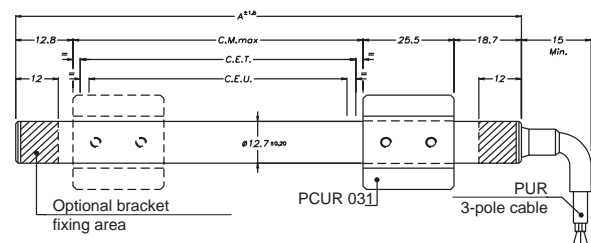
- Rectilinear displacement transducer without drag shaft, completely water-tight (IP67), designed to work in humid environments and in temporary immersion (CEI EN 60529)
- The PME series has an external magnetic actuator linked to an internal measurement cursor
- The magnetic cursor replaces the drag 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

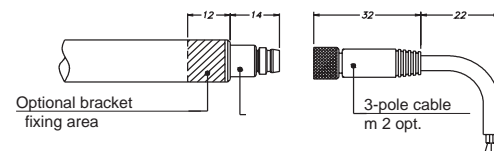
Useful electrical stroke (C.E.U.)	50 to 1000mm
Independent linearity (within C.E.U.)	see table
Resolution	infinite
Repeatability	≤ 0.08 mm
Hysteresis	≤ 0.25mm
Electrical connection	PME12 F 1 m 3-pole shielded cable PME12 C 3-pole connector M8
Protection level	IP67 (CEI EN 60529)
Life	> 25x10 ⁶ mstrokes, 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

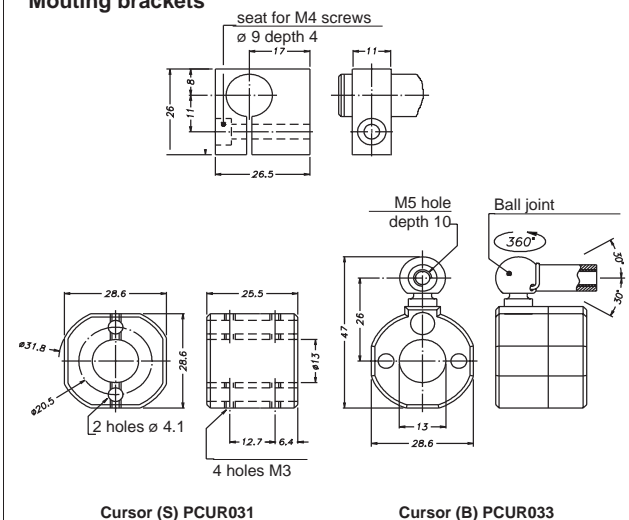
Cable output PME12 F version



Connector output PME12 C version



Mouting brackets



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 $I_c \leq 0.1 \mu A$.

MECHANICAL / ELECTRICAL DATA

MODEL		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Useful electrical stroke (C.E.U.) + 1 / - 0	mm	Model																			
Theoretical electrical stroke (C.E.T.) ± 1	mm	C.E.U. + 1																			
Resistance (C.E.T.)	kΩ	5					10					20									
Independent linearity (within C.E.U.)	±%	0,1		0,05																	
Dissipation at 40°C (0W at 120°C)	W	1	2	3																	
Max applicable voltage	V	40		60																	
Mechanical stroke CM	mm	C.E.U. + 5																			
Case Length (A)	mm	C.E.U. + 62																			

ELECTRICAL CONNECTIONS

Connector output	Cable Output PME12 F	Cable Output PME12 C
3 (+)	blue	blue
2	yellow	black
1 (-)	brown	brown

INSTALLATION INSTRUCTIONS

- Make the specified electrical connections (DO NOT use the transducer as a variable resistance)
- When calibrating the transducer, be careful to set the stroke so that the output does not drop below 1% or rise above 99% of the voltage level.

ORDER CODE

Displacement transducer **P M E 1 2**

3-pole connector output M8	C
PUR 3-pole cable output 3x0,25 1m	F
Model	
PCUR031 cursor (Standard)	S
PCUR033 cursor (Joint)	B

0 0 0 0 x 0 0 0 0 x x x x x x x

No certificate attached	0
Linearity curve to be attached	L

Version F cable length	
1 m cable (standard)	00
2 m cable	02
3 m cable	03
4 m cable	04
5 m cable	05
10 m cable	10
15 m cable	15

Example.: **PME-12-F-0400-S 0000X000XX00XXX**
 PME 12 displacement transducer, cable output, useful electrical stroke (C.E.U.) 400 mm, PCUR031 cursor, no certificate attached, cable length 1 m.

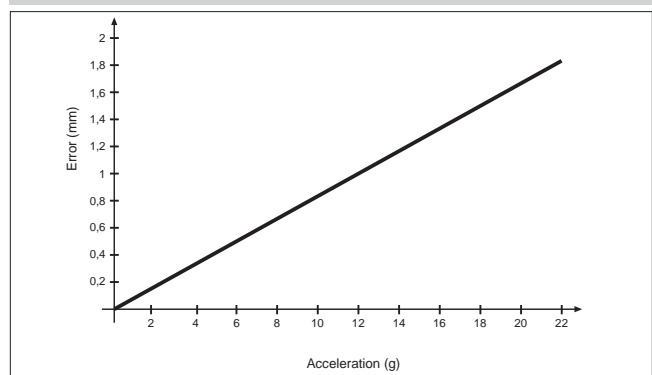
ACCESSORIES (standard)

PME mounting kit, 2 brackets **STA001**
 Standard magnetic cursor or jointed magnetic cursor **PCUR031**
PCUR033

ACCESSORIES (on request)

Female connector + 2 m wired PVC cable **CAV010**

TRACKING ERROR



GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice