

GEFRAN

PME12

RECTILINEAR DISPLACEMENT TRANSDUCER WITH MAGNETIC DRAG



Main features

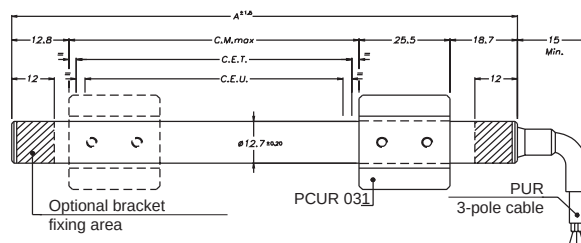
- Rectilinear displacement transducer without drag shaft, completely water-tight (IP67), designed to work in humid environments and in temporary immersion (CEI EN 60529)
- The PME series has an external magnetic actuator linked to an internal measurement cursor
- The magnetic cursor replaces the drag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

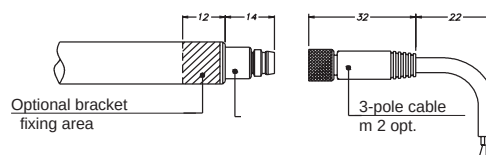
Useful electrical stroke (C.E.U.)	50 to 1000mm
Independent linearity (within C.E.U.)	see table
Resolution	infinite
Repeatability	≤ 0.08 mm
Hysteresis	≤ 0.25mm
Electrical connection	PME12 F 1 m 3-pole shielded cable PME12 C 3-pole connector M8
Protection level	IP67 (CEI EN 60529)
Life	> 25x10 ⁶ mstrokes,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

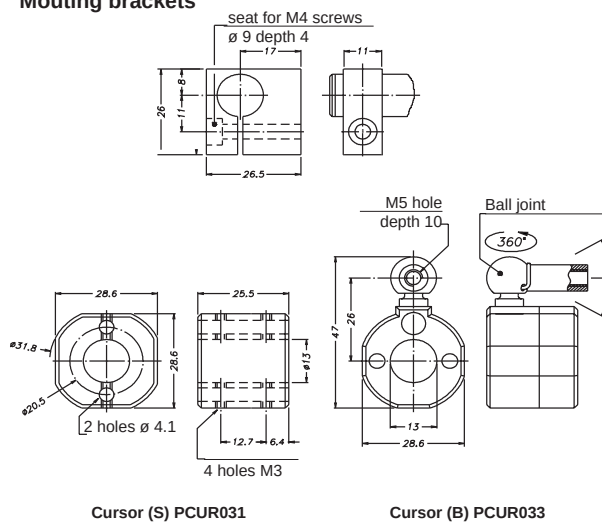
Cable output PME12 F version



Connector output PME12 C version



Mouting brackets



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 Lenght (A)	mm	C.E.U. + 62																			

ELECTRICAL CONNECTIONS

Connector output

Cable Output PME12 F

Cable Output PME12 C

3 (+) blue

2 yellow

1 (-) brown

Connection side

PME12C output

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 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.

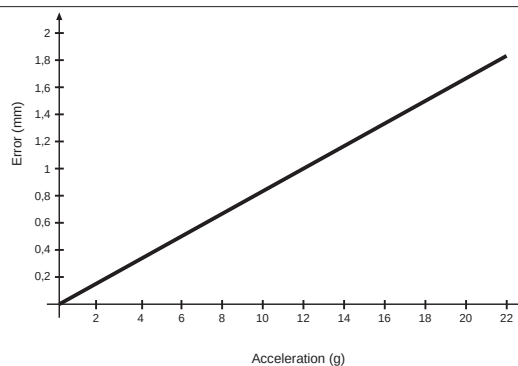
ACCESSORIES (standard)

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

GEFRAN

GEFRAN spa
 via Sebina, 74
 25050 PROVAGLIO D'ISEO (BS) - ITALIA
 tel. 0309888.1 - fax. 0309839063
 Internet: <http://www.gefran.com>

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