

#### Main features

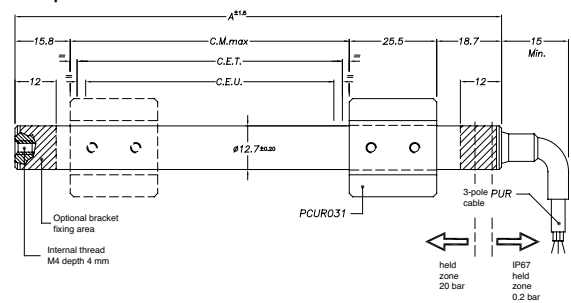
- Rectilinear displacement transducer without drag shaft, completely water-tight (IP67), designed to work in humid environments (CEI EN 60529)
- The PME series has an external magnetic actuator linked to an internal measurement cursor
- The magnetic cursor replaces the drag shaft used in traditional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

#### TECHNICAL DATA

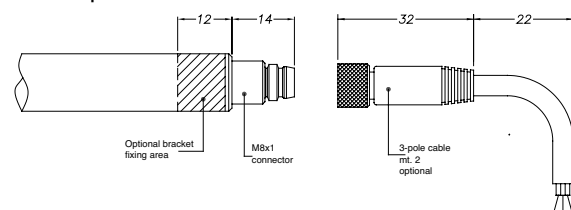
Useful electrical stroke (C.E.U.)	50 to 1000mm
Independent linearity (within C.E.U.)	see table
Resolution	infinite
Repeatability	≤ 0.08 mm
Hysteresis	≤ 0.25mm
Electrical connection	PME12 F 1 m 3-pole shielded cable PME12 C 3-pole connector M8
Protection level	IP67 (CEI EN 60529)
Life	> 25x10 <sup>6</sup> mstrokes, or > 100x10 <sup>6</sup> maneuvers, whichever is less
Displacement speed	≤ 5 m/s
Max. acceleration	≤ 10m/s <sup>2</sup> 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 strength	< 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, PSU
Material for cursor	POM
Mounting	Brackets with adjustable distance

#### MECHANICAL DIMENSION

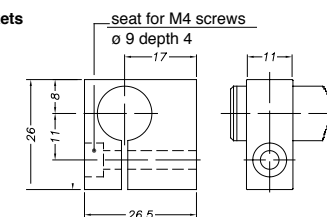
##### Cable output PME12 F version



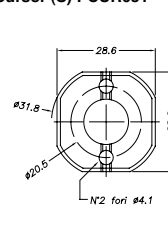
##### Connector output PME12 C version



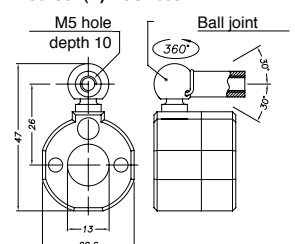
##### Mounting brackets



##### Cursor (S) PCUR031



##### Cursor (B) PCUR033

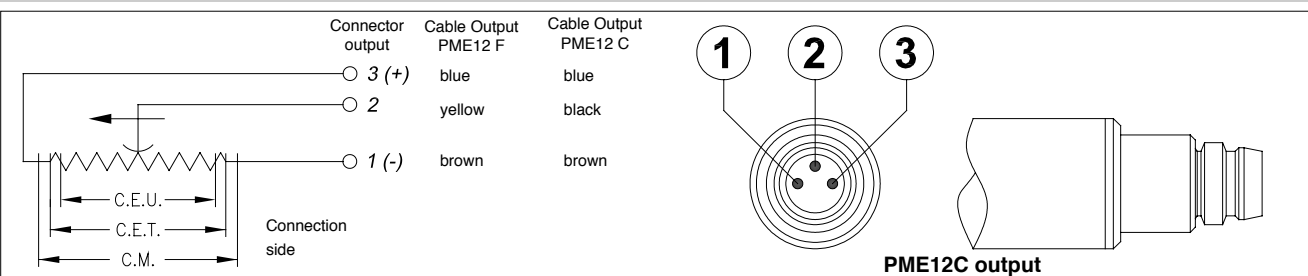


**Important:** All the data reported in the catalogue linearity and temperature coefficients are valid for sensor utilization as a ratiometric device with a max. current across the cursor circuit  $I_c \leq 0.1 \mu A$ .

## 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																			
Mechanical stroke CM	mm	C.E.U. + 5																			
Case Length (A)	mm	C.E.U. + 65																			

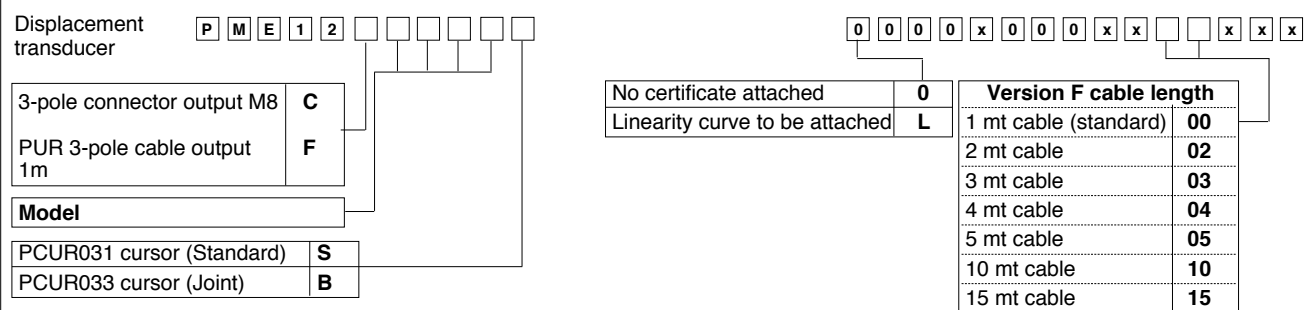
## ELECTRICAL CONNECTIONS



### 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



Ex.: **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.

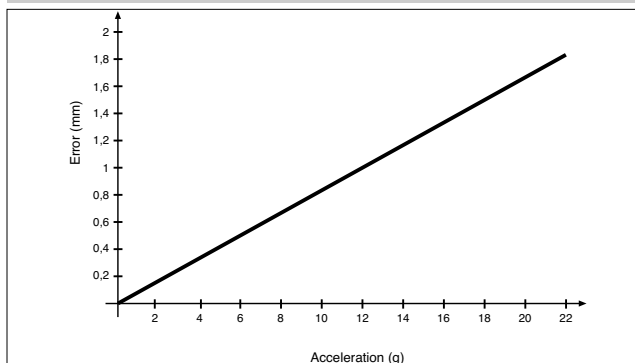
## ACCESSORIES

PME mounting kit, brackets (2 pieces included in the confection)	<b>STA001</b>
Standard magnetic cursor or (1 pieces included in the confection)	<b>PCUR031</b>
Jointed magnetic cursor (1 pieces included in the confection)	<b>PCUR033</b>

## ACCESSORIES (on request)

Female connector + 2 m wired PVC cable	<b>CAV010</b>
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## TRACKING ERROR



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

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