



#### Principal characteristics

- The 1/2" cylindrical housing, plus the option of all fastening systems (brackets, joints or flange), makes the PZ12 series highly versatile for a wide range of applications.
- The optimized mechanical structure makes the product suitable for developing various special executions (contact Gefran customer service for details).
- Installation is simplified by the lack of electrical signal variation at output outside theoretical electrical stroke.
- Ideal for wood and glass working and finishing machines and for car test benches.

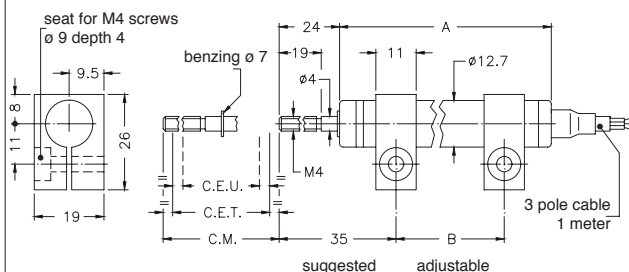
#### TECHNICAL DATA

Useful electrical stroke (C.E.U.)	25/50/75/100/125/150/200/250
Resolution	infinie
Protection	IP60
Independent linearity (within C.E.U.)	see table
Displacement speed	$\leq 10$ m/s
Displacement force	$\leq 0.5$ N
Life	>25x10 <sup>6</sup> m strokes, or 100x10 <sup>6</sup> operations, whichever is less (within C.E.U.)
Vibrations	5...2000Hz, A <sub>max</sub> = 0,75 mm a <sub>max</sub> = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1 \mu A$
Maximum cursor current	10mA
Max. applicable voltage	see table
Electrical isolation	>100M $\Omega$ a 500V~, 1bar, 2s
Dielectric strength	$< 100 \mu A$ a 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	see table
Actual Temperature Coefficient of the output voltage	$< 1,5$ ppm/°C
Working temperature	-30...+100°C
Storage temperature	-50...+120°C
Case material	Anodised aluminium Nylon 66 G 25
Control rod material	Stainless steel AISI 303
Fixing	Brackets, selfaligning ball-joints or flange

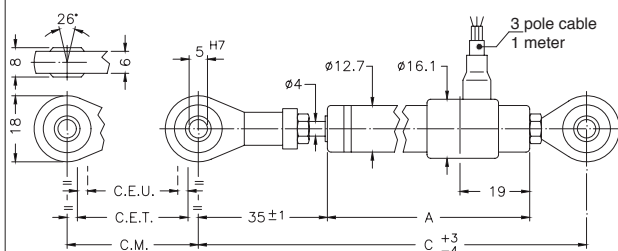
**Important:** all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor  $I_c \leq 0.1 \mu A$ .

#### MECHANICAL DIMENSIONS

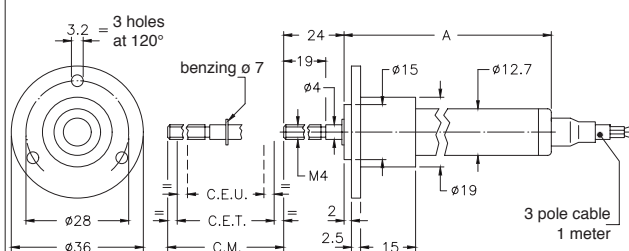
##### PZ12-S



##### PZ12-A



##### PZ12-F



## MECHANICAL / ELECTRICAL DATA

MODEL		25	50	75	100	125	150	200	250	
Useful electrical stroke (C.E.U.) + 1 / -0		mm	25	50	75	100	125	150	200	250
Theoretical electrical stroke (C.E.T.) ± 1		mm	C.E.U. +1							
Resistance (C.E.T.)		kΩ	1	2	3	4	5	6	8	6
Independent linearity (within C.E.U.)		± %	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05
Dissipation at 40°C (0W at 120°C)		W	0.5	1	1.5	2	2.5	3	3	3
Maximum applicable voltage		V	20	40	60					
Mechanical stroke (C.M.)		mm	C.E.U. +5							
Case length (A)	mod. PZ12 - S	mm	74.5	99.5	124.5	149.5	174.5	199.5	249.5	299.5
	mod. PZ12 - A	mm	102	127	152	177	202	227	277	327
	mod. PZ12 - F	mm	74.5	99.5	124.5	149.5	174.5	199.5	249.5	299.5
Recommended distance between brackets (B)		mm	42	67	92	117	142	167	217	267
Minimum distance between ball-joints (C)		mm	153	178	203	228	253	278	328	378
Weight	mod. PZ12 - S	g	45	55	65	75	85	95	115	135
	mod. PZ12 - A	g	70	80	90	100	110	120	140	160
	mod. PZ12 - F	g	60	70	80	90	100	110	130	150

## ELECTRICAL CONNECTIONS

Cable output  
blue  
yellow  
brown

C.E.U.  
C.E.T.  
C.M.

Connection side

### INSTALLATION INSTRUCTIONS

- Respect the indicated 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 beyond 99% of the supply voltage.

## ORDER CODE

Displacement transducer **PZ12**

Mounting by brackets	<b>S</b>
Mounting by selfaligning ball-joints	<b>A</b>
Mounting by flange	<b>F</b>

Model

Example: **PZ12 - S - 25**  
Displacement transducer model PZ12, mounting by brackets, useful electrical stroke (C.E.U.) 25mm

No certificate attached	<b>0</b>
Linearity curve to be attached	<b>L</b>
Cable length 1 mt	<b>0</b>
Cable length 2 mt	<b>2</b>
Cable length 3 mt	<b>3</b>
Other lengths on request	<b>....</b>
Colour of plastic heads (green)	<b>0</b>
Colour of plastic heads (black)	<b>N</b>

0
0
0
X
0
0
0
X
0
0

## ACCESSORIES

Code
Mounting brackets for PZ12-S (2 pieces included in the confection)
<b>STA074</b>

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