

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.

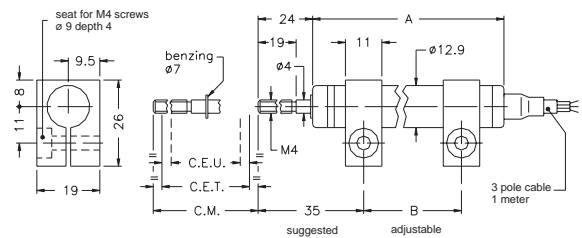
TECHNICAL DATA

Useful electrical stroke (C.E.U.)	25/50/75/100/125/150/200/250
Resolution	infinite
Protection	IP60
Independent linearity (within C.E.U.)	see table
Displacement speed	≤ 10 m/s
Displacement force	≤ 0.5 N
Life	>25x10 ⁶ strokes, or 100x10 ⁶ operations, whichever is less (within C.E.U.)
Vibrations	5...2000Hz, Amax = 0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1 \mu\text{A}$
Maximum cursor current	10mA
Max. applicable voltage	see table
Electrical isolation	$>100\text{M}\Omega$ at 500V=, 1bar, 2s
Dielectric strength	$< 100 \mu\text{A}$ at 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	see table
Actual Temperature Coefficient of the output voltage	$< 1,5\text{ppm}/^\circ\text{C}$
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

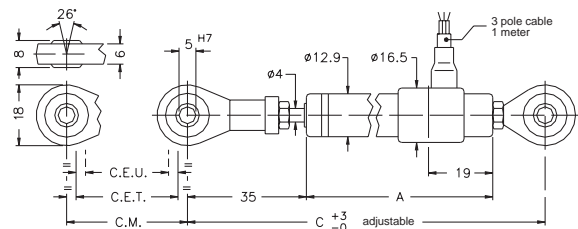
Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor $I_c \leq 0.1 \mu\text{A}$.

MECHANICAL DIMENSIONS

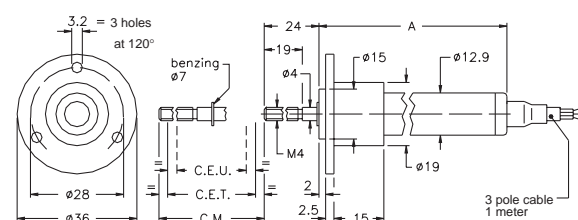
PZ12-S



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

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	S
Mounting by selfaligning ball-joints	A
Mounting by flange	F

Model

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

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

STANDARD ACCESSORIES

	Code
2 mounting brackets for PZ12-S	STA074

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