# **GEFRAN**

# **PZ12**

# RECTILINEAR DISPLACEMENT TRANSDUCER WITH CYLINDRICAL CASE



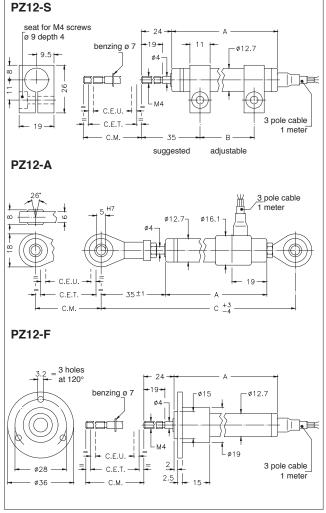
# Principal characteristics

- 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	<= 10 m/s
Displacement force	<= 0.5N
Life	>25x10°m strokes,or 100x10° operations, whichever is less (within C.E.U.)
Vibrations	52000Hz, Amax = 0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	± 20%
Recommended cursor current	< 0,1 μΑ
Maximum cursor current	10mA
Max. applicable voltage	see table
Electrical isolation	>100MΩ a 500V=, 1bar, 2s
Dielectric strength	< 100 μA a 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	see table
Actual Temperature Coefficient of the output voltage	<1,5ppm/°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

# **MECHANICAL DIMENSIONS**

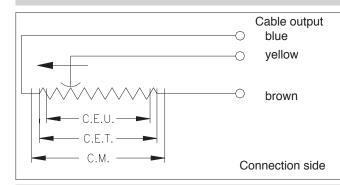


Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor Ic  $\leq$  0.1  $\mu$ A.

# **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

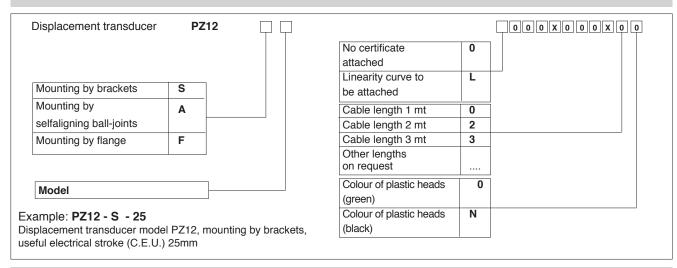
### **ELECTRICAL CONNECTIONS**



#### **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**



# **ACCESSORIES**

Code

Mounting brackets for PZ12-S (2 pieces included in the confection)

STA074

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

