

# GEFRAN

## PZ67-S

RECTILINEAR DISPLACEMENT TRANSDUCER  
WITH IP67 PROTECTION LEVEL



### Main features

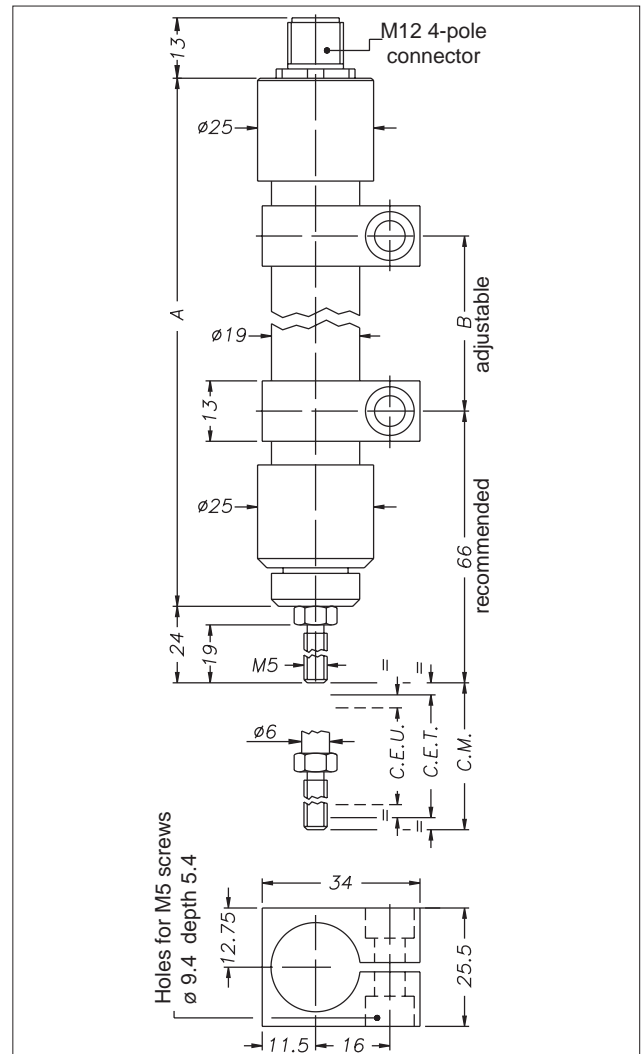
- This transducer is designed to guarantee a high protection level (IP67) in applications under harsh conditions and outdoors, where it may be necessary to work in the direct presence of dust, dirt, or liquids (not in prolonged immersion)
- Its high protection level and very small size make the PZ67-S unique in terms of reliability and flexible installation
- It is ideal for glass cutting and washing machines or for honers and sanders if there is direct exposure to liquids or even just steam
- Indicated for test and bench equipment, especially if outdoors

### TECHNICAL DATA

Useful electrical stroke C.E.U.	25/50/75/100/125/150/175/200/ 250/300
Independent linearity (within C.E.U.)	see table
Resolution	infinite
Repeatability	0.01mm
Electrical connection	M12 4-pole connector
Protection level	IP67 (use M12 4-pole female connector with IP67 or higher protection level)
Life (NOT used in prolonged immersion)	> 25x10 <sup>6</sup> m strokes, or > 100x10 <sup>6</sup> maneuvers, whichever is less (within C.E.U.)
Displacement speed	Standard ≤ 3 m/s max ≤ 5 m/s
Displacement force	≤ 20N
Vibrations	5...2000Hz, Amax =0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Acceleration	200 m/s <sup>2</sup> max (20g)
Tolleranza sulla resistenza	± 20%
Recommended cursor current	< 0.1 μA
Maximum cursor current	10mA
Maximum applicable voltage	see table
Electric isolation	>100MΩ at 500V=, 1bar, 2s
Dielectric strength	< 100 μA at 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W a 120°C)	3W
Thermal coefficient of resistance	-200...+ 200 ppm/°C typical
Actual Temperature Coefficient of the output voltage	≤ 5ppm/°C typical
Working temperature	-30...+100°C
Storage temperature	-50...+120°C
Case material	Anodised aluminium
Control rod material	C45 Chrome steel 20μm
Mounting	Adjustable-axis brackets

**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



## MECHANICAL / ELECTRICAL DATA

MODEL		25	50	75	100	125	150	175	200	250	300
Useful electrical stroke (C.E.U.) +1 / -0	mm	25	50	75	100	125	150	175	200	250	300
Theoretical electrical stroke (C.E.T.) ± 1	mm	C.E.U. +1									
Resistance (sulla C.E.T.)	kΩ	1	2	3	4	5	6	7	8	10	12
Independent linearity (within C.E.U.)	± %	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05
Dissipation at 40°C (0W at 120°C)	W	0.8	1.6	2,6	8						
Maximum applicable voltage	V	20	40	60							
Mechanical stroke (C.M.)	mm	C.E.U. +5									
Case length (A)	mm	106.5	131.5	156.5	181.5	206.5	231.5	256.5	281.5	331.5	381.5
Recommended distance between brackets (B)	mm	21	46	71	96	121	146	171	196	246	296

Note: It is recommended to keep the sliding parts lubricated, at least every 6 months.

## 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.

**Connector output**

- 4 nc
- 3 (+)
- 2
- 1 (-)

**Connection side**

← C.E.U. (Useful Electrical Stroke)  
 ← C.E.T. (Theoretical Electrical Stroke)  
 ← C.M. (Mechanical Stroke)

## ORDER CODE

Displacement transducer **PZ67-S**

Model

No certificate attached	0
Linearity curve to be attached	L

				X				X		
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Example.: **PZ67-S - 075 0000X000X00**  
 Model PZ67-S displacement transducer, M12 4-pole connector output, useful electrical stroke (C.E.U.) 75mm., no certificate attached.

## ACCESSORIES

<b>STANDARD</b>	<b>Code</b>
PZ mounting kit, 2 brackets	<b>STA075</b>
<b>ON REQUEST</b>	<b>Code</b>
M12 4-pole axial female connector, IP67-IEC48B clamp for ø6-ø8mm cable	<b>CON293</b>
M12 4-pole 90° radial female connector, IP67	<b>CON050</b>

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