GEFRAN PC67 *RECTILINEAR DISPLACEMENT TRANSDUCER WITH IP67 PROTECTION DEGREE*



Applicative characteristics

- The PC67 displacement transducer was developed to guarantee a high protection level (IP67) in applications under harsh conditions and outdoors, where it may be necessary to work in the presence of dust, dirt, or liquids (not in prolonged immersion).
- The robust structure of the PC series has been improved thanks to a sealing system (patent pending) that makes it extremely reliable.
- Ideal for mobile hydraulic applications, on agricultural machines, earth-moving equipment and utility vehicles.

TECHNICAL DATA

Useful electrical stroke (C.E.U.)	from 50 mm to 1000 mm (for intermediate strokes see table "Electri- cal / Mechanical Data")
Independent linearity (within C.E.U.)	± 0.05%
Resolution	Infinite
Repeatibility	0.01 mm
Electrical connection	4 pole M12 connector
Protection	IP67 (use M12 4-pin female connector with IP67 protection level or higher)
Life (NOT for prolonged immersion)	 > 25x10^e m strokes, or > 100x10^e maneuvers, whickever is less (within C.E.U.)
Displacement speed	Standard \leq 3 m/s max \leq 5 m/s
Displacement force	≤ 30N (breakaway force ≤ 35N)
Vibrations	52000Hz, Amax =0.75 mm amax. = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	± 20%
Recommended cursor current	< 0.1 µA
Maximum cursor cursor	10mA
Maximum applicable vol- tage	60V
Electrical isolation	>100MΩ at 500V=, 1bar, 2s
Dielectric strength	< 100µA at 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	зw
Actual Temperature Coeffi- cient of the output voltage	≤ 5 ppm/°C typical
Working temperature	-30+100°C
Storage temperature	-50+120°C
Case material	Anodised aluminium
Control rod material	C45 steel, chromium plated 20 μ m
Mounting method	2 selfloading and selfaligning ball-joints

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 μ A.

MECHANICAL / ELECTRICAL DATA

MODEL		50	75	100	130	150	175	200	225	275	300	360	375	400	450	500	600	750	900*	1000*
Useful electrical stroke (C.E.U.) +3/-0	mm	50	75	100	130	150	175	200	225	275	300	360	375	400	450	500	600	750	900	1000
Theoretical electrical stroke $(C.E.T.) \pm 1$	mm	C.E.U. + 3					C.E.U. + 4				365	380	406	457	508	609	762	900	1015	
Resistance (C.E.T.)	kΩ	5													10					
Mechanical stroke (C.M.)	mm	C.E.U. + 9					C.E.U. + 10					386	412	463	518	619	772	924	1025	
Case length (A)	mm	C.E.U. + 148				C.E.U. + 149			515	531	557	608	683	784	937	1089	1190			
Min. distance between ball-joints	mm	C.E.U. + 196				C.E.U. + 197			563	579	605	656	731	832	985	1137	1238			

* = Only for vertical installations

Note: It is recommended to keep the sliding parts lubrificated, with a lubricant general purpose least every 6 months.

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 (to order separately)

4 pole M12 female connector axial, IP67-IEC48B, wire clamp for ø6-ø8mm wire	CON293
4 pole M12 female connector radial 90°, IP67	CON050

