GEFRAN

PK

RODLESS RECTILINEAR DISPLACEMENT TRANSDUCER

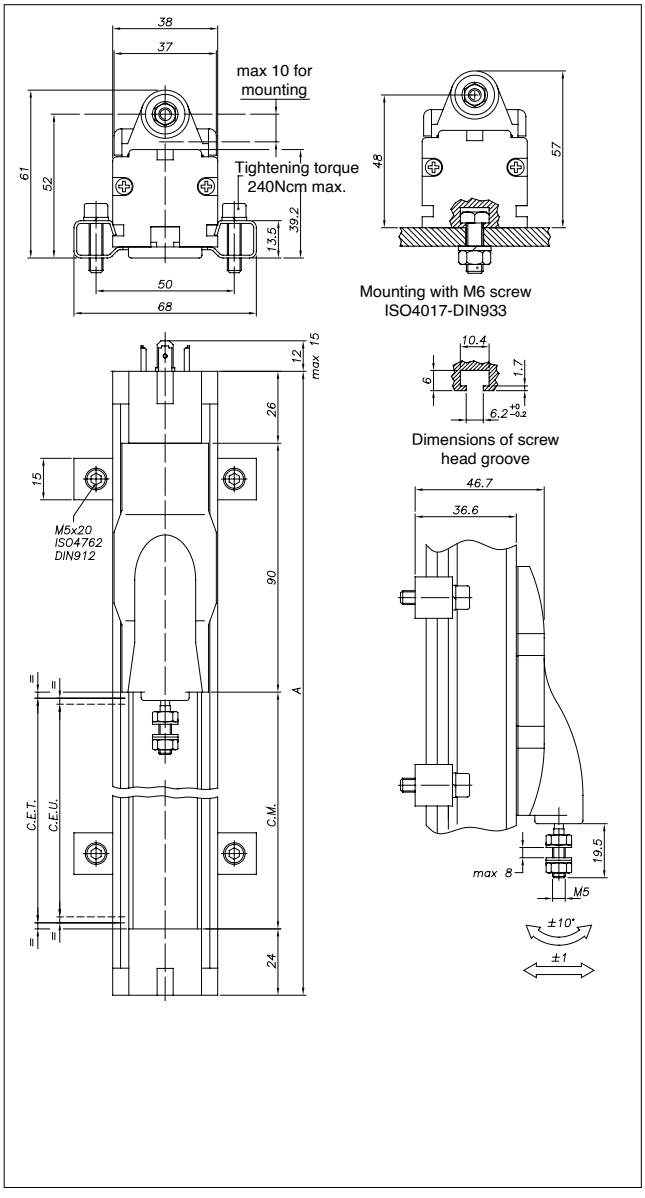
Main features

- *The transducer has been improved in order to guarantee greater reliability under all conditions*
- *Mechanical linkage using joint with take up of play, M5 thread*
- *Installation is made simpler by the absence of electrical signal variation in output, outside the Theoretical Electrical Stroke*
- *The new grooves provide an excellent alternative to the usual system of fastening with brackets*
- *Ideal for applications on plastic injection presses, vertical presses, and on many other processing machines*
- *Grade of protection IP40*

TECHNICAL DATA

Useful electrical stroke (C.E.U.)	from 50 to 1300 mm (for intermediate strokes see table "Electrical / Mechanical Data")
Independent linearity (within C.E.U.)	± 0,05%
Resolution	infinite
Repeatibility	0.01 mm
Electrical connection	PK M - DIN43650 4-pin connector PK B - DIN43322 5-pin connector
Protection	IP40
Life	> 25x10⁶ m strokes, or > 100x10⁶ maneuvers, whichever is less (within C.E.U.)
Displacement speed	≤ 10m/s
Displacement force	≤ 1.2 N
Vibrations	5...2000Hz, Amax =0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Acceleration operative	200 m/s² max (20g)
Tolerance on resistance	± 20%
Recommended cursor current	≤ 0.1 µA
Maximum cursor current	10mA
Maximum applicable voltage	60V
Electrical isolation	>100MΩ a 500V=, 1bar, 2s
Dielectric strength	< 100 µA a 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	3W
Temperature Coefficient of the resistance	-200 …. +200 ppm/°C typic
Actual Temperature Coefficient of the output voltage	≤ 5ppm/°C typic
Working Temperature	-30...+100°C
Storage Temperature	-50...+120°C
Case material	Anodised aluminium Nylon 66 G 25
Mounting method	Brackets with variable longitudinal axis with M6 screw ISO4017-DIN933

MECHANICAL DIMENSIONS



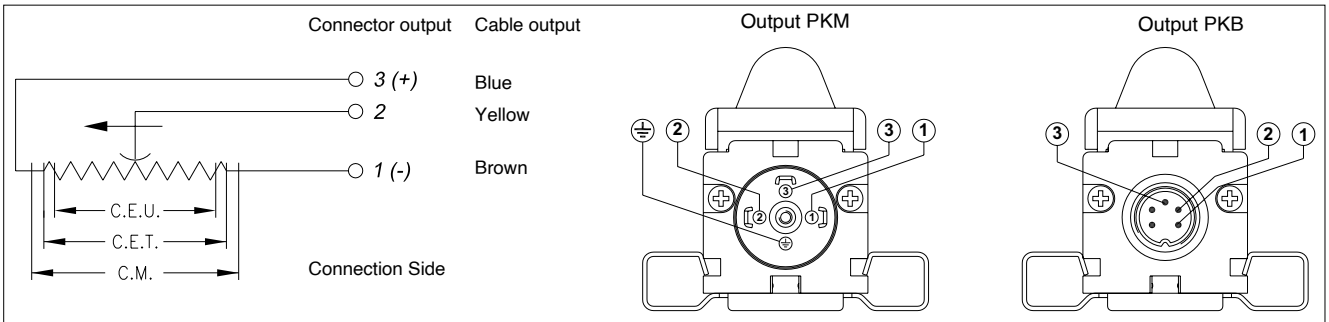
Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor Ic ≤ 0.1 µA.

MECHANICAL / ELECTRICAL DATA

MODEL		100	130	150	175	200	225	250	275	300	350	360	400	450	500	550	600
Useful electrical stroke (C.E.U.) + 3 / -0	mm	100	130	150	175	200	225	250	275	300	350	360	400	450	500	550	600
Theoretical electrical stroke (C.E.T.) ± 1	mm	103	133	153	178	204	229	254	279	305	355	365	406	458	509	559	611
Resistance (C.E.T.)	KΩ	5									10						
Mechanical stroke (C.M.)	mm	113	143	163	188	214	239	264	289	315	365	375	416	468	519	569	621
Case length (A)	mm	253	283	303	328	354	379	404	429	455	505	515	556	608	659	684	761

MODEL		650	700	750	800	850	900	1000	1100	1250	1500	1750	2000	2250	2750	3000
Useful electrical stroke (C.E.U.) + 3 / -0	mm	650	700	750	800	850	900	1000	1100	1250	1500	1760	2000	2250	2750	3000
Theoretical electrical stroke (C.E.T.) ± 1	mm	661	713	763	815	865	915	1017	1117	1271	1521	1771	2021	2271	2775	3025
Resistance (C.E.T.)	KΩ	10								20						
Mechanical stroke (C.M.)	mm	671	723	773	825	875	925	1027	1127	1281	1531	1781	2031	2291	2795	3045
Case length (A)	mm	811	863	913	965	1015	1065	1167	1267	1421	1671	1921	2171	2406	2935	3185

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

Displacement transducer **PK** □ □ □ □ □ □ 0 0 0 X 0 0 0 X 0 0

4-pole connector output DIN43650-ISO4400	**M**
5-pole connector output DIN43322	**B**

Model

No certificate attached	**0**
Linearity curve to be attached	**L**

Color of plastic heads (green)	**0**

Example:**PK - M - 0300 000X000X00**
PK displacement transducer, 4-pole connector output DIN43650 - ISO 4400, cuseful electrical stroke (C.E.U.) 300mm., no certificate attached; green plastic components

ACCESSORIES (standard)

Fixing kit for PK from 100 to 900: 2 brackets, screws, grower	**PKIT 059**
Fixing kit for PK from 1000 to 2000: 3 brackets, screws, grower	**PKIT 061**

ACCESSORIES (optional)

PKM 4-pole 90° radial female connector DIN43650; IP65 PG9 clamp for ø 6-8 mm. cable	**CON006**
PKB 5-pole axial female connector DIN43322; IP40 clamp for ø 4-6 mm. cable	**CON011**
PKB 5-pole axial female connector DIN43322; IP65 PG7 clamp for ø 4-6 mm. cable	**CON012**
PKB 5-pole 90° radial female connector DIN43322; IP40 clamp for ø 4-6 mm cable .	**CON013**

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

GEFRAN

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