

GEFRAN

PR65

ROTATIVE POSITION TRANSDUCER
IN CONDUCTIVE PLASTIC



Main features

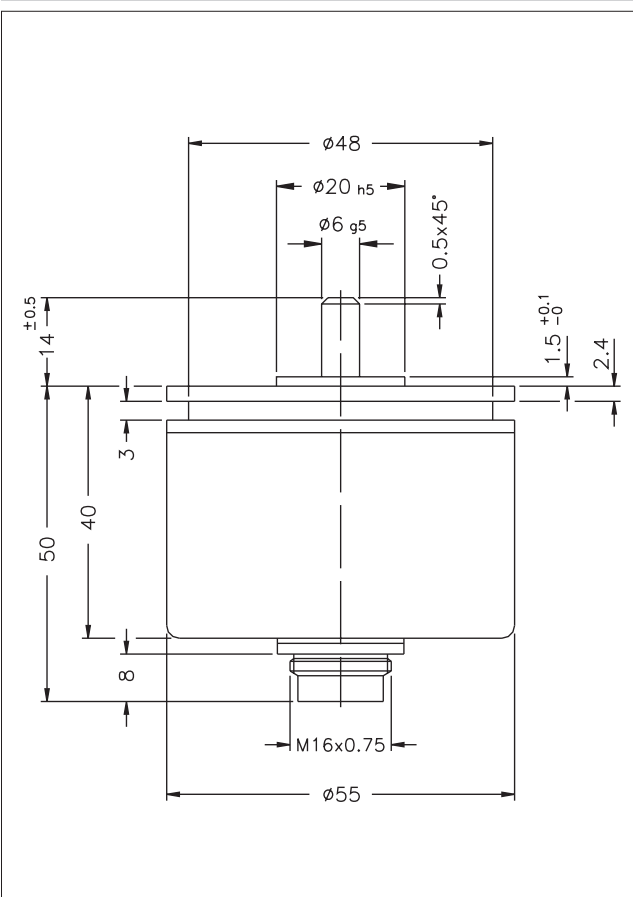
- Sealed industrial version
- Independent linearity up to $\pm 0,05\%$ (standard $\pm 0,5\%$)
- Working temperature: $-55...+100^{\circ}\text{C}$
- Repetibility 0,01% della C.E.T.
- Life duration: $>100 \times 10^6$ operations at 10 r.p.s. (within C.E.U.)
- Infinite resolution
- Electrical connection: 5-pole connector DIN 43322
- Grade of protection IP65
- Suitable for use in explosive environments with presence of gas (groups IIA, IIB, IIC) and combustible powders. Standards for simple device: ATEX CEI EN 50020 2003 - paragraph 5.4 a

TECHNICAL DATA

Model	PR65
Vibrations	5...2000Hz, $A_{max} = 0,75$ mm $a_{max} = 20$ g
Shock	50 g, 11ms.
Hysteresis (backlash)	$\leq 15''$ of arc
Tolerance on resistance total	$\pm 20\%$
Recommended cursor current	$< 0,1 \mu\text{A}$
Maximum cursor current	10mA
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	$-55...+100^{\circ}\text{C}$
Storage temperature	$-55...+125^{\circ}\text{C}$
Case material	Nylon 66 GF 40
Shaft material	AISI 316
Bearings	High precision with double (ZZ) sealed screen in stainless steel
Flange	Anodised aluminium

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 $I_c \leq 0.1 \mu\text{A}$.

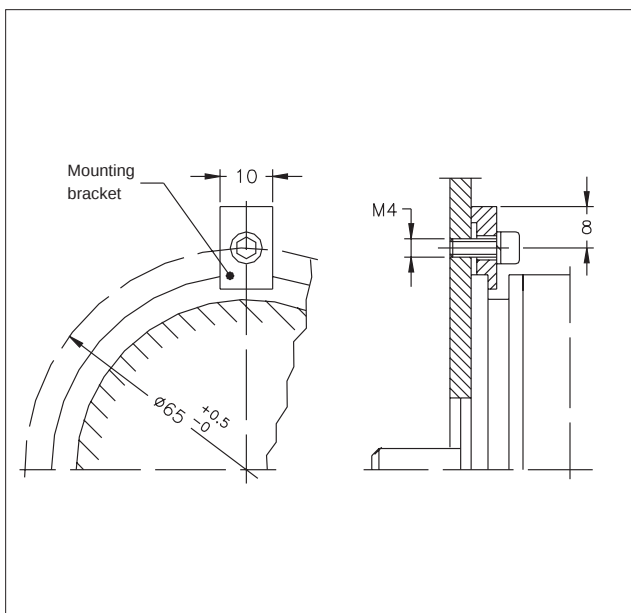
MECHANICAL DIMENSIONS



MECHANICAL / ELECTRICAL DATA

MODEL		PR65
Theoretical electrical stroke (C.E.T.)	°	345 ± 4°
Useful electrical stroke (C.E.U.)	°	C.E.T. - 2°
Resistance (C.E.T.)	kΩ	1 - 4.7 - 10
Independent linearity (within C.E.U.)	±%	A = ± 1% B = ± 0,5% C = ± 0,25% D = ± 0,1% E = ± 0,05%
Dissipation at 40°C (0W at 120°C)	W	1.25
Mechanical rotation (C.M.)	°	360° continuous
Weight	g	132

MOUNTING DIAGRAM



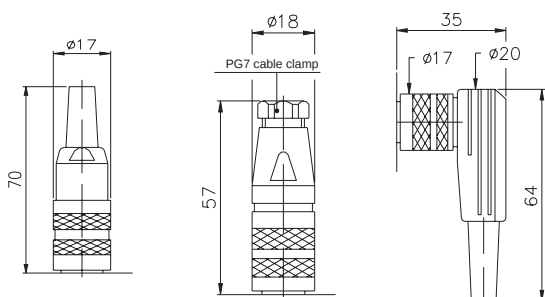
OPTIONAL ACCESSORIES

Fixing kit for PR65:

3 brackets, M4x10TCEI screws, grower
(Included in the supply)

Code

PKIT008



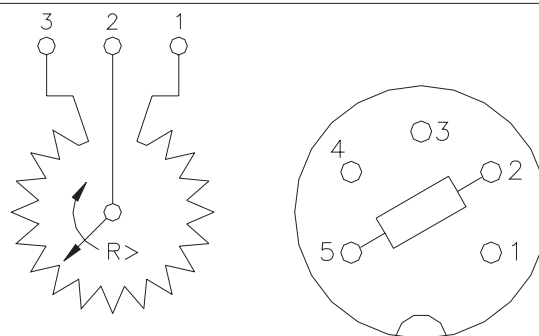
CON011 - IP40 Prot.
(5 pole Female conn.)

CON012 - IP67 Prot.
(5 pole Female conn.)

CON013 - IP40 Prot.
(5 pole Female conn.)

Extraction length of the connector 10mm.

ELECTRICAL CONNECTIONS



A 5KΩ protection resistance has been connected between pins 2 (cursor) and 5; in case of the cursor is connected to pin 5, eventual short-circuits due to wiring errors are avoided.

ORDER CODE

Rotative transducer **PR65**

Linearity (std. B)	A = ± 1%
	B = ± 0,5%
	C = ± 0,25%
	D = ± 0,1%
	E = ± 0,05%

Resistance value (std.103)	1kΩ	102
	4,7kΩ	472
	10kΩ	103

If requested, it is possible to supply models with non-standard mechanical and/or electrical features

Example: **PR65 - B - 0 - 103**

Rotative transducer model PR65, linearity ±0,5%, no voltage or current intermediate pick-offs, 10kΩ resistance.

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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