

GEFRAN

PR65

ROTATIVE POSITION TRANSDUCER
IN CONDUCTIVE PLASTIC



Main features

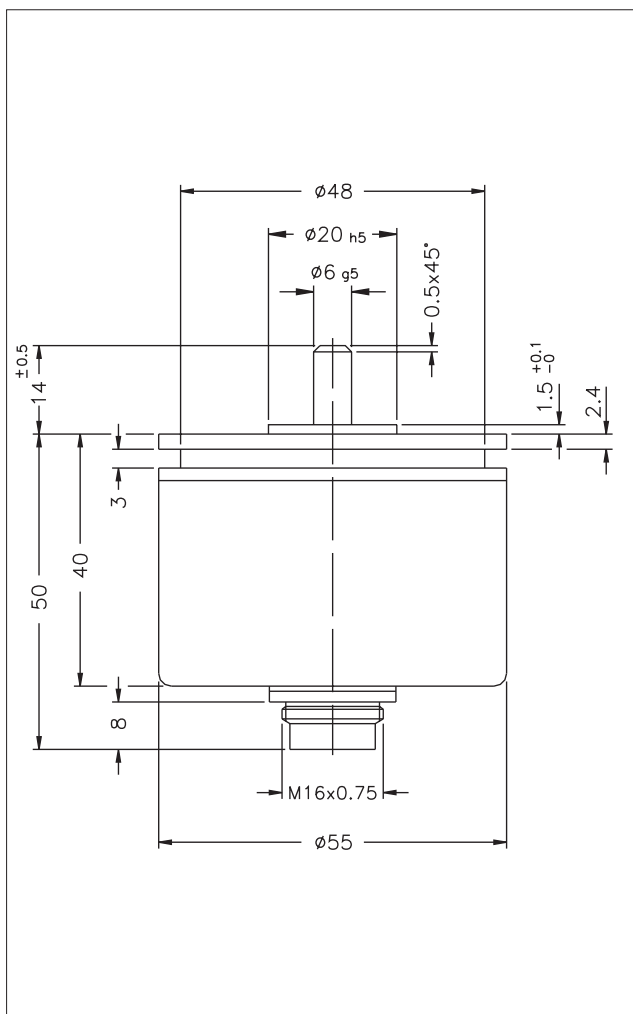
- Sealed industrial version
- Independent linearity up to $\pm 0,05\%$ (standard $\pm 0,5\%$)
- Working temperature: $-55...+100^{\circ}\text{C}$
- Repetibility 0,01% della C.E.T.
- Life duration: $>100 \times 10^6$ operations at 10 r.p.s. (within C.E.U.)
- Infinite resolution
- Electrical connection: 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 $I_c \leq 0.1 \mu\text{A}$.

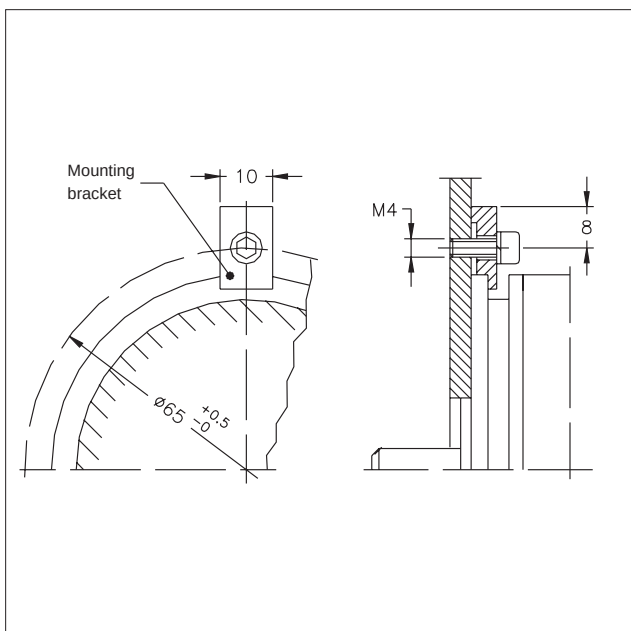
MECHANICAL DIMENSIONS



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

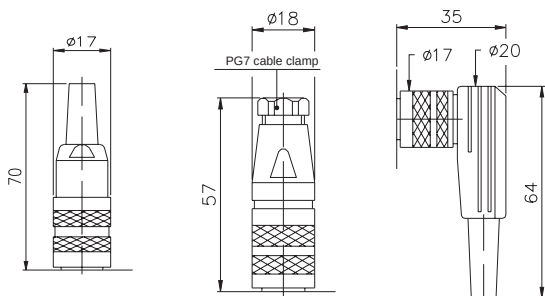


OPTIONAL ACCESSORIES

Fixing kit for PR65:
3 brackets, M4x10TCEI screws, grower

Code

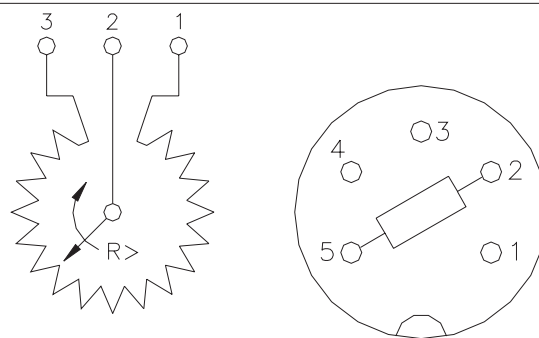
PKIT008



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

GEFRAN spa
via Sebina, 74
25050 PROVAGLIO D'ISEO (BS) - ITALIA
ph. 0309888.1 - fax. 0309839063
Internet: <http://www.gefran.com>

cod. PR65 - 02/05