

# GEFRAN

## PZ34

RECTILINEAR DISPLACEMENT TRANSDUCER  
WITH CYLINDRICAL CASE



### Main features

- 25 to 300 mm. stroke
- Mechanical fixing using brackets, selfaligning ball-joints or flange
- Independent linearity up to  $\pm 0,05\%$
- Infinite resolution
- No variation of electrical signal outside theoretical electrical stroke
- Displacement speed 10 m/s
- Working temperature:  $-30...+100^{\circ}\text{C}$
- Electrical connection: 3-pole screened cable (1m length)
- Life duration:  $> 25 \times 10^6$  meters or  $> 100 \times 10^6$  operations, whichever is the smaller (within C.E.U.)
- Grade of protection IP60
- 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

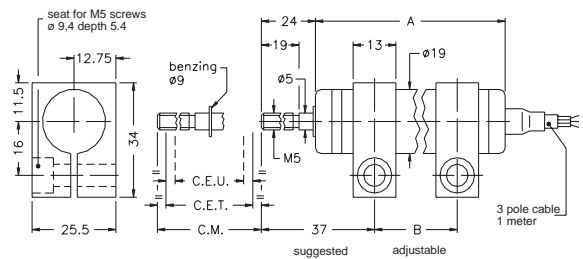
### TECHNICAL DATA

Useful electrical stroke (C.E.U.)	25/50/75/100/125/ 150/175/200/250/300
Independent linearity (within C.E.U.)	see table
Displacement speed	$\leq 10$ m/s
Displacement force	$\leq 0.5\text{N}$
Vibrations	5...2000Hz, $A_{\text{max}} = 0,75$ mm $a_{\text{max}} = 20$ g
Shock	50 g, 11ms.
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1 \mu\text{A}$
Maximum cursor current	10mA
Maximum applicable voltage	see table
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	$-30...+100^{\circ}\text{C}$
Storage temperature	$-50...+120^{\circ}\text{C}$
Case material	Anodised aluminium Nylon 66 G25
Control rod material	Stainless steel AISI 303
Fixing	Brackets, selfaligning ball-joints or flange

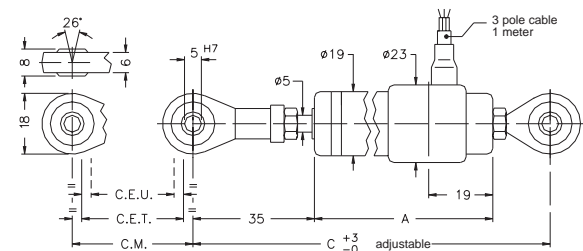
**Important:** all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor  $I_c \leq 0.1 \mu\text{A}$ .

### MECHANICAL DIMENSIONS

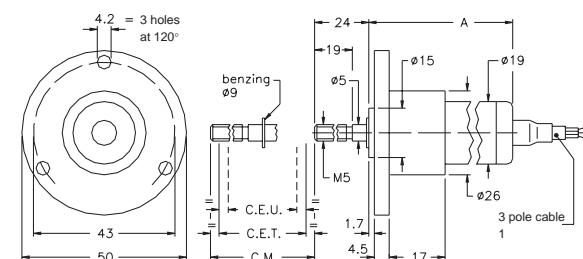
#### PZ34-S



#### PZ34-A



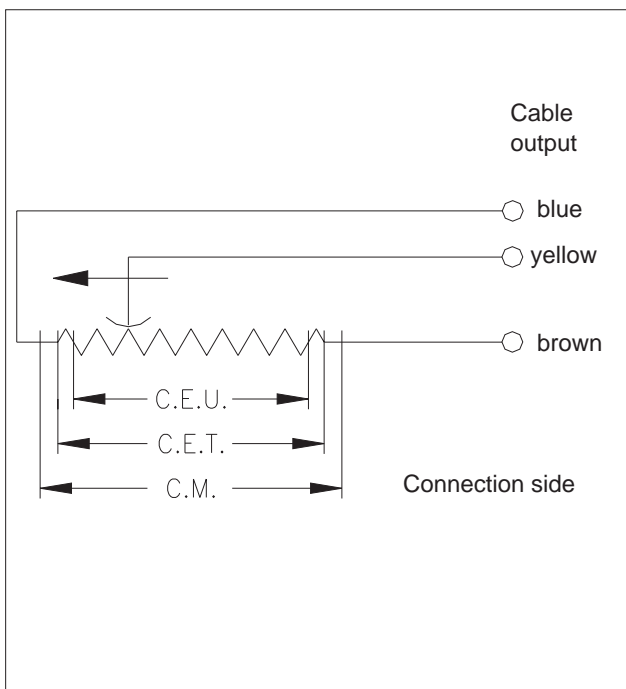
#### PZ34-F



## 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 (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	3							
Maximum applicable voltage	V	20	40	60								
Mechanical stroke (C.M.)	mm	C.E.U. +5										
Case length (A)	mod. PZ34 - S	mm	83,5	108,5	133,5	158,5	183,5	208,5	233,5	258,5	308,5	358,5
	mod. PZ34 - A	mm	110	135	160	185	210	235	260	285	335	385
	mod. PZ34 - F	mm	83,5	108,5	133,5	158,5	183,5	208,5	233,5	258,5	308,5	358,5
Recom. distance between brackets (B)	mm	47	72	97	122	147	172	197	222	272	322	
Min. distance between ball-joints (C)	mm	163	188	213	238	263	288	313	338	388	438	
Weight	mod. PZ34 - S	g	90	105	130	160	175	190	205	215	245	275
	mod. PZ34 - A	g	110	125	150	180	195	210	225	235	260	285
	mod. PZ34 - F	g	100	115	140	170	185	200	215	225	255	280

## ELECTRICAL CONNECTIONS



## ORDER CODE

Displacement transducer **PZ34**

Mounting by brackets	<b>S</b>
Mounting by selfaligning ball-joints	<b>A</b>
Mounting by flange	<b>F</b>

**Model** \_\_\_\_\_

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

Example: **PZ34 - F - 125**  
 Displacement transducer model PZ34, mounting by flange, useful electrical stroke (C.E.U.) 125mm.

## STANDARD ACCESSORIES

	Code
2 mounting brackets for PZ34-S	<b>STA075</b>

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