PCM - Linear Motion Position Sensors

Ixthus Instrumentation

- Pulling Rod Type
- Twin-bearing Actuating Rod
- ∅ 35 Section, Standard 50-900 mm
- Anodised Aluminium Housing
- Long Life, High Resolution
- Excellent Repeatability
- Smooth Low Noise Output from Conductive Plastic Track

The sensor is built for easy mounting with self-aligning spherical rodeye bearing mounts. Its rugged technology is designed for excellent repeatability and excellent performance in a harsh environment.

This series can be used a a wide range of applications such as vehicle engineering, automation and robotic technologies.

Specifications

Mechanical	
Typical Life Cycle	> 100 x 10^6 cycles, > 25 x 10^6 m
Stroke	> 50 - 900 mm
Linearity up to	± 0.05 %
High Resolution	Infinite
Repeatability	± 0.01 mm
Max. operating speed	5 m/s
Environmental	
Housing	Anodised Aluminium Housing
Operating Temperature	-30... +100° C
Storage Temperature	-50...+120° C
Vibration	IEC 68-2-6:1982 10g
Shock	IEC 68-2-29:1968 40g
Rating	IP65
Misc	4-pin C193 connector

Electrical	
Current resistance	≤ 10mA
Current wiper	≤ 1 mA
Operating Force	≤ 10N
Power Consumption	3W - 10W
Output Smoothness	<± 0.1% against input voltage
Input Voltage	60 V max
Insulation Voltage	500V - 1min Residue < 5 µ A

Ordering information

(Please use the characters in the chart below to construct your product code)

Sample Code: PCM - 400

Series	Length			
PCM	50	200	375	600
	75	225	400	650
	100	250	425	700
	130	275	450	750
	150	300	500	800
	175	350	550	900

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Subject to change without notice

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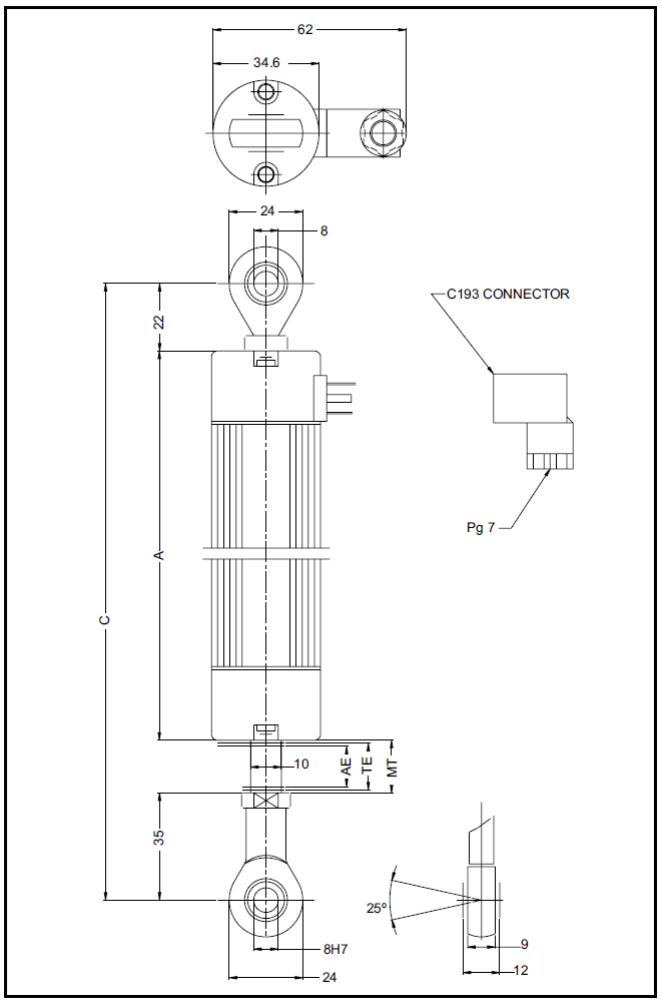
Ordering information cont.

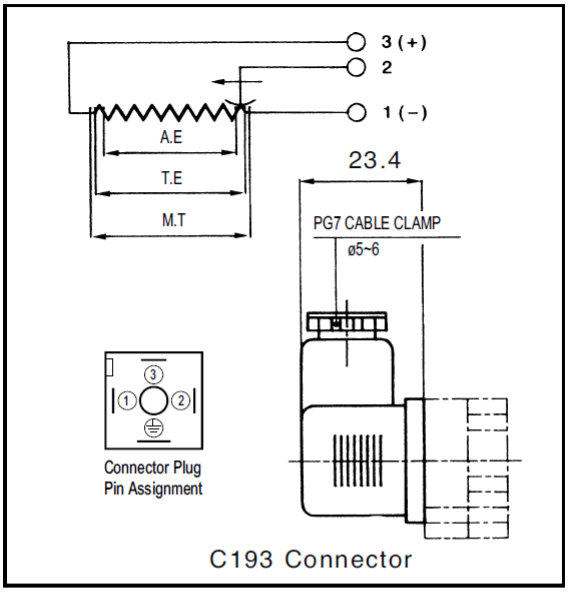
PCM series		50	75	100	130	150	175	200	225	250	275	300	350	375	400	425	450	500	550	600	650	700	750	800	900
Total Electrical Travel(T.E)	mm	53	78	103	133	153	178	204	229	254	279	304	354	380	406	432	457	508	558	609	659	710	762	812	914
Active Electrical Travel (A.E)	mm	51	76	101	131	151	176	202	227	252	277	302	352	378	404	430	455	506	556	607	657	708	760	810	912
Resistance ±20%	kΩ	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	10	10	10	10
Independent Linearity	±%	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Mechanical Travel (M.T)	mm	59	84	109	139	159	184	210	235	260	285	310	360	386	412	437	463	518	568	619	669	720	772	822	924
Resolution		infinite																							
Recommended Cursor Current	µA	< 1																							
Temperature Range	°C	-30 to +100																							
Dimensions (A)	mm	166	191	216	246	266	291	318	343	368	393	419	484	509	534	561	609	673	723	799	849	899	983	1054	1174
Dimensions (C)	mm	223	248	273	303	323	348	375	400	425	450	476	541	566	591	618	666	730	780	856	906	956	1040	1111	1231

* Dimensions for reference only

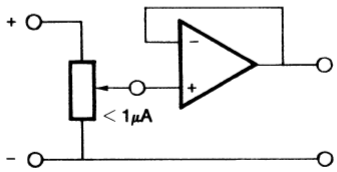
Dimensions and Electrical connections



ELECTRICAL CONNECTIONS



RECOMMENDED MEASUREMENT CIRCUIT



Important:
The published technical data are applicable only when the transducer is used correctly, and in accordance with the user manual / instructions. The PCM linear Position transducers must be used as voltage dividers with a maximum current in the wiper contact of 1 µ A; should the system downstream require more current, further circuitry will be required.

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