# BEYOND TECHNOLOGY

### **GEFRAN** WPG Series Magnetostrictive **Linear Position Sensor Slides**

#### **Overview**

The WPG series are contactless linear position transducer with magnetostrictive technology for longer lifetime.

The absence of electrical contact on the cursor eliminates all wear and almost guarantees an infinite life.

The performance gained from EMC immunity makes the WPG series suitable for use in industrial environments where electromagnetic interferences are present.

MAGNETOSTRICTIVE HYPERWAVE uses the magnetic characteristic and micro-elastic deformation of the primary element to pinpoint the exact position of the cursor.

#### **Features**

- Strokes from 50 to 500mm
- · Purchase cursor separately
- · Analog output represents direct measurement of displacement
- Working temperature: -20 to +75°C [-4 to +167°F]
- IP67 protection
- Power supply 24VDC ±20%
- Electromagnetic compatibility EMC 2014/30/EU

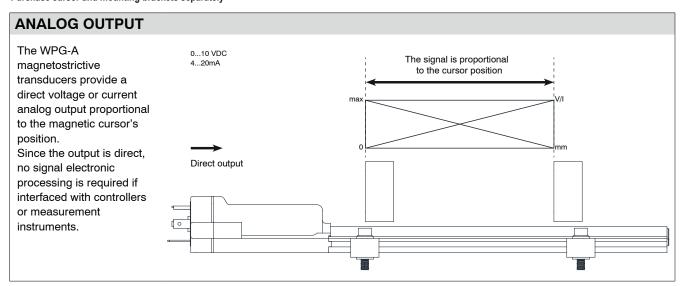




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WPG Series Magnetostrictive Linear Position Sensor Slides Chart						
Part Number	Price	Drawing Link	Stroke	Output	Connection	Housing Material
WPG-A-M-0050-E	\$239.00	PDF	50mm	4-20 mA		
WPG-A-M-0050-N	\$239.00	PDF	50mm	0-10 VDC		anodized aluminum
WPG-A-M-0100-E	\$241.00	PDF	100mm	4-20 mA		
WPG-A-M-0100-N	\$241.00	PDF	100mm	0-10 VDC		
WPG-A-M-0150-E	\$242.00	PDF	150mm	4-20 mA	-	
WPG-A-M-0150-N	\$242.00	PDF	150mm	0-10 VDC		
WPG-A-M-0200-E	\$243.00	PDF	200mm	4-20 mA		
WPG-A-M-0200-N	\$243.00	PDF	200mm	0-10 VDC	18mm DIN 43650 Form	
WPG-A-M-0250-E	\$244.00	PDF	250mm	4-20 mA	A(CON006-1KJ)	
WPG-A-M-0250-N	\$244.00	PDF	250mm	0-10 VDC		
WPG-A-M-0300-E	\$245.00	PDF	300mm	4-20 mA		
WPG-A-M-0300-N	\$245.00	PDF	300mm	0-10 VDC		
WPG-A-M-0400-E	\$259.00	PDF	400mm	4-20 mA		
WPG-A-M-0400-N	\$259.00	PDF	400mm	0-10 VDC		
WPG-A-M-0500-E	\$267.00	PDF	500mm	4-20 mA		
WPG-A-M-0500-N	\$267.00	PDF	500mm	0-10 VDC		

Purchase cursor and mounting brackets separately





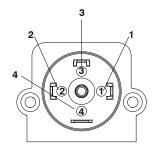
## **WPG Series Magnetostrictive Linear Position Sensor Slides**

WPG Series Magnetostrictive Linear Position Sensor Slides Specifications				
Sampling Time	1ms			
Independent Linearity ±%FS	stroke: 50 to 250mm with sliding cursors $\leq$ $\pm$ 0.150 mm stroke > 250mm with sliding cursors $\leq$ $\pm$ 0.04% F.S. (Min. $\pm$ 0.090 mm)			
Repeatability (mm)	≤ 0.01 (Typical)			
Hysteresis (mm)	≤ 0.02 (Typical)			
Displacement Speed	≤ 10 m/s			
Resolution	INFINITE (only limited by the electrical noise max 5 mVpp)			
Operating Temperature	-20 to +75°C [-4 to +167°F]			
Storage Temperature	-40 to +100°C [-40 to +212°F]			
Temperature Coefficient	≤ 0.01% f.s. /°C (min. 0.015 mm/°C			
Vibration (DIN IEC68T2-6)	12g/102000 Hz			
Shock (DIN IEC68T2-27)	100g-11ms - single shock			
Electromagnetic Compatibility	EMC 2014/30/EU			
Terminations	See wiring diagrams			
Connection	18mm DIN 43650 Form A, CON006-1KJ			
Protection	IP67			

WPG Series Magnetostrictive Linear Position Sensor Slides Electrical Data					
Series	-N models	-E models			
Output Signal	0 to 10V	4 to 20mA			
Nominal Power Supply	24VDC ± 20%				
Max. Power Ripple	1VDC				
Typical Current Consumption	35mA	60mA			
Output Load	≥10KΩ	50 to 500Ω			
Max. Output Value	12V	30mA			
Output Signal in Absence of Cursor	10.5 V	21mA			
Electrical Isolation (*)	500V				
Protection Against Polarity Inversion	Yes				
Protection Against Overvoltage	Yes				
Protection Against Power Supply in Output	Ye	S			

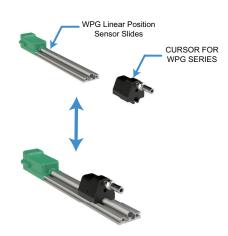
(\*) Includes a 31V 1.7J voltage suppressor

### **Wiring Diagram**



Wiring Table		
Pin 1	Power Supply -	
Pin 2	Direct Output	
Pin 3	Power Supply +	
Pin 4	Shield	

#### **Cursor Assembly**





## **GEFRAN** WPG and WPP Series Accessories







PCUR220-1KJ

PCUR221-1KJ

PCUR222-1KJ

WPG Series Cursors				
Part Number	Price	Description	Drawing Link	
PCUR220-1KJ	\$35.50	Gefran cursor, 5mm axial joint low process connection, slide mount. For use with Gefran WPG series magnetostrictive sensors.	PDF	
PCUR221-1KJ	\$37.50	Gefran cursor, 5mm axial joint high process connection, slide mount. For use with Gefran WPG series magnetostrictive sensors.	PDF	
PCUR222-1KJ	\$37.50	Gefran cursor, 5mm axial joint process connection, slide mount. For use with Gefran WPG series magnetostrictive sensors.	PDF	







PCUR210-1KJ

**PCUR211-1KJ** 

PCUR212-1KJ

WPP Series Cursors				
Part Number	Price	Description	Drawing Link	
PCUR210-1KJ	\$35.50	Gefran cursor, 5mm axial joint low process connection, slide mount. For use with Gefran WPP series magnetostrictive sensors.	PDF	
PCUR211-1KJ	\$37.50	Gefran cursor, 5mm axial joint high process connection, slide mount. For use with Gefran WPP series magnetostrictive sensors.	PDF	
PCUR212-1KJ	\$37.50	Gefran cursor, 5mm axial joint process connection, slide mount. For use with Gefran WPP series magnetostrictive sensors.	PDF	

WPG and WPP Series Cursor Floating Mount				
Part Number	Price	Description	Drawing Link	
PCUR202-1KJ	\$32.00	Gefran cursor, floating mount. For use with Gefran WPG and WPP series magnetostrictive sensors.	PDF	



WPG Series Mounting Brackets				
Part Number	Price	Description	Drawing Link	
<u>PKIT590-1KJ</u>	\$8.75	Gefran mounting brackets, 42.5mm hole spacing. For use with Gefran WPG series magnetostrictive sensors.	PDF	
PKIT591-1KJ	\$8.75	Gefran mounting brackets, 50mm hole spacing. For use with Gefran WPG series magnetostrictive sensors.	PDF	

PKIT590-1KJ	

WPP Mounting Brackets				
Part Number	Price	Description	Drawing Link	
<u>PKIT090-1KJ</u>	\$8.75	Gefran mounting brackets, 42.5mm hole spacing. For use with Gefran WPP series magnetostrictive sensors.	PDF	
<u>PKIT091-1KJ</u>	\$8.75	Gefran mounting brackets, 50mm hole spacing. For use with Gefran WPP series magnetostrictive sensors.	PDF	





PKIT090-1KJ