

**Features**

- XGF-PN8A : Dedicated LS ELECTRICEtherCAT Network Support (XGT Servo N series)
- XGF-PN8B : Standard EtherCAT Network Support(Standard EtherCAT Servo)
- Direct connect with servo driver Max 8
- 2~8 axis linear interpolation, 2axis circular interpolation, 3axis helical interpolation
- Position, speed, feed control is possible through the various operation
- Parameters, the operation data stored in the FRAM[without Battery]
- CAM for controlling up to eight different types of CAM data

**Specifications**

Item	XGF-PN8A/PN8B			XGF-PN4B		
Number of axis	8 axis			4 axis		
Interpolation	2~8 axis linear, 2axis circular, 3axis helical interpolation					
Control method	Position, speed, Speed/position, position/speed position/torque, Feed control					
Setting unit	pulse, mm, inch, degree					
Positioning data	Each axis has 400 data items [Operation step number 1~400]. It is available to set with software package or programming.					
XG5000	Port	RS-232C, USB				
	Data	Basic, expansion, manual, servo parameter, operation data, cam data, command information				
	Monitor	Operation, trace, input sort, error information				
Back-up	FRAM(parameter, operation data) no battery					
Positioning	Positonning method	Absolute/Incremental				
	Position address range	Absolute	Incremental	Speed/position, position/speed conversion control		
		mm	-214748364.8 ~ -214748364.7 [ $\mu\text{m}$ ]	-214748364.8 ~ -214748364.7 [ $\mu\text{m}$ ]		
		inch	-21474.83648 ~ -21474.83647	-21474.83648 ~ -21474.83647		
		degree	-21474.83648 ~ -21474.83647	-21474.83648 ~ -21474.83647		
		pulse	-2147483648 ~ -2147483647	-2147483648 ~ -2147483647		
	Position speed range	mm	0.01 ~ 2000000.00 [mm/Min]			
		inch	0.001 ~ 2000000.000 [inch/Min]			
		degree	0.001 ~ 2000000.000 [degree/Min]			
		pulse	1 ~ 20.000.000 [pulse/Sec]			
		RPM	0.1 ~ 100000.0 (RPM)			
Encoder input	Accel/Decel pattern	Trapezoidal & S-curve acceleration/deceleration				
	Accel/Decel time	1~2.147.483.647 ms				
Manual		Jog/ MPG/ inching				
Homing method		Max+Z[Forward], Min+Z[Backward], Near-point+Z[Forward, Backward], Max+near-point+Z[Forward, Min+near-point+Z[Backward], Z[Forward, Backward], near-point[Forward, Backward]				
The ability to Change speed		Absolute/Percent				
Torque		Rated torque %				
Absolute position System		0 (Absolute encoder type servo)				
Communication	Channel	2 Channel				
	Max. Input	Max. 200 Kpps				
	Input method	line-drive input(RS-422A IEC), open collector output type				
	Type	CW/CCW, Pulse/Dir, Phase A/B				
	Connector	12 Pin connector				
Cable		800 $\mu\text{s}$				
Max. distance		100 m				
Cable		STP(Shielded Twisted pair) cable				
Error display		LED				
Operation display		LED				
Occupied points of I/O		64points (Fixed type), 16points (Variable type)				
Current consumption (mA)		500 mA				
Weight(kg)		115 g				

## Terminal block configuration

Pin layout	Pin Number	Signal name
ENC1A+	1	Encoder1 A+ input
ENC1A-	2	Encoder1 A - input
ENC1B+	3	Encoder1 B+ input
ENC1B-	4	Encoder1 B - input
ENC1Z+	5	Encoder1 Z+ input
ENC1Z-	6	Encoder1 Z - input
ENC2A+	7	Encoder2 A+ input
ENC2A-	8	Encoder2 A - input
ENC2B+	9	Encoder2 B+ input
ENC2B-	10	Encoder2 B - input
ENC2Z+	11	Encoder2 Z+ input
ENC2Z-	12	Encoder2 Z - input

## External encoder wiring

Pin Number	Signal
* Open collector type	
1	Encoder1 A+ input
2	Encoder1 A - input
3	Encoder1 B+ input
4	Encoder1 B - input
5	Encoder1 Z+ input
6	Encoder1 Z - input
7	Encoder2 A+ input
8	Encoder2 A - input
9	Encoder2 B+ input
10	Encoder2 B - input
11	Encoder2 Z+ input
12	Encoder2 Z - input
* line-drive type	

**\* Open collector type**

**\* line-drive type**

SPECIAL