



INDUSTRIAL OEM

Pressure Tranducer AST4000

Overview

The AST4000 OEM pressure transducer / transmitter remains the most popular configuration. With its welded stainless steel housing and various electrical connections, the AST4000 can be packaged for virtually any OEM pressure transducer application. Voltage and current output signals are available and all products.

Benefits

- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature
- Pressures up to 10,000 PSI
- Low Static and Thermal Errors
- Unparalleled Price and Performance
- Compatible with Wide Variety of Liquids and Gases
- EMI/RFI Protection
- UL/cUL 508 Approved (with housing)

Applications

- Industrial OEM Equipment
- Water Management
- Pneumatics
- Hydrogen Storage
- Sub Sea Pressure

- HVAC/R Equipment
- Control Panels
- Hydraulic Systems
- Data Loggers

Environmental Data

Ambient Temperature: 25°C (77°F) (Unless otherwise specified)

Operating Ambient	-40 to 85°C (-40 to 185°F)
Storage	-40 to 100°C (-40 to 212°F)

Electromagnetic Compatibility (EMC)

Standard	Description	Test Value
EN55011	Radiated Emissions	Class A, 30-1000 MHz
EN61000-4-2	Electrostatic Discharge Immunity	±8 kV Air Discharge
		±4 kV Contact Discharge, VCP, HCP
EN61000-4-3	Radiated Electromagnetic Field Immunity	10V/m, 80-2700 MHz 80% 1kHz AM Modulation
EN61000-4-4	Electrical Fast Transient/Burst	±0.5 kV, ±1 kV, ±2 kV on DC Mains
	Immunity	±0.5 kV, ±1 kV on I/O Ports
EN61000-4-5	Surge Immunity	±0.5 kV,±1 kV, on I/O Ports & DC Lines
EN61000-4-6	Conducted immunity	10V rms, 0.15-80 MHz, DC Mains
		10V rms, 0.15-80 MHz, I/O Ports
		80% 1kHz AM Modulation
EN61000-4-8	Power Frequency Magnetic Field Immunity Test	30 A/m @ (50Hz, 60Hz) 3 orthogonal orientations

Shock, Vibration & Ingress Protection (IP)

Standard	Description	Test Value
EN 60067-2-27	Shock Test	500m/s², 6ms, half sine-wave, 6 shocks (3/direction), horizontal and vertical axis, 12 total shocks
EN 60068-2-6	Sinusoidal Vibration	5-25 Hz, 2mm, 25-150 Hz, 50m/s, Sweep rate: 1 octave/min, Duration: 24 hours/axis (48 hours total), horizontal and vertical axis
EN 60068-2-64	Random Vibration	10-2000 Hz, vibration level: 0.0314 (m/s²)²/Hz, 24 hrs/axis (48 hrs total), 2 directions: horizontal and vertical
IEC 60068-2-32	Drop Test	Drop of 1 meter to floor made of concrete. Dropped twice on the threaded end and two times perpendicular to the threaded end.
IP-66	Ingress Protection	Dust-tight, protected against powerful water jets

Performance

Ambient Temperature: 25°C (77°F) (Unless otherwise specified)

Parameters	MIN	ТҮР	MAX	UNITS	NOTES
Accuracy	-0.5		+0.5	%Span	1
Zero Error	-1.0		+1.0	%Span	2
Span Error	-1.5		+1.5	%Span	3
Thermal Error, Zero	-1.5		+1.5	%Span	4
Thermal Error, Span	-1.5		+1.5	%Span	5
Stability (1 year)		±0.25		%Span	
Proof Pressure		2X Rated Pressure		PSI	6
Burst Pressure		5X Rated Pressure or 20,000 (whichever is less)		PSI	7
Compensated Temp. Range		0 - 55° (32 to 132°)		°C (°F)	

Electrical Data

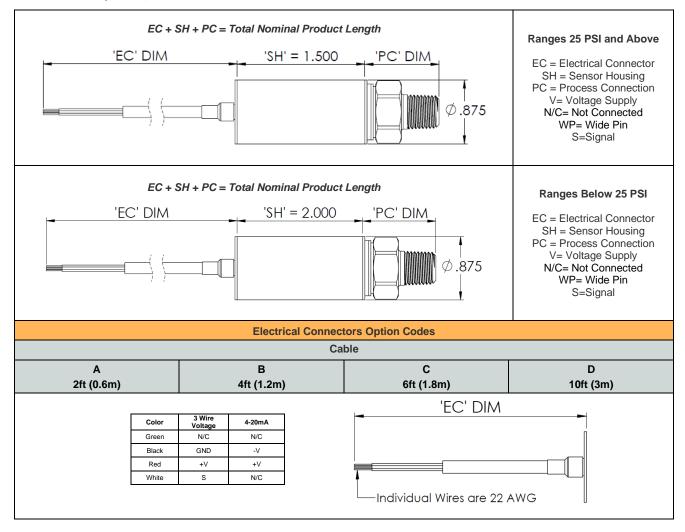
Model		AST4000	
Output	4-20mA	1-5V, 1-6V	0.5-4.5V Ratiometric
Excitation	10-28VDC	10-28VDC	$5.0 \pm 0.5 VDC$
Output Impedance	> 10k Ω	< 100 Ω	< 100 Ω
Current Consumption	-	<10mA	<10mA
Output Noise	-	<2mV RMS	<2mV RMS
Output Load	0-800Ω	10k Ω Min.	10k Ω Min.
Reverse Polarity Protection	Yes	Yes	Yes
Bandwidth	DC-250 Hz	DC-1kHz	DC-1kHz

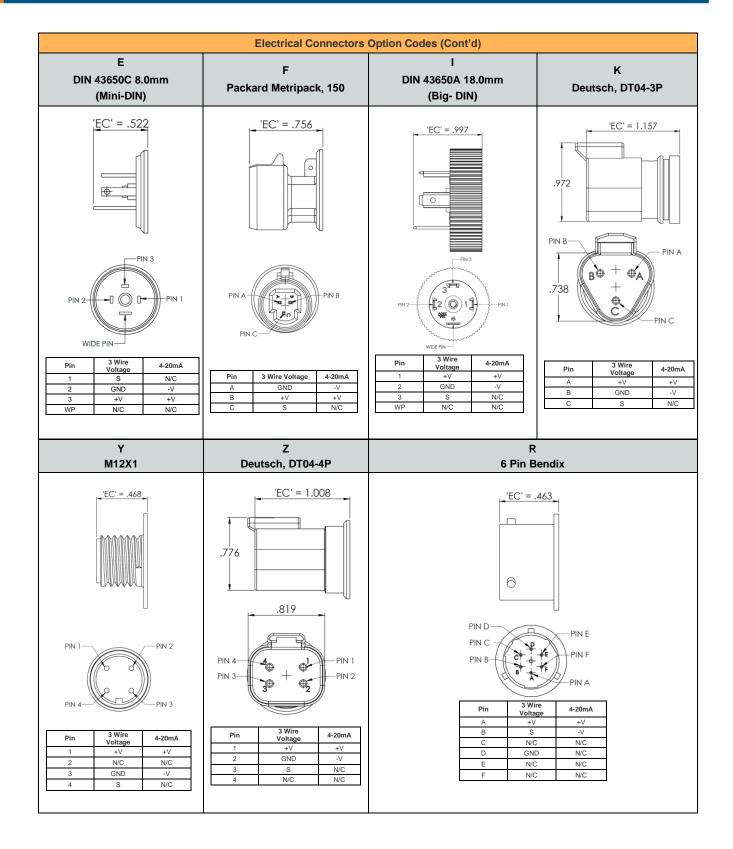
Notes

- 1. The maximum deviation from a best fit straight line (BFSL) fitted to the output measured over the pressure range at 25°C. Includes all errors due to pressure non-linearity, hysteresis, and non-repeatability. Span is the algebraic difference between full scale output and zero pressure offset.
- 2. The maximum variation from the ideal offset measured at 25°C.
- 3. The maximum variation from the ideal full-scale span measured at 25°C.
- 4. The maximum variation of offset within the compensated temperature range relative to $25^{\circ}C$.
- 5. The maximum variation of full-scale span within the compensated temperature range relative to 25°C.
- 6. The maximum pressure that can be safely applied to the product tor it to remain in specification once pressure is returned to the operating pressure range.
- 7. The maximum pressure that can be applied without causing escape of the pressure media.

Dimensions & Electrical Connection

Unless otherwise specified, all dimensions are in inches





	Pressure Port	Option Codes	
A	В	С	D
1/4 NPT Male	1/8 NPT Male	1/4 BSPP Male	G1/4 Male
'PC' = 1.069	'PC' = .975	'PC' = .987	'PC' = 1.027
E 9/16 – 18 UNF Male	F 7/16 – 20 UNF Male	G M14X1.5 Male	I 1/4 NPT Female
'PC' = 1.017	'PC' = .978	'PC' = 1.027	'PC' = .669
P 1/2 NPT Male	T G1/2 Male	U 1/8 BSPP Male	
'PC' = 1.172	'PC' = 1.020	'PC' = .835	

	Legend												
✓	Standard Available												
Χ	Not Available												

Available Process Connection, Material Configurations & Pressure Codes

17-4PH PSI

Вискения	Pressure	PSI				F	rocess (Connect	ion Cod	e			
Pressure Range	Range Code	Unit	Α	В	С	D	E	F	G	ı	Р	Т	U
-14.7 - 25	V0025	Р	✓	X	✓	Х	Х	Х	Х	✓	✓	✓	X
-14.7 - 50	V0050	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-14.7 - 100	V0100	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-14.7 - 150	V0150	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	>	✓
-14.7 - 200	V0200	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-14.7 - 250	V0250	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-14.7 - 500	V0500	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 25	00025	Р	✓	X	✓	Χ	Х	Х	Х	✓	✓	✓	Χ
0 - 50	00050	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 100	00100	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 150	00150	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 200	00200	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 250	00250	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 500	00500	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 1,000	01000	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 - 2,500	02500	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	Х	✓
0 - 5,000	05000	Р	✓	✓	✓	✓	✓	✓	✓	✓	✓	Х	✓
0 - 7,500	07500	Р	✓	✓	✓	✓	✓	✓	Х	✓	✓	Х	✓
0 - 10,000	10000	Р	✓	✓	✓	✓	✓	✓	Х	✓	✓	Х	✓

17-4PH Bar

17-4F11 Dai	Pressure	DAD					Process	Connect	ion Code				
Pressure Range	Range Code	BAR Unit	A	В	С	D	E	F	G	ı	Р	Т	U
-1 to 2	V0002	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-1 to 5	V0005	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-1 to 7	V0007	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-1 to 10	V0010	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-1 to 20	V0020	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-2	00002	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-5	00005	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-7	00007	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-10	00010	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-20	00020	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-35	00035	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-50	00050	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0-100	00100	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	Х	✓
0-250	00250	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	Х	✓
0-350	00350	В	✓	✓	✓	✓	✓	✓	✓	✓	✓	Х	✓
0-500	00500	В	✓	✓	✓	✓	✓	✓	Х	✓	✓	Χ	✓
0-700	00700	В	✓	✓	✓	✓	✓	✓	Х	✓	✓	Χ	✓

316L PSI

Dunnanuna	Pressure	DCI					Proces	s Conne	ction Co	ode			
Pressure Range	Range Code	PSI Unit	Α	В	С	D	E	F	G	ı	Р	Т	U
-14.7 - 25	V0025	Р	✓	Χ	✓	Χ	✓	Χ	X	✓	✓	Χ	X
-14.7 - 50	V0050	Р	✓	Χ	✓	✓	✓	✓	Χ	✓	✓	X	X
-14.7 - 100	V0100	Р	\	Χ	✓	✓	\	✓	Χ	✓	✓	Х	X
-14.7 - 150	V0150	Р	\	X	✓	✓	\	✓	Χ	✓	✓	X	X
-14.7 - 200	V0200	Р	✓	X	✓	✓	✓	✓	X	✓	✓	X	X
-14.7 - 250	V0250	Р	✓	X	✓	✓	✓	✓	X	✓	✓	Х	X
-14.7 - 500	V0500	Р	✓	X	✓	✓	✓	✓	Х	✓	✓	Х	X
0 - 25	00025	Р	√	Χ	✓	Χ	✓	Χ	Х	✓	✓	X	X
0 - 50	00050	Р	\	Χ	✓	✓	\	✓	Χ	✓	✓	X	X
0 - 100	00100	Р	\	Χ	✓	✓	\	✓	Χ	✓	✓	X	X
0 - 150	00150	Р	\	Χ	✓	✓	\	✓	Χ	✓	✓	X	X
0 - 200	00200	Р	\	Χ	✓	✓	\	✓	Χ	✓	✓	X	X
0 - 250	00250	Р	✓	X	✓	✓	✓	✓	X	✓	✓	X	Х
0 - 500	00500	Р	\	X	✓	✓	\	✓	X	✓	✓	Х	X
0 - 1,000	01000	Р	✓	X	✓	✓	✓	✓	X	✓	✓	Х	X
0 - 2,500	02500	Р	✓	X	✓	✓	✓	✓	Χ	✓	✓	X	X
0 - 5,000	05000	Р	✓	X	✓	✓	✓	✓	Χ	✓	✓	X	X
0 - 7,500	07500	Р	✓	Χ	✓	Χ	✓	✓	Χ	✓	✓	Х	X
0 - 10,000	10000	Р	✓	Х	✓	Х	✓	✓	Х	✓	✓	Х	Х

316L Bar

210F Dai													
Pressure	Pressure	BAR					Process	Conne	ction Co	de			
Range	Range Code	Unit	Α	В	С	D	E	F	G	-	Р	Т	U
-1 to 2	V0002	В	✓	Χ	✓	✓	✓	✓	Χ	✓	✓	Χ	Χ
-1 to 5	V0005	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
-1 to 7	V0007	В	✓	X	✓	✓	✓	✓	X	✓	✓	X	Х
-1 to 10	V0010	В	✓	X	✓	✓	✓	✓	X	✓	✓	X	Х
-1 to 20	V0020	В	✓	Χ	✓	✓	✓	✓	Χ	✓	✓	Х	X
0-2	00002	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-5	00005	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-7	00007	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-10	00010	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-20	00020	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-35	00035	В	✓	Χ	✓	✓	✓	✓	Χ	✓	✓	Х	X
0-50	00050	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-100	00100	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-250	00250	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-350	00350	В	✓	Х	✓	✓	✓	✓	Х	✓	✓	Х	Х
0-500	00500	В	✓	Х	✓	Х	Х	✓	Х	✓	✓	Х	Х
0-700	00700	В	✓	Х	✓	Х	Х	✓	Х	✓	✓	Х	Х

Inconel PSI

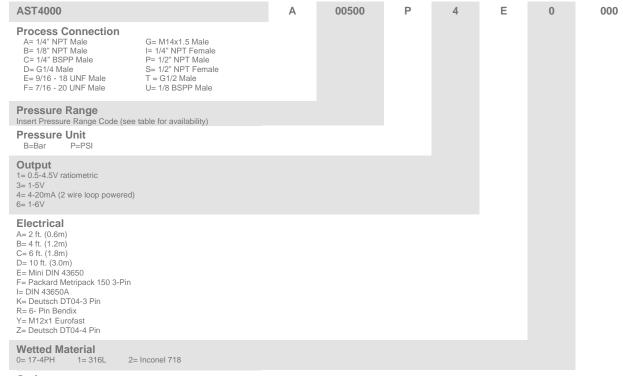
Pressure	Pressure	PSI					Process	Connect	ion Code	!			
Range	Range Code	Unit	Α	В	С	D	E	F	G	- 1	P	Т	U
-14.7 - 25	V0025	Р	✓	Χ	Χ	Х	Х	Χ	Χ	Χ	✓	Χ	Χ
-14.7 - 50	V0050	Р	✓	Х	Χ	Х	Х	Χ	Х	Х	✓	Х	Χ
-14.7 - 100	V0100	Р	✓	Х	Χ	Х	Х	Χ	Х	Χ	✓	Χ	Χ
-14.7 - 150	V0150	Р	✓	X	Χ	Х	Х	Χ	Χ	Χ	✓	Χ	Χ
-14.7 - 200	V0200	Р	✓	X	Χ	Х	Х	Χ	Χ	Χ	>	Χ	Χ
-14.7 - 250	V0250	Р	✓	X	Χ	Х	Х	Χ	Χ	Χ	>	Χ	Χ
-14.7 - 500	V0500	Р	✓	Χ	Χ	Χ	Х	Χ	Χ	Χ	\	Χ	Χ
0 - 25	00025	Р	✓	Х	Χ	Χ	Χ	Χ	Χ	Χ	✓	Χ	Χ
0 - 50	00050	Р	✓	Χ	Χ	Χ	Х	Χ	Χ	Χ	\	Χ	Χ
0 - 100	00100	Р	✓	Χ	Χ	Χ	Χ	Χ	Χ	Χ	✓	Χ	Χ
0 - 150	00150	Р	✓	Χ	Χ	Χ	Χ	Χ	Χ	Χ	✓	Χ	Χ
0 - 200	00200	Р	✓	Χ	Χ	Χ	Χ	Χ	Χ	Χ	✓	Χ	Χ
0 - 250	00250	Р	✓	Χ	Χ	Χ	Х	Χ	Χ	Χ	\	Χ	Χ
0 - 500	00500	Р	✓	Χ	Χ	Χ	Χ	Χ	Χ	Χ	✓	Χ	Χ
0 - 1,000	01000	Р	✓	X	Χ	Х	Х	Χ	Χ	Χ	\	Χ	Χ
0 - 2,500	02500	Р	✓	Х	Χ	Х	Х	Χ	Χ	Χ	✓	Х	Χ
0 - 5,000	05000	Р	✓	X	Χ	Χ	Χ	Χ	Χ	Χ	\	Χ	Χ
0 - 7,500	07500	Р	✓	Х	Χ	Х	Х	Χ	Χ	Χ	✓	Х	Χ
0 - 10,000	10000	Р	✓	Χ	Χ	Х	Х	Χ	Χ	Χ	✓	Χ	Χ

Inconel BAR

Pressure Range	Pressure Range Code	BAR Unit	Process Connection Code										
			A	В	С	D	E	F	G	I	Р	Т	U
-1 to 2	V0002	В	✓	Χ	Χ	Χ	Х	Х	Χ	Χ	✓	Χ	Χ
-1 to 5	V0005	В	✓	Χ	Χ	Χ	Х	Х	Χ	X	✓	Χ	Χ
-1 to 7	V0007	В	\	Χ	Χ	Χ	Х	Х	Χ	Χ	\	Χ	Χ
-1 to 10	V0010	В	\	Χ	Χ	Χ	Х	Х	Χ	Χ	\	Χ	Χ
-1 to 20	V0020	В	✓	Χ	Χ	Χ	Х	Х	Χ	Χ	✓	Χ	Χ
0 - 2	00002	В	✓	Х	Χ	Χ	Х	Х	Х	Χ	✓	Χ	Χ
0 - 5	00005	В	✓	Х	Χ	Χ	Х	Х	Χ	Χ	✓	Χ	Χ
0 - 7	00007	В	✓	Х	Χ	Χ	Х	Х	Χ	Χ	✓	Χ	Χ
0 - 10	00010	В	✓	Χ	Χ	Χ	Х	Х	Χ	Χ	✓	Χ	Χ
0 - 20	00020	В	\	Χ	Χ	Χ	Χ	Х	Χ	Χ	>	Χ	Χ
0 - 35	00035	В	\	Χ	Χ	Χ	Χ	Х	Χ	Χ	\	Χ	Χ
0 - 50	00050	В	\	Χ	Χ	Χ	Х	Х	Χ	Χ	\	Χ	Χ
0 - 100	00100	В	\	Χ	Χ	Χ	Х	Х	Χ	Χ	\	Χ	Χ
0 - 250	00250	В	\	Χ	Χ	Χ	Х	Х	Χ	Χ	\	Χ	Χ
0 - 350	00350	В	✓	Х	Χ	Χ	Х	Х	Χ	Х	✓	X	Χ
0 - 500	00500	В	✓	Х	Χ	Χ	Х	Х	Χ	Х	✓	X	Χ
0 - 700	00700	В	✓	Х	Χ	Χ	Х	Х	Χ	Х	✓	X	Χ
-1 to 2	V0002	В	✓	Х	Χ	Χ	Х	Х	Χ	Х	✓	X	Χ
-1 to 5	V0005	В	✓	Χ	Χ	Χ	Х	Х	Χ	Х	✓	X	X

^{*}See Ordering Information for list of options.

Ordering Information



Options

000= No Options

NORTH AMERICA

American Sensor Technologies, Inc. (AST), a TE Connectivity Company Tel: 800-522-6752

Email: customercare.molive@te.com

ASIA

Hong Kong Sensor Technologies (HKST), a TE Connectivity Company Tel: 0400-820-6015

Email: customercare.shzn@te.com

TE.com/sensors

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78665-00000014-05 78677-B00000070-05 79279-00000060-01 79296-B00000350-01 79322-00250035-01 79614-30.0H2-14 79700
00002750-01 80569-00700100-01 81739-B00000900-01 MLH025BSCDJ1303 MLH750PSCDJ1245 82903-B00000020-01 83250-02500600
05 83271-00000040-04 83282-00000100-05 83286-00000150-01 83298-00000120-01 83299-00000150-05 83305-00001350-01 83350
04.0HG-05 83357-00000030-21 83362-B00000040-04 83507-00000150-01 83807-18 9223108 9243103 9251405 9303101 9305823

9306477 9306478 9306482 9306496 9309105 PX2AN2XX100PSAAX 1231-L902-08A 13C0500PS0LSZ76405 13C1000PS4L/S76105

13C1000PA4K/S75885 13C5000PS4L/S76106 1807706 HPR04000BGDSPAAA25 19C030PV4K/SZ75870