

LSLR超低レンジ加速度計 +/-5V、0-5V、4-20mA出力

LSLRは、極端な条件でピーク性能を得るために設計された非常に頑丈な、超低レンジ、単一軸加速度計である。流体減衰機構は、高い衝撃と振動環境において優れたノイズ除去と優れた出力安定性を実現します。6ピンコネクタ、ピン端子、またはケーブルバージョンから選択可能です。出力には+/-5V、0-5V、4-20mAがあります。カスタム入力レンジ、フィルター、温度センサーもご要望に応じてご用意しております。



特徴

- ・ 非常に頑丈
- ・ $\pm 0.1g$, $\pm 0.25g$, $\pm 0.5g$, $\pm 1g$ & $\pm 2g$ レンジ
- ・ 高性能
- ・ 温度センサ使用可
- ・ +/-5V、0-5V、4-20mA出力
- ・ RoHS対応

アプリケーション

- ・ 地震監視
- ・ 地球物理計測
- ・ 超低域加速度解析
- ・ 土木工学
- ・ 飛行試験
- ・ ロボティクス



コネクタバージョン

PIN	FUNCTION	
	SINGLE OR 4-20mA OUTPUT	DUAL SUPPLY
A	+VDC	+VDC
B	PWR & SIG COM	PWR & SIG COM
C	N/C	-VDC
D	SIG OUT	SIG OUT
E	N/C	N/C
F	N/C	N/C

端子バージョン

PIN	FUNCTION	
	SINGLE SUPPLY OR 4-20mA OUTPUT	DUAL SUPPLY
A	+VDC	+VDC
B	PWR & SIG COM	PWR & SIG COM
C	N/C	-VDC
D	SIG OUT	SIG OUT
E	N/C	N/C
F	N/C	N/C

ケーブルバージョン

WIRE COLOR	FUNCTION	
	SINGLE SUPPLY OR 4-20mA OUTPUT	DUAL SUPPLY
RED	+VDC	+VDC
WHITE	PWR & SIG COM	PWR & SIG COM
BLACK	N/C	N/C
GREEN	SIG OUT	SIG OUT

Jewell Instruments LLC 850 Perimeter Road, Manchester, NH 03103

L00164 Rev. A

LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output



Making Sense out of Motion...

0-5V Output Version:

PERFORMANCE

Input Range (g)	±0.1	±0.25	±0.5	±1	±2
Full Range Output (FRO ¹) VDC 0.5%	0-5				
Non-linearity (% FRO ²) maximum	0.02	0.02	0.02	0.02	0.05
Scale Factor (V/g) nominal	25.0	10.0	5.0	2.5	1.25
SF Temp Sensitivity (PPM/°C) max	300	100	60	60	60
Bandwidth (-3 dB), Hz nominal	2	15	20	30	30
Transverse Axis Misalign. (° max)	±0.25	±0.50	±0.5	±0.5	±0.5
Bias (g) range	±0.04	±0.01	±0.02	±0.02	±0.02
Bias Temp Sensitivity (µg/°C) max	50	50	50	50	50

Resolution & Threshold (µg)³

1

¹Full Range is defined "from negative full input to positive full input g." ²Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment. ³Full Resolution is achieved with noise reduction techniques.

ELECTRICAL

Input Voltage Range, (VDC)	9 to 18
Input Current, mA, max	40
Output Impedance (Ohms) nominal	1
Noise (Vrms) max (3 Hz to 300 kHz)	0.002

ENVIRONMENTAL

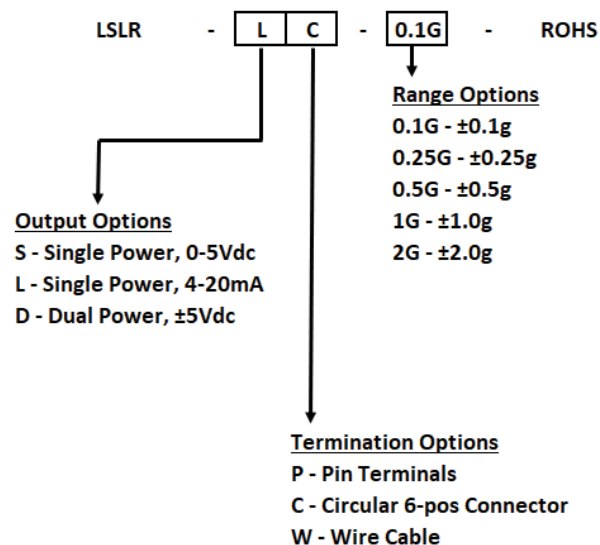
Operating Temp Range	-40°C to +80°C
Storage Temp Range	-60°C to +90°C
Shock	1500g, 0.5 msec, ½ sine
Seal	IP66

*Specifications subject to change without notice on account of continued product development.

PHYSICAL

Weight (grams) max	250
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How to Order:



Jewell Instruments LLC 850 Perimeter Road, Manchester, NH 03103
sales@jewellinstruments.com • www.jewellinstruments.com • Tel (800) 227-5955

LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output



Making Sense out of Motion...

±5V Output Version:

PERFORMANCE

Input Range (g)	±0.1	±0.25	±0.5	±1	±2
Full Range Output (FRO ¹) VDC 0.5%	±5				
Non-linearity (% FRO ²) maximum	0.02	0.02	0.02	0.02	0.05
Scale Factor (V/g) nominal	50.0	20.0	10.0	5.0	2.5
SF Temp Sensitivity (PPM/°C) max	300	100	60	60	60
Bandwidth (-3 dB), Hz nominal	2	15	20	30	30
Transverse Axis Misalign. (°max)	±0.25	±0.5	±0.5	±0.5	±0.5
Bias (g) range	±0.04	±0.01	±0.02	±0.02	±0.02
Bias Temp Sensitivity (µg/°C) max	50	50	50	50	50

Resolution & Threshold (µg)³

1

¹Full Range is defined "from negative full input to positive full input g." ²Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment. ³Full Resolution is achieved with noise reduction techniques.

ELECTRICAL

Input Voltage Range, (VDC)	±12 to ±18
Input Current, mA, max	30
Output Impedance (Ohms) nominal	1
Noise (Vrms) max (3 Hz to 300 kHz)	0.002

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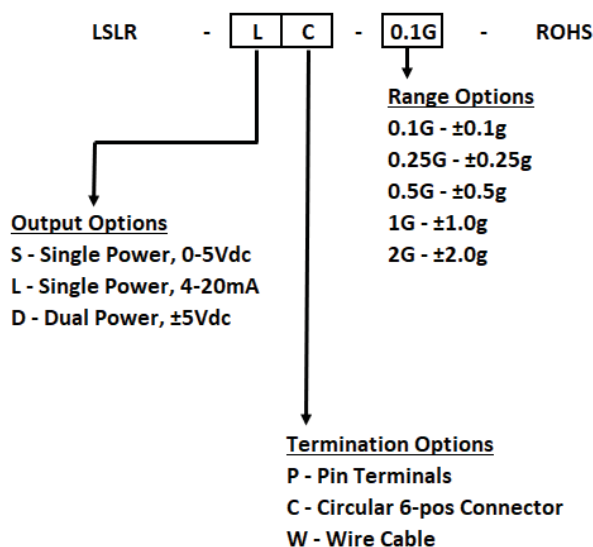
ENVIRONMENTAL

Operating Temp Range	-40°C to +80°C
Storage Temp Range	-60°C to +90°C
Shock	1500g, 0.5 msec, ½ sine
Seal	IP66

PHYSICAL

Weight (grams) max	250
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LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output



Making Sense out of Motion...

4-20mA Output Version:

PERFORMANCE

Input Range (g)	±0.1	±0.25	±0.5	±1	±2
Full Range Output (FRO ¹) mA 0.5%	4-20				
Non-linearity (% FRO ²) maximum	0.03	0.03	0.03	0.03	0.05
Scale Factor (mA/g) nominal	80.0	32.0	16.6	8.0	4.0
SF Temp Sensitivity (PPM/°C) max	300	100	60	60	60
Bandwidth (-3 dB), Hz nominal	2	15	20	30	30
Transverse Axis Misalign. (°max)	±0.25	±0.5	±0.5	±0.5	±0.5
Bias (g) range	±0.04	±0.01	±0.02	±0.02	±0.02
Bias Temp Sensitivity (µg/°C) max	50	50	50	50	50

Resolution & Threshold (µg)³

1

¹Full Range is defined "from negative full input to positive full input g." ²Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment. ³Full Resolution is achieved with noise reduction techniques.

ELECTRICAL

Input Voltage Range, (VDC)	+20 to +30
Input Current, mA, max	75
Noise (mA rms) max (3 Hz to 300 kHz)	0.01

ENVIRONMENTAL

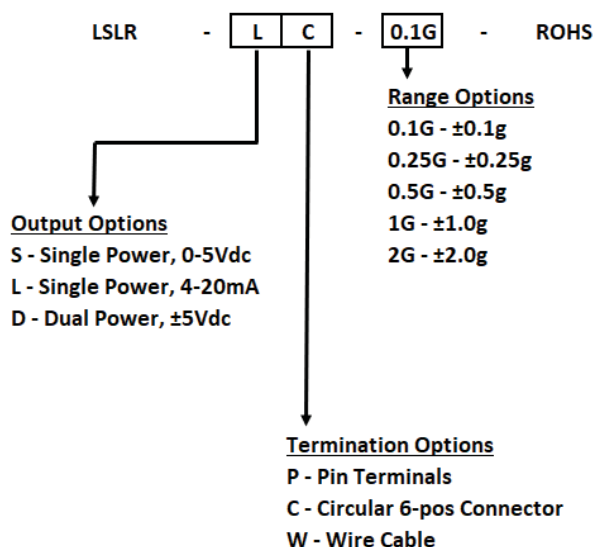
Operating Temp Range	-40°C to +80°C
Storage Temp Range	-60°C to +90°C
Shock	1500g, 0.5 msec, ½ sine
Seal	IP66

*Specifications subject to change without notice on account of continued product development.

PHYSICAL

Weight (grams) max	250
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How to Order:



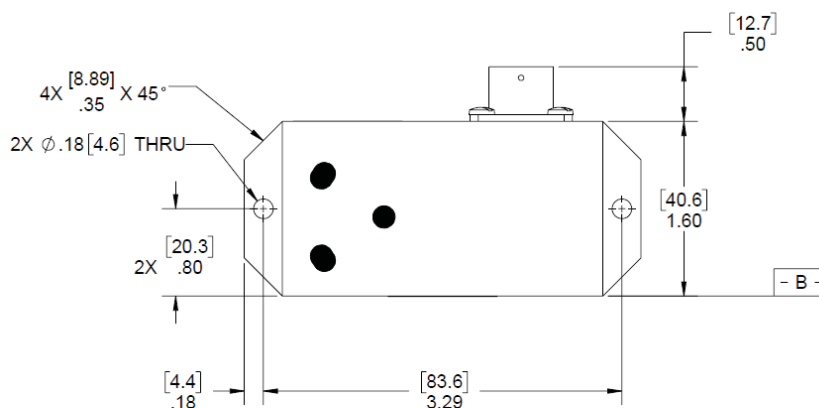
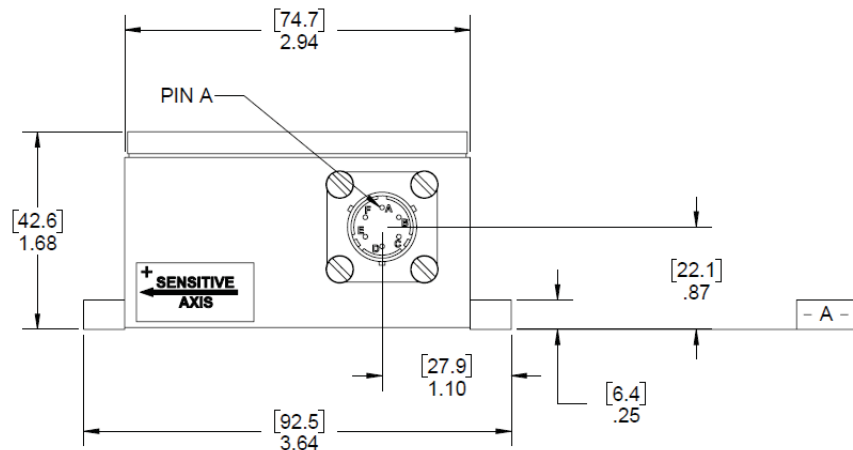
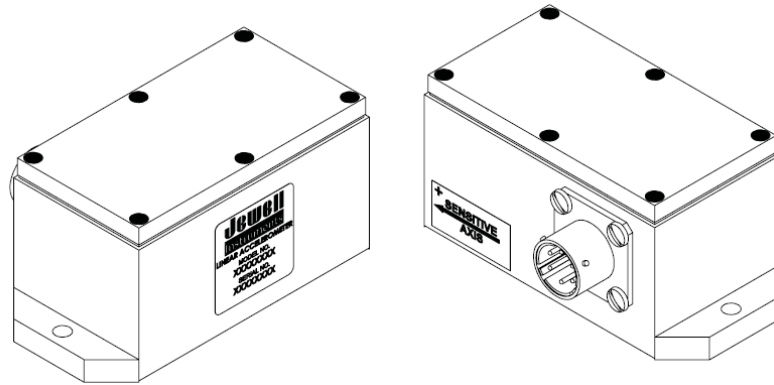
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LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output



Making Sense out of Motion...

Outline Drawing: Connector Version



NOTES:

- DATUM - A - AND - B - ARE DEFINED AS REFERENCE SURFACES.

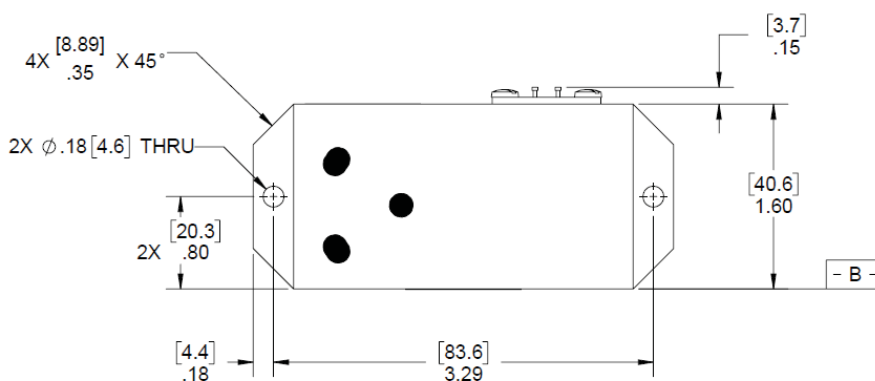
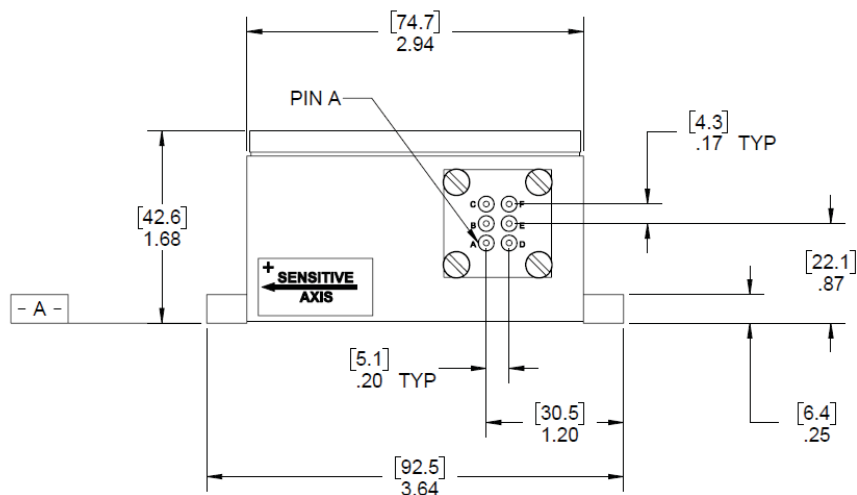
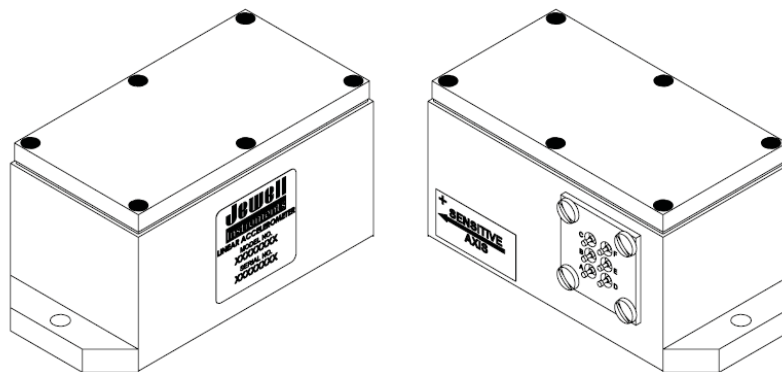
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LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output



Making Sense out of Motion...

Outline Drawing: Pin Terminal Version



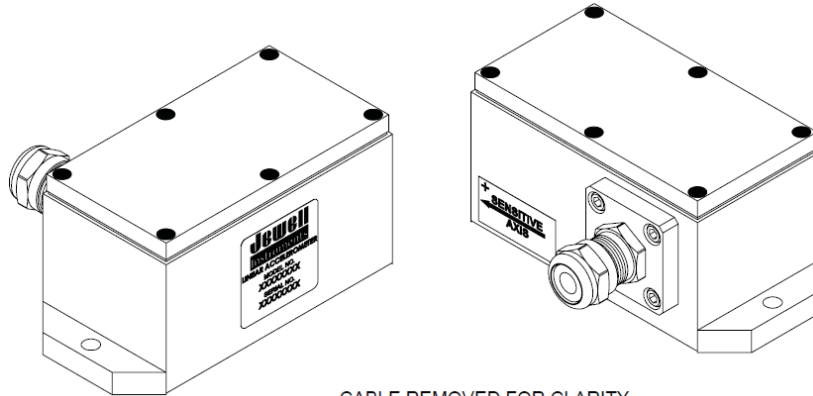
NOTES:

1. DATUM **- A -** AND **- B -** ARE DEFINED AS REFERENCE SURFACES.

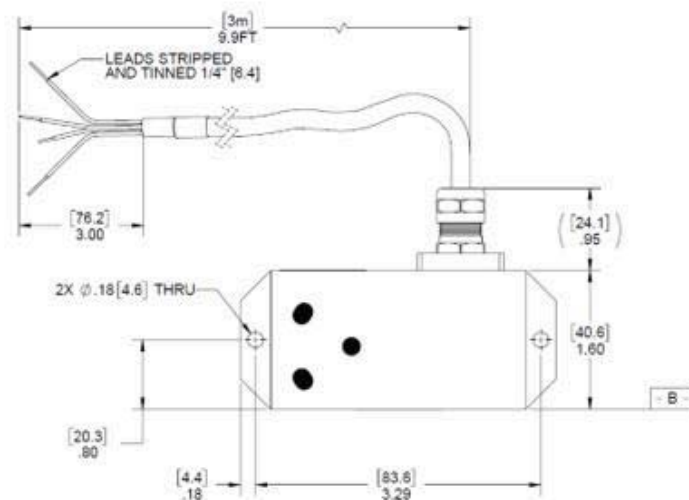
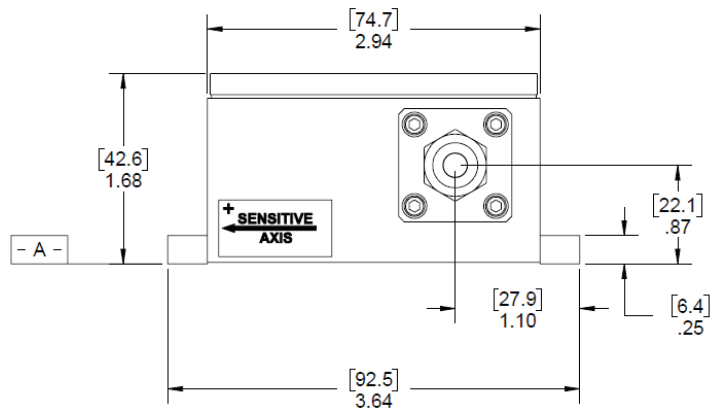
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LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output

Outline Drawing: Wired Version



CABLE REMOVED FOR CLARITY



NOTES:

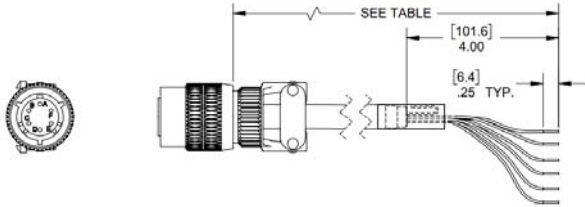
1. DATUM **- A -** AND **- B -** ARE DEFINED AS REFERENCE SURFACES.

LSLR Ultra-Low Range Accelerometer +/-5V, 0-5V or 4-20mA Output



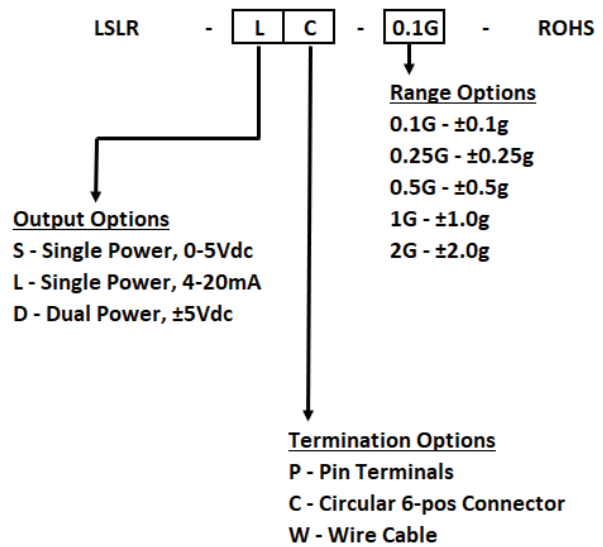
Making Sense out of Motion...

Accessories:



PART #	MODEL #	LENGTH ft (m)
879605-001	DSI-CBL-006-1	6 (1.83)
879605-002	DSI-CBL-010-1	10 (3.05)
879605-007	DSI-CBL-02M-1	6.56 (2)
879605-008	DSI-CBL-03M-1	9.84 (3)

LSLR Ordering Information:



Range	Output	Connection	Model #	Part #
±0.1g	0-5V (S)	Connector (C)	LSLR-SC-0.1G-ROHS	02550417-101-ROHS
		Pin Terminal (P)	LSLR-SP-0.1G-ROHS	02550415-101-ROHS
		Wire (W)	LSLR-SW-0.1G-ROHS	02550416-101-ROHS
	±5V (D)	Connector (C)	LSLR-DC-0.1G-ROHS	02550417-201-ROHS
		Pin Terminal (P)	LSLR-DP-0.1G-ROHS	02550415-201-ROHS
		Wire (W)	LSLR-DW-0.1G-ROHS	02550416-201-ROHS
	4-20mA (L)	Connector (C)	LSLR-LC-0.1G-ROHS	02550417-301-ROHS
		Pin Terminal (P)	LSLR-LP-0.1G-ROHS	02550415-301-ROHS
		Wire (W)	LSLR-LW-0.1G-ROHS	02550416-301-ROHS
±0.25g	0-5V (S)	Connector (C)	LSLR-SC-0.25G-ROHS	02550417-102-ROHS
		Pin Terminal (P)	LSLR-SP-0.25G-ROHS	02550415-102-ROHS
		Wire (W)	LSLR-SW-0.25G-ROHS	02550416-102-ROHS
	±5V (D)	Connector (C)	LSLR-DC-0.25G-ROHS	02550417-202-ROHS
		Pin Terminal (P)	LSLR-DP-0.25G-ROHS	02550415-202-ROHS
		Wire (W)	LSLR-DW-0.25G-ROHS	02550416-202-ROHS
	4-20mA (L)	Connector (C)	LSLR-LC-0.25G-ROHS	02550417-302-ROHS
		Pin Terminal (P)	LSLR-LP-0.25G-ROHS	02550415-302-ROHS
		Wire (W)	LSLR-LW-0.25G-ROHS	02550416-302-ROHS
±0.5g	0-5V (S)	Connector (C)	LSLR-SC-0.5G-ROHS	02550417-103-ROHS
		Pin Terminal (P)	LSLR-SP-0.5G-ROHS	02550415-103-ROHS
		Wire (W)	LSLR-SW-0.5G-ROHS	02550416-103-ROHS
	±5V (D)	Connector (C)	LSLR-DC-0.5G-ROHS	02550417-203-ROHS
		Pin Terminal (P)	LSLR-DP-0.5G-ROHS	02550415-203-ROHS
		Wire (W)	LSLR-DW-0.5G-ROHS	02550416-203-ROHS
	4-20mA (L)	Connector (C)	LSLR-LC-0.5G-ROHS	02550417-303-ROHS
		Pin Terminal (P)	LSLR-LP-0.5G-ROHS	02550415-303-ROHS
		Wire (W)	LSLR-LW-0.5G-ROHS	02550416-303-ROHS

Range	Output	Connection	Model #	Part #
±1g	0-5V (S)	Connector (C)	LSLR-SC-1G-ROHS	02550417-104-ROHS
		Pin Terminal (P)	LSLR-SP-1G-ROHS	02550415-104-ROHS
		Wire (W)	LSLR-SW-1G-ROHS	02550416-104-ROHS
	±5V (D)	Connector (C)	LSLR-DC-1G-ROHS	02550417-204-ROHS
		Pin Terminal (P)	LSLR-DP-1G-ROHS	02550415-204-ROHS
		Wire (W)	LSLR-DW-1G-ROHS	02550416-204-ROHS
4-20mA (L)	Connector (C)	LSLR-LC-1G-ROHS	02550417-304-ROHS	
	Pin Terminal (P)	LSLR-LP-1G-ROHS	02550415-304-ROHS	
	Wire (W)	LSLR-LW-1G-ROHS	02550416-304-ROHS	
±2g	0-5V (S)	Connector (C)	LSLR-SC-2G-ROHS	02550417-105-ROHS
		Pin Terminal (P)	LSLR-SP-2G-ROHS	02550415-105-ROHS
		Wire (W)	LSLR-SW-2G-ROHS	02550416-105-ROHS
	±5V (D)	Connector (C)	LSLR-DC-2G-ROHS	02550417-205-ROHS
		Pin Terminal (P)	LSLR-DP-2G-ROHS	02550415-205-ROHS
		Wire (W)	LSLR-DW-2G-ROHS	02550416-205-ROHS
	4-20mA (L)	Connector (C)	LSLR-LC-2G-ROHS	02550417-305-ROHS
		Pin Terminal (P)	LSLR-LP-2G-ROHS	02550415-305-ROHS
		Wire (W)	LSLR-LW-2G-ROHS	02550416-305-ROHS

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