

# LAKEWOOD INSTRUMENTS

## 543 SERIES

### 4-ELECTRODE CONDUCTIVITY SENSORS

**543-M STD STANDARD TIP**



**543-LL STANDARD TIP**



**543-L STANDARD TIP**



#### ELECTRODE SPECIFICATIONS

| Electrode | Conductivity Range  | Temp Compensator | Max Temp      | Max Pressure*      |
|-----------|---------------------|------------------|---------------|--------------------|
| 543-M     | 500-100,000 $\mu$ S | 4K NTC           | 392°F (200°C) | 250 psi (17.2 bar) |
| 543-L     | 100-1,000 $\mu$ S   | 4K NTC           | 392°F (200°C) | 250 psi (17.2 bar) |
| 543-LL    | 10-500 $\mu$ S      | 1K NTC           | 392°F (200°C) | 250 psi (17.2 bar) |

#### BODY SPECIFICATIONS

| Option | Body Material | Max Temp      | Pressure*          | Wetted Materials                    |
|--------|---------------|---------------|--------------------|-------------------------------------|
| -5x    | CPVC          | 150°F (66°C)  | 100 psi (6.9 bar)  | CPVC, 316 SS, PEEK, Titanium, Viton |
| -8x    | 316 SS        | 260°F (127°C) | 150 psi (10.3 bar) | 316 SS, PEEK, Titanium, Viton       |

\* The maximum pressure rating for the 8I and 8R options with the Teflon ferrule is 70 psi.

## ENCLOSURES



-1 NEMA-4X w/amplifier\*



- 5 NEMA-4X



- 2 CL I, II w/amplifier\*



- 3 CL I, II

## INLINE MOUNTING OPTIONS (All sensors have 3/4 inch NPT on sensor tip)



- 8I 1 inch NPT 316 SS Swagelock



- 8R 1½ inch NPT 316 SS Ball valve

## ORDERING INFORMATION

Select one item from each column below.

| Sensor | Cable Length or Enclosure           | Material, Inline Fitting                        | Body Length             |
|--------|-------------------------------------|-------------------------------------------------|-------------------------|
| 543-M  | - 0 ½ inch NPT adapter <sup>#</sup> | - 4T 4 inch steel adapter (must use 5.5 Option) | - 5.5 inch <sup>†</sup> |
| 543-L  | - 1 NEMA-4X w/amplifier*            | - 5S CPVC no fitting                            | - 10 inch <sup>†</sup>  |
| 543-LL | - 2 Aluminum encl. w/amp*           | - 8S 316 SS no fitting                          | - 18 inch               |
|        | - 3 Aluminum enclosure              | - 8I 316 SS w/Swagelock fitting 1 inch NPT      | - 48 inch               |
|        | - 4 240 inch of cable               | - 8R 316 SS w/ball valve 1½ inch NPT            |                         |
|        | - 5 NEMA-4X enclosure               |                                                 |                         |

## EXAMPLE

|       |    |     |     |
|-------|----|-----|-----|
| 543-M | -4 | -8R | -18 |
|-------|----|-----|-----|

#

For use with the model 1743 two-wire transmitter.

\*

Amplifier options -1 and -2 are only available with Model 843 controllers.

†

5.5 inch and 10 inch bodies are not available with -8R Option.

## MODEL 543 M SERIES

| PART NO. | DESCRIPTION    |
|----------|----------------|
| 1104238  | 543-M-0-8I-10  |
| 1105215  | 543-M-0-5S-10  |
| 1169090  | 543-M-0-8S-48  |
| 1169088  | 543-M-0-5S-48  |
| 1168105  | 543-M-0-8R-18  |
| 1168104  | 543-M-0-8I-18  |
| 1104476  | 543-M-1-5S-18  |
| 1104356  | 543-M-1-8S-10  |
| 1104970  | 543-M-1-5S-10  |
| 1104973  | 543-M-1-8I-10  |
| 1169095  | 543-M-1-8R-18  |
| 1169094  | 543-M-1-8I-18  |
| 1169093  | 543-M-1-8S-48  |
| 1169091  | 543-M-1-5S-48  |
| 1104974  | 543-M-2-8I-10  |
| 1105039  | 543-M-2-8S-10  |
| 1169099  | 543-M-2-8R-18  |
| 1169098  | 543-M-2-8I-18  |
| 1169097  | 543-M-2-8S-48  |
| 1109896  | 543-M-3-8R-18  |
| 1105040  | 543-M-3-5S-10  |
| 1105041  | 543-M-3-5S-18  |
| 1105042  | 543-M-3-5S-48  |
| 1105225  | 543-M-3-8I-10  |
| 1105226  | 543-M-3-8I-18  |
| 1105227  | 543-M-3-8S-10  |
| 1105228  | 543-M-3-8S-18  |
| 1105229  | 543-M-3-8S-48  |
| 1167083  | 543-M-4-4T-5.5 |
| 1166602  | 543-M-4-5S-10  |
| 1105230  | 543-M-4-5S-18  |
| 1169101  | 543-M-4-5S-48  |
| 1104578  | 543-M-4-8I-10  |
| 1168103  | 543-M-4-8I-18  |
| 1169104  | 543-M-4-8R-18  |
| 1105233  | 543-M-4-8S-10  |
| 1105234  | 543-M-4-8S-18  |
| 1169103  | 543-M-4-8S-48  |

## MODEL 543 M SERIES

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|

|         |               |
|---------|---------------|
| 1109802 | 543-M-5-8I-18 |
| 1105236 | 543-M-5-5S-10 |
| 1105237 | 543-M-5-5S-18 |
| 1105238 | 543-M-5-5S-48 |
| 1105242 | 543-M-5-8I-10 |
| 1105243 | 543-M-5-8R-18 |
| 1105244 | 543-M-5-8S-10 |
| 1105245 | 543-M-5-8S-18 |
| 1105246 | 543-M-5-8S-48 |

| PART NO. | REPLACEMENT PARTS |
|----------|-------------------|
|----------|-------------------|

|         |                                                              |
|---------|--------------------------------------------------------------|
| 1168074 | 543M-STD                                                     |
| 1169168 | Fitting, 8I                                                  |
| 1169058 | Fitting, 8R                                                  |
| 1168893 | Adapter, 543 to 3/4 NPT                                      |
| 1166317 | Cable, 4 conductor /ft, 20 ft minimum order (price per foot) |
| 1167230 | Preamp, Conductivity                                         |

## MODEL 543 L SERIES

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|

|         |                |
|---------|----------------|
| 1105140 | 543-L-0-5S-10  |
| 1105142 | 543-L-0-8I-10  |
| 1105143 | 543-L-0-8S-10  |
| 1169109 | 543-L-0-8R-18  |
| 1169108 | 543-L-0-8I-18  |
| 1169107 | 543-L-0-8S-48  |
| 1169105 | 543-L-0-5S-48  |
| 1105144 | 543-L-1-5S-10  |
| 1105146 | 543-L-1-8I-10  |
| 1105147 | 543-L-1-8S-10  |
| 1169114 | 543-L-1-8R-18  |
| 1169113 | 543-L-1-8I-18  |
| 1169112 | 543-L-1-8S-48  |
| 1169110 | 543-L-1-5S-48  |
| 1104240 | 543-L-2-8I-10  |
| 1105148 | 543-L-2-8S-10  |
| 1169118 | 543-L-2-8R-18  |
| 1169117 | 543-L-2-8I-18  |
| 1169116 | 543-L-2-8S-48  |
| 1105149 | 543-L-3-8R-18  |
| 1105150 | 543-L-3-5S-10  |
| 1105151 | 543-L-3-5S-18  |
| 1105152 | 543-L-3-5S-48  |
| 1105156 | 543-L-3-8I-10  |
| 1105157 | 543-L-3-8I-18  |
| 1105158 | 543-L-3-8S-10  |
| 1105159 | 543-L-3-8S-18  |
| 1105160 | 543-L-3-8S-48  |
| 1169379 | 543-L-4-4T-5.5 |
| 1105161 | 543-L-4-5S-10  |
| 1105162 | 543-L-4-5S-18  |
| 1169120 | 543-L-4-5S-48  |
| 1105165 | 543-L-4-8I-10  |
| 1169123 | 543-L-4-8I-18  |
| 1169124 | 543-L-4-8R-18  |
| 1105166 | 543-L-4-8S-10  |
| 1105167 | 543-L-4-8S-18  |
| 1169122 | 543-L-4-8S-48  |

## MODEL 543 L SERIES

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|

|         |               |
|---------|---------------|
| 1105169 | 543-L-5-5S-10 |
| 1105170 | 543-L-5-5S-18 |
| 1105171 | 543-L-5-5S-48 |
| 1104430 | 543-L-5-8I-18 |
| 1105168 | 543-L-5-8I-10 |
| 1109654 | 543-L-5-8R-18 |
| 1105175 | 543-L-5-8S-10 |
| 1104859 | 543-L-5-8S-18 |
| 1105176 | 543-L-5-8S-48 |

| PART NO. | REPLACEMENT PARTS |
|----------|-------------------|
|----------|-------------------|

|         |                                                              |
|---------|--------------------------------------------------------------|
| 1168075 | 543L-STD                                                     |
| 1169168 | Fitting, 8I                                                  |
| 1169058 | Fitting, 8R                                                  |
| 1168893 | Adapter, 543 to 3/4 NPT                                      |
| 1166317 | Cable, 4 conductor /ft, 20 ft minimum order (price per foot) |
| 1167230 | Preamp, Conductivity                                         |

## MODEL 543 LL SERIES

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|

|         |                 |
|---------|-----------------|
| 1105177 | 543-LL-0-5S-10  |
| 1105179 | 543-LL-0-8I-10  |
| 1105180 | 543-LL-0-8S-10  |
| 1169129 | 543-LL-0-8R-18  |
| 1109128 | 543-LL-0-8I-18  |
| 1169127 | 543-LL-0-8S-48  |
| 1169125 | 543-LL-0-5S-48  |
| 1105182 | 543-LL-3-8R-18  |
| 1105183 | 543-LL-3-5S-10  |
| 1105184 | 543-LL-3-5S-18  |
| 1105185 | 543-LL-3-5S-48  |
| 1105189 | 543-LL-3-8I-10  |
| 1105190 | 543-LL-3-8I-18  |
| 1105191 | 543-LL-3-8S-10  |
| 1105192 | 543-LL-3-8S-18  |
| 1105193 | 543-LL-3-8S-48  |
| 1105194 | 543-LL-4-4T-5.5 |
| 1105195 | 543-LL-4-5S-10  |
| 1105196 | 543-LL-4-5S-18  |
| 1169130 | 543-LL-4-5S-48  |
| 1105199 | 543-LL-4-8I-10  |
| 1169133 | 543-LL-4-8I-18  |
| 1169134 | 543-LL-4-8R-18  |
| 1105200 | 543-LL-4-8S-10  |
| 1105201 | 543-LL-4-8S-18  |
| 1169132 | 543-LL-4-8S-48  |

## MODEL 543 LL SERIES

| PART NO. | DESCRIPTION    |
|----------|----------------|
| 1105203  | 543-LL-5-8R-18 |
| 1105204  | 543-LL-5-5S-10 |
| 1105205  | 543-LL-5-5S-18 |
| 1105206  | 543-LL-5-5S-48 |
| 1105210  | 543-LL-5-8I-10 |
| 1105211  | 543-LL-5-8I-18 |
| 1105212  | 543-LL-5-8S-10 |
| 1105213  | 543-LL-5-8S-18 |
| 1105214  | 543-LL-5-8S-48 |

| PART NO. | REPLACEMENT PARTS                                            |
|----------|--------------------------------------------------------------|
| 1168076  | 543LL-STD                                                    |
| 1169168  | Fitting, 8I                                                  |
| 1169058  | Fitting, 8R                                                  |
| 1168893  | Adapter, 543 to 3/4 NPT                                      |
| 1166317  | Cable, 4 conductor /ft, 20 ft minimum order (price per foot) |
| 1167230  | Preamp, Conductivity                                         |