



### CLS1900 medium stroke range

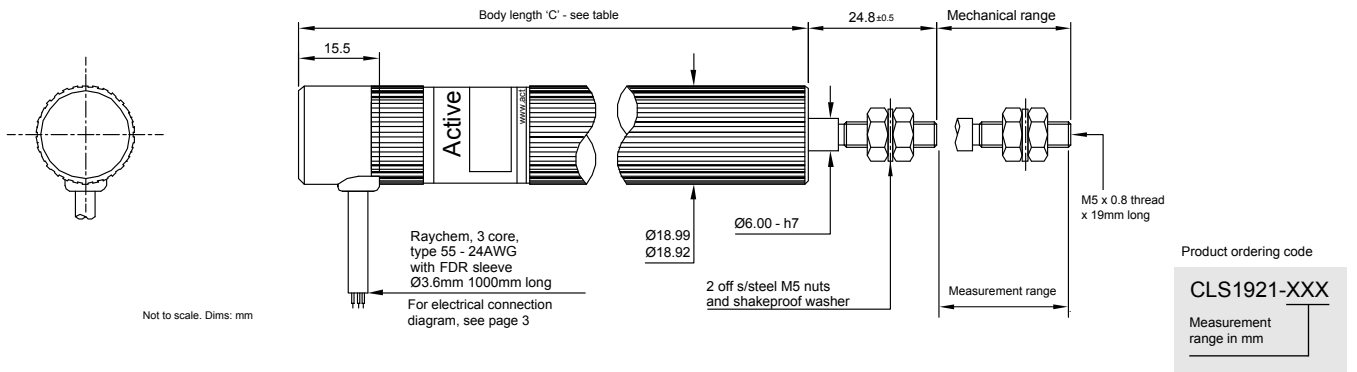


- Measurement range: 25mm to 500mm (20")
- Robust 19mm Ø compact design
- 6.0mm dia. operating shaft
- Sealed as standard
- Raychem cabling
- Choice of mounting
- Very long operational life
- Models available from stock

The robust, general-purpose medium stroke CLS1920 sensor is used extensively in industrial monitoring and process control applications. They are also used in racing car and off road vehicles for monitoring suspension movement and steering angles. The housing is manufactured from aluminium alloy and the operating shaft is stainless steel. The spherical mounting bearings and body clamps are machined from aluminium alloy for strength and durability.

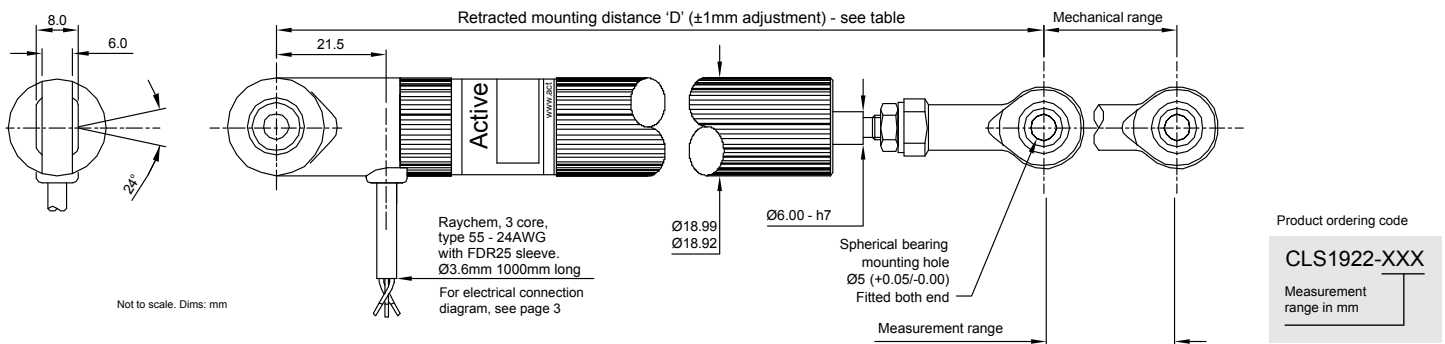
# Model dimensions and mounting

## CLS1921 - body clamp mounting



For mounting accessories, see page 3

## CLS1922 - rod-end mounting



For mounting accessories, see page 3

## Electrical & mechanical information for CLS1900 range

|                                     |  |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       |       |
|-------------------------------------|--|------|------|--------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Measurement range ( $\pm 0.5$ mm)   | 25   | 50   | 75   | 100          | 125  | 150  | 175  | 200  | 225  | 250   | 275   | 300   | 325   | 350   | 400   | 500   | mm    |       |
| Retracted mounting distance (D)     | -  | -    | 199  | 224          | 249  | 274  | 299  | 324  | 349  | 374   | 399   | 424   | 449   | 474   | -     | -     | mm    |       |
| Body length (C)                     | 98   | 123  | 148  | 173          | 198  | 223  | 248  | 273  | 298  | 323   | 348   | 378   | 403   | 428   | 478   | 578   | mm    |       |
| Resistance (Typical)                | 1  | 2    | 3    | 4            | 5    | 6    | 7    | 8    | 9    | 10    | 11    | 12    | 13    | 14    | 16    | 20    | kohms |       |
| Non-linearity                       | < $\pm 0.25$   |      |      | < $\pm 0.15$ |      |      |      |      |      |       |       |       |       |       |       |       | %     |       |
| Applied voltage                     | <22  | <45  | <65  | <90          | <110 | <130 | <130 | <130 | <130 | <130  | <130  | <130  | <130  | <130  | <130  | <130  | Volts |       |
| Wiper load                          | >500   | >500 | >500 | >500         | >500 | >600 | >700 | >800 | >900 | >1000 | >1100 | >1200 | >1300 | >1400 | >1600 | >2000 | kohms |       |
| Mechanical range                    | Measurement range +1   |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       | mm    |
| Shaft velocity                      | <10  |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       | m/sec |
| Insulation resistance (at 500V dc.) | >100   |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       | Mohms |
| Operating temp. range               | -30° to +100°  |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       | °C    |
| Sealing                             | IP66   |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       |       |
| Shaft operating force               | 200 (typical)  |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       | grams |
| Weight (approx.)                    | 79   | 91   | 109  | 139          | 154  | 170  | 184  | 205  | 220  | 233   | 254   | 275   | 301   | 322   | 369   | 463   | grams |       |
| Materials                           | Case - Aluminium 6063 - Sulphuric acid anodised<br>Shaft - Stainless steel - 303 series<br>Rod end bearing - Aluminium 6262 housing & BS970 230M07, electroless nickel plate |      |      |              |      |      |      |      |      |       |       |       |       |       |       |       |       |       |



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