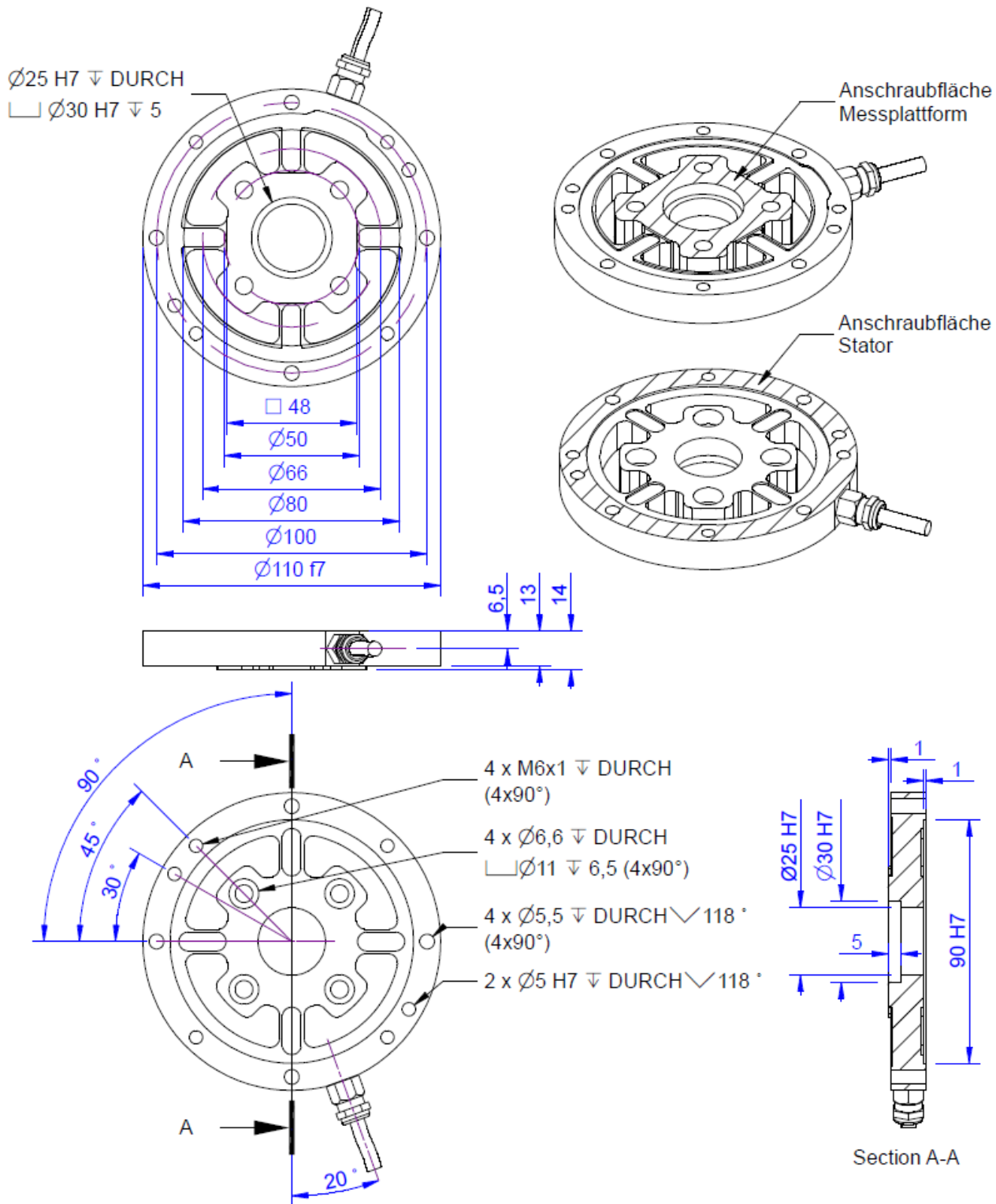


## TS110a $\pm 20\text{Nm}$ , $\pm 50\text{Nm}$ , $\pm 100\text{Nm}$ , $\pm 200\text{Nm}$



### Description

Dimensions



## Technical Data

### Electrical Data

|   |           |           |
|---|-----------|-----------|
| Input resistance                        | 2000      | Ohm       |
| Tolerance input resistance              | 10        | Ohm       |
| Output resistance                       | 2000      | Ohm       |
| Tolerance output resistance             | 10        | Ohm       |
| Insulation resistance                   | 5         | GOhm      |
| Rated range of excitation voltage f     | 2.5 ... 5 | V         |
| Operating range of excitation voltage f | 1 ... 10  | V         |
| Zero signal                             | 0.05      | mV/V      |
| Rated output                            | 1         | mV/V / FS |

### Precision

|  |      |       |
|--|------|-------|
| Accuracy class                             | 0.1  |       |
| Relative linearity error                   | 0.1  | %FS   |
| Relative zero signal hysteresis            | 0.1  | %FS   |
| Temperature effect on zero signal          | 0.01 | %FS/K |
| Temperature effect on characteristic value | 0.01 | %RD/K |
| Relative creep                             | 0.05 | %FS   |

### Connection Data

|                        |                               |
|------------------------|-------------------------------|
| Connection type        | 4 conductor open              |
| Name of the connection | Unitronic FD CP Plus / 4x0,14 |
| Cable length           | 3 m                           |

### Temperature

|                               |            |    |
|-------------------------------|------------|----|
| Rated temperature range f     | -10 ... 60 | °C |
| Operating temperature range f | -10 ... 85 | °C |
| Storage temperature range f   | -10 ... 85 | °C |
| Environmental protection      | IP65       |    |

### Basis Data

|                          |              |
|--------------------------|--------------|
| Type                     | shear beam   |
| Bending moment limit     | 20 Nm        |
| Maximum operating torque | 150 %FS      |
| Breaking torque          | 400 %FS      |
| Rated torsion angle      | 0.02 °/FS    |
| Axial force limit        | 1000 N       |
| Lateral force limit      | 1000 N       |
| Torque introduction      | pitch circle |
| Dimension 1              | Ø50          |
| drehmomentausleitung     | pitch circle |
| Dimension 2              | Ø100         |
| Diameter                 | 110 mm       |
| length                   | 14 mm        |



*Abbreviation: RD: „Reading“; FS: „Full Scale“;*

*1) The exact nominal sensitivity is indicated in the test report;*







## Pin Configuration

| Symbol | Description            | Wire colour |
|--------|------------------------|-------------|
| +Us    | positive bridge supply | brown       |
| -Us    | negative bridge supply | white       |
| +Ud    | positive bridge output | green       |
| -Ud    | negative bridge output | yellow      |

*Pressure load: positive output signal.*

*Shield- transparent.*

## accessories

| Description   | Description  |
|---|--|
|  Factory calibration certificate Nm/50/5         | Detection of the characteristic value and traceability on DAkkS torque device; 0.025Nm... 50Nm   |
|  Factory calibration certificate Nm/50/5/System  | Detection of the characteristic value and traceability on DAkkS torque device; 0.025Nm... 50Nm; incl. calibration, torque sensor + amplifier |
|  Factory calibration certificate Nm/200/5        | Detection of the characteristic value and traceability on DAkkS torque device; 51Nm... 200Nm   |
|  Factory calibration certificate Nm/200/5/System | Detection of the characteristic value and traceability on DAkkS torque device; 51Nm... 200Nm; incl. calibration, torque sensor + amplifier   |