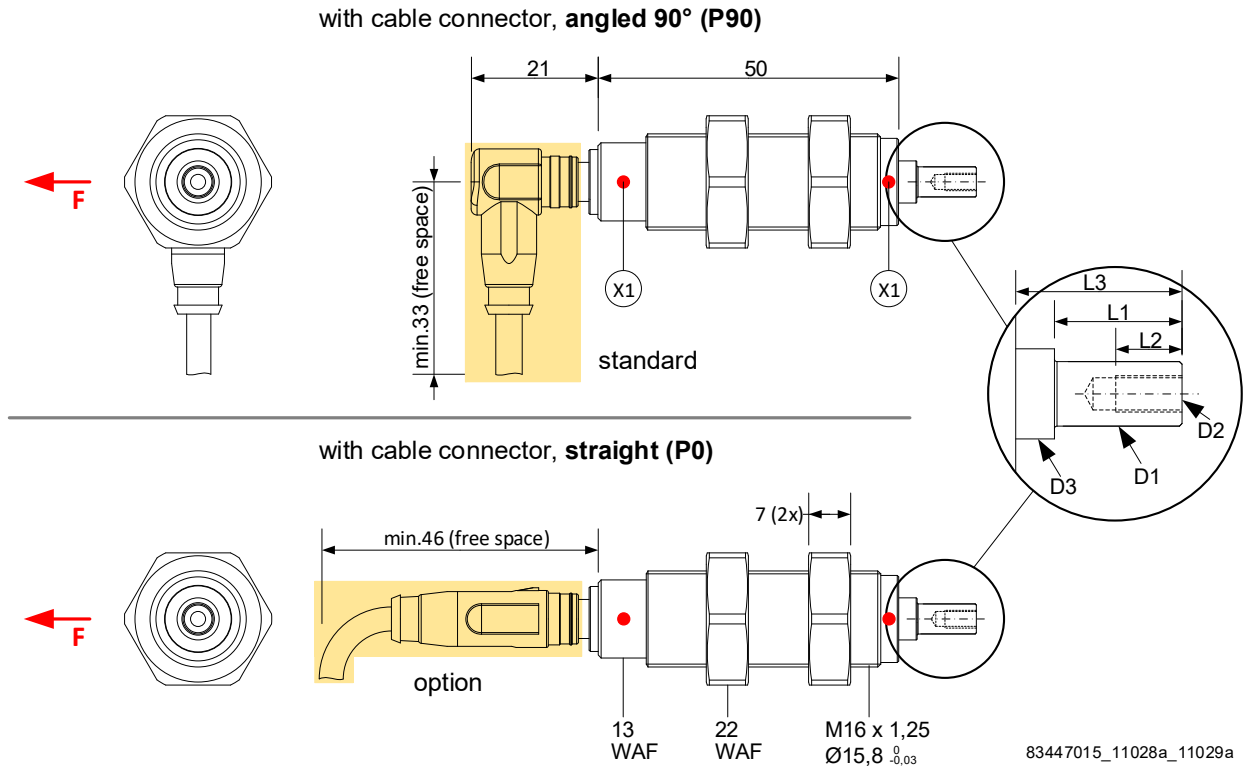


Scale drawing



All dimensions in mm

WAF: width across flats

X1: red mark indicates the position of the measuring axis, parallel to the spanner flats WAF13

Rated measuring ranges

| Nominal force [N] | | | | | | Axle journal Ø [mm] | | |
|-------------------|----|-------|----|----|--|---------------------|---|----|
| 2* | 3* | 4* | | | | 5 | 8 | 10 |
| 5* | 10 | 20 | 30 | 40 | | 5 | 8 | 10 |
| 50 | 60 | 100** | | | | | 8 | 10 |

The measuring range of the sensor begins at force's zero point.

Nominal forces differing from the list are available.

SR (Standard Range) * Special type LR (Low Range) ** Special type HR (High Range)

Dimensions

| Axle journal Ø | | | | | | | |
|----------------|-----------------|------|------------|----|----|----|------|
| D1 | -0,006 -0,01 | L1 | +0,02 0 | D2 | L2 | D3 | L3 |
| 5 | | 9,9 | | M3 | 6 | 7 | 12,9 |
| 8 | | 11,9 | | M4 | 6 | 10 | 15,9 |
| 10 | | 15,9 | | M5 | 8 | 11 | 20,9 |

All dimensions in mm

Non-standard dimensions and execution upon request

Technical Data

| | | |
|---|-------------|---|
| Rated measuring ranges (FN) | N | 0 - 2 to 0 - 100 |
| Rated output | mV/V | 1,0 |
| Rated output tolerance | % | < ± 0,2 |
| Accuracy class | | 0,1 |
| Excitation voltage max. | V | 12 |
| Reference excitation voltage | V | 10 |
| Input resistance | Ω | 350 ± 3 |
| Output resistance | Ω | 350 ± 1 |
| Isolation resistance | GΩ | > 10 |
| Rated temperature range | °C | 5 to 50, Option: -10 to 70 |
| Operational temperature range | °C | -10 to 70 |
| Storage temperature range | °C | -30 to 70 |
| Reference temperature | °C | 23 |
| Temperature influence per 10 K | | |
| - on the zero point (TK0) | % FN | < ± 0,1 |
| - on the calibration (TKC) | % FN | < ± 0,15 |
| Creep after 30 minutes | % FN | < ± 0,05 |
| Linear output signal up to | % FN | approx. 125 |
| Mech. overload protection takes effect at | % FN | approx. 140 |
| Overload protected (#1) | % FN | 400 to 800 (depending on nominal force) |
| Ultimate side load | % FN | 200 |
| Deflection at nominal force | mm | 0,04 ± 20% |
| Typ. natural frequency of the sensor | KHz | 1 ... 3 (depending on nominal force) |
| Weight | g | approx. 70 |
| Protection class | | IP 50 |
| Sensor housing and nuts | | stainless steel |
| electrical connection sensor side | | plug, snap-on type ∅ 8mm, 4-pole, gold-plated contacts |
| Connection cable | | 3m long, flexible, shielded 4 x 0,14mm ² , total ∅ 4,5 mm |

(#1) radial incoming force without additional bending or tilting moment

Terminal assignment cable end

| O: open ends (Standard) | | S: cable plug instead of open ends (Option) | | |
|-------------------------|--------------------------------------|---|--|------------|
| | + U _{Br} | Excitation | 1 + U _{Br} | Excitation |
| | - U _{Br} | | 2 - U _{Br} | |
| | + U _{Sig} | Output | 3 Shield (not connected to housing) | Output |
| | - U _{Sig} | | 4 + U _{Sig} | |
| | Shield (not connected to housing) | | 5 - U _{Sig} | |
| | | | 6 Reserved | |
| | | | | |

Order code

| | RFS 100 | - 50 | - 10 | - P90 | - 3 | - O |
|------------------------|--|------|------|-------|-----|-----|
| Sensor type | | | | | | |
| Nominal force [N] | | | | | | |
| Axle journal Ø D1 [mm] | | | | | | |
| Cable connector | Standard: P90 (angled 90°) Option: P0 (straight 0°) | | | | | |
| Cable length [m] | Standard: 3m Option: 5m or 10m | | | | | |
| Cable end | Standard: O (open ends) Option: S (cable connector) | | | | | |

Scope of supply

- sensor with connection cable
- protection cap

Accessories

The following accessories are available:

- axle journal adapter (custom-specific)
- winding protection
- clamping flange for flange mounting

Options / Special versions

- extended rated temperature range -10 to 70°C
- cylindrical sensor housing (without outside thread)
- custom-specific sensor housing
- vacuum design
- custom-specific axle journal
- special nominal force, differing from standard
- further enhanced natural frequency (HF)
increase in the already very high natural frequency for special high-speed applications

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