



More Precision

induSENSOR // Linear inductive displacement sensors





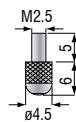
- Proven LVDT technology
- Measuring ranges $\pm 1 \dots \pm 10 \text{ mm}$
- Low cost especially for high volume applications
- Sensor diameter of just $\varnothing 8\text{mm}$
- Models with pneumatic push

LVDT gauging sensors DTA-xG8 are primarily used for the measurement and inspection of workpiece geometry (length, width, diameter, thickness, depth, height). They are ideally suitable for high volume applications.

These gauges have an axial cable output and are equipped with either a plain bearing-guided plunger and spring, or with a pneumatic push rod.

Probe tips

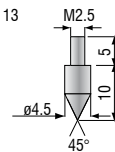
Standard: type 2



Option: type 11



Option: type 13



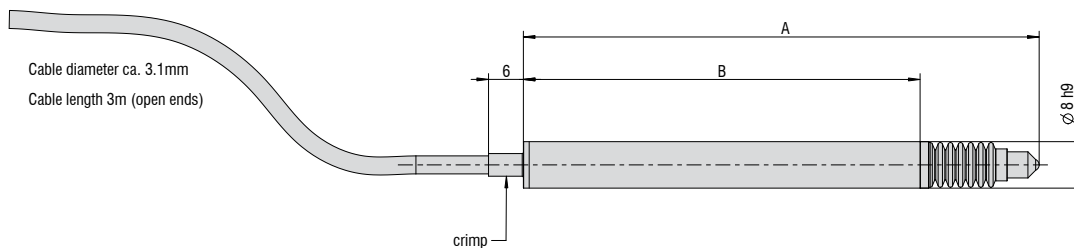
Article designation

| | | | | | | |
|---|----|----|-----|----|-----|---|
| DT | A- | 5- | G8- | 3- | CA- | V |
| Gauging sensor options: V: pneumatic push | | | | | | |
| Connection (axial): CA integral cable (3m) | | | | | | |
| Linearity: 3 ($\pm 0.3 \%$) | | | | | | |
| Function: gauging sensor | | | | | | |
| Measuring range in mm | | | | | | |
| Excitation AC | | | | | | |
| Principle: Differential Transformer (LVDT) | | | | | | |

| Model | DTA-1G8 | DTA-3G8 | DTA-5G8 | DTA-10G8 | DTA-1G8-V | DTA-3G8-V | DTA-5G8-V | DTA-10G8-V |
|----------------------------|--|------------|------------|------------|-------------|------------|------------|------------|
| Measuring range | ± 1 mm | ± 3 mm | ± 5 mm | ± 10 mm | ± 1 mm | ± 3 mm | ± 5 mm | ± 10 mm |
| Linearity | 0.3 % FSO | | | | | | | |
| Repeatability | 0.15 μm | 0.45 μm | 0.75 μm | 1.5 μm | 0.15 μm | 0.45 μm | 0.75 μm | 1.5 μm |
| Temperature stability | 250 ppm/°C | | | | | | | |
| Temperature range | -20...+80 °C (without bellows) / 0...+80 °C (with bellows) | | | | | | | |
| Diameter | 8h9 mm | | | | | | | |
| Sensor material | stainless steel / FPM | | | | | | | |
| Connection / pin connector | open ends | | | | | | | |
| Protection class (sensor) | IP65 (with bellows) / IP54 (without bellows) | | | | | | | |
| Cable output | axial | | | | | | | |
| Cable length (sensor) | 3 m | | | | | | | |
| Life cycle MTBF | 5 million cycles | | | | | | | |
| Sensitivity | 133 mV/mm/V | 85 mV/mm/V | 53 mV/mm/V | 44 mV/mm/V | 133 mV/mm/V | 85 mV/mm/V | 53 mV/mm/V | 44 mV/mm/V |
| Suitable controller | MSC7401 (pages 10 - 11) | | | | | | | |

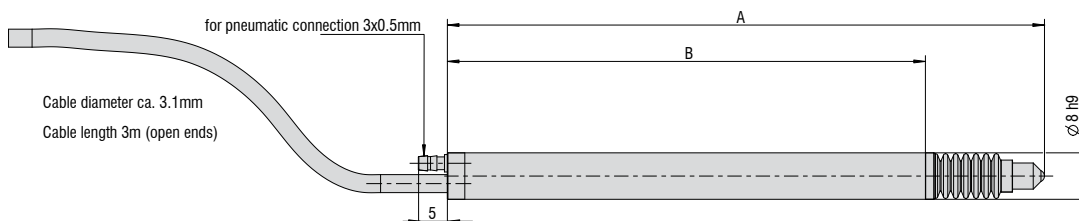
FSO = Full Scale

DTA-xG8-3-CA



| Model | A (zero position) | B |
|---------------|-------------------|----------|
| DTA-1G8-3-CA | 83 mm | 64.3 mm |
| DTA-3G8-3-CA | 89 mm | 68.3 mm |
| DTA-5G8-3-CA | 118 mm | 89.5 mm |
| DTA-10G8-3-CA | 155 mm | 121.7 mm |

DTA-xG8-3-CA-V



| Model | A (zero position) | B |
|-----------------|-------------------|----------|
| DTA-1G8-3-CA-V | 95 mm | 76.3 mm |
| DTA-3G8-3-CA-V | 103 mm | 82.3 mm |
| DTA-5G8-3-CA-V | 134 mm | 105.3 mm |
| DTA-10G8-3-CA-V | 170.8 mm | 137.3 mm |

General accessories

| | | |
|---------|--------|---|
| 2960031 | MC25D | Digital micrometer calibration fixture |
| 2420062 | PS2020 | Power supply on DIN rail, input 100 - 240 VAC, output 24 VDC / 2.5 A |
| 2984026 | | Function and linearity inspection certificate incl. protocol with listed measurement data of the linearity inspection and documentation |
| 2213034 | | IF7001 single-channel USB/RS485 converter |

Accessories for LDR series**Connection cables**

| | | |
|---------|--------------|---|
| 0157047 | C7210-5/3 | Sensor cable, 5 m, with cable connector |
| 0157048 | C7210/90-5/3 | Sensor cable, 5 m, with 90° cable connector |

Supply cable

| | | |
|---------|-----------|--------------------------|
| 2901087 | PC710-6/4 | Supply/output cable, 6 m |
|---------|-----------|--------------------------|

Spare plungers

| | | |
|---------|--------|---------------|
| 0800136 | LDR-10 | Spare plunger |
| 0800137 | LDR-25 | Spare plunger |
| 0800138 | LDR-50 | Spare plunger |

Service

Connector installation and adjustment

Accessories for EDS series**Service**

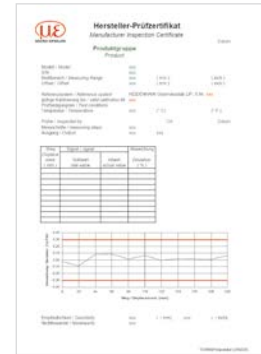
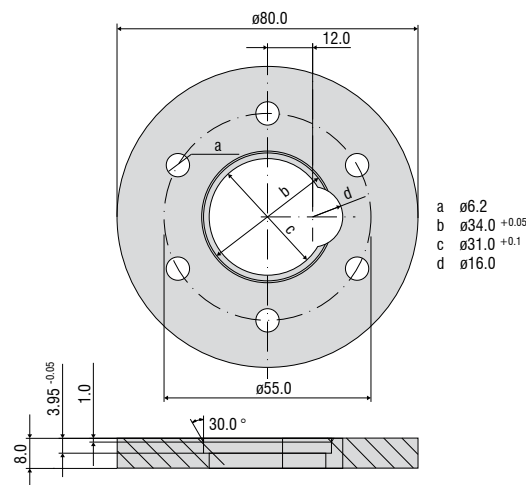
| | | |
|---------|--|---|
| 2985001 | | Function and linearity inspection for EDS series incl. pressure inspection and documentation without recalibration |
|---------|--|---|

Connection cables

| | | |
|---------|-----------|--|
| 0157043 | C703-5 | VIP/LVP/EDS 7-pin connection cable for S series, 5 m |
| 2902084 | C703-5/U | VIP/LVP/EDS 7-pin connection cable for S series, 5 m for voltage output 1 - 5 V |
| 0157050 | C703/90-5 | VIP/LVP/EDS 7-pin connection cable for S series, 5 m with 90° cable connector |
| 2901143 | C705-5 | VIP-/LVP-/EDS 5-pin connection cable for F series, 5 m |
| 2901160 | C705-15 | VIP-/LVP-/EDS 5-pin connection cable for F series, 15 m |

Installation ring

| | | |
|---------|--|-------------------|
| 0483326 | | EDS mounting ring |
|---------|--|-------------------|



Linearity inspection certificate

Accessories for LVDT series

Sensor cables

| | | |
|---------|-----------|--|
| 2902004 | C701-3 | Sensor cable, 3 m, with cable connector and tin-plated free ends |
| 2902013 | C701-6 | Sensor cable, 6 m, with cable connector and tin-plated free ends |
| 2902009 | C701/90-3 | Sensor cable, 3 m, with 90° cable connector and tin-plated free ends |
| 2213034 | IF7001 | Single-channel USB/RS485 converter for MSC7xxx |

Service

| | |
|---------|--|
| 2981010 | Connector installation and calibration |
|---------|--|

Connection cables

| | | |
|----------|-----------|---|
| 2901087 | PC710-6/4 | Supply/output cable, 6 m, open ends |
| 29011154 | PC5/5-IWT | Supply/output cable, 5 m, open ends/M12 |

Spare plungers

| | | |
|---------|---------|---------------|
| 0800001 | DTA-1D | Spare plunger |
| 0800002 | DTA-3D | Spare plunger |
| 0800003 | DTA-5D | Spare plunger |
| 0800004 | DTA-10D | Spare plunger |
| 0800005 | DTA-15D | Spare plunger |
| 0800006 | DTA-25D | Spare plunger |

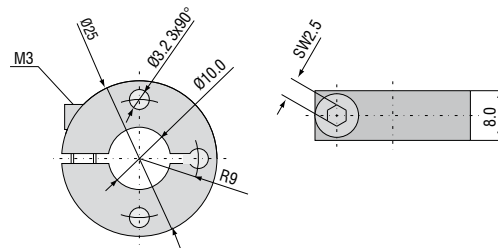
Flanges

| | | |
|------------|---------|--|
| 0483090.01 | DTA-F10 | Mounting flange, slotted for DTA-1D, DTA-3D, DTA-5D, DTA-10D |
| 0483083.02 | DTA-F20 | Mounting flange, slotted for DTA-15D, DTA-25D |

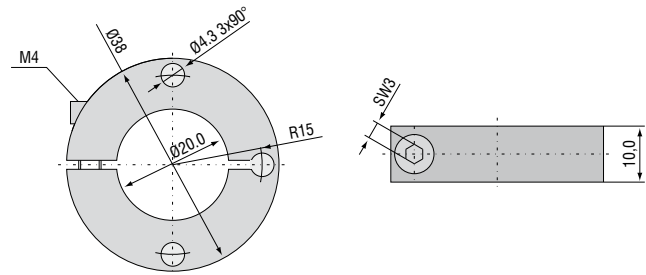
Probe tips

| | |
|---------|---------------------|
| 0459002 | Type 2 |
| 0459001 | Type 2 (hard metal) |
| 0459003 | Type 11 |
| 0459004 | Type 13 |

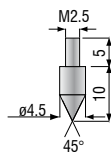
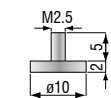
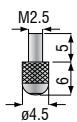
Flange DTA-F10



Flange DTA-F20



Standard probe tip: type 2 Option: type 11 Option: type 13



High performance sensors made by Micro-Epsilon



Sensors and systems for displacement and position



Sensors and measurement devices for non-contact temperature measurement



2D/3D profile sensors (laser scanner)



Optical micrometers, fiber optic sensors and fiber optics



Color recognition sensors, LED analyzers and color online spectrometer



Measurement and inspection systems