

# Inductive Displacement Transducer

## Series ISM20



- Stroke up to 8 mm
- External electronic modules
- Gauge type with return spring available
- Protection class IP66
- Accuracy 0,5% or 0,25%

### Construction and operating principle:

A nickel-iron core will be moved linear inside of a coil form. The displacement of the core leads to an inductance variation in both coils. An external electronic circuit converts the variation into a signal proportional to the displacement.

### Standard measuring strokes:

|      |      |
|------|------|
| 4 mm | 8 mm |
|------|------|

### Standard version:

|            |                  |
|------------|------------------|
| ISM200     | separate plunger |
| ISM200 ..T | gauge type       |

### Material:

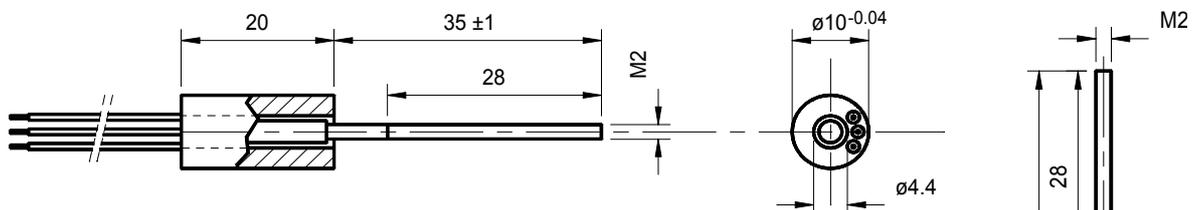
|               |                             |
|---------------|-----------------------------|
| External tube | Stainless nickel iron alloy |
| Leads         | Kynar leads AWG28           |
| Core          | Stainless nickel iron alloy |
| Plunger       | Brass                       |
| Gauge plunger | Stainless steel             |
| Spring        | Stainless steel             |
| Spring plate  | Alu, black anodised         |

### Technical data:

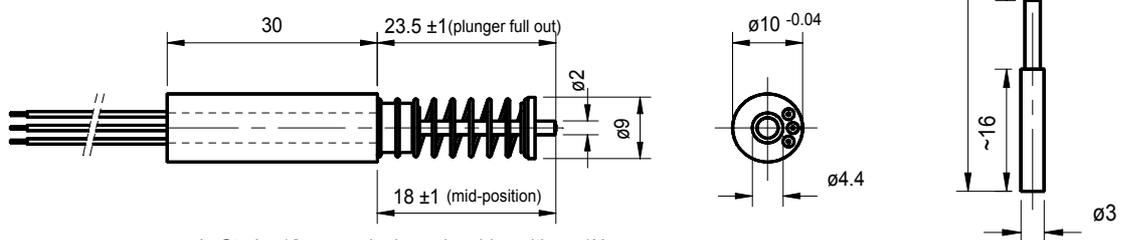
(using our electronic modules)

|                         |                    |
|-------------------------|--------------------|
| Accuracy                | < 0,5% or 0,25%    |
| Sensitivity             | 440 mV/mm (±10%)   |
| Temperature drift       | < 0,01% / °C       |
| Temperature range       | -40°C up to +120°C |
| Resistance to shock     | 250g SRS 20-2000Hz |
| Resistance to vibration | 20g rms (50g peak) |
| Mass transducer         | ~20g               |
| Mass plunger            | ~ 4g               |
| Protection class        | IP66               |

**Model ISM200** (witht 3x 300mm Kynar-leads AWG28)



**Model ISM200 ..T** (with 3x 300mm Kynar-leads AWG28)



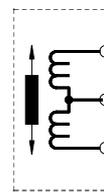
mech. Stroke 12mm springiness in mid-position ~1N

### Excitation and signal processing

- ISM10: Oscillator / Demodulator in metal case
- ISM11: ISM10 on Eurocard
- ISM12: Oscillator / Demodulator without case  
2 channels
- ISM14: Eurocard up to 7 channels

### Electrical connection

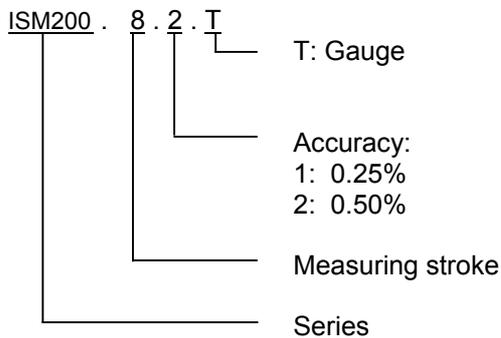
3-pol. Kynar-leads AWG28



Colour of leads:

- blue: WM
- black: MS
- red: WP

### Order code



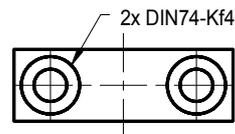
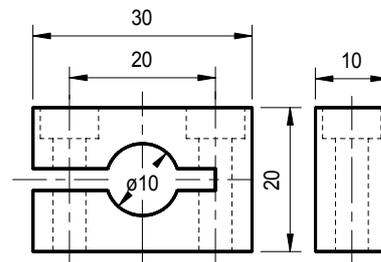
Order codes for customer specified versions will be named at plant.

### Example: ISM200.4.2

Displacement transducer Series 200, 4mm measuring stroke, accuracy 0.5%, 300mm kynar leads

### Mounting block ISM906.202

(incl. 2 mounting screws M4x25 DIN912 VA)



### other versions:

- Improved sensitivity difference ( $\pm 1\%$ )
- Double plunger
- Measuring tip DIN878
- Special housing 25x25x15mm steel nickel plated