

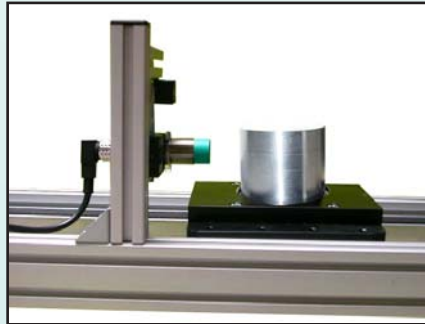


# Practical Training in Sensor Technology

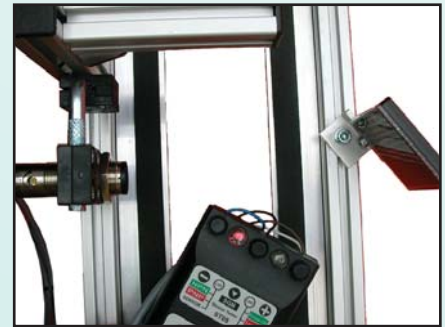
# SENSOR TECHNOLOGY: From theory ...

*Operational  
order*

*Test setup*



*Testing*



## Learning Objectives:

- ✓ Types of sensors and how they work
- ✓ Testing and adjustment of sensors
- ✓ Applications of sensors
- ✓ Distance measurement and material detection

## Sensors:

- ✓ inductive
- ✓ capacitive
- ✓ optical:
  - diffuse reflective sensor
  - retro-reflective sensor



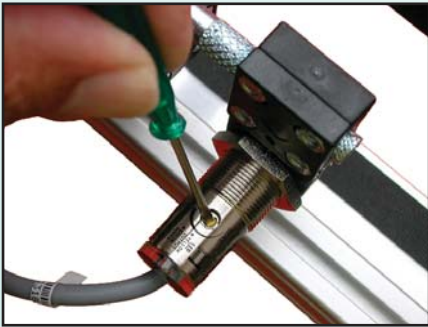
## Contents of Sensorics Box

- |        |   |   |
|--------|---|---|
| 80 700 | 4 | <b>test pieces</b> (plastic white, plastic black, aluminium, stainless steel)                                   |
| 80 701 | 4 | <b>sensors</b> (capacitive, inductive, 2 x optical with 1 reflector and a fastening bracket)                    |
| 80 702 | 2 | <b>universal sensor holders</b> for accommodation of cylindrical sensors 5 - 30 mm                              |
| 80 703 | 1 | <b>set of fixing material for sensors</b><br>2 x slot nut<br>2 x M4 threaded screws                             |
| 80 704 | 1 | <b>mounting system</b> 1 x profile girder for setting up test stations at any free place on the transfer system |
| 80 618 | 1 | <b>workpiece carrier pallet</b><br>dimensions: 119 x 119 x 15 mm  |
| 80 619 | 1 | <b>4-bit ident system</b><br>1 set, 4-fold  |
|        | 1 | <b>compartment for sensor test unit</b> for accommodation of the sensor test unit (80 705)                      |

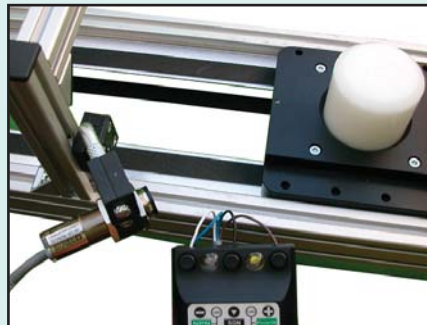
# ... to practice !



## Adjustment



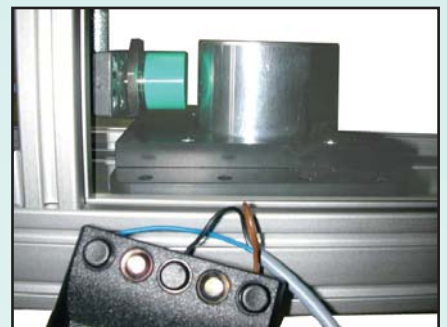
## Commissioning and troubleshooting



## System function test

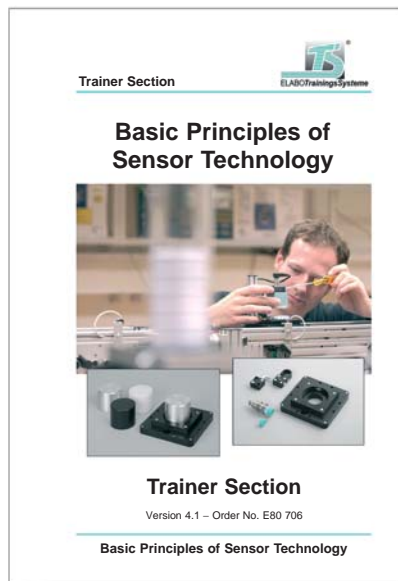
### Experiment routine

1. Task
2. Simplification / simulation
3. Work planning
4. Selection of sensors
5. Circuit diagram
6. Set-up of the measurement layout
7. Proving the function
8. Evaluation of the experiment
9. Parts list / calculation

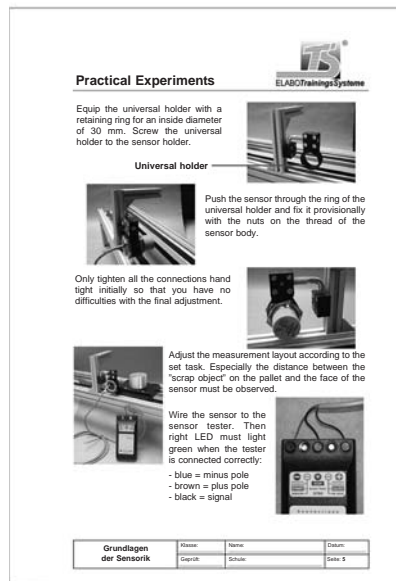




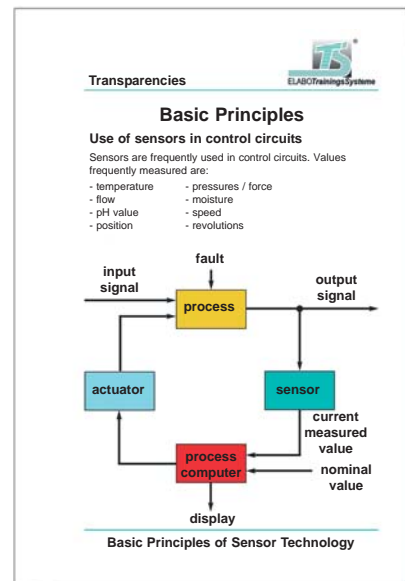
# Teachware



E80 706CD Trainer Section



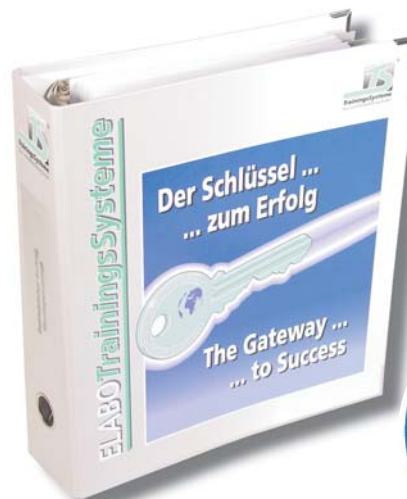
E80 707CD Practical Experiments



E80 708CD Transparencies



Data sheets  
(contained in the  
Trainer Section)



On paper and on CD!



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We request:

☐ further information

☐ be contacted by telephone

☐ quotation for \_\_\_\_\_ sets of workstations

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