MEASURING PROBES
AND DIGITAL DISPLAYS

Depending on the domain of application, Sylvac proposes two types of probes. The capacitive type offers a high accuracy on all the probe’s range and a high repeatability. Coupled to the Sylvac display units, a linearisation can be performed to decrease the sampling error up to 0.4 µm. They perfectly fit for applications on granit stands and Sylvac measuring benches. The inductive type proposes some probes with minimal dimensions and a very high repeatability. Insensitive to the dust, their IP65 rating allow them to be used in heavy-duty work. They are the solution for multigauging applications from 2 to 255 probes.

The Sylvac display units allow to connect a large range of products like linear probes, linear scales, handtools and dial gauges.

Absolute capacitive measuring system
Digital display units RS232 and USB
Operational temperature 0 to +50°C
## Measuring probes

### LISTING OF ALL MODELS

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### EXECUTION

- Plain bearing
- B- Ball bearing
- Pneumatic push
- V- Vacuum lifter
- L- 90 degrees cable
- S- with rubber boot

### MECHANIC

- Diameter 8 mm h6
- Diameter 12 mm
- Measuring anvil M2.5

### LIFTING

- Integrated
- Separate accessories

### PROTECTION IP

| Protection rating IP (IEC 60529) | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 64 | 40 | 40 | 50 | 50 | 40 | 50 |

* by accessories, see next pages
Inductive measuring probes

DESCRIPTION

• Inductive measuring probes specially designed for measurement by comparison
• Available in 2 versions: spring push and pneumatic push
• Long life precision bearing guidance (tested up to 13 million cycles)
• Resolution <0.0001 mm
• Repeatability 0.15 µm
• Measuring range +/- 2mm and +/- 5 mm
• Compatible with D300SV2, D70i and D400S units through M-Bus multiplexer units
• High data speed
• Operating temperature +10 to +80°C
• IP65 protected
Inductive measuring probes

DIMENSIONAL DRAWINGS

P2i
Ø3.50
30.00
4.00
Ø8h6
1.00
57.00
11.40
FULLY EXTENDED
17.40
FULLY RETRACTED

P2p
Ø3.50
4.50
77.50
17.40
FULLY EXTENDED
11.40
FULLY RETRACTED

P5i
Ø3.50
1.00
87.00
25.40
FULLY EXTENDED
14.40
FULLY RETRACTED

P5p
Ø3.50
7.50
96.00
25.40
FULLY EXTENDED
14.40
FULLY RETRACTED
Inductive measuring probes

TECHNICAL SPECIFICATIONS

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<th>P2i</th>
<th>P2iP</th>
<th>P5i</th>
<th>P5iP</th>
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<td>Pre-travel mm</td>
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<td>Max. Error µm</td>
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<td>Resolution</td>
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<td>Digital: user selectable to &lt;0.1µm</td>
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<td>Repeatability µm</td>
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<td>0.15</td>
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<td>IP rating</td>
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<td>Temperature %FS/°C</td>
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MEASURING FORCE

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<th>P5i</th>
<th>P5iP</th>
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<tr>
<td>Standard N</td>
<td>0.7</td>
<td>0.85 / 0.4 bar - 2.5 / 1 bar</td>
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<td>0.70 / 0.4 bar - 2.5 / 1 bar</td>
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<td>Feather touch N</td>
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<td>0.18 / 0.3 bar - 1.1 / 1 bar</td>
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<td>0.18 / 0.3 bar - 1.1 / 1 bar</td>
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<td>Jet N</td>
<td>-</td>
<td>0.85 / 1 bar</td>
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<td>0.85 / 1 bar</td>
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</table>

Tolerance ± 20%, measuring probe in middle course, outgoing spindle.

PNEUMATIC PROBES

Pneumatic probes are fully retracted when they are not supplied with air. For continual reliable operation and to maximise working life, the air supply should be clean and dry. 60% maximum relative humidity, filtered to better than 2µm particle size. Air pressure: 0.4-0.8 bar, don’t go over 0.8 Bar because the rubber boot can be damaged.

BASIC INSTRUMENT

- Probe according to technical specifications
- Calibration certificate
- Cable 2 m
- Stainless steel contact point with tungsten carbide ball Ø 2 mm (905.2204)
Inductive measuring probes

APPLICATIONS

Inductive probes connected to a D70I.

Inductive and Solartron probes connected to a M-Bus modul coupled with D400S.

Inductive probes connected to a M-Bus modul coupled with D300S.
Capacitive measuring probes

DESCRIPTION

- Capacitive absolute measuring probes, plunger type
- Resolution 0.0001 mm
- Measuring range from 5 to 25 mm
- Plain bearing or ball bearing, integrated vacuum lifter on P5
- Compatible with all Sylvac digital units
- Excellent linearity
- Interchangeable cables on most types

Clamping stem
Ø 8-h6

Interchangeable cables up to 15 m (standard 1.5 m)

Measuring anvil
Interchangeable contact point
M2.5, stainless steel with TC ball

P5: clamping stem Ø 8-h6
Capacitive measuring probes

DIMENSIONAL DRAWINGS

P5/P5L - P5V/P5LV

<table>
<thead>
<tr>
<th>Guiding axis</th>
<th>Measure A</th>
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<td>Plain bearing</td>
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<td>Ball bearing</td>
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# Capacitive measuring probes

## TECHNICAL SPECIFICATIONS

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<thead>
<tr>
<th>Travel (mm)</th>
<th>P5</th>
<th>P10</th>
<th>P25</th>
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<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>25</td>
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<tr>
<td>Pre-travel (mm)</td>
<td>0.7</td>
<td>0.5</td>
<td>0.8</td>
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<tr>
<td>Max. Error (µm)</td>
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<td>1.2</td>
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<td>Repeatability (µm)</td>
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<tr>
<td>Moving mass (g)</td>
<td>3.7</td>
<td>4.1</td>
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1) With Master unit. See as well the specifications of the pair Measuring probe/display unit.

## MEASURING FORCE

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<th></th>
<th>P5</th>
<th>P10</th>
<th>P10S</th>
<th>P25</th>
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<td>Standard N</td>
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<td>Minimum N</td>
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<td>&lt; 0.10</td>
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Tolerance ± 20%, measuring probe in vertical position, outgoing spindle.

## BASIC INSTRUMENT

- Probe according to technical specifications
- Calibration certificate
- Cable 1.5 m
- Stainless steel contact point with tungsten carbide ball Ø 2 mm (905.2204)
Capacitive measuring probes

APPLICATIONS

P5 probes connected to a D302 coupled with D300S for OD, concentricity and cylindricity measurements

P5 probes connected to a D50S unit measuring the external diameter of a shaft

Combined probes for the measurement of several heights

Inductive probes connected to a D70S.
# Measuring probes

## ACCESSORIES

<table>
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<th>Accessory</th>
<th>Description</th>
<th>P2i</th>
<th>P2IP</th>
<th>P5i</th>
<th>P5iP</th>
<th>P2</th>
<th>P5</th>
<th>P10</th>
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<tr>
<td>905.2204</td>
<td>Stainless steel contact point M2.5 with TC ball probe (other contact points, see page 62)</td>
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<td>901.2003</td>
<td>Rubber boot and contact point set</td>
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<td>901.2005</td>
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# Measuring probes

## ACCESSORIES

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# Digital display

## TABLE OF CORRESPONDENCES

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<tr>
<th>Direct input</th>
<th>Capacitive probes</th>
<th>RS/USB instruments</th>
<th>External contact</th>
<th>Mbus</th>
<th>Probes</th>
<th>USB instruments</th>
<th>Analog display</th>
<th>Output</th>
<th>RS 232</th>
<th>RS 485</th>
<th>USB</th>
<th>Opto-coupled output</th>
<th>Analogic</th>
<th>Functions</th>
<th>Direct zero setting</th>
<th>Direct zero setting per channel</th>
<th>Selection of resolution</th>
<th>Selection of measuring direction</th>
<th>PRESET</th>
<th>Tolerance indicators</th>
<th>Classification (max 8 classes)</th>
<th>Min, Max, Delta</th>
<th>A ± B</th>
<th>Mathematics functions</th>
<th>Scanning</th>
<th>Histogram</th>
<th>Statistics</th>
<th>Memorization</th>
<th>Simultaneous display of the channels</th>
<th>Dynamic measurement</th>
<th>Calibration (max. 25 points)</th>
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</tbody>
</table>

1) with unit(s) additional | 2) with 3 D200S units 32 probes with units D200S or maximum 32 with D302 / D304 or M-Bus 4) with USB-Hub powered 5) depending on model, see details on pages D300S 6) Maximum 62 mixed on the D300S instruments
Digital display

D50S

DESCRIPTION

- Digital display with 2 probe inputs
- Data output RS232C
- Power supply by external unit
- Light and compact
- Ease of use
- Correction of linearity on both channels (D50S PRO)

Resolution up to 0.0001 mm
Great clear and luminous display
Combination of channels A+B; A-B
Direct functions
Feet
Correction of linearity. Higher precision
Digital display

DISPLAY

1. Conversion mm/inch
2. Selection of resolution
3. Selection of measuring direction
4. REL and ABS measurement
5. PRESET function
6. Data sending
7. Selection of measuring mode: channel 1; channel 2; channel 1-2; channel 1+2
8. Probe inputs
9. Power supply connection
10. External contact connection
11. RS232 input/output

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>804.1050</th>
<th>804.1060</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>D50S</td>
<td>D50S PRO</td>
</tr>
<tr>
<td>Max. Error</td>
<td>P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9</td>
<td>P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8</td>
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<tr>
<td>Repeatability</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
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<td>Sizes</td>
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<td>Weight</td>
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<td>Case</td>
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<td>Terblend Plastic</td>
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<td>IP40</td>
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<td>S_Connect</td>
<td>RS232 1)</td>
<td>RS232 1)</td>
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<tr>
<td>Programmable</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>1) see cables</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BASIC INSTRUMENT

- Unit according to technical specifications
- Feet (pair)
- Charging unit according to country (904.4000)
- Instruction manual
Digital display

APPLICATIONS

COMBINATIONS OF PROBES

Diameter = 1+2

Difference = 1-2

Individual measurement
Digital display
D50S
POSSIBILITIES OF CONNECTION

RS232C
PROBE
SW1

MAX. 2

P2...P25
Digital display

DESCRIPTION

• 4”3 touch screen display
• Available in 3 versions:
  - D70S for Sylvac capacitive probes
  - D70I for Sylvac inductive probes (also compatible with Tesa and Mahr probes)
  - D70H for Heidenhain ST/MT probes (Mitutoyo and Magescale probes with adapter)
• All versions with 2 probe inputs
• Display resolution selectable up to 0.00001 mm (on D70H)
• Simple or double display with bargraph, needle or no-tolerances
• Probe’s combination: (C1, C2, C1-C2 …)
• Direct measurement or Min, Max, Average, Max-Min…
• User friendly interface
• Very robust construction (Aluminium)
• USB connection «Keyboard» unidirectional and RS232 bidirectional
• No driver, no software to be installed
• Compatibility Excel and SPC
• Powered by the computer when connected by USB cable
Digital display

**DISPLAY**

1. **4.3” Touchscreen display**
2. **User friendly interface**
3. **Analogic display**
4. **Digital display**
5. **ON/OFF**
6. **2 Capacitive / Inductive / 1VPP probes input (depending model)**
7. **RS232 output**
8. **1 external contact**
9. **Mini-usb and supply/data**

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>D70S/H/I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes</td>
<td>mm</td>
</tr>
<tr>
<td>140x105x111</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>kg</td>
</tr>
<tr>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Case</td>
<td></td>
</tr>
<tr>
<td>Aluminium</td>
<td></td>
</tr>
<tr>
<td>Protection according to IEC 60529</td>
<td></td>
</tr>
<tr>
<td>S_Connect</td>
<td>mini-USB / RS232</td>
</tr>
<tr>
<td>Probes</td>
<td>Sylvac Capacitive probes</td>
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<tr>
<td>Programmable by PC</td>
<td>●</td>
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<table>
<thead>
<tr>
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<td>Sizes</td>
<td>mm</td>
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<tr>
<td>140x105x111</td>
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<tr>
<td>Weight</td>
<td>kg</td>
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<tr>
<td>0.6</td>
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<td>Aluminium</td>
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<td>Protection according to IEC 60529</td>
<td>IP40</td>
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<tr>
<td>S_Connect</td>
<td>mini-USB / RS232</td>
</tr>
<tr>
<td>Probes</td>
<td>Heidenhain ST/MT probes (Mitutoyo &amp; Magescale with adapter)</td>
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<tr>
<td>Programmable by PC</td>
<td>●</td>
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</table>

* Not available in Switzerland
Digital display

D70S/H/I

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type</th>
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<tr>
<td>Sizes</td>
<td>mm</td>
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<td>140x105x111</td>
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<tr>
<td>Weight</td>
<td>kg</td>
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<tr>
<td>0.6</td>
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<td>Case</td>
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<td>Protection according to IEC 60529</td>
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<td>IP40</td>
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<tr>
<td>S_Connect</td>
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<tr>
<td>mini-USB / RS232</td>
<td></td>
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<tr>
<td>Probes</td>
<td></td>
</tr>
<tr>
<td>Sylvac Inductive probes (Tesa &amp; Mahr compatible)</td>
<td></td>
</tr>
<tr>
<td>Programmable by PC</td>
<td></td>
</tr>
</tbody>
</table>

APPLICATIONS

D70S : Capacitive probes
D70I : Inductive probes
D70H : Heidenhain probes

BASIC INSTRUMENT

- Unit according to technical specifications
- Table base
- Charging unit
- Instruction manual (CD-ROM)
Digital display

POSSIBILITIES OF CONNECTION

D70S/H/I

MAX.2

P10
P25
...

D70S

Heidenhain
Spectro
I2 / 30
MT
I2/25
60/100
Certo
...

D70H

P2i
P5i
Tesa GT21
...

D70I

USB /RS232C

PROBES

SW1
Digital display

DESCRIPTION

• Digital unit with 1 probe input (8 channels)
• Resolution up to 0.0001 mm
• Data output RS232C
• Opto-coupled output (command signals)
• Command for pneumatic lifting unit
• Selection of measuring direction
• Possibility of increasing the precision by calibrating the unit with the probe
• Powered by charging unit
Digital display

D80S

DISPLAY/SOFTWARE

1. Activation of analog display
2. Selection of unit mm/inch
3. Selection of resolution
4. Tolerance indicators with LED
5. PRESET function
6. Display Min/Max/Delta
7. Data sending
8. Zero setting
9. Configuration channel
10. RS232 input/output
11. Analog and digital Opto-coupled output
12. External power supply connection
13. Capacitive probe input
14. Connection D102/D108 unit
15. External contact connection

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>804.1080</th>
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</tr>
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<td>Max. Error 1) µm</td>
<td>P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8</td>
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<td>Repeatability µm</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
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<tr>
<td>Sizes mm</td>
<td>227 x 77 x 132</td>
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<td>Programmable by PC</td>
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</table>

1) Probe and unit calibrated
2) see cables chapter
Digital display

BASIC INSTRUMENT

- Unit according to technical specifications
- Base
- External contact (foot-pedal)
- Charging unit according to country (904.4000)
- Instruction manual

APPLICATIONS

Measurement of 4 dimensions on 4 channels with one single probe

Using 3 measuring channels with 3 separated probes
Digital display

CONNECTION DIAGRAM

MAX. 1

1x

P2...P25

MAX. 8

1x

8x

P2...P25

RS232C

PROBE

OUTPUT

SW1

D80S
Digital display

POSSIBILITIES OF D110V LIFTER

D80S

RS232C

OUTPUT

SW1

MAX. 8

1x

8x
Digital display D80S

POSSIBILITIES OF D110 LIFTER
Multiplexer unit

**D200S**

**DESCRIPTION**

- Multiplexer with 8 inputs (for Sylvac probes P2 to P25)
- Dynamic measurement (200 mes/s)
- Ideal for the layout conception of multi-gauging
- Command for pneumatic lifting unit
- Software allowing the treatment of up to 24 channels simultaneously (bargraph)
- Sending of the measured values into Excel, notepad or in specific files
- Creation of sequences for sending data
- Mathematic combinations between channels
- Standalone use possible
Multiplexer unit  

DISPLAY/SOFTWARE

- Selection of unit mm/inch
- Selection of resolution
- PRESET function
- Sending Data
- Tolerance indicators with LED
- Min/Max/Delta display
- Individual selection of measuring direction
- Switchable digital/bargraph display
- Global tolerance status of the measured part
- Programming channels screen
- Sending Sequences of Data
- External contact configuration
- Electrical external contact configuration
- Open / Save configurations
- Transfer configuration to D200S unit

TECHNICAL SPECIFICATIONS

<table>
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<th>804.1200</th>
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<tbody>
<tr>
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<td>Sizes</td>
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<td>Case</td>
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<tr>
<td>Protection rating according to IEC 60529</td>
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<tr>
<td>S_Connect</td>
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</tbody>
</table>

¹ see cables chapter
Multiplexer unit D200S

BASIC INSTRUMENT

- Instrument according to technical specifications
- Feet for use in vertical position
- Charging unit according to country (904.4000)
- PC Connection cable type USB (804.1210)
- CD with D200S software
- Instruction manual

APPLICATIONS

- Dynamic measurement of several diameters, (OD and ID) of a shaft
- Multi-gauging application
Multiplexer unit

POSSIBILITIES OF D110V PNEUMATIC LIFTER

MAX. 8

1x

8x

USB / RS232C

OUTPUT

SW1
Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8

8x

P2...P25

D200S

Multiplexer unit

POSSIBILITIES OF CONNECTION

MAX. 8
Digital display

D300S V2

DESCRIPTION

• Digital display with 8.5” touchscreen
• Available in 3 versions:
  - 6 USB and M-Bus
  - 6 USB and 2 Sylvac capacitive probe input
  - 6 USB and 4 Sylvac capacitive probe input
• Automatic detection of connected instruments
• New CPU unit (5 times faster that previous version)
• OS based on Windows 7 embedded
• Display and page setting fully configurable (up to 8 channels per page, up to 64 pages)
• Memorizing of setups and values
• RJ-45 Ethernet connector
• General or individual Preset
• Math functions for each channel
• Numeric, analog and statistic display
• Compatible with Bluetooth® instruments (USB dongle is required)

Large touchscreen 8.5” protected against liquids IP65

Ergonomic keyboard

Fully configurable user interface allowing to define the number of displayed channels per screen

* Dongle Bluetooth® required
### Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Inputs *</th>
<th>Max error</th>
<th>Max. Error</th>
<th>Repeatability</th>
<th>Overall dimensions</th>
<th>Weight</th>
<th>Case</th>
<th>Protection rating according to IEC 60529</th>
<th>S_Connect</th>
<th>Programmable by PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>804.1300</td>
<td>2 probes / 6 USB</td>
<td>P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9</td>
<td>P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
<td>330 x 175 x 77</td>
<td>3.3</td>
<td>Steel / Plastic</td>
<td>IP40</td>
<td>RS232 / USB</td>
<td></td>
</tr>
<tr>
<td>804.1320</td>
<td>4 probes / 6 USB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>804.1310</td>
<td>M-BUS / 6 USB</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

* Probe and unit calibrated

* Extendable to 32 probes and 30 USB instruments (see pages 152-155)
Digital display

D300S V2

BASIC INSTRUMENT

- Unit according to technical specifications
- Table base
- External contact (foot-pedal)
- Charging unit according to country (804.4000)
- Instruction manual

APPLICATIONS

Many instruments connected to the D300S with live displayed colored values to indicate the tolerances

Multi-gauging measurement using D200S interface and D300S display

Measurement using PS17 bench
Automatic detection of measuring channel and automatic switch to the right window

Multiple instruments connection through Bluetooth®

Multiple instruments connection through M-BUS inputs

Bluetooth® Dial gauges connected to D300S
Digital display

POSSIBILITIES OF CONNECTION WITH ACCESSORIES

MAX. 6
Power supplied by D300S

MAX. 30
Power supplied by USB-HUB

MAX. 30
Via D200S

6x USB
1x RS-232

4x

8x

D300S V2

POSSIBILITIES OF CONNECTION WITH ACCESSORIES

6x USB
1x RS-232

4x

8x
Digital display

POSSIBILITIES OF CONNECTION WITH ACCESSORIES

MAX. 32

2x
P2...P25
D302

15x

7x

4x
P2...P25
D304

MAX. 32

RS485

USB

OUTPUT

SW1

SW2

USB

RS485
# Digital display

## D300S V2

### POSSIBILITIES OF CONNECTION WITH ACCESSORIES

<table>
<thead>
<tr>
<th></th>
<th>MAX. 32</th>
<th>MAX. 32</th>
<th>2 - 8x*</th>
<th>2 - 8x*</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2i / P2iP / P5i / P5iP</td>
<td></td>
<td></td>
<td>P2i / P2iP / P5i / P5iP</td>
<td></td>
</tr>
</tbody>
</table>

* Depends of the M-Bus
Digital display

POSSIBILITIES OF CONNECTION WITH ACCESSORIES

MAX. 8

1x

Instruments

981.7100

USB

OUTPUT

SW1

SW2
Digital display

DESCRIPTION

- Digital multifunctional unit with 7” touch screen display
- Multi-brands compatible through M-BUS multiplexers (possibility to mix the brands)
- Designed for multigauging applications
- Up to 99 input (probes, instruments, I/O) through M-BUS multiplexers
- Automatic detection of connected instruments
- Storage of up to 128 different parts configurations
- Up to 30’000 measurements can be saved by configuration
- Display of up to 32 channels simultaneously (on the same screen) or distributed up to 32 pages
- Single or multi-gauging display mode
- SPC functions (run chart, pareto, histogram with Gauss curve, etc.)
- PLC functions and PLC communication protocols
- Formula editor, free combination between all instruments connected to the M-BUS
- Configurable by PC
- Ethernet connection with Modbus TCP
- Multifunction footpedal input
- User friendly interface
- Very robust construction (Aluminium)
- table or panel mounting

Large touchscreen 7” protected against liquids IP65

Digital display

D400S
Digital display

D400S

INTERFACE | HARDWARE

1. Customizable display interface
2. Aluminium body
3. 12VDC/30VDC Power supply
4. RJ-45 Ethernet TCP4
5. USB host (for usb key)
6. USB device (virtual keyboard)
7. Footswitch
8. M-bus
9. RS232

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>804.2400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Overall dimensions mm</td>
</tr>
<tr>
<td>Weight kg</td>
</tr>
<tr>
<td>Case</td>
</tr>
<tr>
<td>Protection rating according to IEC 60529</td>
</tr>
<tr>
<td>S_Connect</td>
</tr>
<tr>
<td>Programmable by PC</td>
</tr>
</tbody>
</table>
Digital display

D400S

BASIC INSTRUMENT

- Unit according to technical specifications
- Charging unit
- Instruction manual

APPLICATIONS

Probes connection through M-BUS inputs
Inductive probes connection on a jig
Probes and indicators connection through M-BUS inputs
Digital display
D400S

POSSIBILITIES OF CONNECTION WITH ACCESSORIES

USB
M-BUS
M-BUS
OUTPUT

SW1
Multiplexer unit

DESCRIPTION

- Multiplexing unit with 2 or 4 inputs for Sylvac probes P2 à P25
- Dynamic measurement (10 à 20 meas./Sec. according to resolution)
- Perfect solution for multi-gauging system
- Analog output for PLC connection
- Standalone use possible
Multiplexer unit

D302 / D304

HARDWARE DESCRIPTION

1. LED Power
2. LEDS channel
3. LED RS 485 activity
4. USB port for PC connection
5. RS 485 output
6. Ground connector
7. RS 485 input
8. External connector
9. Standard clamping (DIN 35mm)
10. Jumpers
11. Analogic output / 24 VDC (only version a)
12. Probes input
13. 9V power supply input

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>804.1302</th>
<th>804.1303</th>
<th>804.1304</th>
<th>804.1305</th>
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<tbody>
<tr>
<td>Modele</td>
<td>D302</td>
<td>D302a</td>
<td>D304</td>
<td>D304a</td>
</tr>
<tr>
<td>Max error µm</td>
<td>P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9</td>
<td>P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
<td></td>
</tr>
<tr>
<td>Max. Error µm</td>
<td>P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9</td>
<td>P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
<td></td>
</tr>
<tr>
<td>Repeatability µm</td>
<td>P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9</td>
<td>P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8</td>
<td>P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2</td>
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<tr>
<td>Overall dimensions mm</td>
<td>95 x 88 x 55</td>
<td>95 x 88 x 77</td>
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<tr>
<td>Weight kg</td>
<td>0.3</td>
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<tr>
<td>Case</td>
<td>Aluminium profil / plastic TA 6</td>
<td>IP40</td>
<td>USB / RS 485</td>
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</tr>
<tr>
<td>Protection rating according to IEC 60529</td>
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<td></td>
<td></td>
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<tr>
<td>S_Connect</td>
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<td></td>
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</tr>
<tr>
<td>Programmable by PC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analog output signal</td>
<td>-10V ... +10V</td>
<td>-10V ... +10V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BASIC INSTRUMENT

- Unit according to technical specifications
- Feet (pair)
- RS232/RS485 cable
- Charging unit according to country (904.4000)
- Instruction manual
Multiplexer unit

DESCRIPTION

- Multiplexer units allowing to connect different kind and brands of instruments to our D300S V2 and D400S display units
- Possibility to connect and mix different brands together
- RS485 based protocol
- The different units can be mounted on a DIN rail
- Robust construction
**Multiplexer unit**

**HARDWARE DESCRIPTION**

1. Probes input
2. M-Bus input
3. M-Bus output
4. DIN mounting groove
5. LED / Power module
6. DIN rail

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>804.2102</th>
<th>804.2104</th>
<th>804.2108</th>
<th>804.2112</th>
<th>804.2114</th>
<th>804.2116</th>
<th>804.2130</th>
<th>804.2140</th>
<th>804.2160</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>MB-2C</td>
<td>MB-4C</td>
<td>MB-8i</td>
<td>MB-2S</td>
<td>MB-4D</td>
<td>MB-8D</td>
<td>MB-IO</td>
<td>MB-PS</td>
</tr>
<tr>
<td>Instrument type</td>
<td>M-Bus capacitive probes</td>
<td>Inductive</td>
<td>Heidenhain probes</td>
<td>Digimatic</td>
<td>PLC I/O</td>
<td>Measuring bench</td>
<td>Computer</td>
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</tr>
<tr>
<td>Overall dimensions mm</td>
<td>57x74x42</td>
<td>82x74x42</td>
<td>131x74x44</td>
<td>82x74x43</td>
<td>107x74x39</td>
<td>107x74x39</td>
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<tr>
<td>Weight kg</td>
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<td>0.3</td>
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<td>Inputs</td>
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<td>2</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>12-30 VDC</td>
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<td>Case</td>
<td>Anodized aluminium profile</td>
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<td>S_Connect</td>
<td>RS 485</td>
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</tbody>
</table>

**BASIC INSTRUMENT**

- M-Bus module according to technical specifications
- Instruction manual
Multiplexer unit

APPLICATIONS

Probes connection through M-BUS inputs
Probes connection on PC through MB-RS
Probes and indicators connection through M-BUS inputs
Probes connection on a D300S through D302 multiplexer units
## Display units

### ACCESSORIES

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>D50S</th>
<th>D70S</th>
<th>D70H</th>
<th>D70v</th>
<th>D80S</th>
<th>D90S</th>
<th>D200S</th>
<th>D300S</th>
<th>D302</th>
<th>D304</th>
<th>D400S</th>
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</thead>
<tbody>
<tr>
<td>904.1108</td>
<td>D108-additional 8 input unit for probes</td>
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<td>904.1112</td>
<td>D110V-control unit with 16 vacuum outputs</td>
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<tr>
<td>904.4000</td>
<td>Charging set 100-240V / 9V</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>904.4001</td>
<td>EUR cable included in 904.4000</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<td>●</td>
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<tr>
<td>904.4003</td>
<td>UK cable included in 904.4000</td>
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<td>●</td>
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<td>●</td>
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<td>904.4002</td>
<td>USA/JPN cable included in 904.4000</td>
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<td>804.4000</td>
<td>Charging set 100-240V / 24V</td>
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<td>●</td>
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<tr>
<td>804.4001</td>
<td>EUR cable included in 804.4000</td>
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<tr>
<td>804.4003</td>
<td>UK cable included in 804.4000</td>
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<tr>
<td>804.4002</td>
<td>USA/JPN cable included in 804.4000</td>
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<tr>
<td>804.4010</td>
<td>Charging set 100-240V / 24V</td>
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<tr>
<td>804.4011</td>
<td>EUR cable included in 804.4010</td>
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<tr>
<td>804.4013</td>
<td>UK cable included in 804.4010</td>
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<tr>
<td>804.4012</td>
<td>USA/JPN cable included in 804.4010</td>
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<tr>
<td>904.4101</td>
<td>External contact (footpedal)</td>
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<td>904.4102</td>
<td>Footpedal (jack)</td>
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<td>904.6001</td>
<td>Dust cover</td>
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<td>804.1211</td>
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