



### 3.2.6 Immersion Probes for Process Control

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661.760

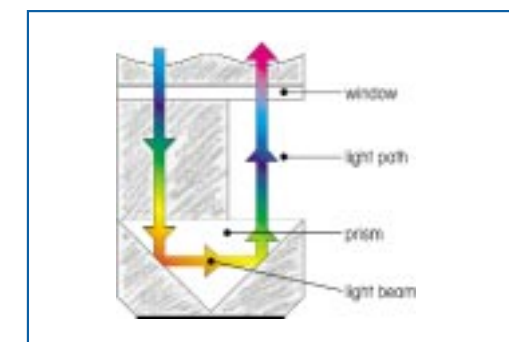


661.761

| Catalogue Number     | 661.760-UV<br>661.760-NIR                                                                                                                                                                                       | 661.761-UV<br>661.761-NIR                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Probe head material  | Quartz SUPRASIL® 300                                                                                                                                                                                            | Quartz SUPRASIL® 300                                                                                                                                                                                            |
| Barrel material      | Stainless steel 1.4571 (316 Ti),<br>1.4404 (316 L) or<br>2.4602 (Hastelloy® C-22)                                                                                                                               | Stainless steel 1.4571 (316 Ti),<br>1.4404 (316 L) or<br>2.4602 (Hastelloy® C-22)                                                                                                                               |
| Flange               | none                                                                                                                                                                                                            | DN 25/PN 40 Form A**                                                                                                                                                                                            |
| Probe head seal      | Kalrez® Compound 4079                                                                                                                                                                                           | Kalrez® Compound 4079                                                                                                                                                                                           |
| Outside Ø            | 20 mm                                                                                                                                                                                                           | 20 mm                                                                                                                                                                                                           |
| Total length         | 366 mm<br>(incl. SMA connector)                                                                                                                                                                                 | 366 mm<br>(incl. SMA connector)                                                                                                                                                                                 |
| Max. immersion depth | 250 mm                                                                                                                                                                                                          | 200 mm                                                                                                                                                                                                          |
| Light path           | 1 / 2 / 5 / 10 / 20 mm                                                                                                                                                                                          | 1 / 2 / 5 / 10 / 20 mm                                                                                                                                                                                          |
| Typ. transmission    | <b>UV/Vis</b><br>approx. 40% in air<br>above 300 nm<br><b>NIR</b><br>approx. 40% in air<br>above 400 nm                                                                                                         | <b>UV/Vis</b><br>approx. 40% in air<br>above 300 nm<br><b>NIR</b><br>approx. 40% in air<br>above 400 nm                                                                                                         |
| Max. pressure        | 35 bar                                                                                                                                                                                                          | 35 bar (max. 100 °C)**                                                                                                                                                                                          |
| Max. temperature     | 300 °C                                                                                                                                                                                                          | 300 °C (max. 25 bar)**                                                                                                                                                                                          |
| Fibre-optic cables   | Built-in, not exchangeable<br><b>UV/Vis</b><br>240 nm – 1100 nm<br>(41,667 cm <sup>-1</sup> – 9,100 cm <sup>-1</sup> )<br><b>NIR</b><br>400 nm – 2300 nm<br>(25,000 cm <sup>-1</sup> – 4,348 cm <sup>-1</sup> ) | Built-in, not exchangeable<br><b>UV/Vis</b><br>240 nm – 1100 nm<br>(41,667 cm <sup>-1</sup> – 9,100 cm <sup>-1</sup> )<br><b>NIR</b><br>400 nm – 2300 nm<br>(25,000 cm <sup>-1</sup> – 4,348 cm <sup>-1</sup> ) |
|                      | <b>UV/Vis – low solarisation</b> on request                                                                                                                                                                     |                                                                                                                                                                                                                 |
| SMA connector        | Included<br>(for connection of longer<br>fibre-optic cables)*                                                                                                                                                   | Included<br>(for connection of longer<br>fibre-optic cables)*                                                                                                                                                   |

The Hellma transmission probes described here are suitable for the special conditions of process controls at high temperatures and high pressures.

These probes feature a one-piece measuring head made of SUPRASIL® 300 quartz. Through the use of a totally reflective prism, the light beam passes through the solution only once.



\*Fibre-optic cables available separately in various lengths (see chapter 3.3.1 and 3.3.2).

\*\*according to EN 1092-1



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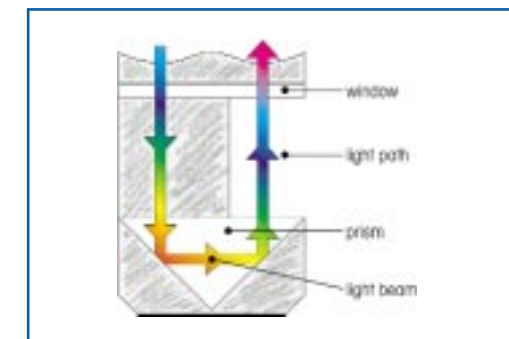


661.762



661.763

| Catalogue Number     | 661.762-UV<br>661.762-NIR                                                                                                                                                                                       | 661.763-UV<br>661.763-NIR                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Probe head material  | Quartz SUPRASIL® 300                                                                                                                                                                                            | Quartz SUPRASIL® 300                                                                                                                                                                                            |
| Barrel material      | Stainless steel 1.4571 (316 Ti),<br>1.4404 (316 L) or<br>2.4602 (Hastelloy® C-22)                                                                                                                               | Stainless steel 1.4571 (316 Ti),<br>1.4404 (316 L) or<br>2.4602 (Hastelloy® C-22)                                                                                                                               |
| Flange               | none                                                                                                                                                                                                            | DN 25/PN 40 Form A**                                                                                                                                                                                            |
| Probe head seal      | Kalrez® Compound 4079                                                                                                                                                                                           | Kalrez® Compound 4079                                                                                                                                                                                           |
| Outside Ø            | 25 mm                                                                                                                                                                                                           | 25 mm                                                                                                                                                                                                           |
| Total length         | 366 mm<br>(incl. SMA connector)                                                                                                                                                                                 | 366 mm<br>(incl. SMA connector)                                                                                                                                                                                 |
| Max. immersion depth | 250 mm                                                                                                                                                                                                          | 200 mm                                                                                                                                                                                                          |
| Light path           | 1 / 2 / 5 / 10 / 20 mm                                                                                                                                                                                          | 1 / 2 / 5 / 10 / 20 mm                                                                                                                                                                                          |
| Typ. transmission    | <b>UV/Vis</b><br>approx. 40% in air<br>above 300 nm<br><b>NIR</b><br>approx. 40% in air<br>above 400 nm                                                                                                         | <b>UV/Vis</b><br>approx. 40% in air<br>above 300 nm<br><b>NIR</b><br>approx. 40% in air<br>above 400 nm                                                                                                         |
| Max. pressure        | 35 bar                                                                                                                                                                                                          | 35 bar (max. 100 °C)**                                                                                                                                                                                          |
| Max. temperature     | 300 °C                                                                                                                                                                                                          | 300 °C (max. 25 bar)**                                                                                                                                                                                          |
| Fibre-optic cables   | Built-in, not exchangeable<br><b>UV/Vis</b><br>240 nm – 1100 nm<br>(41,667 cm <sup>-1</sup> – 9,100 cm <sup>-1</sup> )<br><b>NIR</b><br>400 nm – 2300 nm<br>(25,000 cm <sup>-1</sup> – 4,348 cm <sup>-1</sup> ) | Built-in, not exchangeable<br><b>UV/Vis</b><br>240 nm – 1100 nm<br>(41,667 cm <sup>-1</sup> – 9,100 cm <sup>-1</sup> )<br><b>NIR</b><br>400 nm – 2300 nm<br>(25,000 cm <sup>-1</sup> – 4,348 cm <sup>-1</sup> ) |
|                      | <b>UV/Vis – low solarisation</b> on request                                                                                                                                                                     |                                                                                                                                                                                                                 |
| SMA connector        | Included<br>(for connection of longer<br>fibre-optic cables)*                                                                                                                                                   | Included<br>(for connection of longer<br>fibre-optic cables)*                                                                                                                                                   |



\*Fibre-optic cables available separately in various lengths (see chapter 3.3.1 und 3.3.2).

\*\*according to EN 1092-1