

# QIASymphony AS Application Sheet

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## QIASymphony® AS application *mericon*® Salmonella spp QIAGEN-PCR-96 V3

This document contains detailed information about the *mericon* Salmonella spp QIAGEN-PCR-96 V3 Assay Parameter Set, including information about which adapters, holders, reagents, and consumables are required for loading the QIASymphony AS worktable. The *mericon* Salmonella spp QIAGEN-PCR-96 V3 application is intended for use with QIASymphony software version 4.0 (and higher) on the QIASymphony AS, in combination with the *mericon* Salmonella spp Kit, with labware package SOW-516.

The QIASymphony AS and *mericon* Salmonella spp QIAGEN-PCR-96 V3 application are intended for molecular biology applications in food, animal feed, and pharmaceutical product testing. These products are not intended for the diagnosis, prevention, or treatment of a disease.

### Assay information

| Release information          | Details  |
|------------------------------|--|
| Assay Parameter Set          | <i>mericon</i> Salmonella spp QIAGEN-PCR-96 V3           |
| Assay Parameter Set filename | APS_ <i>mericon</i> _Salmonella_spp_QIAGEN-PCR-96_V3.xml |
| Assay Definition             | <i>mericon</i> Salmonella spp QIAGEN-PCR-96 V3           |
| Assay Definition filename    | AD_ <i>mericon</i> _Salmonella_spp_QIAGEN-PCR-96_V3.xml  |
| Application package          | <i>mericon</i> 96-well                                   |
| Release status               | For molecular biology applications                       |

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| Process information       | Details   |
|---------------------------|---|
| Sample input material     | Eluate  |
| Sample volume             | Minimum of 85 $\mu$ l   |
| Master mix volume         | 10 $\mu$ l  |
| Template volume           | 10 $\mu$ l  |
| Number of assay positions | 3–96  |
| Runtime*                  | For 24 assay positions, approximately 8 min<br>For 96 assay positions, approximately 26 min |

\* Assay run with no replicates and manual preparation of master mix.

## Worktable setup

For more detailed information about worktable setup, see the loading information file, the mericon *Automated Pathogen Detection Workflow Handbook*, and the *QIASymphony SP/AS User Manual — Operating the QIASymphony AS*.

## Adapters and reagent holders

Adapters should be cooled to 4°C before loading them on the QIASymphony AS.

| Rack/reagent holder | Name  | Number required* |
|---------------------|---|------------------|
| Sample rack(s)      | Elution Microtube Rack QS <sup>†</sup>      | 1                |
| Reagent holder(s)   | Reagent holder 1 QS                         | 1                |
| Assay rack(s)       | Cooling Adapter, PCR, v2, Qsym <sup>‡</sup> | 1                |

\* Calculated for an assay run with 96 output positions.

<sup>†</sup> Recommended sample rack. For a full list of sample racks that are compatible with your sample preparation protocol, visit [www.qiagen.com/goto/QIASymphony](http://www.qiagen.com/goto/QIASymphony).

<sup>‡</sup> Default assay rack. The default assay rack can be modified in the Assay Parameter Set using the Process Definition Editor of the QIASymphony Management Console.

## Consumables

| Consumables                                      | Name on touchscreen                     | For use with adapter/reagent holder |
|--|---|-------------------------------------|
| MicroAmp® Optical 96-Well Reaction Plate         | ABI#N8010560*PCR96 Optical              | Cooling Adapter, PCR, v2, Qsym      |
| Tubes, conical, 2 ml, Qsym AS (500) <sup>†</sup> | QIA#997102*T2.0 ScrewSkirt <sup>‡</sup> | Reagent holder 1 QS                 |
| Elution Microtubes CL (24 x 96) <sup>§</sup>     | QIA#19588*EMTR                          | Elution Microtube Rack QS           |

\* Indicates labware that can be cooled using a cooling adapter with bar code.

<sup>†</sup> For assay controls and assay standards.

<sup>‡</sup> The suffix "(m)" in the touchscreen indicates tubes that are defined for reagents that form a meniscus, such as the master mix.

<sup>§</sup> Recommended sample tubes. For a full list of sample tubes that are compatible with your sample preparation protocol, visit [www.qiagen.com/goto/QIASymphony](http://www.qiagen.com/goto/QIASymphony).

## Additional consumables

| Consumables                | Name on touchscreen |
|----------------------------|---------------------|
| Filter-Tips, 200 µl (1024) | 200 µl              |
| Filter-Tips, 50 µl (1024)  | 50 µl               |

## Parameters that can be modified

All parameters in the *mericon* Salmonella spp QIAGEN-PCR-96 V3 Assay Parameter Set can be modified using the "Process Definition" editor tool of the QIASymphony Management Console and some parameters can also be modified using the touchscreen. Tables of parameters are listed in the order in which they appear in the screens of the "Process Definition" editor tool.

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## Application

| Parameter           | Default selection      | Options  |
|---------------------|------------------------|--|
| Application package | <i>mericon</i> 96-well | See drop-down menu in "Select Package" field, insert "New Package", or select "Others" |

## Assay definition

| Parameter                     | Default selection                              | Options                            |
|-------------------------------|--|------------------------------------|
| Assay                         | <i>mericon</i> Salmonella spp QIAGEN-PCR-96 V3 | Select alternative assay from list |
| Use ready-to-use master mix?* | "Yes"  | "Yes" or "No"                      |

\* Can also be modified using the touchscreen.

## Sample input

| Parameter                                      | Default selection | Options               |
|--|-------------------|-----------------------|
| Number of sample replicates*                   | 1                 | Up to 50 <sup>†</sup> |
| Do samples contain an assay specific control?* | "No"              | "Yes" or "No"         |
| Number of EC+ replicates*                      | 1                 | Up to 50 <sup>†</sup> |
| Number of EC- replicates*                      | 1                 | Up to 50 <sup>†</sup> |

EC: Extraction control.

\* Can also be modified using the touchscreen.

<sup>†</sup> It is possible to select more than 50 replicates, but this is not recommended because it may lead to reduced performance.

## Assay controls

| Parameter                              | Default selection | Options   |
|--|-------------------|---|
| Number of positive assay controls*     | 1                 | Press "Modify" to add positive assay control(s) |
| Number of positive control replicates* | 1                 | Up to 50 <sup>†</sup>                           |
| Number of NTC                          | 1                 | Up to 50 <sup>†</sup>                           |
| Number of NTC replicates               | 1                 | Up to 50 <sup>†</sup>                           |
| Number of NTC with IC replicates*      | 0                 | Up to 50 <sup>†</sup>                           |
| Number of NTC without IC replicates*   | 0                 | Up to 50 <sup>†</sup>                           |
| Concentration*                         | No default        | Can be defined                                  |
| Unit                                   | No default        | Can be defined                                  |
| Assay controls on all assay racks?     | Deselected        | Selected or deselected                          |

NTC: No-template control.

\* Can also be modified using the touchscreen.

<sup>†</sup> It is possible to select more than 50 replicates, but this is not recommended as it may lead to reduced performance.

## Assay output

| Parameter          | Default selection              | Options                                       |
|--------------------|--------------------------------|---|
| Assay rack*        | Cooling Adapter, PCR, v2, Qsym | Available options depend on the output format |
| Cycler file format | ABI                            | Available options depend on the output format |
| Dyes               | No default                     | Enter dye name or dye combinations            |

\* Can also be modified using the touchscreen.

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## Additional information

| Parameter    | Default selection  | Options                 |
|--------------|--|-------------------------|
| Read only    | Deselected   | Selected or deselected  |
| Comment      | No comment   | Comment can be inserted |
| Unique ID    | No ID  | Can be inserted         |
| APS name     | <i>mericon</i> Salmonella spp QIAGEN-PCR-96 V3           | Can be edited           |
| APS filename | APS_ <i>mericon</i> _Salmonella_spp_QIAGEN-PCR-96_V3.xml | Can be edited           |
| Panels       | No panels  | Can be added            |

## Example assay run

This section provides example reagent volumes and consumables consumption for an assay run with the following specifications:

- 22 or 94 templates
- One positive control
- One no-template control (NTC)
- Manually prepared master mix

**Note:** Filter-tip consumption can be affected by some processes on the QIASymphony AS (e.g., liquid-level detection).

## Reagent volumes

| Reagent          | Volume ( $\mu$ l) for 24 reactions | Volume ( $\mu$ l) for 96 reactions |
|------------------|------------------------------------|------------------------------------|
| Master mix       | 240                                | 960                                |
| Positive control | 10                                 | 10                                 |
| NTC              | 10                                 | 10                                 |

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## Consumables consumption

| Consumable               | Number for 24 reactions | Number for 96 reactions |
|--------------------------|-------------------------|-------------------------|
| Filter-Tips, 200 $\mu$ l | 1                       | 1                       |
| Filter-Tips, 50 $\mu$ l  | 24                      | 96                      |
| Tip Disposal Bags        | 1                       | 1                       |

## Ordering information

| Product                                 | Contents   | Cat. no. |
|---|--|----------|
| <i>mericon</i> Salmonella spp Kit (96)* | For 96 reactions: PCR Assay Salmonella spp, Positive Control, Multiplex PCR Master Mix, QuantiTect® Nucleic Acid Dilution Buffer, RNase-free water, 50x ROX Dye Solution | 290015   |
| <i>mericon</i> Salmonella spp Kit (24)* | For 24 reactions: PCR Assay Salmonella spp, Positive Control, Multiplex PCR Master Mix, QuantiTect Nucleic Acid Dilution Buffer, RNase-free water, 50x ROX Dye Solution  | 290013   |
| Reagent holder 1 QS                     | Adapter for holding 18 x 2 ml conical tubes, and 6 x 5 ml conical tubes  | 9018090  |
| Elution Microtube Rack QS               | Cooling adapter for EMT racks  | 9018086  |
| Elution Microtubes CL (24 x 96)         | 24 Elution Microtube Racks   | 19588    |
| Cooling Adapter, PCR, v2, Qsym          | Cooling adapter for PCR plates   | 9020732  |
| Tubes, conical, 2 ml, Qsym AS (500)     | Conical tubes (2 ml) for holding reagent   | 997102   |
| Filter-Tips, 200 µl (1024)              | Disposable Filter-Tips, racked (8 x 128). For use with the QIAcube® and the QIASymphony SP/AS instruments  | 990332   |
| Filter-Tips, 50 µl (1024)               | Disposable Filter-Tips, racked (8 x 128). For use with the QIASymphony AS  | 997120   |
| Tip Disposal Bags (15)                  | Tip disposal bags for use with the QIASymphony SP/AS instruments   | 9013395  |

\* Visit [www.qiagen.com/products/mericonpathogendetectionassays.aspx](http://www.qiagen.com/products/mericonpathogendetectionassays.aspx) for more detailed information about the *mericon* Pathogen Detection Kits. Please note that the number of reactions will be up to 10% lower than indicated on the kit label when *mericon* Salmonella spp Kits are used with automated assay setup. This is required in order to guarantee process safety and optimal performance.



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For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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