



# Air filtration systems for use with FORTiS™ encoders



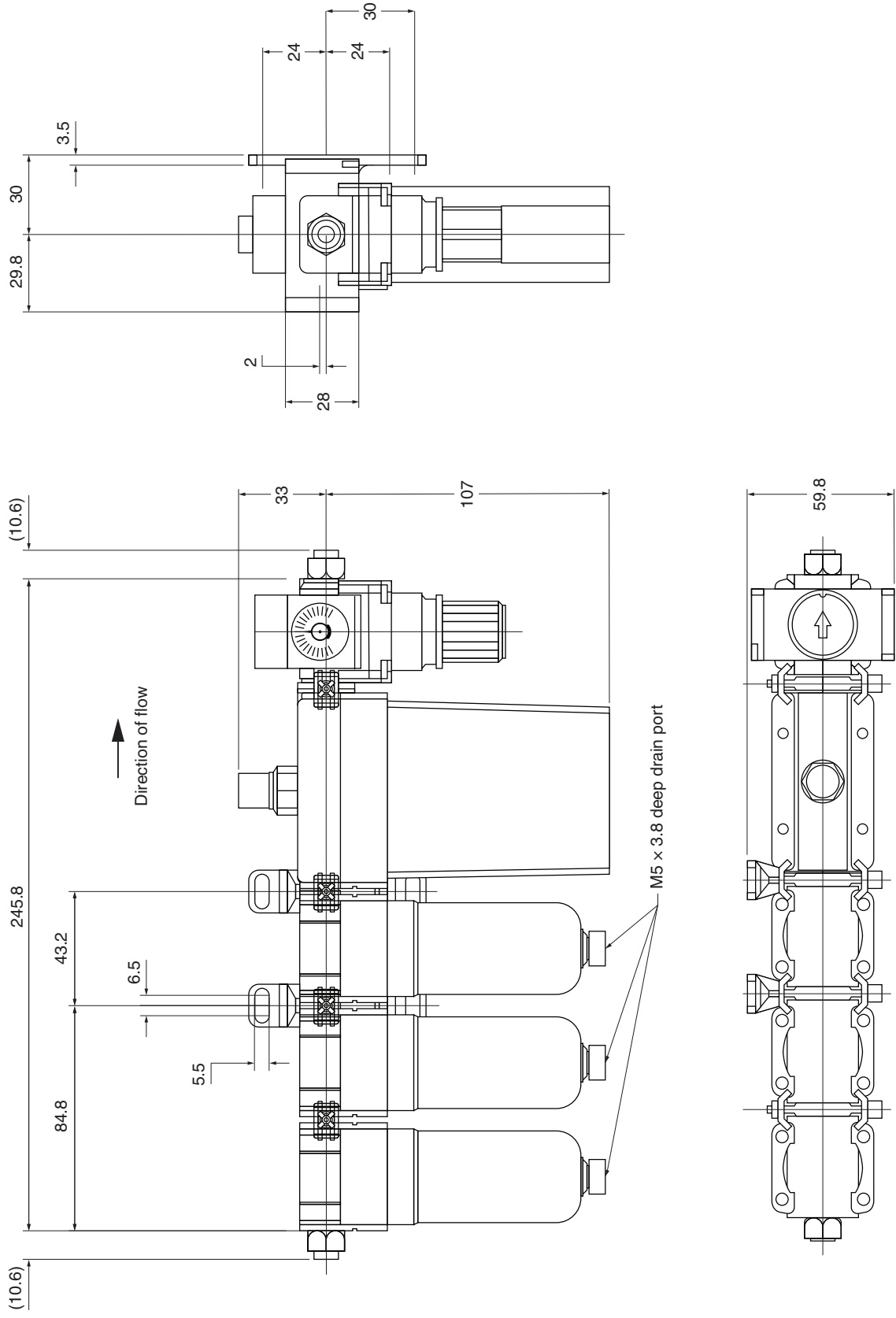
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## Specification

|                              | Full-size air filter<br>  | Reduced-size air filter<br>   |
|------------------------------|--|--|
| <b>Part number</b>           | A-9768-4353  | A-9768-4354  |
| <b>Design</b>                | System for cleaning and regulating compressed air for purge of FORTiS™ encoders.<br>A-9768-4353 adds prefilter for longest-life performance when connected to a particularly dirty air supply.   |  |
| <b>Connectable encoders</b>  | Up to 10 FORTiS linear encoders  |  |
| <b>Set-up</b>                | <ul style="list-style-type: none"> <li>• Prefilter: for particle sizes down to 5 µm, automatic condensate drain</li> <li>• Mist separator for dust, oil and water with particle sizes as fine as 0.3 µm, automatic condensate drain</li> <li>• Micro mist separator for particle sizes as fine as 0.01 µm and oil to 0.01 mg/m<sup>3</sup> with automatic condensate drain</li> <li>• Dryer to suppress moisture content to a pressure dew point of +3 °C</li> <li>• Pressure regulator for adjusting the output pressure</li> </ul> | <ul style="list-style-type: none"> <li>• Mist separator for dust, oil and water with particle sizes as fine as 0.3 µm, automatic condensate drain</li> <li>• Micro mist separator for particle sizes as fine as 0.01 µm and oil to 0.01 mg/m<sup>3</sup> with automatic condensate drain</li> <li>• Dryer to suppress moisture content to a pressure dew point of +3 °C</li> <li>• Pressure regulator for adjusting the output pressure</li> </ul> |
| <b>Overpressure</b>          | Operating pressure range:<br>Rating 0.7 MPa<br>Maximum 1.0 MPa<br>Minimum 0.3 MPa  |  |
| <b>Purity classes</b>        | Airflow in: Class 7:9:4 (ISO 8573-1: 2010)<br>Airflow out: Class 1:4:2 (ISO 8573-1: 2010)  | Airflow in: Class 6:8:4 (ISO 8573-1: 2010)<br>Airflow out: Class 1:4:2 (ISO 8573-1: 2010)  |
| <b>Output overpressure</b>   | Output pressure can be adjusted from 0.05 MPa to 0.3 MPa and should be set to ensure each encoder has an input pressure of 0.1 MPa (1 bar). See <i>FORTiS air filter assembly mounting instructions</i> Installation guide (Renishaw part no. M-9768-9492) for details.  |  |
| <b>Operating temperature</b> | Operating temperature range: -5 °C to +50 °C   |  |
| <b>Flow rate</b>             | Filter flow rate: maximum 100 l/min @ 0.7 MPa  |  |
| <b>Connections</b>           | Inlet and outlet ports G1/4 inch<br>Auto drain: M5 × 0.8   |  |
| <b>Maintenance</b>           | Filter change<br>Up to three encoders connected: two years<br>Up to ten encoders connected: annually   |  |
| <b>Mass (approximate)</b>    | 0.78 kg  | 0.66 kg  |

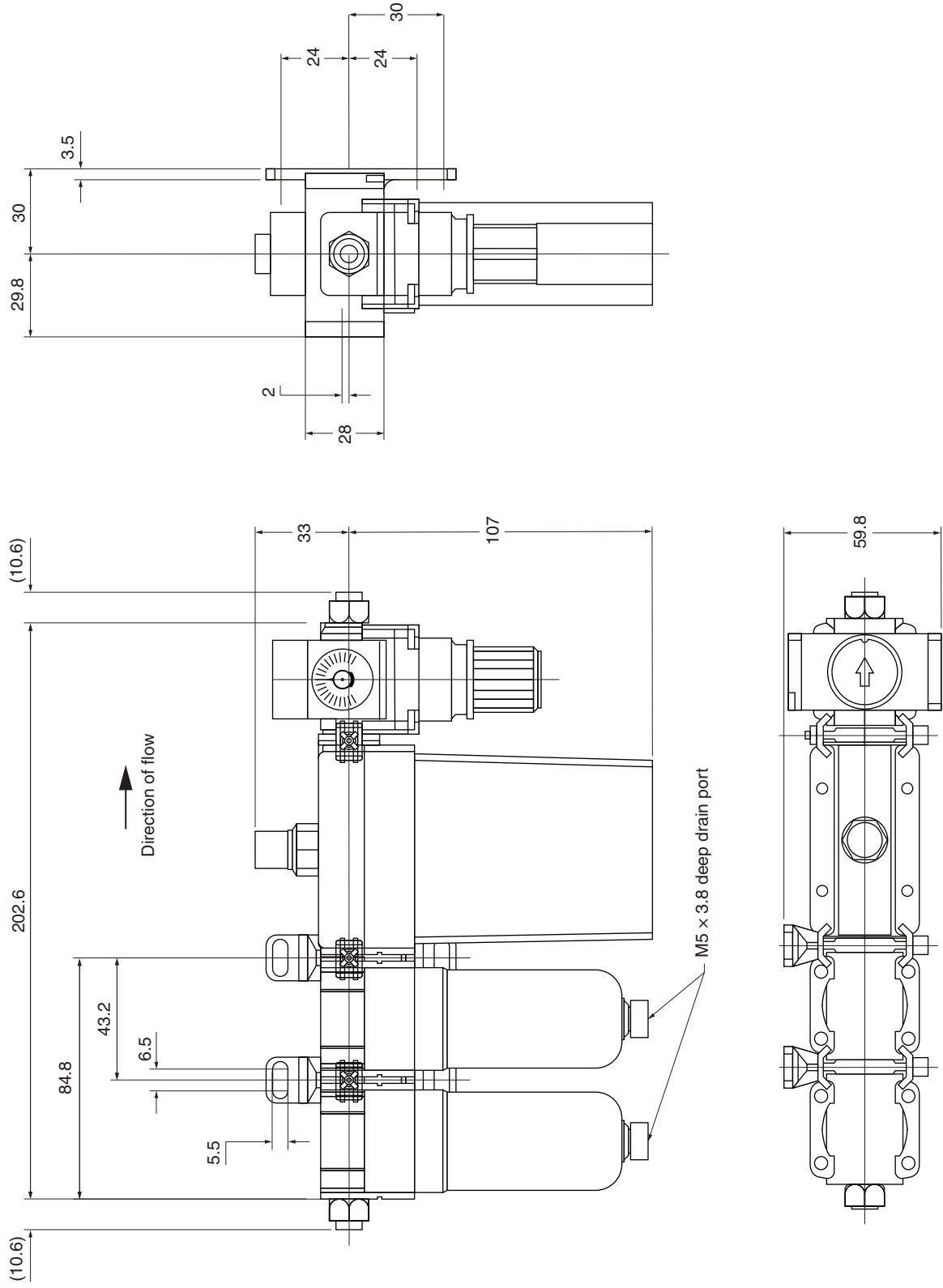
# Full-size air filter drawing (A-9768-4353)

Dimensions and tolerances in mm



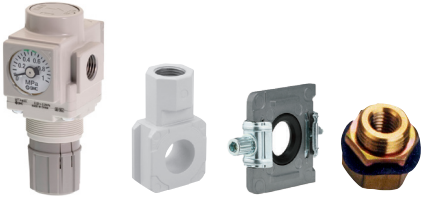

# Reduced-size air filter drawing (A-9768-4354)

Dimensions and tolerances in mm



## Extender kits

For users of NC4 tool setting systems and FORTiS encoders on the same machine, it is possible to use the FORTiS air filter (A-9768-4353 or A-9768-4354) and add an extender kit, so a second regulated output is provided for the NC4. Similarly, there is an extender kit to add a second regulated output for FORTiS to the NC4 air filter (A-6435-4000).

| EXTENDER KITS   |  |
|---|--|
| A-9768-4355   | A-9768-4356  |
| Extender kit to add an output for <b>NC4</b> to the <b>FORTiS</b> air filter      | Extender kit to add an output for <b>FORTiS</b> to the <b>NC4</b> air filter       |
|  |  |

| ACCESSORIES, SPARES AND SERVICE PARTS   |  |                           |
|---|--|---------------------------|
|    | Universal elbow<br>(turns air flow direction 90 degrees) | A-9768-4391<br>(MOQ = 10) |
|   | 180 degree air turn assembly                             | A-9768-4416               |
|  | Air filter service kit for full-size air filter          | A-9768-4385               |
|  | Air filter service kit for reduced-size air filter       | A-9768-4386               |
|  | Black PU tubing 6 mm OD, per metre*                      | A-9768-4388               |
|  | One-touch straight union                                 | A-9768-4400<br>(MOQ = 10) |
|  | One-touch tee union                                      | A-9768-4406<br>(MOQ = 10) |
|  | PSI gauge kit  | A-9768-4387               |

\* To order a 20 metre length of tubing, place an order for quantity 20 of A-9768-4388.

| SPARES AND SERVICE PARTS  |                               |                           |
|---|-------------------------------|---------------------------|
|    | One-touch connector           | A-9768-4389<br>(MOQ = 10) |
|    | T-type spacer                 | A-9768-4390               |
|    | Spacer with bracket           | A-9768-4381               |
|   | Spacer                        | A-9768-4384               |
|  | FORTiS low pressure regulator | A-9768-4377               |
|  | Pressure gauge assembly       | A-9768-4409               |
|  | Tube cutter                   | A-9768-4392               |

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