

# FIL+REG+LUB bit

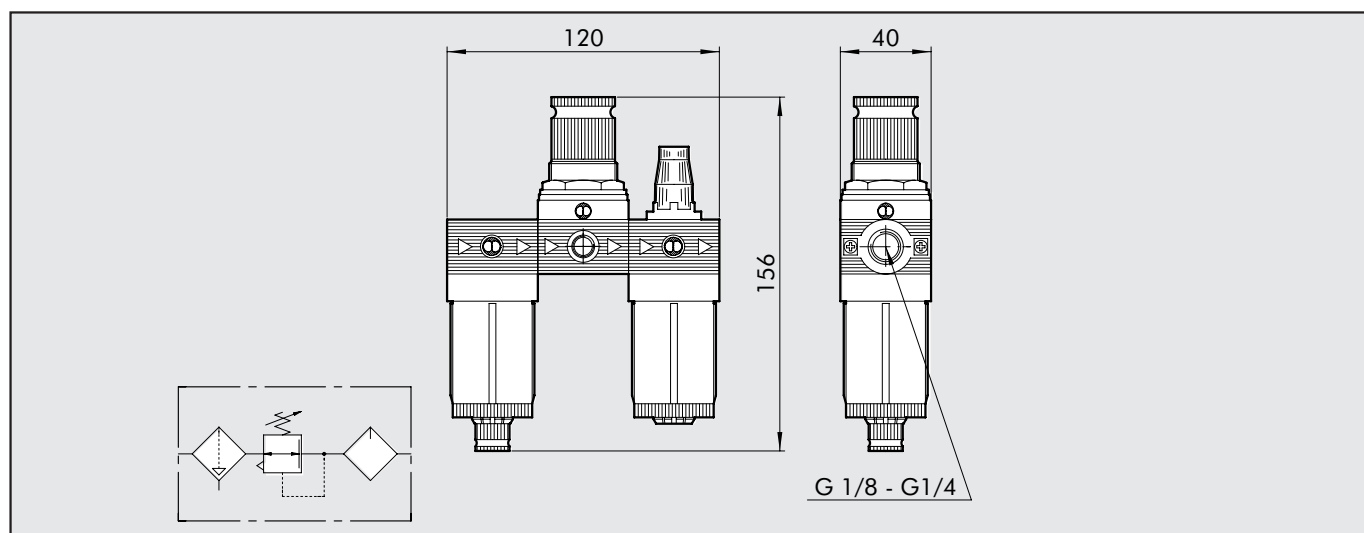
Complete mini-FRL unit with rolling diaphragm.

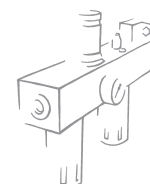
- High flow rates with reduced pressure drop
- Excellent degree of condensate separation
- Quantity of lubricant proportioned to air flow
- Activates at low flow rates



| TECHNICAL DATA                                                       |     | F+R+L BIT 1/8"                             | F+R+L BIT 1/4" |
|----------------------------------------------------------------------|-----|--------------------------------------------|----------------|
| Threaded port                                                        |     | 1/8"                                       | 1/4"           |
| Setting range                                                        |     | 0 to 2 - 0 to 4 - 0 to 8 - 0 to 12         |                |
| Degree of filtration                                                 |     | 5µm (yellow) 20µm (white) 50µm (blue)      |                |
| Type of lubrication                                                  |     | Oil mist                                   |                |
| Max. inlet pressure                                                  | MPa | 1.3                                        |                |
|                                                                      | bar | 13                                         |                |
|                                                                      | psi | 188                                        |                |
| Flow rate at 6.3 bar (0.63 MPa-91 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |     | 150 NI/min = 5.3 scfm                      |                |
| Flow rate at 6.3 bar (0.63 MPa-91 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |     | 280 NI/min = 10 scfm                       |                |
| Fluid                                                                |     | Compressed air                             |                |
| Max temperature at 1 MPa; 10 bar; 145 psi                            | °C  | 50                                         |                |
|                                                                      | °F  | 122                                        |                |
| Weight                                                               | gr  | 160                                        |                |
| Wall fixing screws                                                   |     | M 4                                        |                |
| Mounting position                                                    |     | Verticale                                  |                |
| Gauge port                                                           |     | G1/8'                                      |                |
| Notes                                                                |     | See chapters regarding individual elements |                |

## DIMENSIONS





## KEY TO CODES

| FRL     | BIT  | 1/8           | 5µm                  | 02                    | RMSA             |
|---------|------|---------------|----------------------|-----------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE         | CONDENSATE DRAIN |
| FRL     | BIT  | 1/8<br>1/4    | 5µm<br>20µm<br>50µm  | 02<br>04<br>08<br>012 | RMSA<br>SAC      |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain. Operates by depression – requires variable air take-offs.

## ORDERING CODES

| Code    | Description             | Code    | Description             |
|---------|-------------------------|---------|-------------------------|
| 5104001 | FRL BIT 1/8 5 02 RMSA   | 5204001 | FRL BIT 1/4 5 02 RMSA   |
| 5104013 | FRL BIT 1/8 5 02 SAC    | 5204013 | FRL BIT 1/4 5 02 SAC    |
| 5104004 | FRL BIT 1/8 5 04 RMSA   | 5204004 | FRL BIT 1/4 5 04 RMSA   |
| 5104016 | FRL BIT 1/8 5 04 SAC    | 5204016 | FRL BIT 1/4 5 04 SAC    |
| 5104007 | FRL BIT 1/8 5 08 RMSA   | 5204007 | FRL BIT 1/4 5 08 RMSA   |
| 5104019 | FRL BIT 1/8 5 08 SAC    | 5204019 | FRL BIT 1/4 5 08 SAC    |
| 5104010 | FRL BIT 1/8 5 012 RMSA  | 5204010 | FRL BIT 1/4 5 012 RMSA  |
| 5104022 | FRL BIT 1/8 5 012 SAC   | 5204022 | FRL BIT 1/4 5 012 SAC   |
| 5104002 | FRL BIT 1/8 20 02 RMSA  | 5204002 | FRL BIT 1/4 20 02 RMSA  |
| 5104014 | FRL BIT 1/8 20 02 SAC   | 5204014 | FRL BIT 1/4 20 02 SAC   |
| 5104005 | FRL BIT 1/8 20 04 RMSA  | 5204005 | FRL BIT 1/4 20 04 RMSA  |
| 5104017 | FRL BIT 1/8 20 04 SAC   | 5204017 | FRL BIT 1/4 20 04 SAC   |
| 5104008 | FRL BIT 1/8 20 08 RMSA  | 5204008 | FRL BIT 1/4 20 08 RMSA  |
| 5104020 | FRL BIT 1/8 20 08 SAC   | 5204020 | FRL BIT 1/4 20 08 SAC   |
| 5104011 | FRL BIT 1/8 20 012 RMSA | 5204011 | FRL BIT 1/4 20 012 RMSA |
| 5104023 | FRL BIT 1/8 20 012 SAC  | 5204023 | FRL BIT 1/4 20 012 SAC  |
| 5104003 | FRL BIT 1/8 50 02 RMSA  | 5204003 | FRL BIT 1/4 50 02 RMSA  |
| 5104015 | FRL BIT 1/8 50 02 SAC   | 5204015 | FRL BIT 1/4 50 02 SAC   |
| 5104006 | FRL BIT 1/8 50 04 RMSA  | 5204006 | FRL BIT 1/4 50 04 RMSA  |
| 5104018 | FRL BIT 1/8 50 04 SAC   | 5204018 | FRL BIT 1/4 50 04 SAC   |
| 5104009 | FRL BIT 1/8 50 08 RMSA  | 5204009 | FRL BIT 1/4 50 08 RMSA  |
| 5104021 | FRL BIT 1/8 50 08 SAC   | 5204021 | FRL BIT 1/4 50 08 SAC   |
| 5104012 | FRL BIT 1/8 50 012 RMSA | 5204012 | FRL BIT 1/4 50 012 RMSA |
| 5104024 | FRL BIT 1/8 50 012 SAC  | 5204024 | FRL BIT 1/4 50 012 SAC  |

## NOTES

# FR+LUB bit

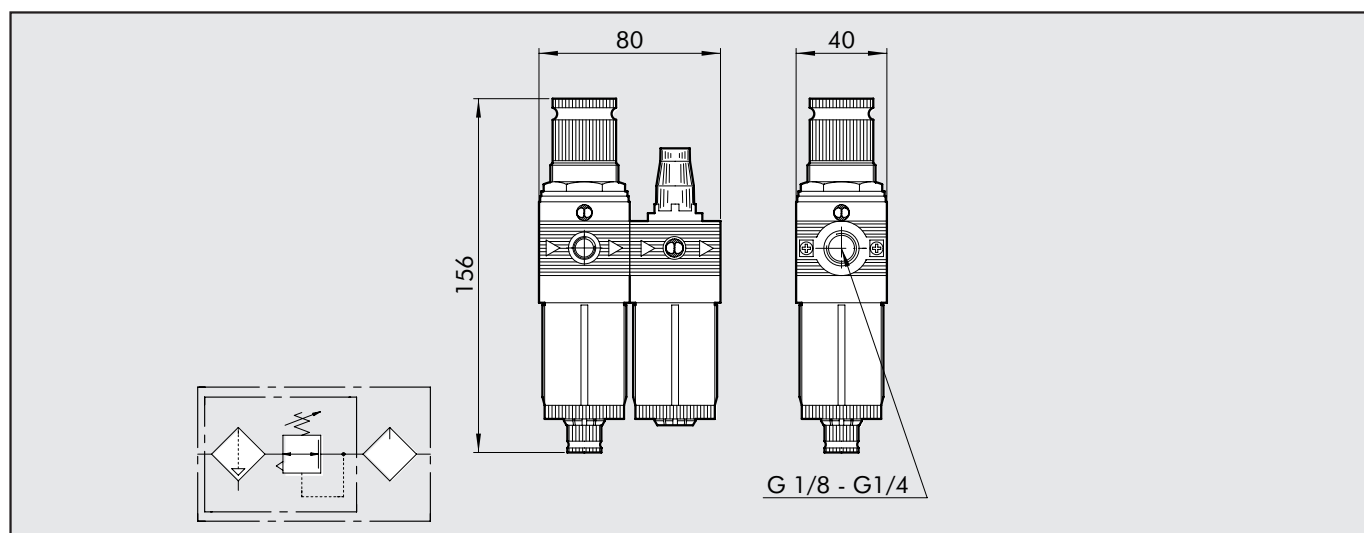
Compact FR+L unit with rolling diaphragm.

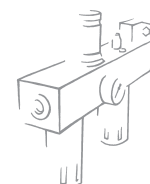
- High flow rates with reduced pressure drop
- Excellent degree of condensate separation
- Quantity of lubricant proportioned to air flow
- Activates at low flow rates



| TECHNICAL DATA                                                       |     | FR+L BIT 1/8"                              | FR+L BIT 1/4" |
|----------------------------------------------------------------------|-----|--------------------------------------------|---------------|
| Threaded port                                                        |     | 1/8"                                       | 1/4"          |
| Setting range                                                        |     | 0 ÷ 2 - 0 ÷ 4 - 0 ÷ 8 - 0 ÷ 12             |               |
| Degree of filtration                                                 |     | 5µm (yellow) 20µm (white) 50µm (blue)      |               |
| Type of lubrication                                                  |     | Oil mist                                   |               |
| Max. inlet pressure                                                  | MPa | 1.3                                        |               |
|                                                                      | bar | 13                                         |               |
|                                                                      | psi | 188                                        |               |
| Flow rate at 6.3 bar (0.63 MPa-91 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |     | 140 NI/min = 5 scfm                        |               |
| Flow rate at 6.3 bar (0.63 MPa-91 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |     | 260 NI/min = 9.2 scfm                      |               |
| Fluid                                                                |     | Compressed air                             |               |
| Max temperature at 1 MPa; 10 bar; 145 psi                            | °C  | 50                                         |               |
|                                                                      | °F  | 122                                        |               |
| Weight                                                               | gr  | 170                                        |               |
| Wall fixing screws                                                   |     | M 4                                        |               |
| Mounting position                                                    |     | Vertical                                   |               |
| Gauge port                                                           |     | G 1/8"                                     |               |
| Notes                                                                |     | See chapters regarding individual elements |               |

## DIMENSIONS





## KEY TO CODES

| FR+L    | BIT  | 1/8              | 5µm                     | 02                    | RMSA                |
|---------|------|------------------|-------------------------|-----------------------|---------------------|
| ELEMENT | SIZE | THREADED<br>PORT | DEGREE OF<br>FILTRATION | SETTING<br>RANGE      | CONDENSATE<br>DRAIN |
| FR+L    | BIT  | 1/8<br>1/4       | 5µm<br>20µm<br>50µm     | 02<br>04<br>08<br>012 | RMSA<br>SAC         |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain. Operates by depression – requires variable air take-offs.

## ORDERING CODES

| Code    | Description              | Code    | Description              |
|---------|--------------------------|---------|--------------------------|
| 5106001 | FR+L BIT 1/8 5 02 RMSA   | 5206001 | FR+L BIT 1/4 5 02 RMSA   |
| 5106013 | FR+L BIT 1/8 5 02 SAC    | 5206013 | FR+L BIT 1/4 5 02 SAC    |
| 5106004 | FR+L BIT 1/8 5 04 RMSA   | 5206004 | FR+L BIT 1/4 5 04 RMSA   |
| 5106016 | FR+L BIT 1/8 5 04 SAC    | 5206016 | FR+L BIT 1/4 5 04 SAC    |
| 5106007 | FR+L BIT 1/8 5 08 RMSA   | 5206007 | FR+L BIT 1/4 5 08 RMSA   |
| 5106019 | FR+L BIT 1/8 5 08 SAC    | 5206019 | FR+L BIT 1/4 5 08 SAC    |
| 5106010 | FR+L BIT 1/8 5 012 RMSA  | 5206010 | FR+L BIT 1/4 5 012 RMSA  |
| 5106022 | FR+L BIT 1/8 5 012 SAC   | 5206022 | FR+L BIT 1/4 5 012 SAC   |
| 5106002 | FR+L BIT 1/8 20 02 RMSA  | 5206002 | FR+L BIT 1/4 20 02 RMSA  |
| 5106014 | FR+L BIT 1/8 20 02 SAC   | 5206014 | FR+L BIT 1/4 20 02 SAC   |
| 5106005 | FR+L BIT 1/8 20 04 RMSA  | 5206005 | FR+L BIT 1/4 20 04 RMSA  |
| 5106017 | FR+L BIT 1/8 20 04 SAC   | 5206017 | FR+L BIT 1/4 20 04 SAC   |
| 5106008 | FR+L BIT 1/8 20 08 RMSA  | 5206008 | FR+L BIT 1/4 20 08 RMSA  |
| 5106020 | FR+L BIT 1/8 20 08 SAC   | 5206020 | FR+L BIT 1/4 20 08 SAC   |
| 5106011 | FR+L BIT 1/8 20 012 RMSA | 5206011 | FR+L BIT 1/4 20 012 RMSA |
| 5106023 | FR+L BIT 1/8 20 012 SAC  | 5206023 | FR+L BIT 1/4 20 012 SAC  |
| 5106003 | FR+L BIT 1/8 50 02 RMSA  | 5206003 | FR+L BIT 1/4 50 02 RMSA  |
| 5106015 | FR+L BIT 1/8 50 02 SAC   | 5206015 | FR+L BIT 1/4 50 02 SAC   |
| 5106006 | FR+L BIT 1/8 50 04 RMSA  | 5206006 | FR+L BIT 1/4 50 04 RMSA  |
| 5106018 | FR+L BIT 1/8 50 04 SAC   | 5206018 | FR+L BIT 1/4 50 04 SAC   |
| 5106009 | FR+L BIT 1/8 50 08 RMSA  | 5206009 | FR+L BIT 1/4 50 08 RMSA  |
| 5106021 | FR+L BIT 1/8 50 08 SAC   | 5206021 | FR+L BIT 1/4 50 08 SAC   |
| 5106012 | FR+L BIT 1/8 50 012 RMSA | 5206012 | FR+L BIT 1/4 50 012 RMSA |
| 5106024 | FR+L BIT 1/8 50 012 SAC  | 5206024 | FR+L BIT 1/4 50 012 SAC  |

## NOTES

# FIL+DEP bit

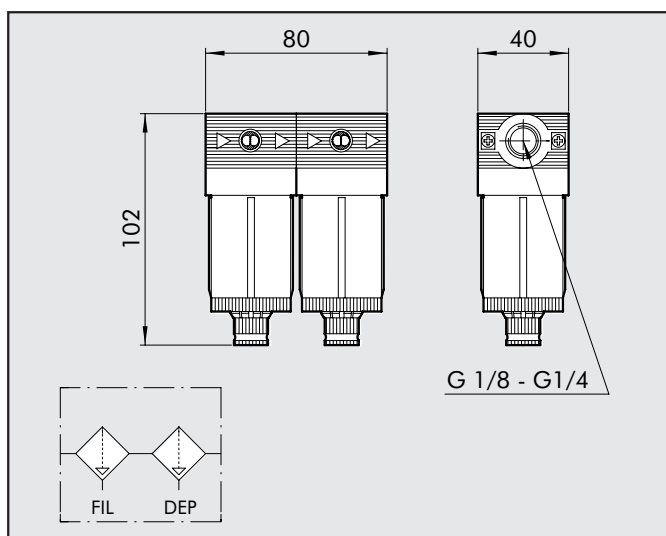
Compact filter + depurator unit for fine filtering followed by purification by coalescence.

- All-round condensate level viewing
- Condensate drainage - manual/semi-auto (RMSA) or automatic (SAC) on the filter
- 5 mm filter element.



| TECHNICAL DATA              |     | F+D BIT 1/8"                                       | F+D BIT 1/4" |
|-----------------------------|-----|----------------------------------------------------|--------------|
| Threaded port               |     | 1/8"                                               | 1/4"         |
| Degree of purification      |     | 5μ filter – 99.97% depurator at 0.01 μm            |              |
| Max. inlet pressure         | MPa | 1.3                                                |              |
|                             | bar | 13                                                 |              |
|                             | psi | 188                                                |              |
| Maximum suggested flow rate |     | please look at the flow rate curves at page 3.2/14 |              |
| Fluid                       |     | Compressed air                                     |              |
| Max temperature             | °C  | 50                                                 |              |
| at 1 MPa; 10 bar; 145 psi   | °F  | 122                                                |              |
| Weight                      | gr  | 110                                                |              |
| Mounting position           |     | Vertical                                           |              |
| Condensate drain            |     | Manual – Semi-auto (RMSA) - Automatic (SAC)        |              |
| Notes                       |     | See chapters regarding individual elements         |              |
|                             |     |                                                    |              |
|                             |     |                                                    |              |
|                             |     |                                                    |              |
|                             |     |                                                    |              |

## DIMENSIONS



## KEY TO CODES

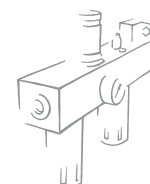
| F+D     | BIT  | 1/4           | 5μm                  | RMSA             |
|---------|------|---------------|----------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | CONDENSATE DRAIN |
| F+D     | BIT  | 1/8<br>1/4    | 5μm                  | RMSA<br>SAC      |
|         |      |               |                      |                  |
|         |      |               |                      |                  |
|         |      |               |                      |                  |
|         |      |               |                      |                  |
|         |      |               |                      |                  |
|         |      |               |                      |                  |
|         |      |               |                      |                  |
|         |      |               |                      |                  |

RMSA: Manual/semi-auto drain

SAC: Automatic drain. Operates by depression – requires variable air take-offs.

## ORDERING CODES

| Code    | Description             |
|---------|-------------------------|
| 5114001 | F+D BIT 1/8 5 RMSA-RMSA |
| 5114002 | F+D BIT 1/8 5 SAC-RMSA  |
| 5214001 | F+D BIT 1/4 5 RMSA-RMSA |
| 5214002 | F+D BIT 1/4 5 SAC-RMSA  |
|         |                         |
|         |                         |
|         |                         |
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|         |                         |
|         |                         |
|         |                         |
|         |                         |



# FIL+LUB bit

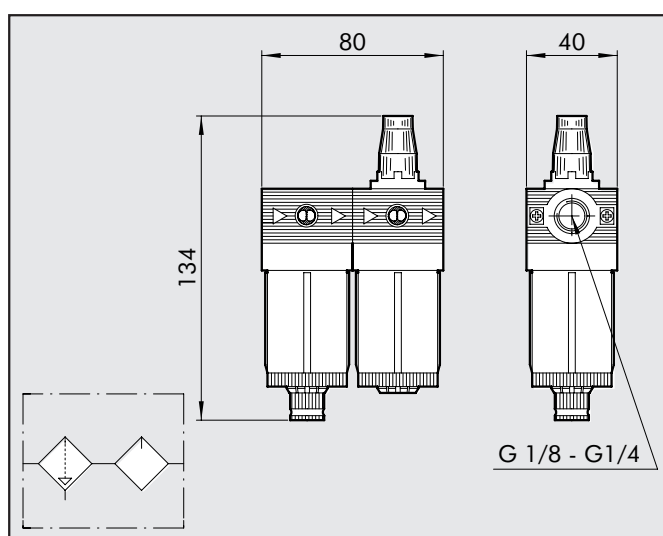
Compact filter + lubricator unit with different degrees of filtration and high lubrication stability.

- Excellent degree of condensate separation
- Semi-automatic and automatic condensate drainage
- Lubrication activates at low flow rates
- All-round oil and condensate level viewing



| TECHNICAL DATA                      |        | F+L BIT 1/8"                               | F+L BIT 1/4" |
|-------------------------------------|--------|--------------------------------------------|--------------|
| Threaded port                       |        | 1/8"                                       | 1/4"         |
| Degree of filtration                |        | 5µm (yellow) 20µm (white) 50µm (blue)      |              |
| Max. inlet pressure                 | MPa    | 1.3                                        |              |
|                                     | bar    | 13                                         |              |
|                                     | psi    | 188                                        |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) | Nl/min | 300                                        |              |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm   | 10.6                                       |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) | Nl/min | 600                                        |              |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm   | 21.2                                       |              |
| Fluid                               |        | Compressed air                             |              |
| Max temperature                     | °C     | 50                                         |              |
| at 1 MPa; 10 bar; 145 psi           | °F     | 122                                        |              |
| Weight                              | gr     | 90                                         |              |
| Wall fixing screws                  |        | M 4                                        |              |
| Mounting position                   |        | Vertical                                   |              |
| Notes                               |        | See chapters regarding individual elements |              |

## DIMENSIONS



## KEY TO CODES

| F+L     | BIT  | 1/8           | 5µm                  | RMSA             |
|---------|------|---------------|----------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | CONDENSATE DRAIN |
| F+L     | BIT  | 1/8<br>1/4    | 5µm<br>20µm<br>50µm  | RMSA<br>SAC      |

**RMSA:** Manual/semi-auto drain

**SAC:** Automatic drain. Operates by depression – requires variable air take-offs.

## ORDERING CODES

| Code    | Description         |
|---------|---------------------|
| 5113001 | F+L BIT 1/8 5 RMSA  |
| 5113004 | F+L BIT 1/8 5 SAC   |
| 5113002 | F+L BIT 1/8 20 RMSA |
| 5113005 | F+L BIT 1/8 20 SAC  |
| 5113003 | F+L BIT 1/8 50 RMSA |
| 5113006 | F+L BIT 1/8 50 SAC  |
| 5213001 | F+L BIT 1/4 5 RMSA  |
| 5213004 | F+L BIT 1/4 5 SAC   |
| 5213002 | F+L BIT 1/4 20 RMSA |
| 5213005 | F+L BIT 1/4 20 SAC  |
| 5213003 | F+L BIT 1/4 50 RMSA |
| 5213006 | F+L BIT 1/4 50 SAC  |