



Service unit

3-piece

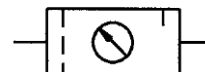
Size 3

FRL 33

G 1/2

FRL 34

G 3/4

0.5 to 10 bar
0.5 to 16 bar


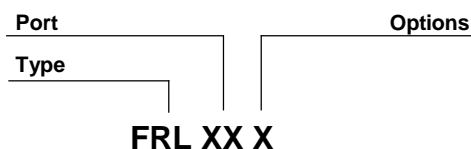
Characteristics

Type	FRL 33	FRL 34
Port	G 1/2	G 3/4
Pressure gauge port	G 1/4	
Type of construction	- Diaphragm pressure regulator with self-relieving design - Centrifugal filter - Sintered filter element - Proportional lubricator	
Input pressure p_1	Max. 16 bar with plastic bowl Max. 20 bar with metal bowl	
Input pressure p_1 with fully-automatic drain	Min. 1.5 bar Max. 16 bar	
Control range p_2	0.5 to 10 bar / 0.5 to 16 bar 0.1 to 3 bar / 0.2 to 6 bar on request	
Mounting position	Vertical, drain plug at bottom	
Mounting type	Bracket on regulator, hole $\varnothing 50.5$ Bracket and two through holes	
Medium temperature	-10 to 60 °C (other temperature	
Ambient temperature	-10 to 60 °C ranges on request)	
Filter rating	5 μm , 8 μm on request	
Bowl capacity	Filter: Max. 50 cm ³ condensate Oil-mist lubricator: 125 cm ³	
Condensate drain	Semi-automatic Fully-automatic on request	
Weight [g]	2370	

Materials

Part	Material
Head piece (body)	Z 410
Spring bonnet	POM-brass
Diaphragm	→ NBR-brass
Pressure spring	Galvanised steel
Valve cone	→ NBR-brass
Counter-pressure spring	Stainless steel
O-ring 50 x 2	→ NBR
Filter element 5 μm	PE
Condensate bowl	Polycarbonate
Air deflector	POM
Baffle	PA
Oil bowl	Polycarbonate
Oil fill plug	POM-NBR
Joiner set	Z 410-steel-NBR
Sight dome	PA
Sight dome - metal	Zinc-glass-NBR

Ordering information



Port	
33	G 1/2
34	G 3/4
Options	
K-HA	Plastic bowl
M-SR	Metal bowl with sight glass
S	Bowl guard

Order example: FRL 33 K-HA

Please use the suffix »A« to order fully-automatic drain

Description

- Simple block mounting with other devices
- Joiner sets (**KP 33**) required for block mounting
- Pressure setting can be locked by pushing the knob down
- Flow direction indicated by arrows
- **Entry in direction of arrow**
- **Independent of inlet pressure**
- Pressure gauge $\varnothing 50$ mm included
- Lockable adjusting knob (**on request**)
- Filter rating acc. to ISO 4003
- Bowl guard can be retrofitted without tools
- Oil can be filled under pressure

Recommended oil

Special pneumatic oil 32

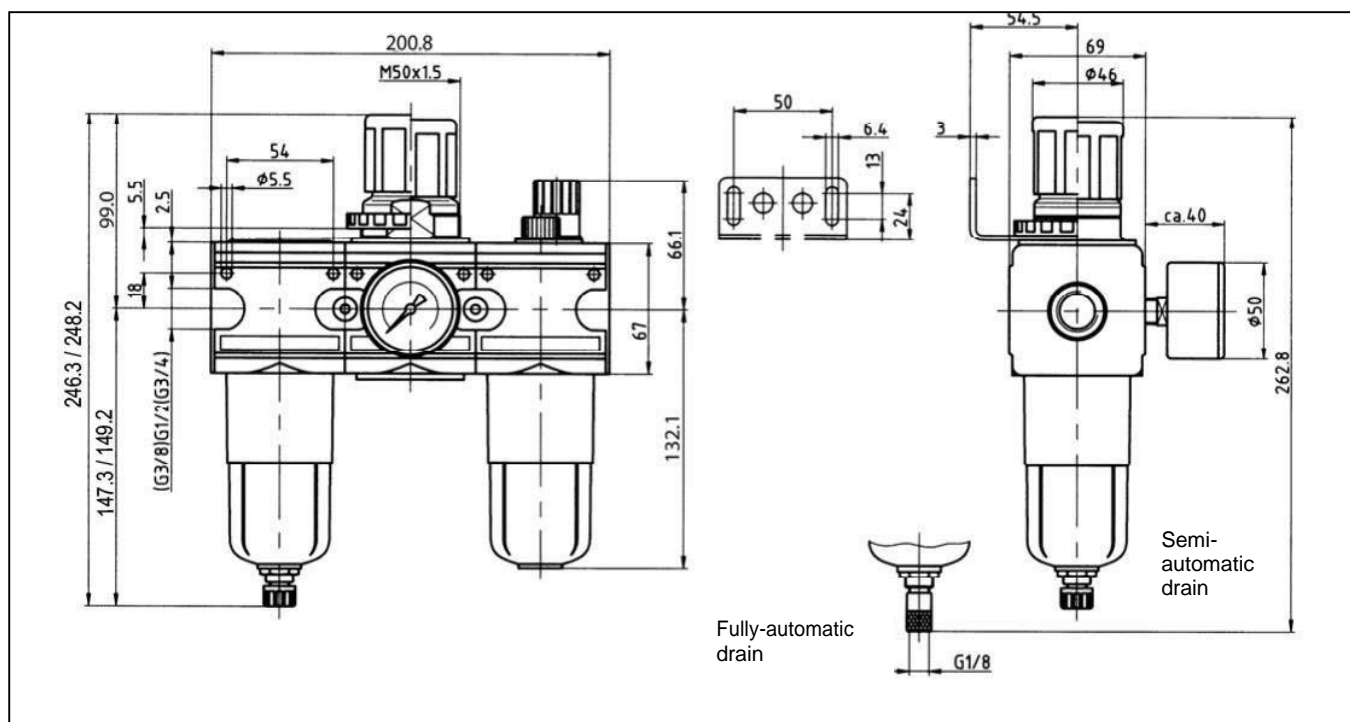
 Viscosity at 40 °C: 32 cSt [mm²/s]

Temperature range: -35 to +85 °C

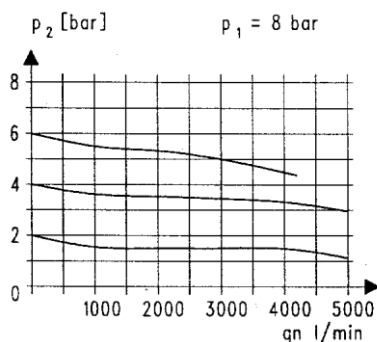
Oil bowls made of plastic (polycarbonate) are corroded by additives, anti-freeze agents and synthetic oils. We therefore recommend using mineral oils from approx. 22 to 32 cSt or up to 68 cSt in conjunction with impact tools.

Metal bowls and metal sight domes should be used for all other oil grades.

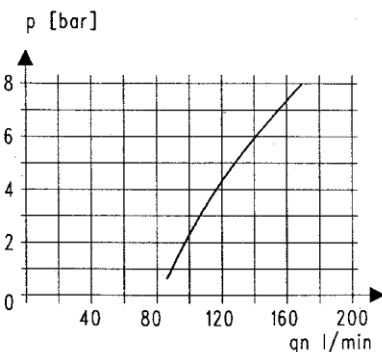
Dimensions [mm]



Flow characteristic

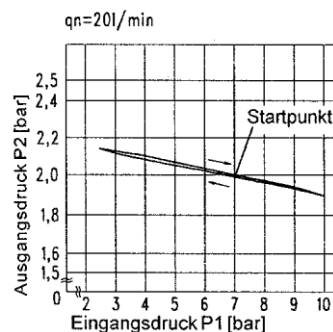


Lubricator operating limit



Hysteresis

Hysteresis of p_2 as a function of rising (falling) p_1 at a constant draw-off rate Q_N 20 l/min
Basic setting (starting point): p_1 : 7.0 bar
 p_2 : 2.0 bar


 Flow rates at $p_1 = 10$ bar

Output pressure $p_2 =$ [bar]		6
Nominal flow ($\Delta p = 1$ bar)	QN m ³ /h l/min	180 5800

Accessories

Designation	Article No.	Ident No.
Mounting bracket with nut R 33-55	MV 50	100439
Mounting bracket with two screws, cmpl.	ZW 33	100441
Joiner set	KP 33	100442
Joiner set for narrow diverter block	KP 33 Z	100443
Metal bowl with sight glass (filter)	MS 33 FS	100502
Metal bowl with sight glass and fully-automatic drain valve (filter)	MS 33 FS-A	100503
Metal bowl with sight glass (lubricator)	MS 33 NS	100549
Polycarbonate bowl with semi-automatic drain valve (filter)	KS 33 F-HA	100504
Polycarbonate bowl with fully-automatic drain valve (filter)	KS 33 F-A	100505
Polycarbonate bowl (lubricator)	KS 33 N	100548
Automatic drain	655.6.900	100362
Bowl guard	SK 33	100506

Main spare parts

Part	Article No.	Ident No.
→ Set of wearing parts	22.1833.4	100444
Filter element	633.6.905	100507
Sight dome (polycarb.)	1233.7.990	100392
Sight dome (metal)	1233.7.909	100393
Pr. gauge \varnothing 50 mm, G1/4		
0 to 10 bar	206-KD	101677
0 to 16 bar	207-KD	101678

Article No.	Ident No.
FRL 33 K-HA	100583
FRL 34 K-HA	100584
FRL 33 S	100588
FRL 34 S	100589
FRL 33 M-SR	100593
FRL 34 M-SR	100594