



Service unit

3-piece
Size 5
FRL 54*
G 3/4

FRL 55
G 1

0.5 to 10 bar
0.5 to 16 bar


Characteristics

Type	FRL 54	FRL 55
Port	G 3/4	G 1
Pressure gauge port	G 1/4	
Type of construction	- Diaphragm pressure regulator with self-relieving design, pilot-controlled - Centrifugal filter - Sintered filter element - Proportional lubricator	
Input pressure p1	Max. 16 bar with plastic bowl Max. 20 bar with metal bowl	
Input pressure p1 with fully-automatic drain	Min. 1.5 bar Max. 16 bar	
Control range p2	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	In-line or bracket and two through holes	
Medium temperature	-10 to 60 °C (other temperature	
Ambient temperature	-10 to 60 °C ranges on request)	
Filter rating	40 µm, 8 µm on request	
Bowl capacity	Filter: Max. 125 cm ³ condensate Oil-mist lubricator: 450 cm ³	
Condensate drain	Semi-automatic Fully-automatic on request	
Weight [g]	5200	
Internal air consumption	Depending on secondary pressure	

Materials

Part	Material
Body	Al
O-ring 80 x 2.5	NBR
Diaphragm	NBR-brass-Al
Pressure spring	Galvanised steel
Valve cone	NBR-brass
Counter-pressure spring	Stainless steel
O-ring 50x2	NBR
Filter element 40 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 *On request

Type Port Options
FRL ** *

Order example: FRL 55 K-HA

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

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

Description

- Simple block mounting with other devices using conical clamps and half threads
- Joiner sets (**KP 55**) required for block mounting
- Joiner sets (**KP 55 Z**) required for block mounting with K 55 ball valve and T 55 diverter block
- 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 63 mm included
- Filter rating acc. to ISO 4003, glass bead test
- Bowl guard can be retrofitted without tools
- Oil can be filled under pressure

Recommended oil

Special pneumatic oil 32

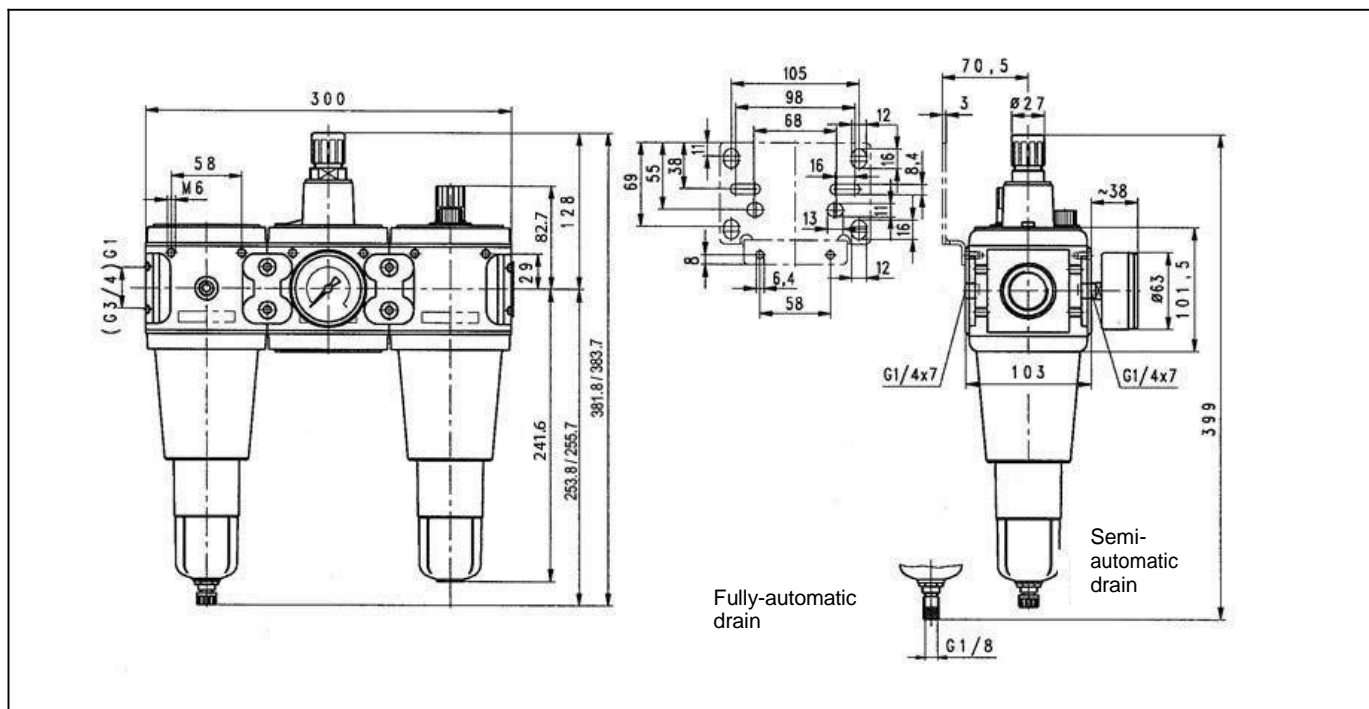
 Viscosity at 40 °C: 32 cSt [mm²/s]

Temperature range: -35 to +85 °C

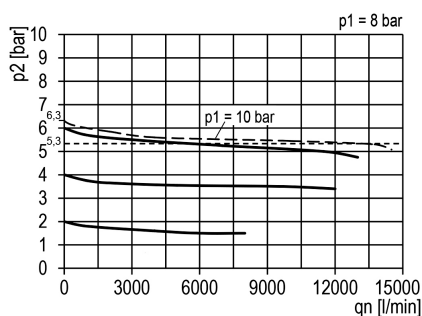
Oil bowls made of plastic (polycarbonate) are corroded by additives, anti-freeze agents and synthetic oils. We therefore recommend using mineral oils from approx. 22 to 32 cSt or up to 68 cSt in conjunction with impact tools.

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

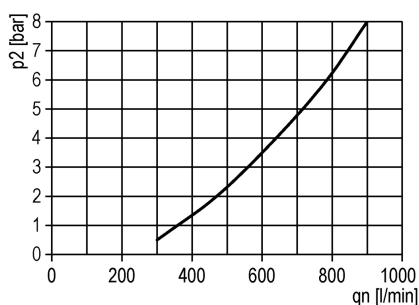
Dimensions [mm]



Flow characteristic

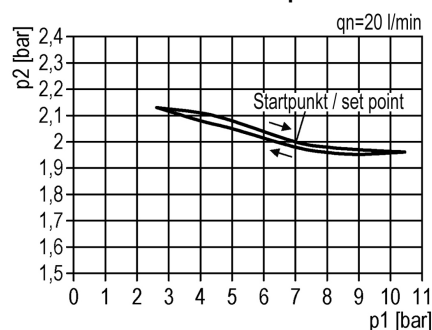


Lubricator operating limit



Hysteresis

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



Flow rates

Flow rates at $p_1 = 10$ bar

Output pressure p_2 [bar]	QN m ³ /h	6
Nominal flow ($\Delta p = 1$ bar)	l/min	810 13500

Accessories

Designation	Article No.	Ident No.
Mounting bracket with two screws, compl.	ZW 55	100445
Joiner set	KP 55	100446
Joiner set(s) for K 54/55 and T 54/55	KP 55 Z	123922
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	22.1855.4	100447
Filter element 40 μ m	655.6.940	100511
Filter element 8 μ m	655.6.908	100510
Sight dome (polycarbonate)	1233.7.990	100392
Sight dome (metal)	1233.7.909	100393
Pr. gauge \varnothing 63 mm, G1/4		
0 to 10 bar	217-KD	101244
0 to 16 bar	218-KD	101398

Article No.	Ident No.
FRL 55 K-HA	100585
FRL 55 S	100590
FRL 55 M-SR	100595