

### Series UZ

Filter UZF G 1/8 - G 1/4 .....	page 4.3
Pressure reducer UZRRR G 1/8 - G 1/4 .....	page 4.4
Filter reducer UZRRM /F G 1/8 - G 1/4 .....	page 4.5
Lubricator UZL G 1/8 - G 1/4 .....	page 4.6
Soft - start valve UZAP G 1/4 .....	page 4.7
Shut - off valve UZVL G 1/4 .....	page 4.8
Accessories for series UZ .....	page 4.8
Filter reducer + lubricator G 1/8 - G 1/4 .....	page 4.9
Filter + reducer + lubricator G 1/8 - G 1/4 .....	page 4.10
Example of assembly UZ .....	page 4.11

### Series EZ

Filter EZF G 3/8 - G 1/2 - G 1 .....	page 4.12
Pressure reducer EZRRR G 3/8 - G 1/2 - G 1 .....	page 4.14
Filter reducer EZRR /F G 3/8 - G 1/2 - G 1 .....	page 4.16
Lubricator EZL G 3/8 - G 1/2 - G 1 .....	page 4.18
Soft - start valve EZAP G 3/8 - G 1/2 - G 1 .....	page 4.20
Shut - off valve EZVL G 3/8 - G 1/2 - G 1 .....	page 4.22
Accessories for series EZ .....	page 4.22
Filter reducer + lubricator G 3/8 - G 1/2 - G 1 .....	page 4.23
Filter + reducer + lubricator G 3/8 - G 1/2 - G 1 .....	page 4.24
Example of assembly EZ .....	page 4.25

### Series MA

Air treatment accessories: pressure gauges .....	page 4.26
--	-----------

### Series PR

Air treatment accessories: digital/analog pressure switch series PRDA .....	page 4.27
Air treatment accessories: diaphragm pressure switch series PRC-PRA .....	page 4.28
Air treatment accessories: contacts exchange pressure switch series PRCA .....	page 4.29



## Waircom air treatment: overview

Before using the air as fluid for the majority of the components mentioned in the previous chapters, this must be properly treated; for this reason Waircom offers these two series of f-r-l (filters, regulators and lubricators) with a range of sizes that goes from G 1/8" to G 1".

Besides these leading articles, the f-r-l can be assembled with soft start and shut-off valves. Even the f-r-l units have their own accessories (pressure gauges and switches) that fulfil Waircom offer.

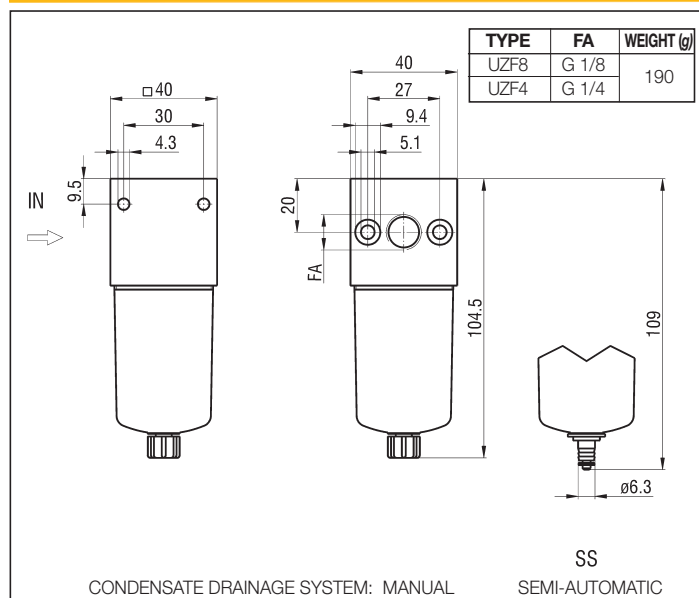
## DESCRIPTION

Filters series "UZF" are produced with connections G 1/8 and G 1/4; they are available with various degrees of filtration and with manual or semi-automatic condensate drainage system. The techno-polymer bowls can carry a metallic protection or being entirely metallic (without visualization of level).

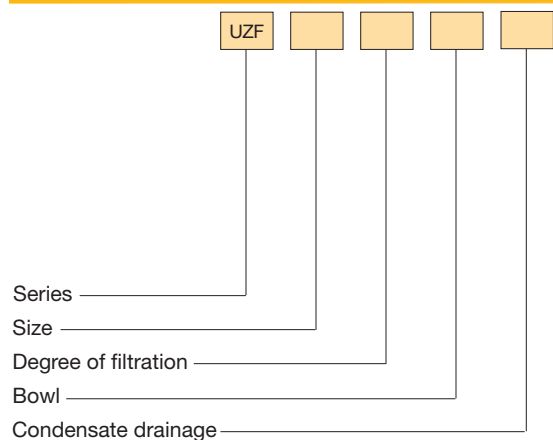
## TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 1/8 - G 1/4
Void fraction	20 µm standard, 5 µm and 40 µm on request
Condensate drainage system	Manual or semi-automatic
Max. condensate capacity	9 cm <sup>3</sup> (do not exceed the level gauge)
Type of mounting	Modular, in-line and wall-mounting
Wall clamping screws	M4x50

## DIMENSIONS AND WEIGHT UZF



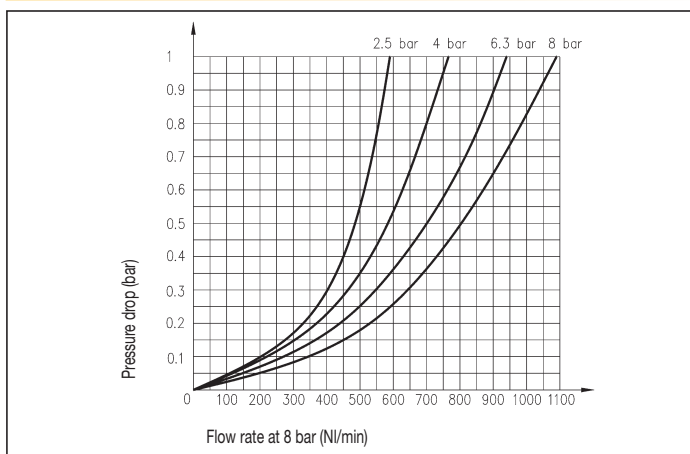
## ORDER KEY



## MATERIALS

Body	Aluminium alloy
Bowl	Transparent techno-polymer with metallic protection or entirely metallic bowl (without visualization of level) on request.
Filtering element	Sintered polyethylene
Seals	NBR rubber
Baffle	Acetal resin

## FLOW CHART - UZF



## SIZE

8 G 1/8      4 G 1/4

## DEGREE OF FILTRATION

/5 5 µm      /20 20 µm  
/40 40 µm

## BOWL

Transparent      PM Metallic protection  
TM Metallic

## CONDENSATE DRAINAGE SYSTEM

Manual      /SS Semi-automatic

## SPARE PARTS

Metallic protection	UZ/PM
Metallic bowl with manual drain	UZ/TM/R
Metallic bowl with semi-automatic drain	UZ/TM/R/SS
Techno-polymer bowl with manual drain	UZF/SG/3
Techno-polymer bowl with semi-automatic drain	UZF/SG/3/SS
Filter cartridge 5 µm	UZF/SG/1
Filter cartridge 20 µm	UZF/SG/2
Filter cartridge 40 µm	UZF/SG/4

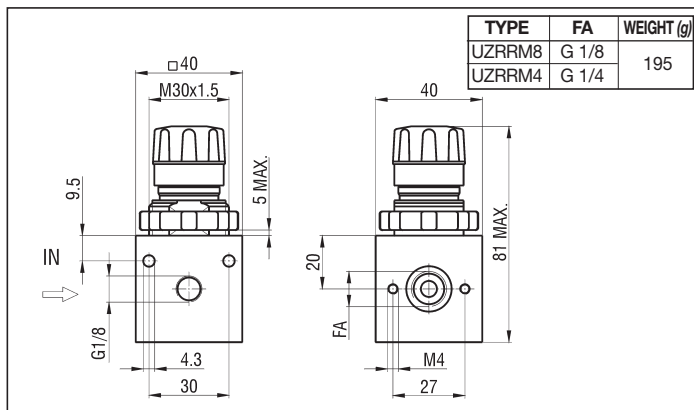
### DESCRIPTION

Reducers series "UZRR" are produced in two different models: type UZRRH, fit for in-line or panel mounting and type UZRRM, fit for panel mounting or modular assembly (with filter and lubricator). Both the two models are available with different scales of regulation and with connections G 1/8 and G 1/4.

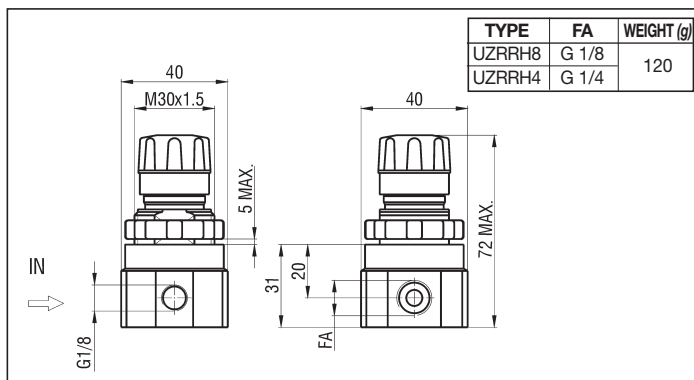
### TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Filtered, lubricated and unlubricated compressed air
Port size	G 1/8 - G 1/4
Pressure gauge port size	G 1/8
Adjusting range (bar)	0,2 ÷ 2 - 0,4 ÷ 4 - 0,8 ÷ 9 - 1,5 ÷ 12
Type of mounting	Modular, in-line, wall and panel mounting
Wall clamping screws	M4x50

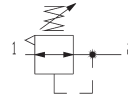
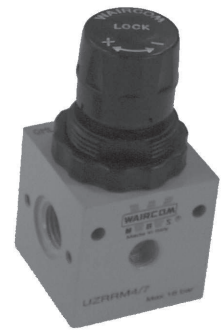
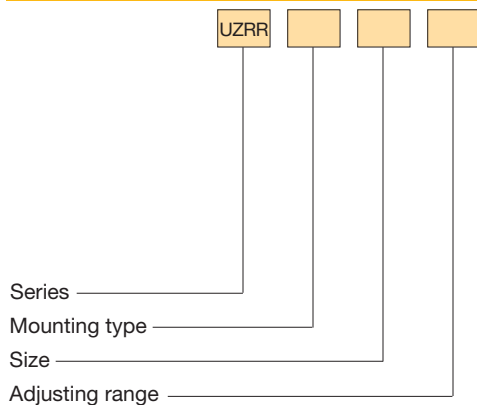
### 4 DIMENSIONS AND WEIGHT UZRRM



### DIMENSIONS AND WEIGHT UZRRH



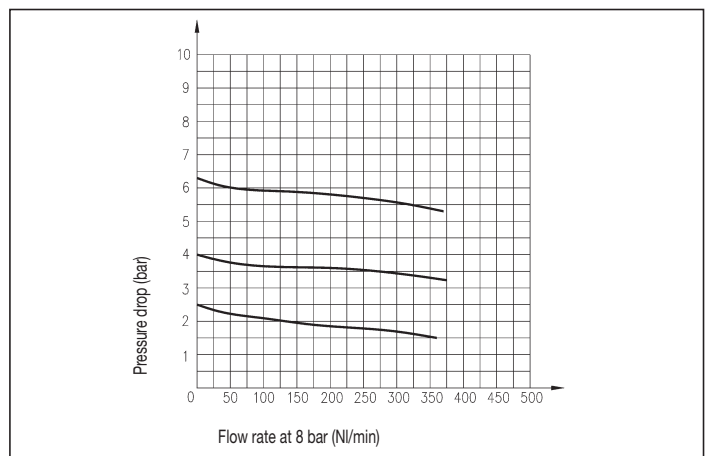
### ORDER KEY



### MATERIALS

Body	Aluminium alloy
Bowl	Transparent techno-polymer with metallic protection or entirely metallic bowl (without visualization of level) on request
Filtering element	Sintered porous bronze
Seals	NBR rubber
Baffle	Acetal resin

### FLOW CHART - UZRR



### MOUNTING TAPE

**H** For panel mounting      **M** Modular

### SIZE

**8** G 1/8      **4** G 1/4

### ADJUSTING RANGE

**/3** 0,2 ÷ 2 bar      **/5** 0,4 ÷ 4 bar  
**/7** 0,8 ÷ 9 bar      **/12** 1,5 ÷ 12 bar

P.S.: Reducers can be supplied without the relieving seal on request; the series becomes **UZR**...

### SPARE PARTS

Relieving kit adjustment	UZRR/SG/6
Non-relieving kit adjustment	UZRR/SG/5

# Air treatment: filter reducer UZRRM /F G 1/8 - G 1/4

# series UZ

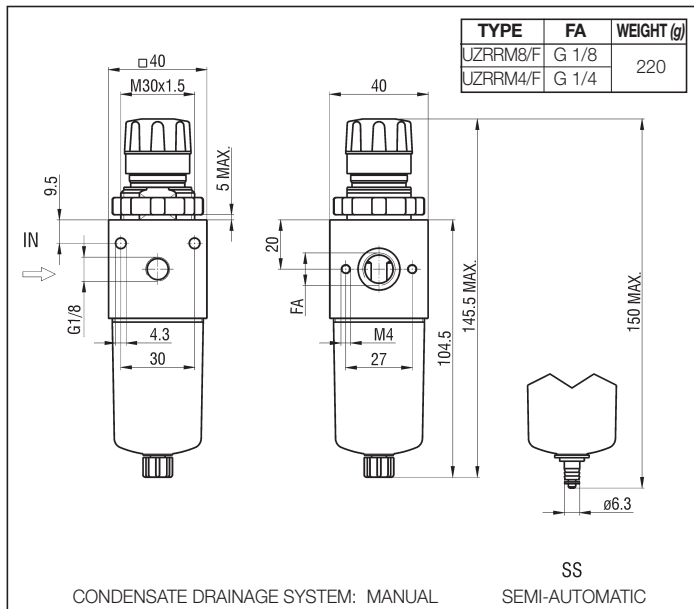
## DESCRIPTION

Filter reducer series "UZRRM /F", produced with connections G 1/8 and G 1/4, combine the characteristics of the filters and of the pressure reducers series "UZ", thus optimising the overall dimensions.

## TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 1/8 - G 1/4
Pressure gauge port size	G 1/8
Void fraction	20 µm standard, 5 µm and 40 µm on request
Condensate drainage system	Manual or semi-automatic
Max. condensate capacity	9 cm <sup>3</sup> (do not exceed the level gauge)
Adjusting range (bar)	0,2 ÷ 2 - 0,4 ÷ 4 - 0,8 ÷ 9 - 1,5 ÷ 12
Type of mounting	Modular, in-line, wall and panel mounting
Wall clamping screws	M4x50

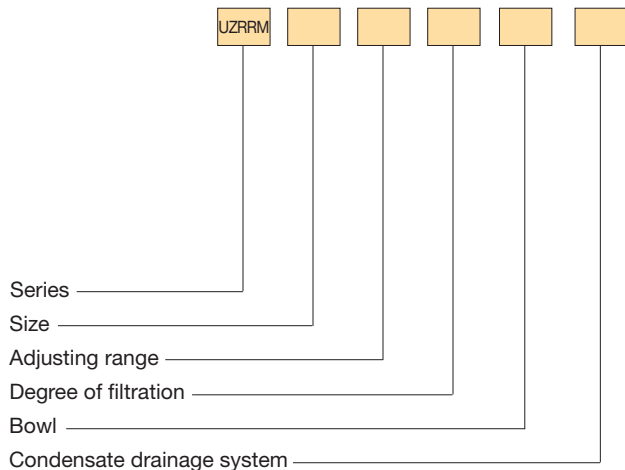
## DIMENSIONS AND WEIGHT UZRRM /F



## SPARE PARTS

See series "UZ" (on page 4.3) and "UZRR" (on page 4.4)

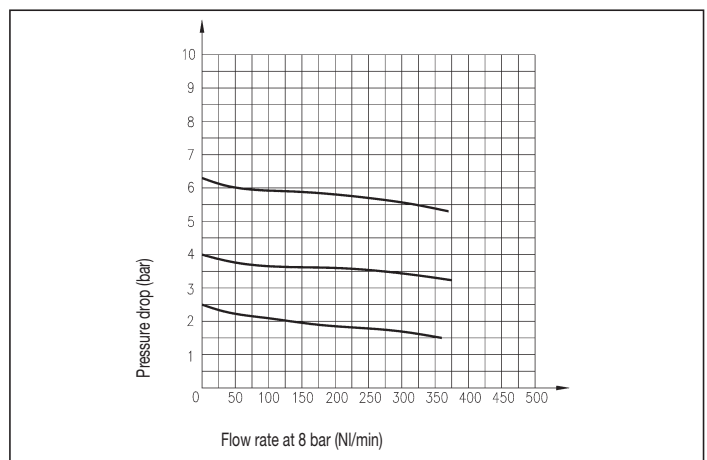
## ORDER KEY



## MATERIALS

Body	Aluminium alloy
Bowl	Transparent techno-polymer with metallic protection or entirely metallic bowl (without visualization of level) on request
Filtering element	Sintered polyethylene
Seals	NBR rubber
Baffle	Acetal resin
Closing plug	Brass, NBR rubber
Spring	Stainless steel
Knob	Acetal resin
Adjusting screw	Brass
Diaphragm	Brass, NBR rubber

## FLOW CHART - UZRRM /F



## SIZE

8 G 1/8      4 G 1/4

## ADJUSTING RANGE

/3 0,2 ÷ 2 bar      /5 0,4 ÷ 4 bar  
 /7 0,8 ÷ 9 bar      /12 1,5 ÷ 12 bar

## DEGREE OF FILTRATION

F5 5 µm      F20 20 µm  
 F40 40 µm

## BOWL

Transparent      PM Metallic protection  
 TM Metallic

## CONDENSATE DRAINAGE SYSTEM

Manual      /SS Semi-automatic

P.S.: Filters reducers can be supplied without the relieving seal on request; the series becomes UZRM...

# series UZ

## Air treatment: lubricator UZL G 1/8 - G 1/4

### DESCRIPTION

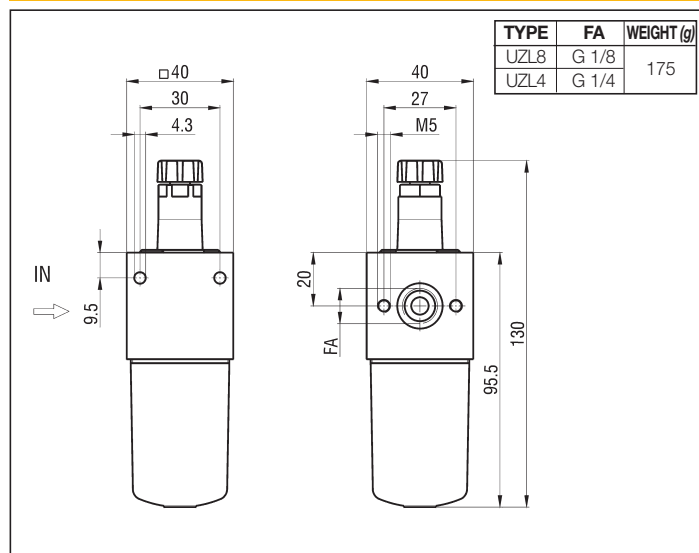
Lubricators series "UZL" are produced with connections G 1/8 and G 1/4; the techno-polymer bowls can carry a metallic protection or being entirely metallic (without visualization of level). For a correct lubrication it is advisable to set the drip rate in order to have a drop of oil (WAIRSOL class ISO22) every 300 - 500 NI/min.

### TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Filtered compressed air
Port size	G 1/8 - G 1/4
Bowl capacity	20 cm <sup>3</sup> (do not exceed the level gauge)
Type of mounting	Modular, in-line and wall-mounting
Wall clamping screws	M4x50
Minimum striking flow rate	20 NI/min

4

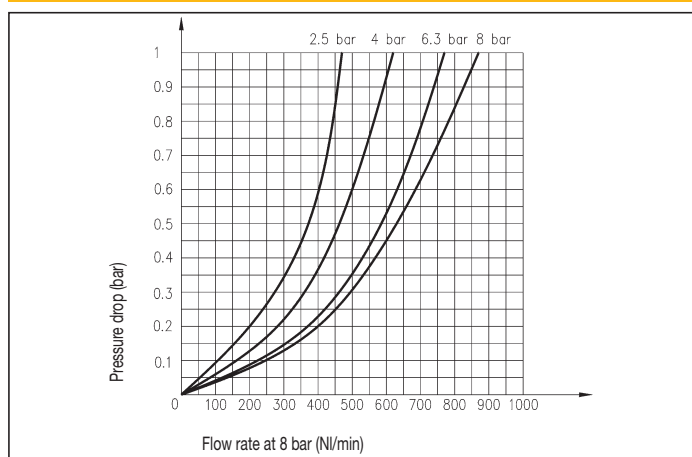
### DIMENSIONS AND WEIGHT UZL



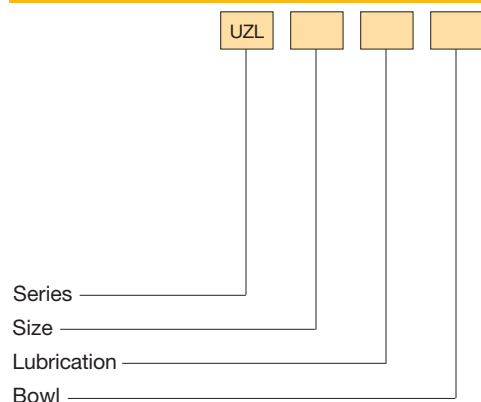
### MATERIALS

Body	Aluminium alloy
Bowl	Transparent techno-polymer with metallic protection or entirely metallic bowl (without visualization of level) on request
Seals	NBR rubber
Conduits	Acetal resin

### FLOW CHART - UZL



### ORDER KEY



### SIZE

<b>8</b>	G 1/8	<b>4</b>	G 1/4
----------	-------	----------	-------

### LUBRICATION

Oil mist	<b>M</b>	Micro-oil mist
----------	----------	----------------

### BOWL

Transparent	<b>PM</b>	Metallic protection
<b>TM</b>		Metallic

### SPARE PARTS

Metallic protection	UZ/PM
Metallic bowl	UZL/TM
Techno-polymer bowl	UZL/SG/3
Clear flow indicator	UZL/SG/4

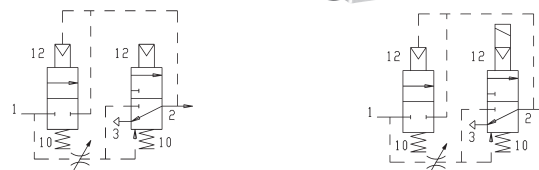
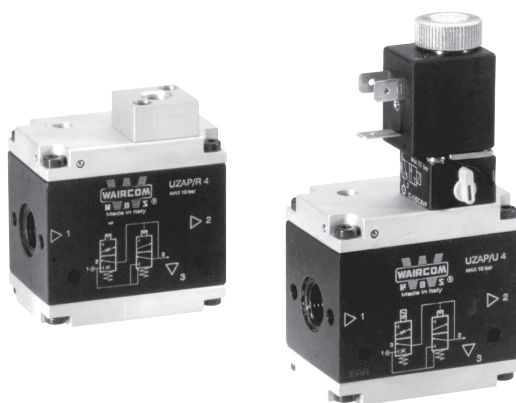
## DESCRIPTION

**SOFT-START VALVE:** soft-start valves series "UZAP" are produced with connection G 1/4 in the pneumatic and solenoid actuated versions. The working of the soft-start valve consists in feeding gradually air into the circuit with adjustable flow. When the pressure in the circuit reaches the 50 ÷ 60% of the upstream set pressure, the valve switches to full capacity, supplying the circuit with the maximum flow rate.

**AUTOMATIC SOFT-START VALVE:** this valve, produced with connection G 1/4 in the 2/2 pneumatic version, even if cannot be modular assembled with the F-R-L of series "UZ"\* , yet assures the same functionality of the soft-start valve above mentioned, and with the peculiarity of being "automatic", not needing any kind of external pilot.

## TECHNICAL DATA

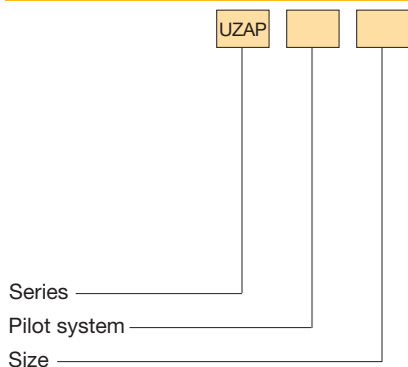
Maximum pressure	10 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Filtered, unlubricated or continuous lubricated compressed air
Port size	G 1/4
Piloting port size	G 1/8
Flow rate at 6 bar ΔP=1 bar	500 NI/min ( 750 NI/min for type UZAP/A4)
Max. flow rate of the adjusting screw of the filling time	300 NI/min
Type of mounting	Modular*, in-line and wall-mounting
Wall clamping screws	M4x50
Piloting solenoid valve	C/USCSV - see chapter Direct acting solenoid valves on page 2.11
Coil	USB - see chapter Coils on page 2.14
Electric connector	USR 102/N9 - see chapter Connectors on page 2.15



## MATERIALS

Body	Anodized aluminium alloy
Springs	Stainless steel
Pistons	Anodized aluminium alloy
Seals	NBR rubber

## ORDER KEY



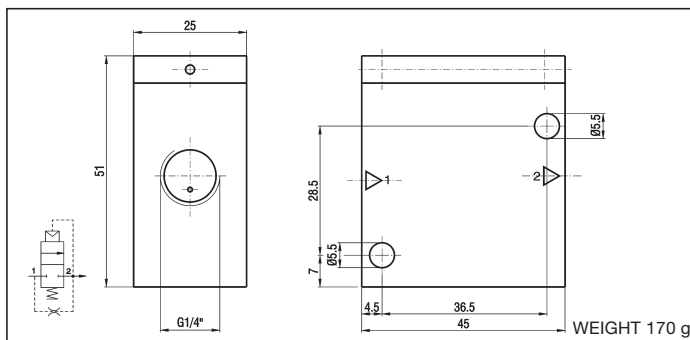
## PILOT SYSTEM

/R	Pneumatic	/U	Solenoid
/A	Automatic		

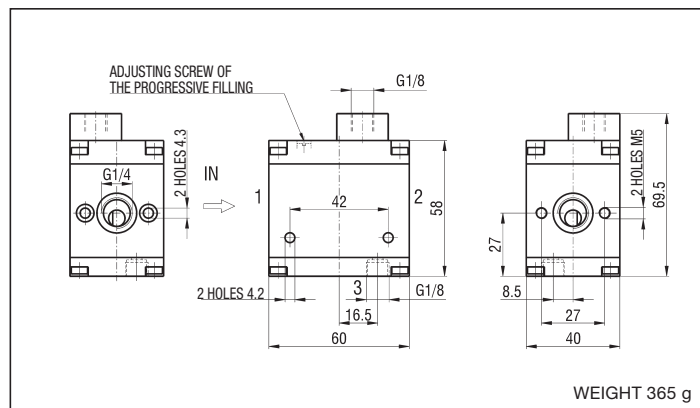
## SIZE

4 G 1/4

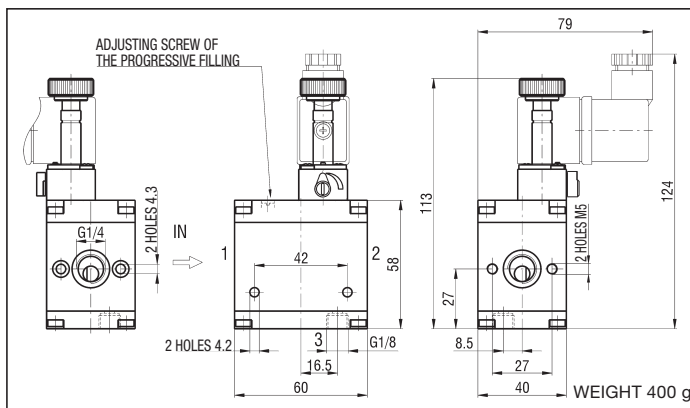
## DIMENSIONS AND WEIGHT UZAP/A4



## DIMENSIONS AND WEIGHT UZAP/R4



## DIMENSIONS AND WEIGHT UZAP/U4

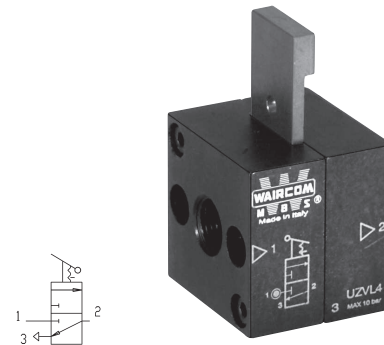


### DESCRIPTION

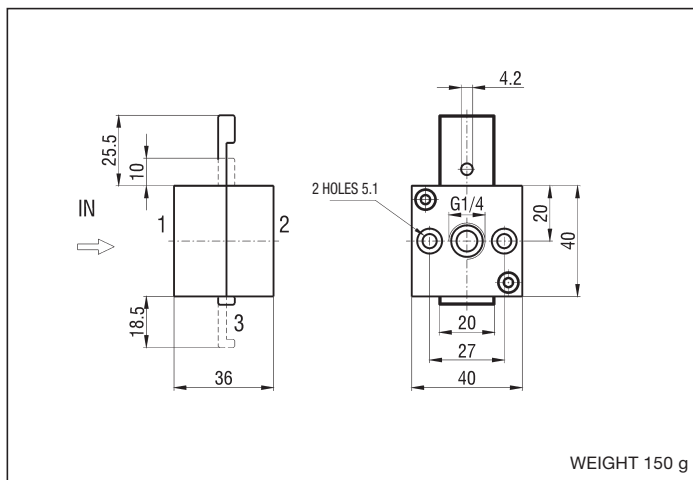
Shut - off valves series "UZVL" are produced with connection G 1/4 and they are fit to be locked in the exhaust position by means of a standard padlock.

### TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Filtered, unlubricated or continuous lubricated compressed air
Port size	G 1/4
Flow rate at 6 bar ΔP=1 bar	1300 NI/min
Type of mounting	Modular and in-line



### DIMENSIONS AND WEIGHT UZVL/4



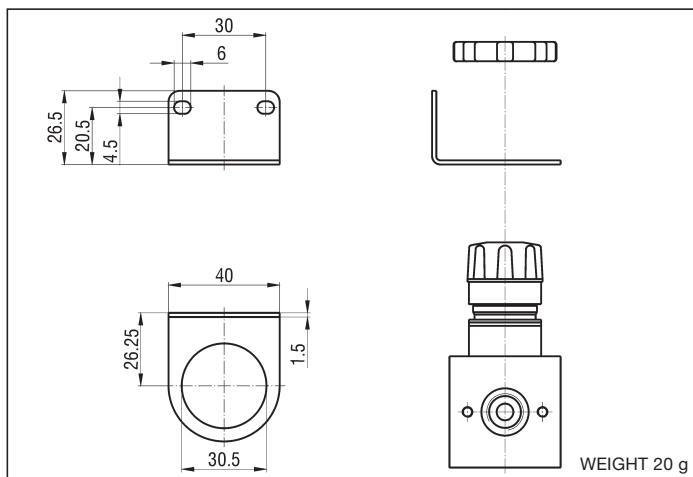
### MATERIALS

Body	Anodized aluminium alloy
Seals	NBR rubber
Slider	Anodized aluminium alloy

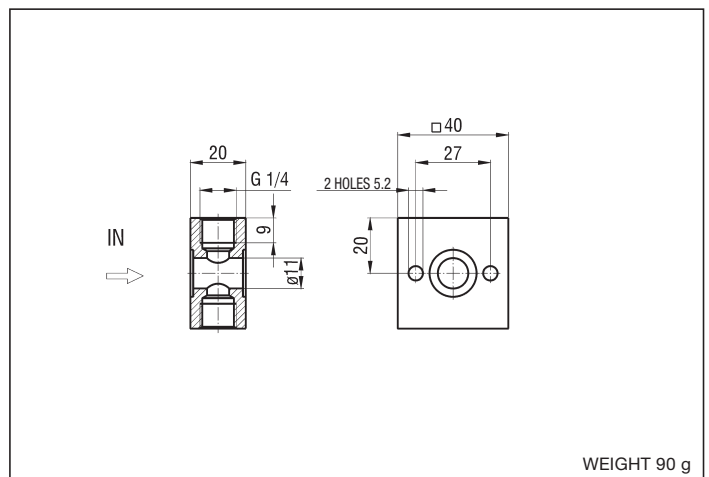
4

### ACCESSORIES

#### MOUNTING BRACKET UZRHS



#### INTERMEDIATE AIR INTAKE UZPR4 (screws included)



### ASSEMBLY SCREWS

Assembly screws F+R+L	UZ/SVG
Assembly screws FR+L	UZ/SVG/1
Assembly screws F+L	UZ/SVG/2
Assembly screws FR+L+AP - R+L+AP	UZAP/SVG
Assembly screws FR+AP - R+AP	UZAP/SVG/1
Assembly screws VL+F+R	UZVL/SVG
Assembly screws VL+FR - VL+R	UZVL/SVG/1

### WALL CLAMPING SCREWS

Clamping screws F-FR-R-L-AP	UZ/SVG/P
-----------------------------	----------



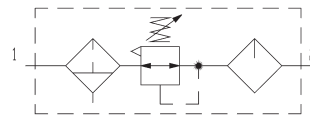
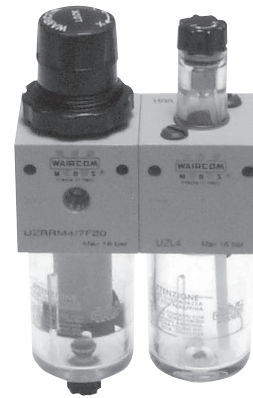
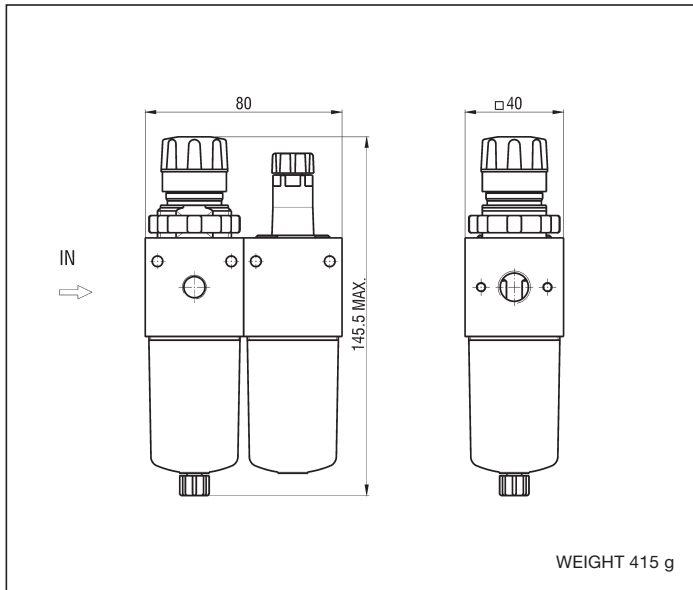
# Air treatment: filter reducer + lubricator G 1/8 - G 1/4

# series UZ

## TECHNICAL DATA

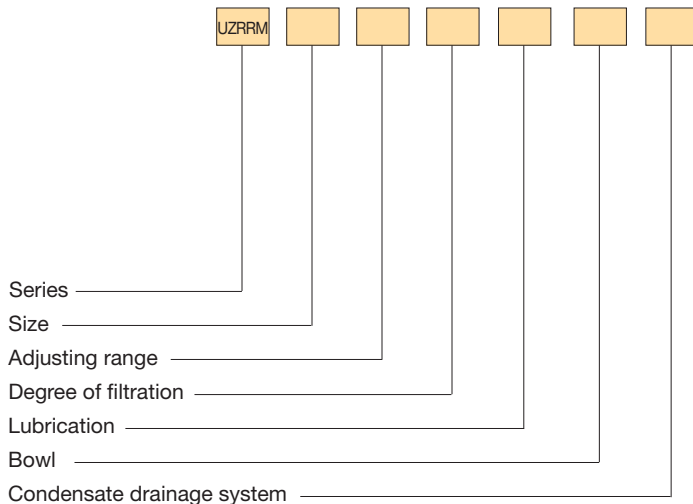
Maximum pressure	16 bar
Working temperature	0 ± +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 1/8 - G 1/4
Pressure gauge port size	G 1/8
Flow rate at 6 bar ΔP=1 bar	260 NI/min
Wall clamping screws	M4x50

## DIMENSIONS AND WEIGHT FR+L



4

## ORDER KEY



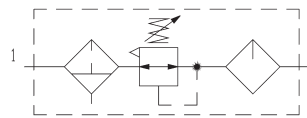
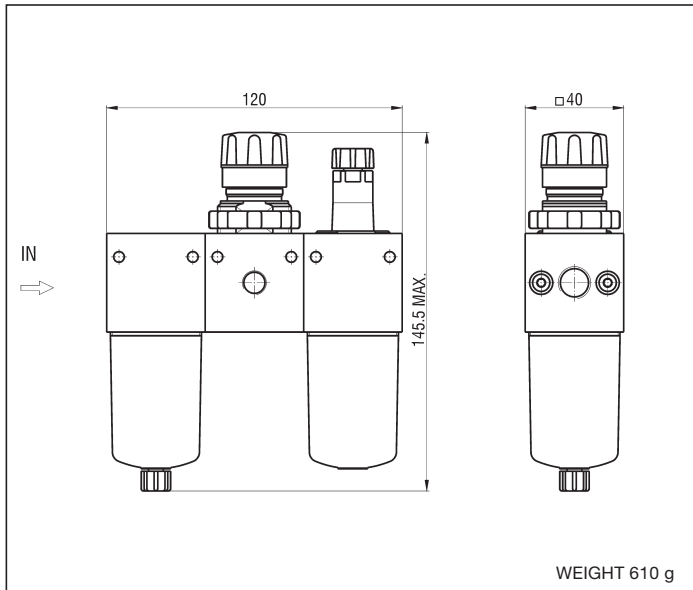
SIZE			
<b>8</b>	G 1/8	<b>4</b>	G 1/4
ADJUSTING RANGE			
<b>/3</b>	0,2 ÷ 2 bar	<b>/5</b>	0,4 ÷ 4 bar
<b>/7</b>	0,8 ÷ 9 bar	<b>/12</b>	1,5 ÷ 12 bar
DEGREE OF FILTRATION			
<b>F5</b>	5 µm	<b>F20</b>	20 µm
<b>F40</b>	40 µm		
LUBRICATION			
<b>L</b>	Oil mist (standard)	<b>LM</b>	Micro-oil mist
BOWL			
	Transparent	<b>/PM</b>	Metallic protection
<b>/TM</b>	Metallic		
CONDENSATE DRAINAGE SYSTEM			
	Manual	<b>/SS</b>	Semi-automatic

P.S.: Filters reducers + lubricators can be supplied without the relieving seal on request; the series becomes **UZRM**...

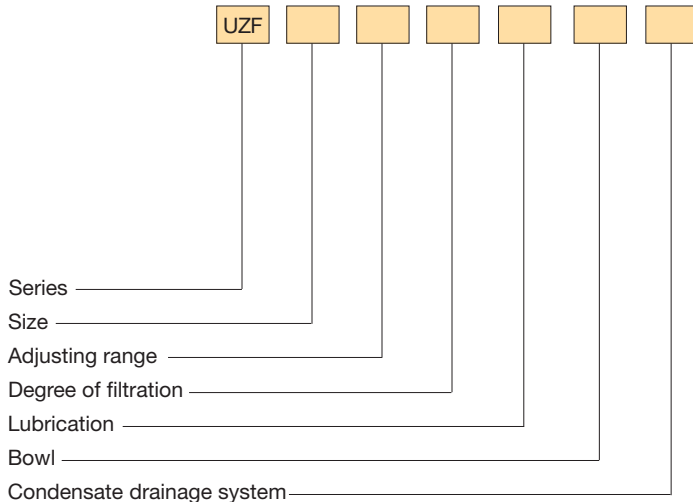
### TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 1/8 - G 1/4
Pressure gauge port size	G 1/8
Flow rate at 6 bar ΔP=1 bar	220 NI/min
Wall clamping screws	M4x50

### DIMENSIONS AND WEIGHT F+R+L



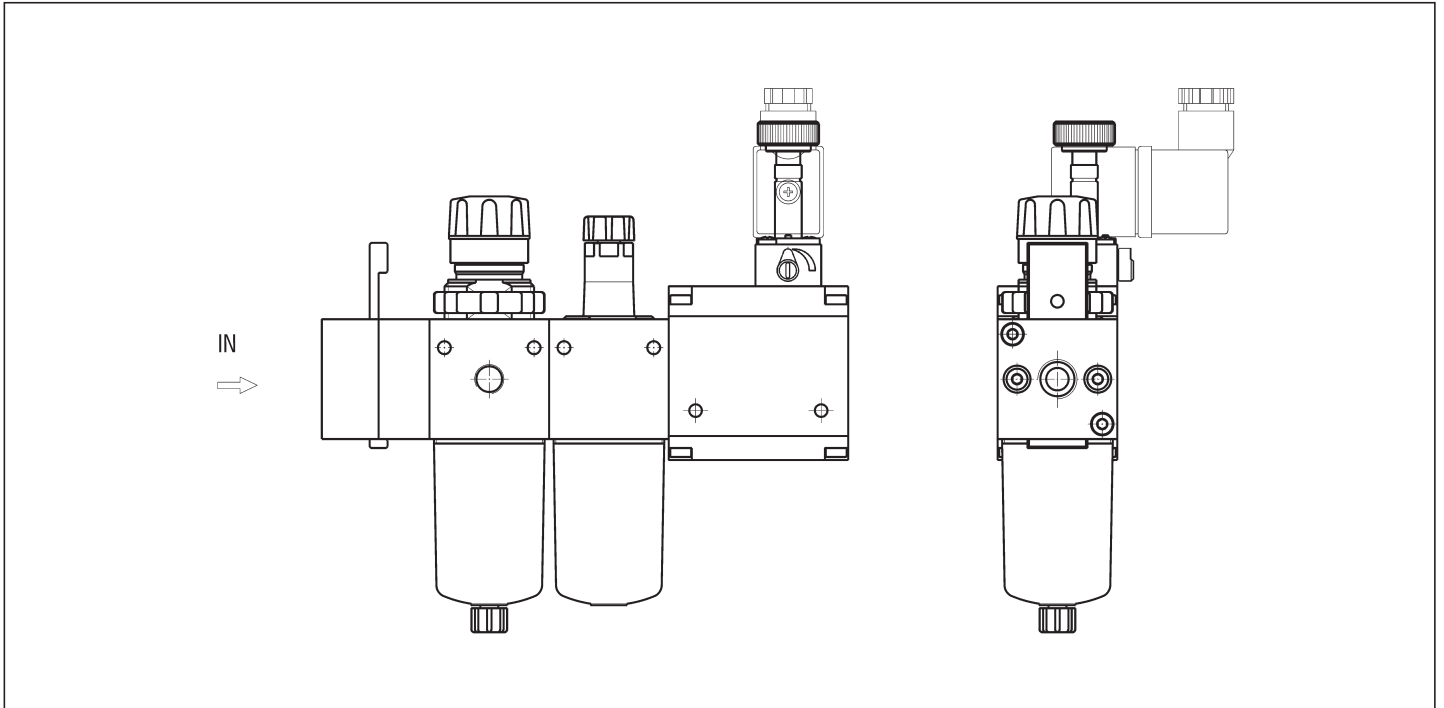
### ORDER KEY



SIZE			
8	G 1/8	4	G 1/4
DEGREE OF FILTRATION			
/5	5 μm	/20	20 μm
/40	40 μm		
ADJUSTING RANGE			
RR3	0,2 ÷ 2 bar	RR5	0,4 ÷ 4 bar
RR7	0,8 ÷ 9 bar	RR12	1,5 ÷ 12 bar
LUBRICATION			
L	Oil mist (standard)	LM	Micro-oil mist
BOWL			
	Trasparente	/PM	Metallic protection
/TM	Metallica		
CONDENSATE DRAINAGE SYSTEM			
	Manual	/SS	Semi-automatic

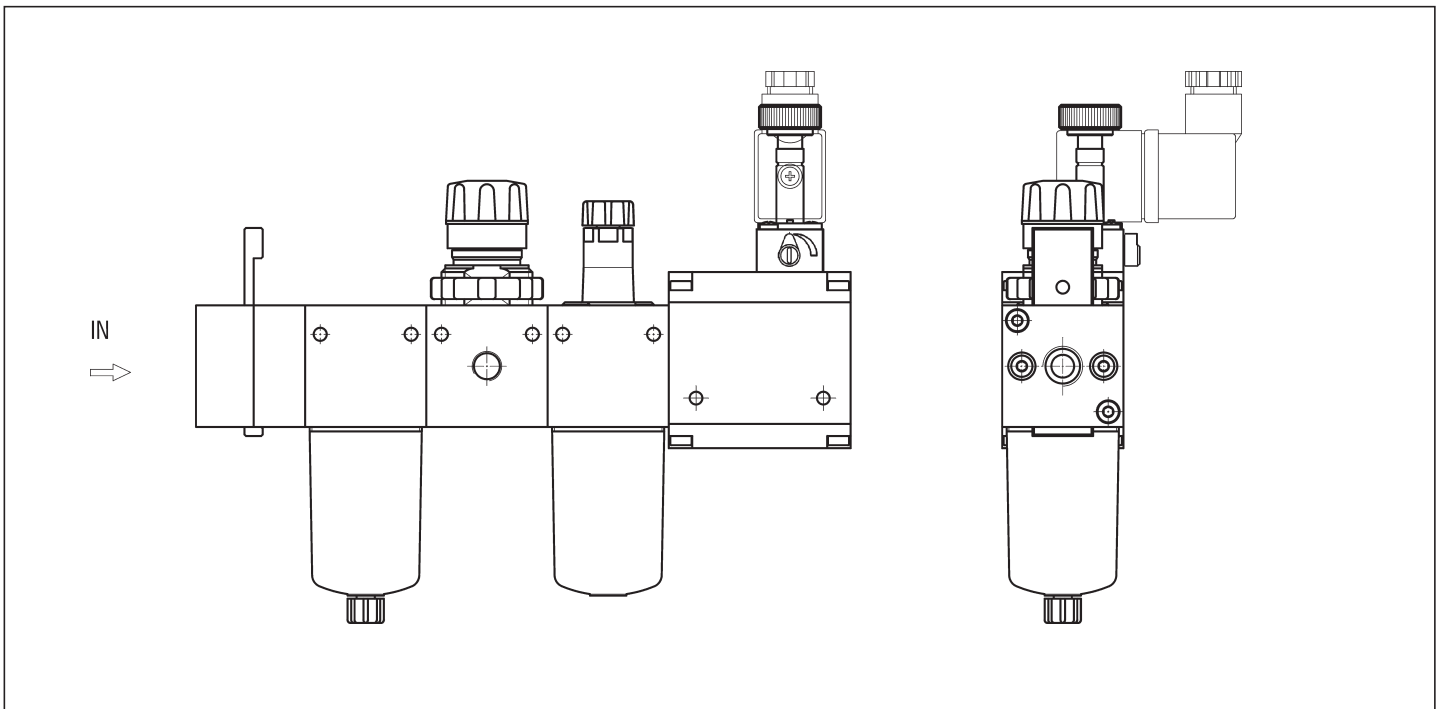
P.S.: Filters + reducers + lubricators can be supplied without the relieving seal on request; the adjusting range becomes "R" (rather than "RR")

SHUT-OFF VALVE + FILTER REDUCER + LUBRICATOR + SOFT-START VALVE



4

SHUT-OFF VALVE + FILTER + REDUCER + LUBRICATOR + SOFT-START VALVE

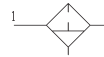


### DESCRIPTION

Filters series "EZF" are produced with connections G 3/8, G 1/2 and G 1; they are available with various degrees of filtration and with manual, semi-automatic or automatic condensate drainage system (except the size G 3/8). The techno-polymer bowls have a metallic protection as standard for the sizes G 1/2 and G 1, and made of glass stiffened polyamide on request for the size G 3/8.

### TECHNICAL DATA

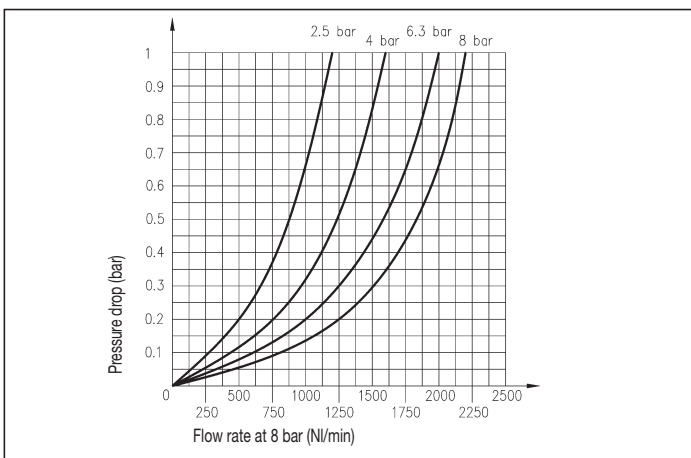
Maximum pressure	16 bar
Working temperature	0 ± +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 3/8 - G 1/2 - G 1
Void fraction	G 3/8 - G 1/2: 20 µm standard; 5 µm or 40 µm on request G 1: 40 µm standard
Condensate drainage system	G 3/8: Manual or semi-automatic G 1/2 - G 1: Manual, semi-automatic or automatic
Max. condensate capacity	G 3/8 = 23 cm <sup>3</sup> G 1/2 = 58 cm <sup>3</sup> G 1 = 105 cm <sup>3</sup> (do not exceed the level gauge)
Type of mounting	Modular, in-line and wall-mounting
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90



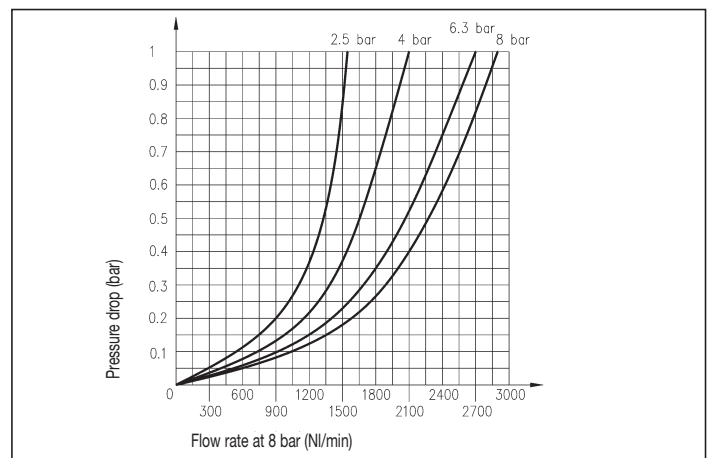
### MATERIALS

Body	Aluminium alloy
Bowl	G 3/8: Transparent techno-polymer (protection made of glass stiffened polyamide on request) G 1/2 - G 1: Transparent techno-polymer with metallic protection as standard
Filtering element	G 3/8 - G 1/2: Sintered polyethylene G 1: Sintered porous bronze
Seals	NBR rubber
Baffle	Acetal resin

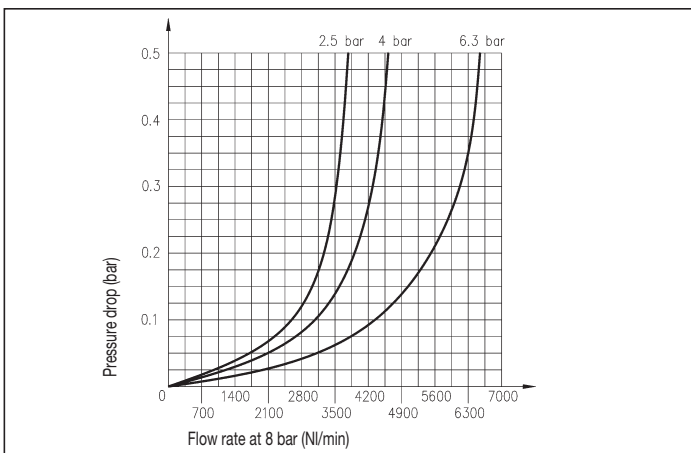
### FLOW CHART - EZF G 3/8



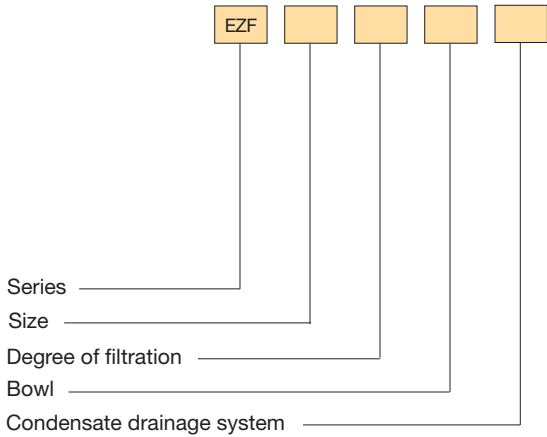
### FLOW CHART - EZF G 1/2



### FLOW CHART - EZF G 1



ORDER KEY



SIZE			
3	G 3/8	2	G 1/2
1	G 1		
DEGREE OF FILTRATION			
/5	5 µm*	/20	20 µm
/40	40 µm		
BOWL			
Transparent		PM	Protection**
CONDENSATE DRAINAGE SYSTEM			
/SM	Manual	/SS	Semi-automatic
/SA	Automatic***		

\* Available only for sizes 3 and 2

\*\* Metallic as standard for sizes 2 and 1, made of glass stiffened polyamide on request for size 3

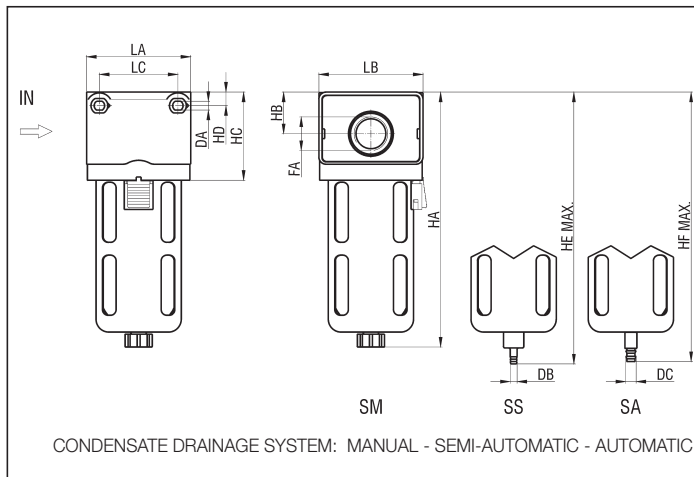
\*\*\* Available only for sizes 2 and 1

SPARE PARTS

DESCRIPTION	SIZE		
	3	2	1
Bowl protection	EZ3/PM	-	EZ1/PM
Techno-polymer bowl with manual drainage system*	EZT/F3/SM	EZT/F2/PM/SM	EZT/F1/SM
Techno-polymer bowl with semi-automatic drainage system*	EZT/F3/SS	EZT/F2/PM/SS	EZT/F1/SS
Techno-polymer bowl with automatic drainage system*	-	EZT/F2/PM/SA	EZT/F1/SA
Filter cartridge 5 µm	EZ3/5	EZ2/5	-
Filter cartridge 20 µm	EZ3/20	EZ2/20	EZ1/20
Filter cartridge 40 µm	EZ3/40	EZ2/40	EZ1/40

\* The bowls size 2 are supplied with metallic protection as standard

DIMENSIONS AND WEIGHTS EZF



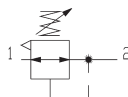
SIZE	DA	DB	DC	FA	HA	HB	HC	HD	HE	HF	LA	LB	LC	WEIGHT (g)
3	4,5	G 1/8	-	G 3/8	142	21	52	6	146	-	55	50	40	390
2	5,5	Ø 4,3	Ø 6,5	G 1/2	159	26	55	8,5	170	168	65	65	49	415
1	6,6	G 1/8	Ø 6,5	G 1	218	31	76	9	222	213	85	82	60	1815

### DESCRIPTION

Pressure reducers series "EZRR" are produced with connections G 3/8, G 1/2 and G 1; they are available with different scales of regulation and can be supplied without the relieving seal on request.

### TECHNICAL DATA

Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Filtered, lubricated and unlubricated compressed air
Port size	G 3/8 - G 1/2 - G1
Pressure gauge port size	G 1/8
Adjusting range (bar)	0,2 ÷ 2 - 0,4 ÷ 4 - 0,8 ÷ 8
Type of mounting	Modular, in-line, wall and panel mounting
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90

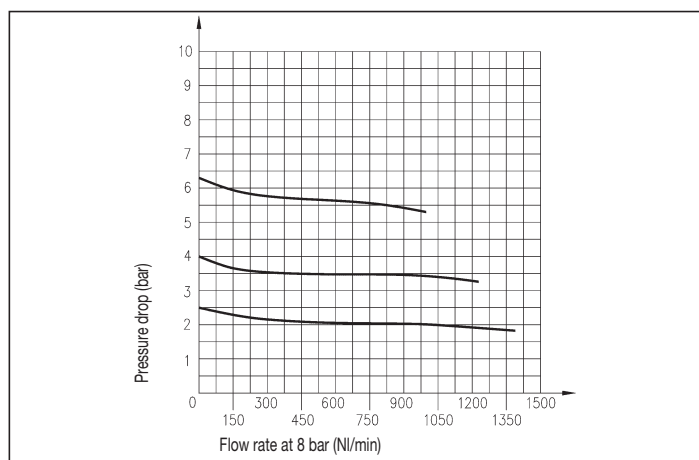


### MATERIALS

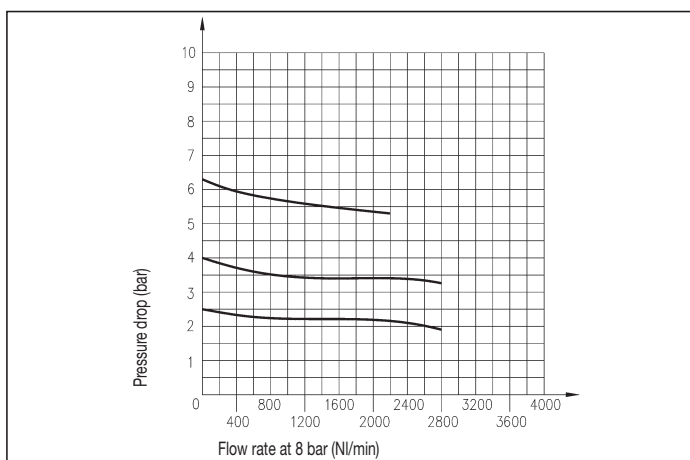
Body	Aluminium alloy
Closing plug	Brass, NBR rubber
Spring	Stainless steel
Knob	Acetal resin
Adjusting screw	Brass
Diaphragm	Brass, friction

4

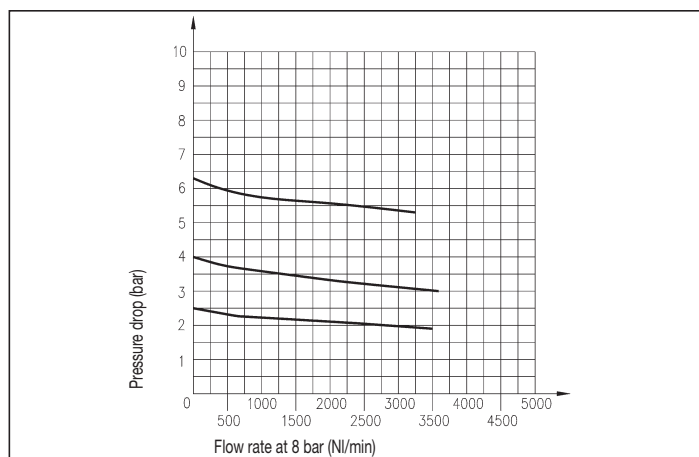
### FLOW CHART - EZRR G 3/8



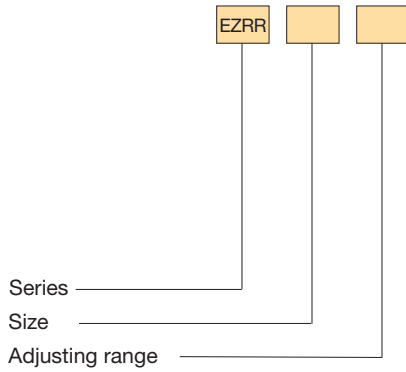
### FLOW CHART - EZRR G 1/2



### FLOW CHART - EZRR G 1



## ORDER KEY



## SIZE

3	G 3/8	2	G 1/2
1	G 1		

## ADJUSTING RANGE

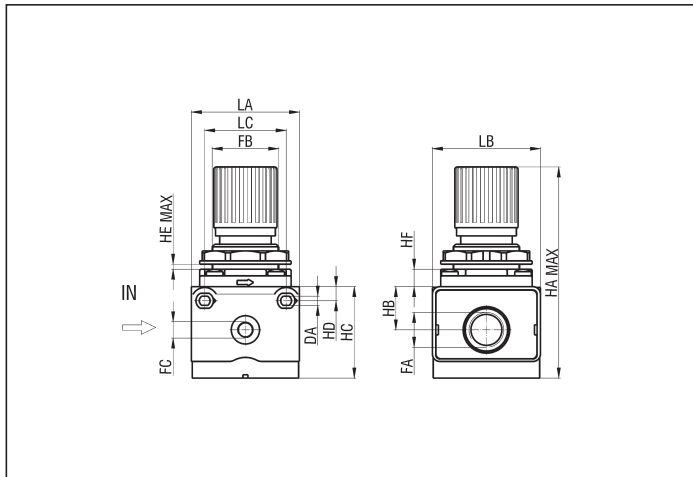
/3	0,2 ÷ 2 bar	/5	0,4 ÷ 4 bar
/7	0,8 ÷ 8 bar		

P.S.: Reducers can be supplied without the relieving seal on request; the series becomes "EZRR..."

## SPARE PARTS

Relieving kit adjustment size 3	EZRR3/SG/6
Relieving kit adjustment size 2	EZRR2/SG/6
Relieving kit adjustment size 1	EZRR1/SG/6

## DIMENSIONS AND WEIGHTS EZRR



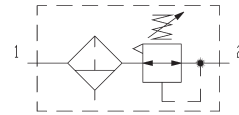
SIZE	DA	FA	FB	FC	HA	HB	HC	HD	HE	HF	LA	LB	LC	WEIGHT (g)
3	4,5	G 3/8	M30x1,5	G 1/8	99	21	48	6	4	6	55	50	40	450
2	5,5	G 1/2	M40x1,5	G 1/8	127	26	55	8,5	7	10,5	65	65	49	465
1	6,6	G 1	-	G 1/8	194,5	31	76	9	-	14	85	82	60	2385

### DESCRIPTION

Filters reducers series "EZRR/F", produced with connections G 3/8, G 1/2 and G 1, combine the characteristics of the filters and of the pressure reducers series "EZ", thus optimizing the overall dimensions.

### TECHNICAL DATA

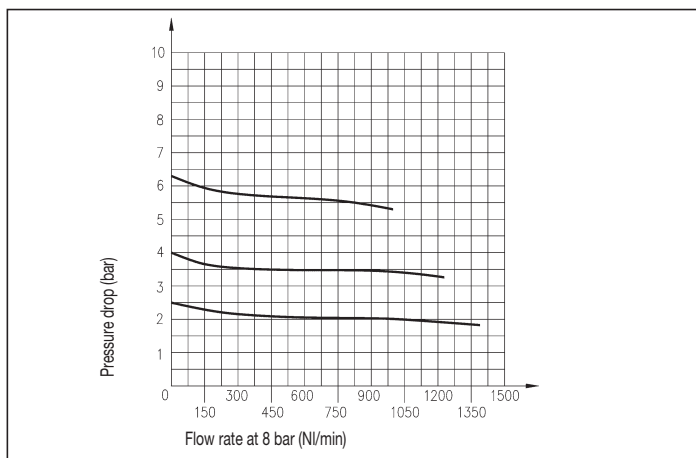
Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 3/8 - G 1/2 - G 1
Pressure gauge port size	G 1/8
Void fraction	G 3/8 - G 1/2: 20 µm standard, 5 µm and 40 µm on request G 1: 40 µm standard
Condensate drainage system	G 3/8: Manual or semi-automatic G 1/2 - G 1: Manual, semi-automatic or automatic
Max. condensate capacity	G 3/8 = 23 cm <sup>3</sup> G 1/2 = 58 cm <sup>3</sup> G 1 = 105 cm <sup>3</sup> (do not exceed the level gauge)
Adjusting range (bar)	0,2 ÷ 2 - 0,4 ÷ 4 - 0,8 ÷ 8
Type of mounting	Modular, in-line, wall and panel mounting
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90



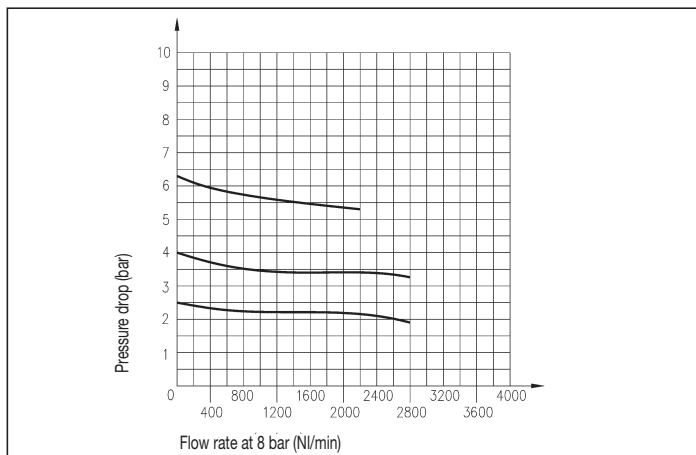
### MATERIALS

Body	Aluminium alloy
Bowl	G 3/8: Transparent techno-polymer (protection made of glass stiffened polyamide on request) G 1/2 - G 1: Transparent techno-polymer with metallic protection as standard
Filtering element	G 3/8 - G 1/2: Sintered polyethylene G 1: Sintered porous bronze
Seals	NBR rubber
Baffle	Acetal resin
Closing plug	Brass, NBR rubber
Spring	Stainless steel
Knob	Acetal resin
Adjusting screw	Brass
Diaphragm	Brass, friction

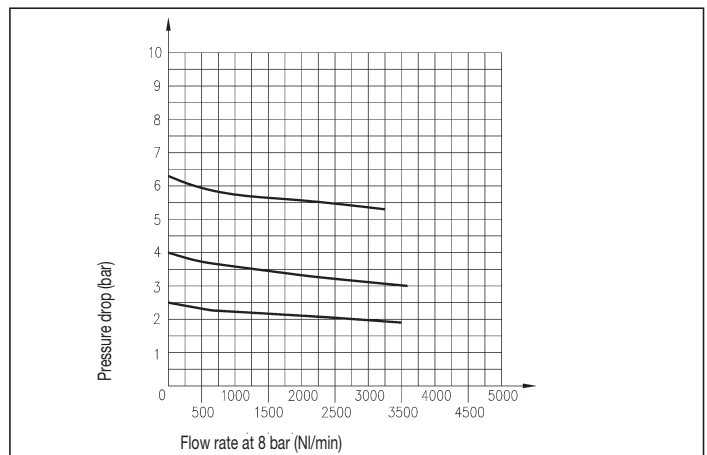
### FLOW CHART - EZRR /F G 3/8



### FLOW CHART - EZRR /F G 1/2

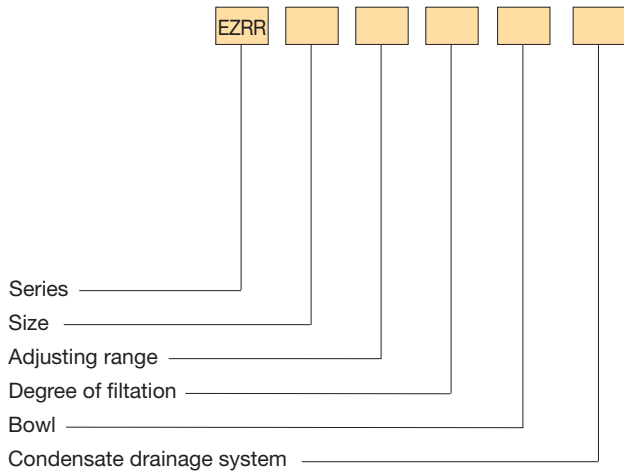


### FLOW CHART - EZRR /F G 1





ORDER KEY

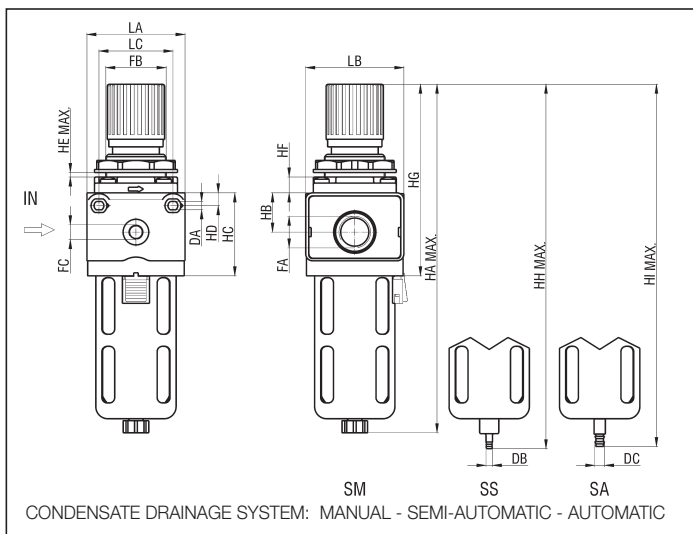


SIZE			
3	G 3/8	2	G 1/2
1	G 1		
ADJUSTING RANGE			
/3	0,2 ÷ 2 bar	/5	0,4 ÷ 4 bar
/7	0,8 ÷ 8 bar		
DEGREE OF FILTRATION			
F5	5 µm*	F20	20 µm
F40	40 µm		
BOWL			
	Trasparent	PM	Protection**
CONDENSATE DRAINAGE SYSTEM			
/SM	Manuale	/SS	Semi-automatic
/SA	Automatic***		

SPARE PARTS

See series "EZP" (on page 4.13) and "EZRR" (on page 4.15)

DIMENSIONS AND WEIGHTS EZRR /F



SIZE	DA	DB	DC	FA	FB	FC	HA	HB	HC	HD
3	4,5	G 1/8	-	G 3/8	M30x1,5	G 1/8	193	21	52	6
2	5,5	Ø 4,3	Ø 6,5	G 1/2	M40x1,5	G 1/8	231	26	55	8,5
1	6,6	G 1/8	Ø 6,5	G 1	-	G 1/8	337	31	76	9

SIZE	HE	HF	HG	HH	HI	LA	LB	LC	WEIGHT (g)
3	4	6	99	197	-	55	50	40	550
2	7	10,5	127	242	240	65	65	42	610
1	-	14	194,5	341	332	85	82	60	2790

\* Available only for sizes 3 and 2

\*\* Metallic as standard for sizes 2 and 1, made of glass stiffened polyamide on request for size 3

\*\*\* Available only for sizes 2 and 1

P.S.: Filters reducers can be supplied without the relieving seal on request; the series becomes "EZR..."

### DESCRIPTION

Lubricators series "EZL" are produced with connections G 3/8, G 1/2 and G 1; the techno-polymer bowls have a metallic protection as standard for the sizes G 1/2 and G 1, and made of glass stiffened polyamide on request for the size G 3/8.

For a correct lubrication it is advisable to set the drip rate in order to have a drop (WAIRSOL class ISO22) every 300 - 500 NI/min. (oil mist lubrication).

### TECHNICAL DATA

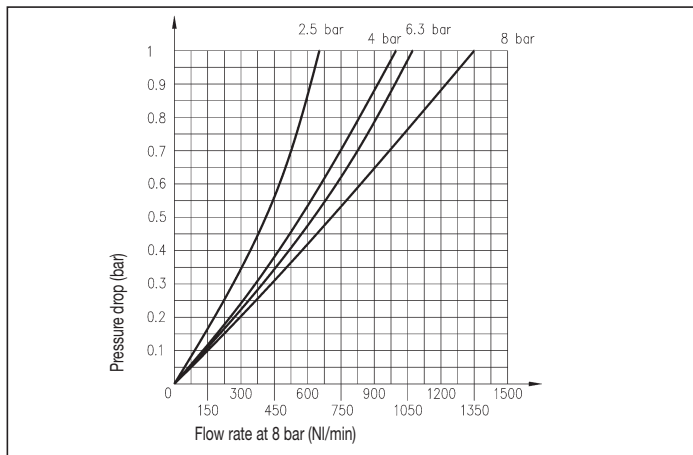
Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Filtered compressed air
Port size	G 3/8 - G 1/2 - G 1
Bowl capacity	G 3/8 = 32 cm <sup>3</sup> G 1/2 = 76 cm <sup>3</sup> G 1 = 160 cm <sup>3</sup> (do not exceed the level gauge)
Type of mounting	Modular, in-line and wall-mounting
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90
Minimum striking flow rate	G 3/8 = 25 NI/min G 1/2 = 25 NI/min G 1 = 50 NI/min



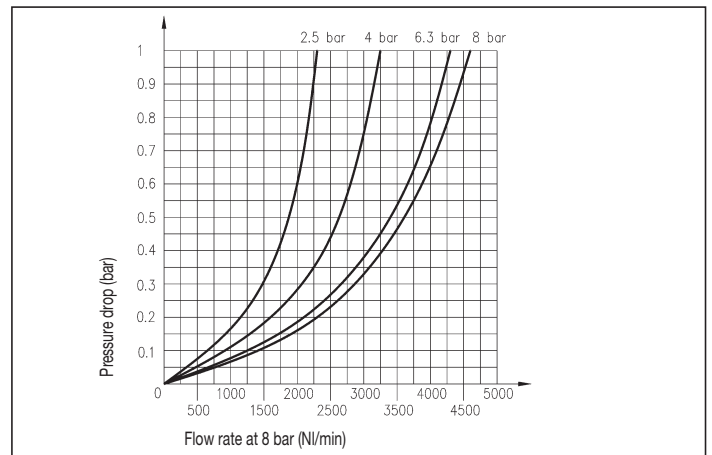
### MATERIALS

Body	Aluminium alloy
Bowl	G 3/8: Transparent techno-polymer (protection made of glass stiffened polyamide on request) G 1/2 - G 1: Transparent techno-polymer with metallic protection as standard
Seals	NBR rubber
Conduits	Acetal resin

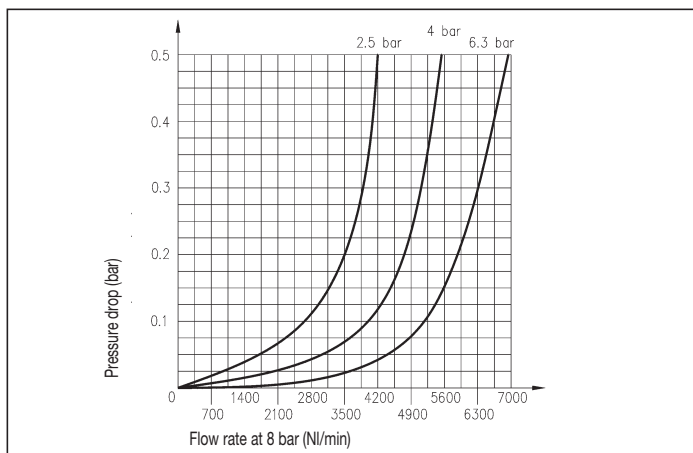
### FLOW CHART - EZL G 3/8



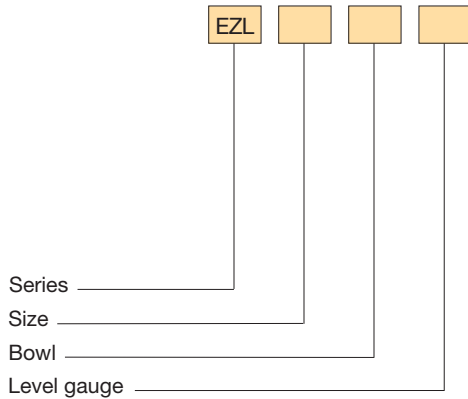
### FLOW CHART - EZL G 1/2



### FLOW CHART - EZL G 1



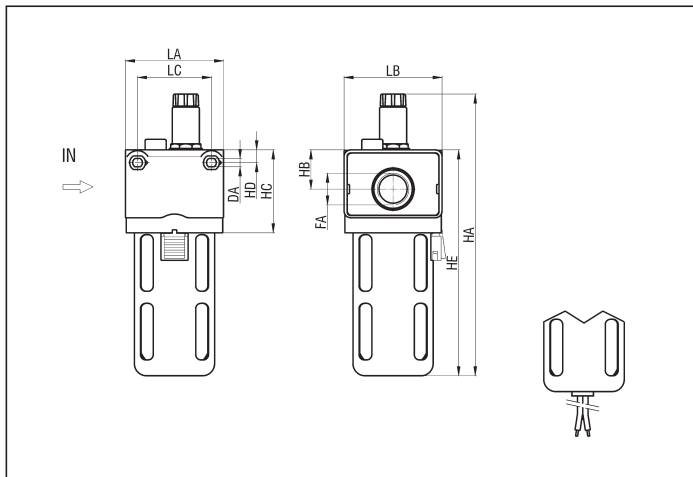
## ORDER KEY



SIZE			
3	G 3/8	2	G 1/2
1	G 1		
BOWL			
Transparent		PM	Protection*
LEVEL GAUGE			
/CA Open electric contact when oil is present with 2 wires cable 0,5 m length			
/CC Closed electric contact when oil is present with 2 wires cable 0,5 m length			

\* Metallic as standard for sizes 2 and 1, made of glass stiffened polyamide on request for size 3  
 P.S.: Level gauge, in both the open and closed electric contact, is fed with a voltage range from 6 V to 50 V

## DIMENSIONS AND WEIGHTS EZL



SIZE	DA	FA	HA	HB	HC	HD	HE	LA	LB	LC	WEIGHT (g)
3	4,5	G 3/8	157,5	21	52	6	121	55	50	40	370
2	5,5	G 1/2	186,7	26	55	8,5	149,7	65	65	49	400
1	6,6	G 1	243,5	31	76	9	201	85	82	60	1780

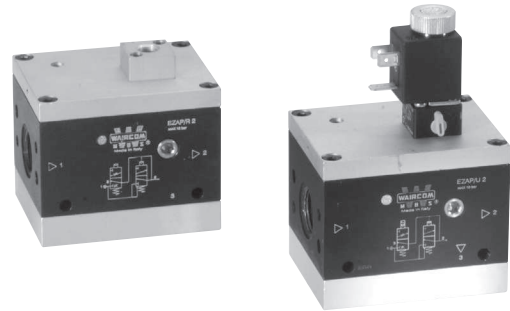
## SPARE PARTS

Lubricator bowl size 3	EZT/L3
Lubricator bowl size 2*	EZT/L2/PM
Lubricator bowl size 1	EZT/L1
Lubricator bowl for level gauge size 3	EZT/L3/SLC
Lubricator bowl for level gauge size 2*	EZT/L2/PM/SLC
Lubricator bowl for level gauge size 1	EZT/L1/SLC
Protection made of glass stiffened nylon size 3	EZ3/PM
Metallic protection size 1	EZ1/PM
Lubricator clear cover size 3	EZL3/C
Lubricator clear cover size 2	EZL2/C
Lubricator clear cover size 1	EZL1/C
Level gauge with open electric contact size 3	EZT/L3/SLA
Level gauge with open electric contact size 2*	EZT/L2/PM/SLA
Level gauge with open electric contact size 1	EZT/L1/SLA

\* Bowls size 2 are supplied with the metallic protection as standard

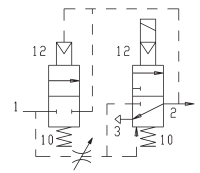
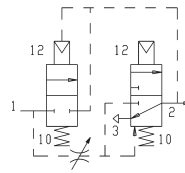
### DESCRIPTION

Soft - start valves series "EZAP" are produced with connections G 3/8, G 1/2 and G 1 in the pneumatic and solenoid actuated versions. The working of the soft-start valves consists in feeding gradually air into the circuit with adjustable flow. When the pressure in the circuit reaches the 50 ÷ 60% of the upstream set pressure, the valve switches to full capacity, supplying the circuit with the maximum flow rate.



### TECHNICAL DATA

Maximum pressure	10 bar
Working temperature	0 ÷ +50 °C (-10°C with dry air)
Fluid	Filtered, unlubricated or continuous lubricated compressed air
Port size	G 3/8 - G 1/2 - G 1
Flow rate at 6 bar ΔP=1 bar	G 3/8 = 1000 NI/min G 1/2 = 1650 NI/min G 1 = 4000 NI/min
Max. flow rate of the adjusting screw of the filling time	G 3/8 = 400 NI/min G 1/2 = 500 NI/min G 1 = 500 NI/min
Type of mounting	Modular, in-line and wall-mounting
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90
Piloting solenoid valve	C/USCSVP - see chapter Direct acting solenoid valves on page 2.11
Coil	USB - see chapter Coils on page 2.14
Electric connector	USR 102/N9 - see chapter Connectors on page 2.15



### MATERIALS

Body	Aluminium alloy
Springs	Stainless steel
Pistons	Aluminium alloy
Seals	NBR rubber

### ORDER KEY



Series \_\_\_\_\_  
Pilot system \_\_\_\_\_  
Size \_\_\_\_\_

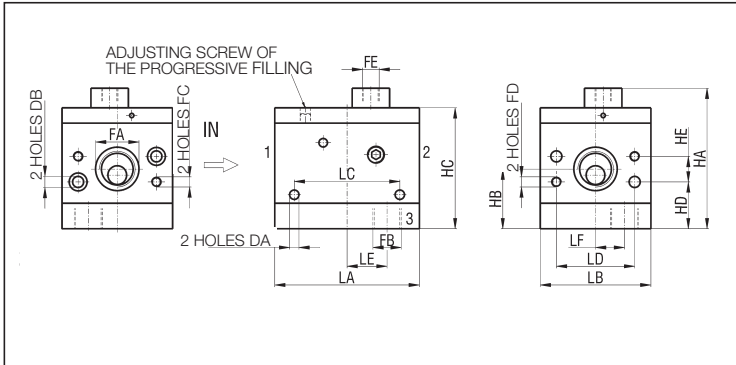
### PILOT SYSTEM

/R Pneumatic                      /U Solenoid

### SIZE

**3** G 3/8                                  **2** G 1/2  
**1** G 1

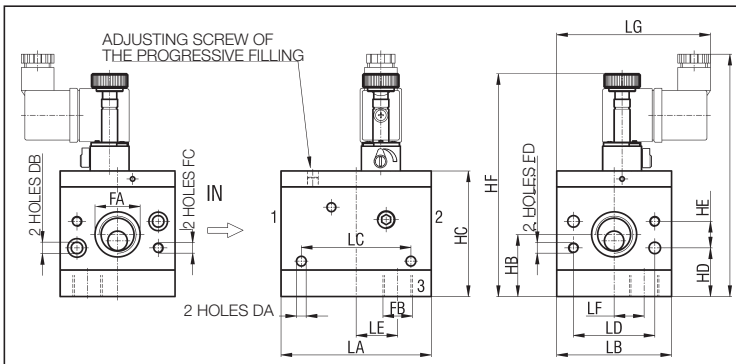
## DIMENSIONS AND WEIGHTS EZAP /R



SIZE	DA	DB	FA	FB	FC	FD	FE	HA	HB	HC
3	4,5	5,1	G 3/8	G 1/8	-	M6	G 1/8	68	28,8	56,5
2	5,5	6,5	G 1/2	G 3/8	M6	M6	G 1/8	82,5	35	71

SIZE	HD	HE	LA	LB	LC	LD	LE	LF	WEIGHT (g)
3	28,8	-	70	50	51,5	35	20	12	505
2	27,5	15	85	65	62	46	23,5	17	985

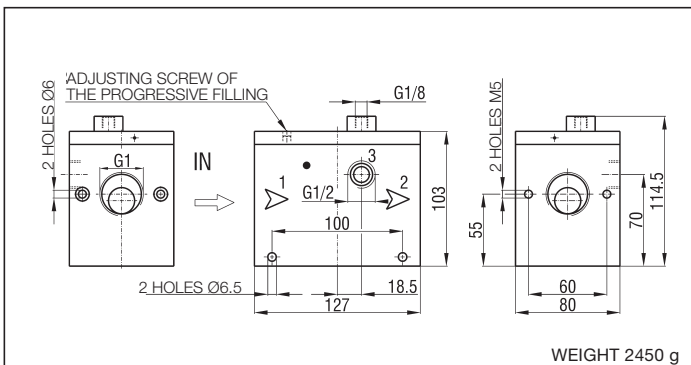
## DIMENSIONS AND WEIGHTS EZAP /U



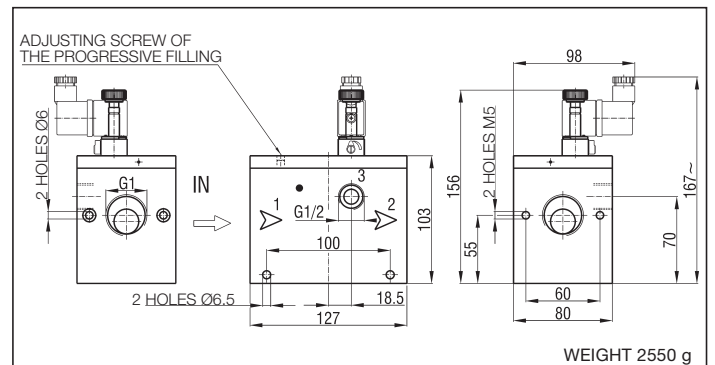
SIZE	DA	DB	FA	FB	FC	FD	HA	HB	HC	HD
3	4,5	5,1	G 3/8	G 1/8	-	M6	122,5	28,8	56,5	28,8
2	5,5	6,5	G 1/2	G 3/8	M6	M6	137	35	71	27,5

SIZE	HE	HF	LA	LB	LC	LD	LE	LF	LG	WEIGHT (g)
3	-	115,5	70	50	51,5	35	20	12	79,5	540
2	15	126	85	65	62	46	23,5	17	87	1020

## DIMENSIONS AND WEIGHTS EZAP /R1



## DIMENSIONS AND WEIGHTS EZAP /U1



### DESCRIPTION

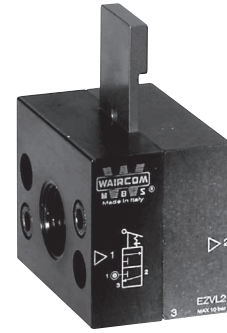
Shut-off valves series "EZVL" are produced with connections G 3/8, G 1/2 and G 1 and they are fit to be locked in the exhaust position by means of a standard padlock.

### TECHNICAL DATA

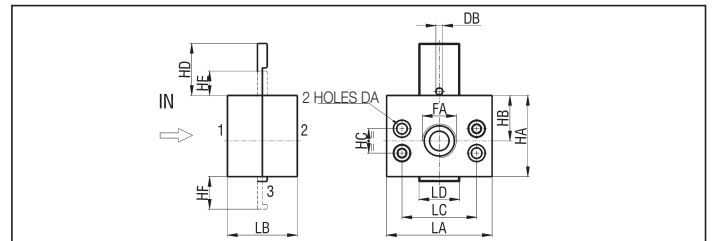
Maximum pressure	16 bar
Working temperature	0 ± +50 °C (-10 °C with dry air)
Fluid	Filtered, lubricated and unlubricated compressed air
Port size	G 3/8 - G 1/2 - G 1
Flow rate at 6 bar ΔP=1 bar	G 3/8 = 2400 NL/min G 1/2 = 3150 NL/min G 1/2 = 4250 NL/min
Type of mounting	Modular and in-line

### MATERIALS

Body	Anodized aluminium alloy
Seals	NBR rubber
Slider	Anodized aluminium alloy



### DIMENSIONS AND WEIGHTS EZVL

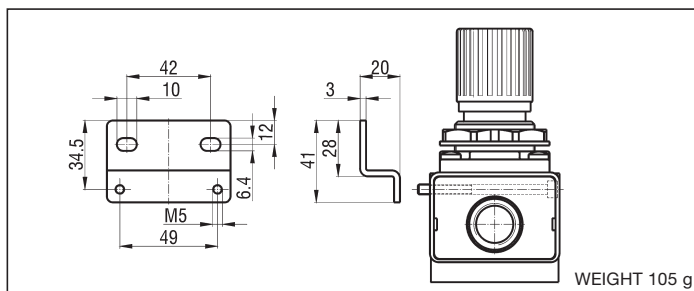


TYPE	DA	DB	FA	HA	HB	HC	HD	HE	HF	LA	LB	LC	LD	WEIGHT (g)
EZVL/3	5,5	4,2	G 3/8	50	25	-	36	15	21	50	39	35	25	260
EZVL/2	6,5	4,2	G 1/2	50	28	15	32	15	20	65	43	46	25	370
EZVL/1	6,1	4,2	G 1	60	30	-	34	15	22	80	60	60	25	700

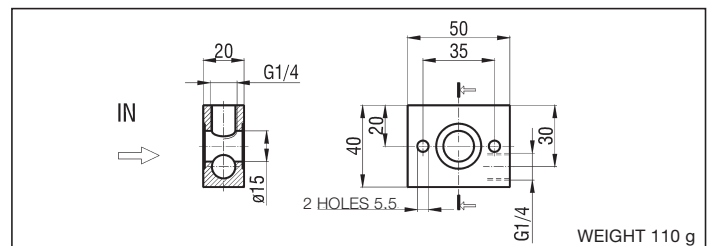
### ACCESSORIES

#### MOUNTING BRACKET G 3/8 - UZRHS (see drawing on page 4.8)

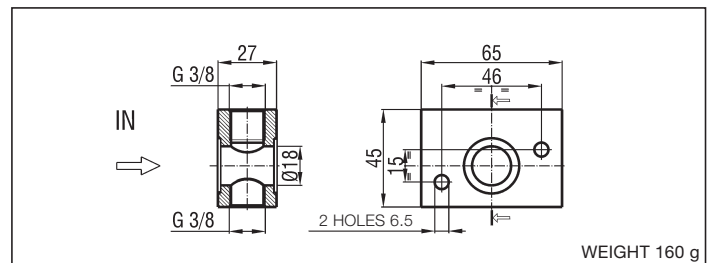
#### MOUNTING BRACKET G 1/2 - EZS2/3



#### INTERMEDIATE AIR INTAKE G 3/8 - EZPA3/3 (screws included)



#### INTERMEDIATE AIR INTAKE G 1/2 - EZPA2/3 (screws included)



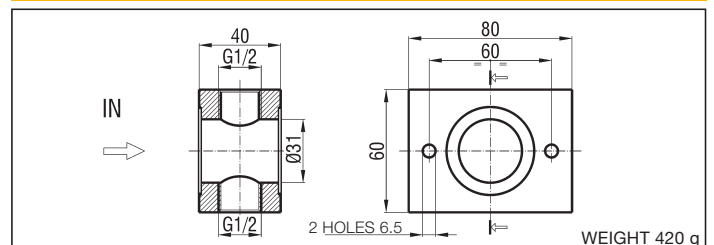
### ASSEMBLY SCREWS

DESCRIPTION	SIZE		
	3	2	1
Assembly screws F+R+L	EZ3/SVG	EZ2/SVG	EZ1/SVG
Assembly screws FR+L	EZ3/SVG/1	EZ2/SVG/1	EZ1/SVG/1
Assembly screws F+L	EZ3/SVG/2	EZ2/SVG/1	EZ1/SVG/2
Assembly screws FR+L+AP - R+L+AP	EZAP3/SVG	EZAP2/SVG	EZAP1/SVG
Assembly screws FR+AP - R+AP	EZAP3/SVG/1	EZAP2/SVG/1	EZAP1/SVG/1
Assembly screws VL+F+R	EZVL3/SVG	EZVL2/SVG	EZVL1/SVG
Assembly screws VL+FR - VL+R	EZVL3/SVG/1	EZVL2/SVG/1	EZVL1/SVG/1

### WALL CLAMPING SCREWS

DESCRIPTION	SIZE		
	3	2	1
Clamping screws F-FR-R-L-AP	EZ/SVG/P3	EZ/SVG/P2	EZ/SVG/P1

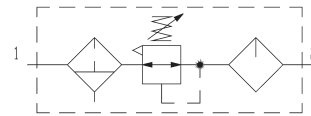
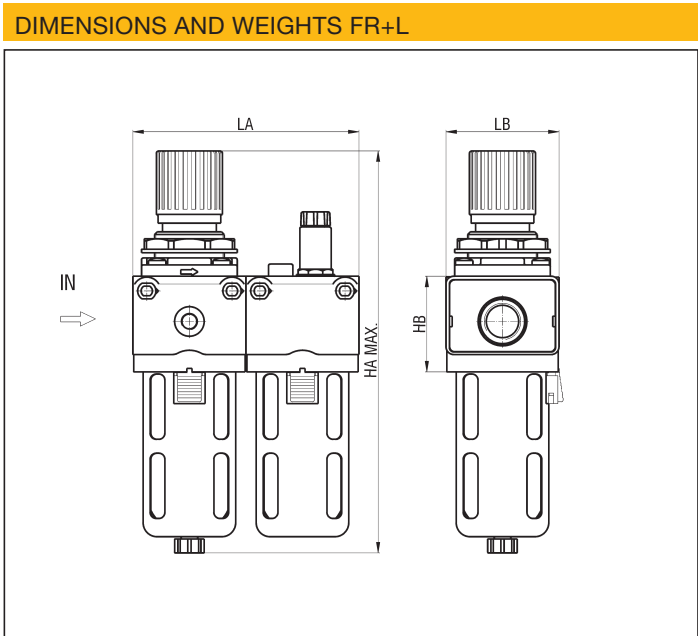
#### INTERMEDIATE AIR INTAKE G 1 - EZPA1/3 (screws included)



# Air treatment: filter reducer + lubricator G 3/8 - G 1/2 - G 1

# series EZ

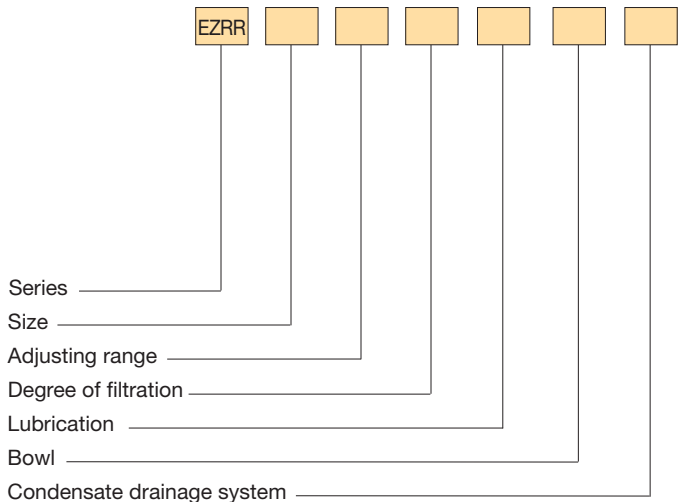
TECHNICAL DATA	
Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 3/8 - G 1/2 - G 1
Pressure gauge port size	G 1/8
Flow rate at 6 bar ΔP = 1 bar	G 3/8 = 680 NI/min G 1/2 = 1200 NI/min G 1/2 = 2300 NI/min
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90 1



4

SIZE	HA	HB	LA	LB	WEIGHT (g)
3	193	52	107	50	940
2	231	55	130	65	1065
1	337	76	167	82	4695

## ORDER KEY



SIZE	
3 G 3/8	2 G 1/2
1 G 1	
ADJUSTING RANGE	
/3 0,2 ÷ 2 bar	/5 0,4 ÷ 4 bar
/7 0,8 ÷ 8 bar	
DEGREE OF FILTRATION	
F5 5 μm*	F20 20 μm
F40 40 μm	
LUBRICATION	
L Oil mist (standard)	LCA Oil mist, N.O. electric contact
LCC Oil mist, N.C. electric contact	
BOWL	
Transparent	/PM Protection**
CONDENSATE DRAINAGE SYSTEM	
/SM Manual	/SS Semi-automatic
/SA Automatic***	

\* Available only for sizes 3 and 2  
 \*\* Metallic as standard for sizes 2 and 1, made of glass stiffened polyamide on request for size 3  
 \*\*\* Available only for sizes 2 and 1  
 P.S.: Filters reducers + lubricators can be supplied without the relieving seal on request; the series becomes "EZR..."

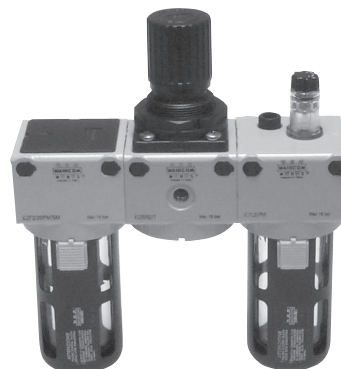
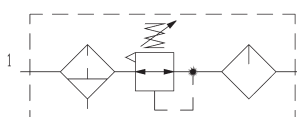
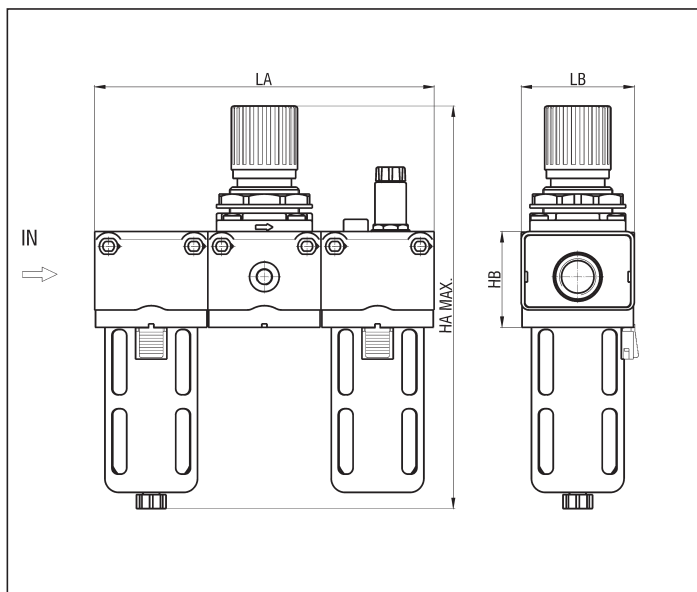
# series EZ

## Air treatment: filter + reducer + lubricator G 3/8 - G 1/2 - G 1

### TECHNICAL DATA

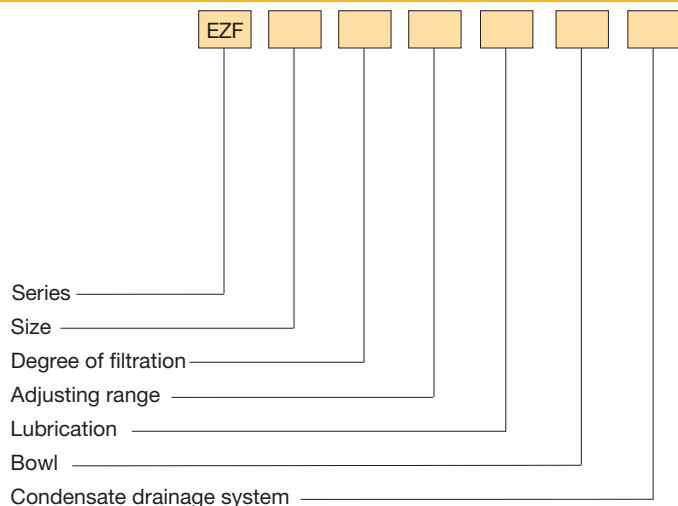
Maximum pressure	16 bar
Working temperature	0 ÷ +50 °C (-10 °C with dry air)
Fluid	Compressed air
Port size	G 3/8 - G 1/2 - G 1
Pressure gauge port size	G 1/8
Flow rate at 6 bar ΔP = 1 bar	G 3/8 = 680 NI/min G 1/2 = 1200 NI/min G 1 = 2300 NI/min
Wall clamping screws	G 3/8: M4x60 G 1/2: M5x70 G 1: M6x90

### DIMENSIONS AND WEIGHTS F+R+L



SIZE	HA	HB	LA	LB	WEIGHT (g)
3	193	52	159	50	1260
2	231	55	195	65	1345
1	337	76	249	82	6080

### ORDER KEY

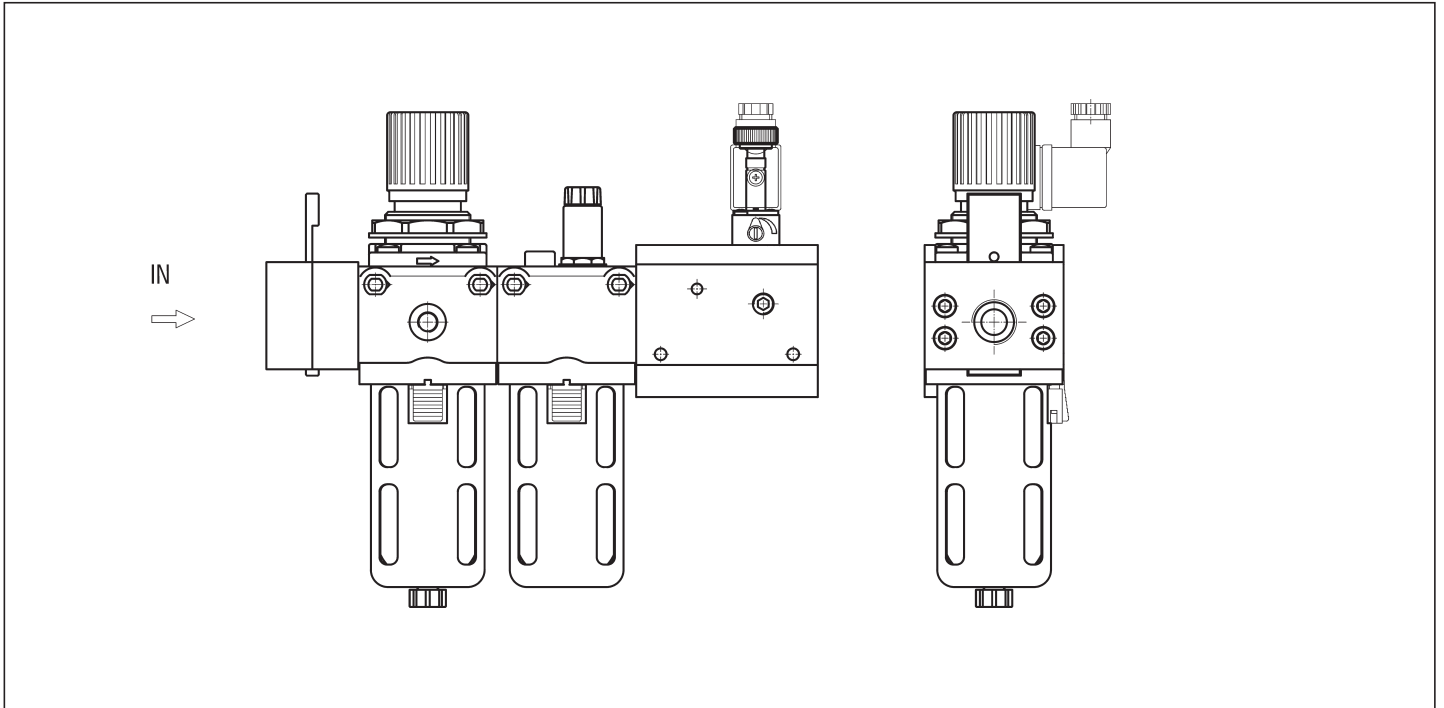


SIZE	
3 G 3/8	2 G 1/2
1 G 1	
DEGREE OF FILTRATION	
/5 5 μm*	/20 20 μm
/40 40 μm	
ADJUSTING RANGE	
RR3 0,2 ÷ 2 bar	RR5 0,4 ÷ 4 bar
RR7 0,8 ÷ 8 bar	
LUBRICATION	
L Oil mist (standard)	LCA Oil mist, N.O. electric contact
LCC Oil mist, N.C. electric contact	
BOWL	
Transparent	/PM Protection**
CONDENSATE DRAINAGE SYSTEM	
/SM Manual	/SS Semi-automatic
/SA Automatic***	

\* Available only for sizes 3 and 2  
 \*\* Metallic as standard for sizes 2 and 1, made of glass stiffened polyamide on request for size 3  
 \*\*\* Available only for sizes 2 and 1  
 P.S.: Filters + reducers + lubricators can be supplied without the relieving seal on request; the adjusting range becomes "R" (rather than "RR")

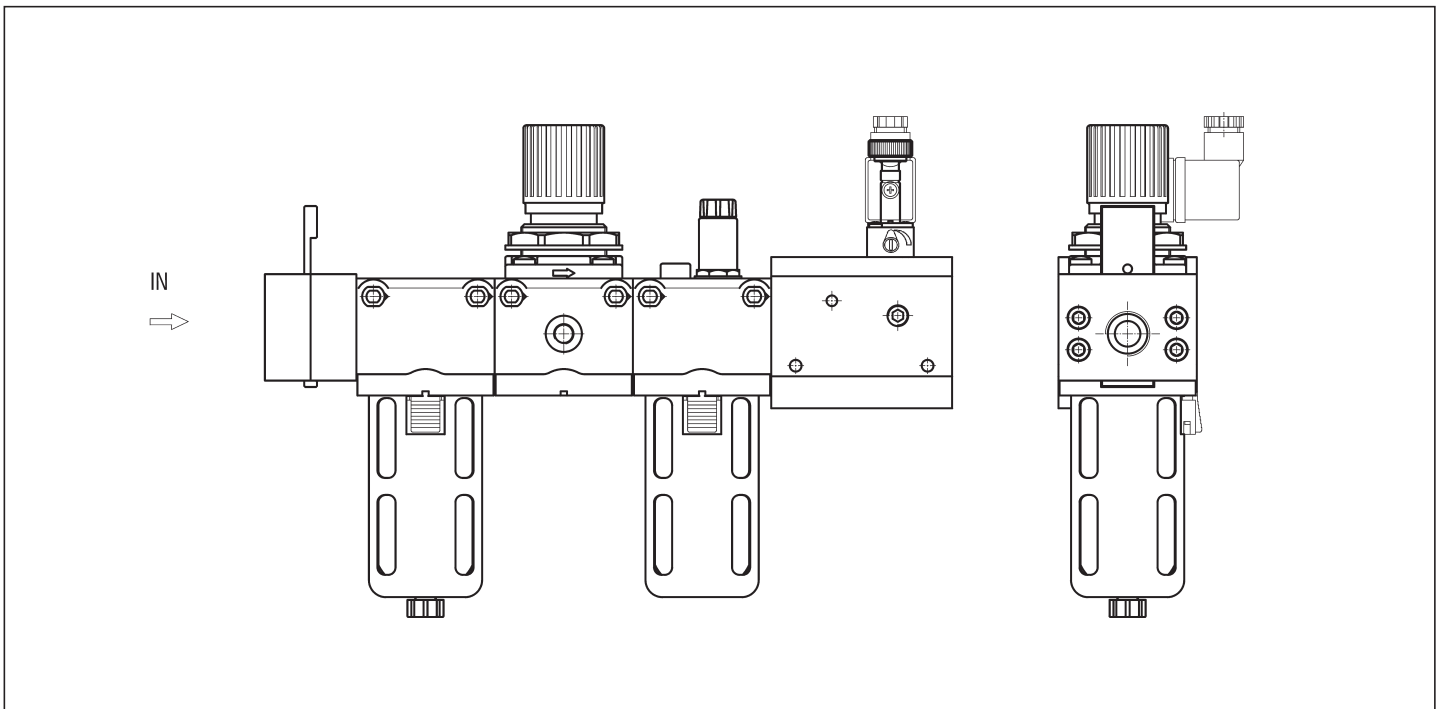


SHUT-OFF VALVE + FILTER REDUCER + LUBRICATOR + SOFT-START VALVE



4

SHUT-OFF VALVE + FILTER + REDUCER + LUBRICATOR + SOFT-START VALVE



### DESCRIPTION

Pressure gauges allow sensing the pressure in the pneumatic circuits. They are suitable to be applied directly on the pressure regulator or for panel mounting and they are available in the versions: axial (MA), radial (MR), with flange (MF) and with bracket (MP), in the bore 40 - 50 - 63 - 100 - 63 - 100.



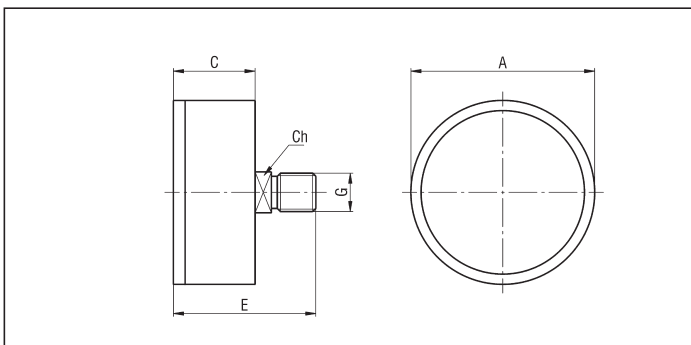
### TECHNICAL DATA

Operating pressure	0 ÷ 1 bar - 0 ÷ 4 bar - 0 ÷ 6 bar - 0 ÷ 12 bar
Working temperature	0 ÷ +70 °C (-20 °C with dry air)
Fluid	Filtered, unlubricated or continuous lubricated compressed air
Accuracy	Cl. 1.6 (DIN 16005 EN 837-1)
Dial	Ø 40 - 50 - 63 - 100
Port size	G 1/8 - G 1/4
Fixing	Type MA - Direct axial mounting Type MR - Direct radial mounting Type MF - Panel mounting with flange Type MP - Panel mounting with bracket

### MATERIALS

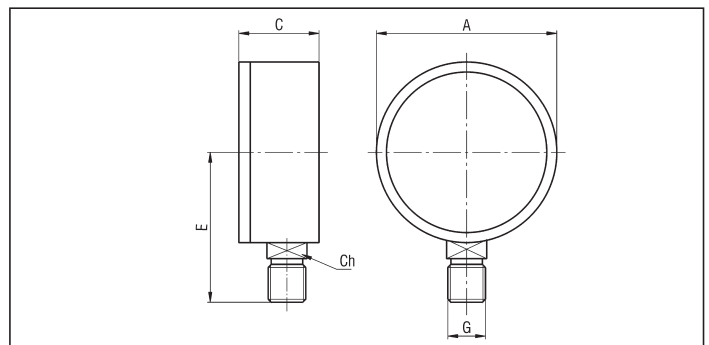
Case	Type MA - Black ABS Type MR - Black ABS Type MF - Black painted steel Type MP - Galvanized steel
Gauge crystal	Kostil
Port	Brass
Spring	Copper
Movement	Brass
Dial	White ABS

### AXIAL GAUGES TYPE MA



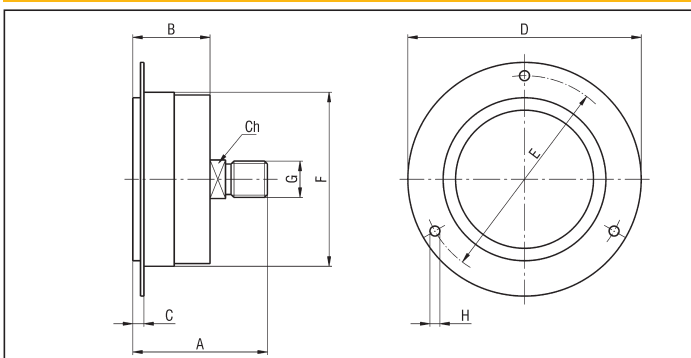
G	A	C	Ch	E	TYPE				WEIGHT (g)
					0 ÷ 1 bar	0 ÷ 4 bar	0 ÷ 6 bar	0 ÷ 12 bar	
G 1/8	40	24	12	40	MA 4/1	MA 4/4	MA 4/6	MA 4/12	48
G 1/8	52	28	14	52	MA 5/1	MA 5/4	MA 5/6	MA 5/12	75
G 1/4	63	29,5	14	54	MA 6/1	MA 6/4	MA 6/6	MA 6/12	90
G 3/8	100	36	17	65	-	-	-	MA 10/12	230

### RADIAL GAUGES TYPE MR



G	A	C	Ch	E	TYPE				WEIGHT (g)
					0 ÷ 1 bar	0 ÷ 4 bar	0 ÷ 6 bar	0 ÷ 12 bar	
G 1/8	40	24	12	37	MR 4/1	MR 4/4	MR 4/6	MR 4/12	42
G 1/8	51	28	14	48	MR 5/1	MR 5/4	MR 5/6	MR 5/12	68
G 1/4	63	29,5	14	54	MR 6/1	MR 6/4	MR 6/6	MR 6/12	84
G 3/8	100	36	17	78	-	-	-	MR 10/12	230

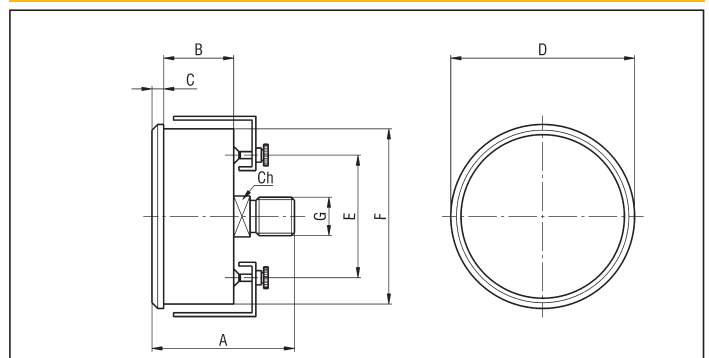
### AXIAL GAUGES WITH FLANGE TYPE MF



G	A	B	C	Ch	D	E	F	H
G 1/8	40,5	25,5	4	11	61	51	40,5	3,6
G 1/8	45	29	4	14	74,5	60	52,5	3,6
G 1/4	46,5	30	5,5	14	84,7	75	63,7	3,6
G 3/8	61	30	5	17	132	118	100,5	6

G	D	TYPE				WEIGHT (g)
		0 ÷ 1 bar	0 ÷ 4 bar	0 ÷ 6 bar	0 ÷ 12 bar	
G 1/8	61	MF 4/1	MF 4/4	MF 4/6	MF 4/12	82
G 1/8	74,5	MF 5/1	MF 5/4	MF 5/6	MF 5/12	120
G 1/4	84,7	MF 6/1	MF 6/4	MF 6/6	MF 6/12	150
G 3/8	132	-	-	-	MF 10/12	250

### AXIAL GAUGES WITH BRACKET TYPE MP



G	A	B	C	Ch	D	E	F
G 1/8	43	21	5	12	43	28	39
G 1/8	46	23	6	14	55,5	35	49
G 1/4	48	23	6	14	63,8	43	59

G	D	TYPE				WEIGHT (g)
		0 ÷ 1 bar	0 ÷ 4 bar	0 ÷ 6 bar	0 ÷ 12 bar	
G 1/8	43	MP 4/1	MP 4/4	MP 4/6	MP 4/12	82
G 1/8	55,5	MP 5/1	MP 5/4	MP 5/6	MP 5/12	120
G 1/4	63,8	MP 6/1	MP 6/4	MP 6/6	MP 6/12	150

## DIGITAL/ANALOG PRESSURE SWITCH SERIES PRDA

This series of switches has been expressly designed for the pressure detection of a wide range of fluids with elevate accuracy and resolution. This series has both digital and/or analog outputs and an integrated display with a frontal interface including three buttons to programme different functions (all described in the documentation that goes with the item) among which:

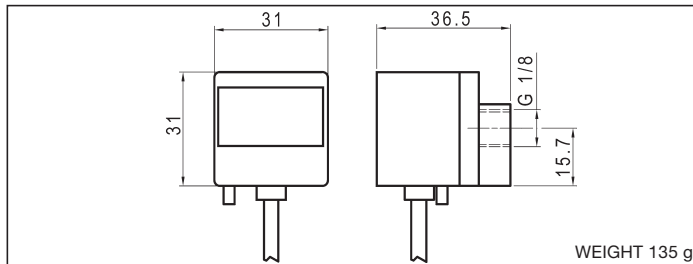
- setting the unit of measurement of the pressure;
- managing the outputs No.1 and No.2, depending on the set pressures.

This pressure switch, thanks to the very compact dimensions and to the 3 1/2 digit led display, is a very versatile item and suitable for the majority of the applications with not corrosive and incombustible gases, and with air. It is supplied completed with front protection cover and panel mounting system type SFPR.

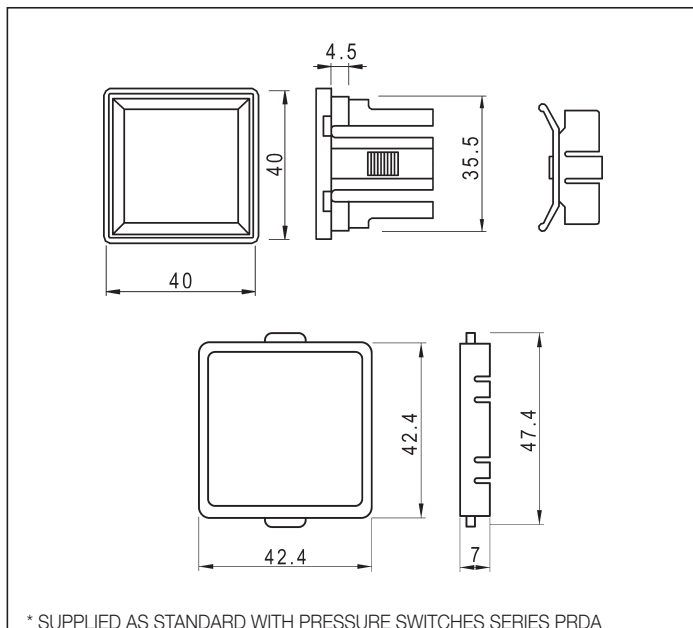
### TECHNICAL DATA

Working temperature	0 ÷ +50 °C
Operating/setting pressure	-1 ÷ 10 bar (0 ÷ 10 bar recommended)
Power supply voltage	12 ÷ 24 V DC, ripple (P-P) 10% or less
Fluid	air; not corrosive and incombustible gases
Max. load current	80 mA
Average current consumption	55 mA
Protection class	IP 50
Response time	< 2.5 ms
Display accuracy	< ± 2% F.S. ± 1 digit with ambient temperature of 25 ± 3 °C
Analog output	1 ÷ 5 V < ± 2.5%
Linearity analog output	± 1% F.S.
Display resolution	3 1/2 digit 7 segments LED (sampling frequency: 5 Hz)
Switch output	PNP; (NPN on request)
Unit of measurement	kPa, MPa, Bar, Psi
Hysteresis	Manually adjustable between the 1 to 10% of the rated pressure, or automatically arranged approximately to the 3% F.S.

### DIMENSIONS AND WEIGHT PRDA



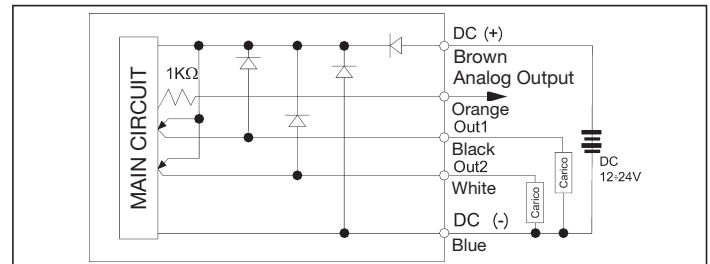
### PROTECTION COVER AND PANEL MOUNTING SYSTEM SFPR\*



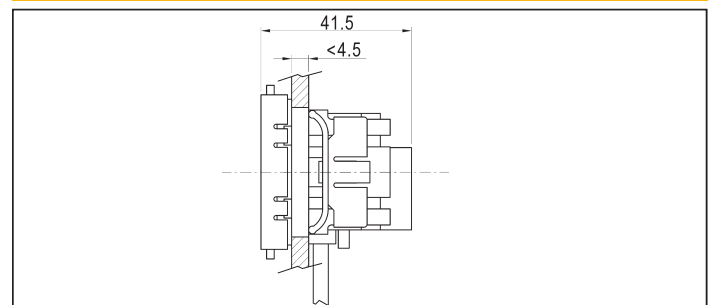
### MATERIALS

Parts in contact with measured fluid	Carbon steel
Lead wire	5-conductors oil-proof cable
Electric connections	Brown: DC + Blue: DC - Black: OUT 1 White: OUT 2 Orange: Analog output

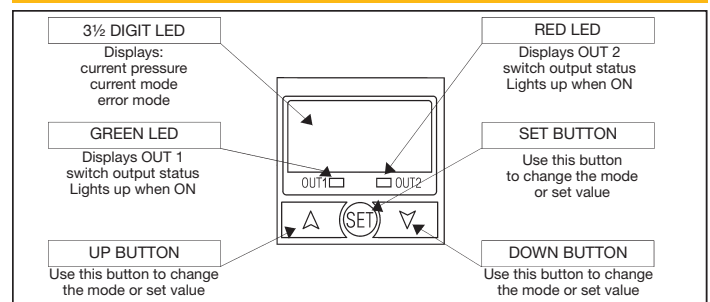
### INTERNAL CIRCUIT AND WIRING PNP



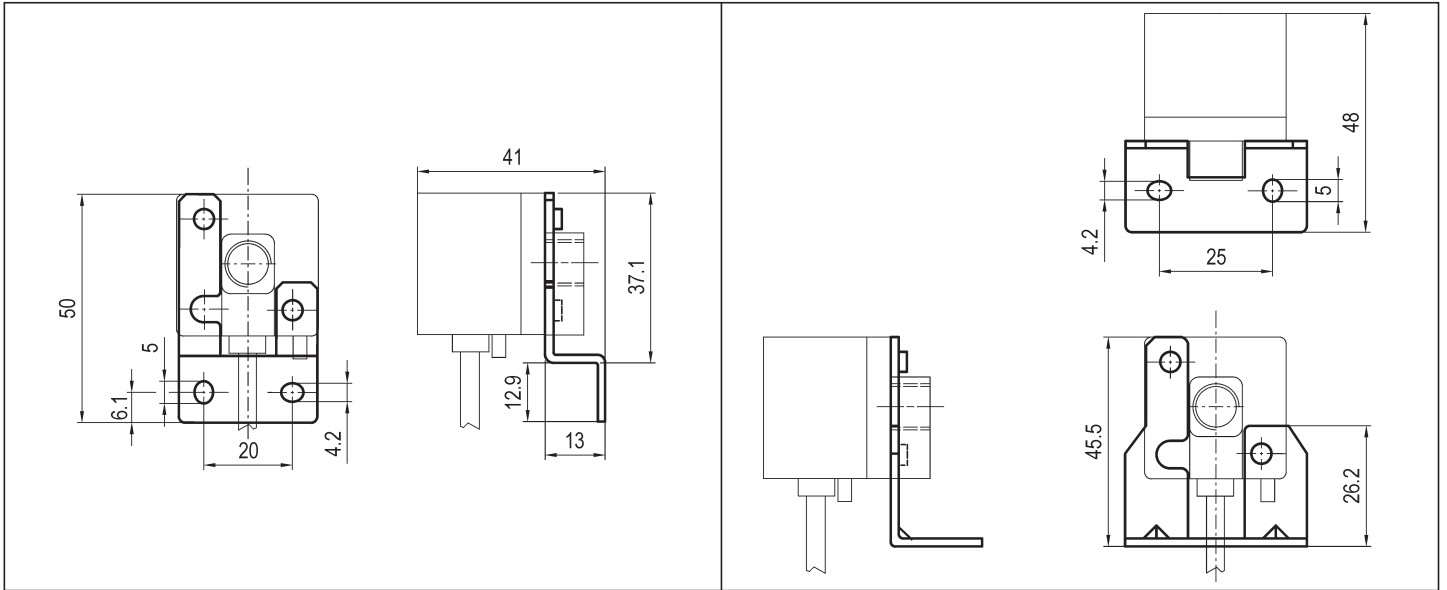
### TOTAL DIMENSIONS WITH SFPR



### FRONTAL INTERFACE PRDA



### FIXING BRACKETS STPR (pair)



### DIAPHRAGM PRESSURE SWITCH SERIES PRC-PRA

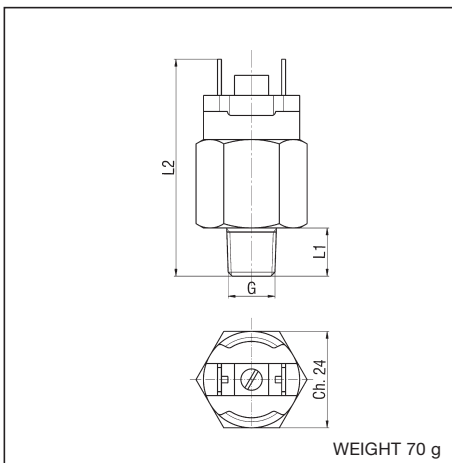
#### TECHNICAL DATA

Max. switched voltage	48 V AC - DC
Max. switched current	0,5 A
Max. fluid temperature	80 ÷ 120 °C
Adjusting range	1 ÷ 10 bar
Static overpressure	80 bar
Tolerance at 20°C	0,5
Max. number of insertions	200 per minute

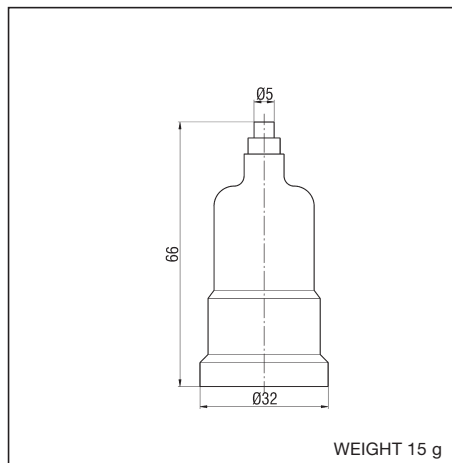
#### MATERIALS

Body	Brass
Diaphragm	FPM (Viton®)
Fixed contact	Silver
Moving contact	Phosphorous bronze with silver contact

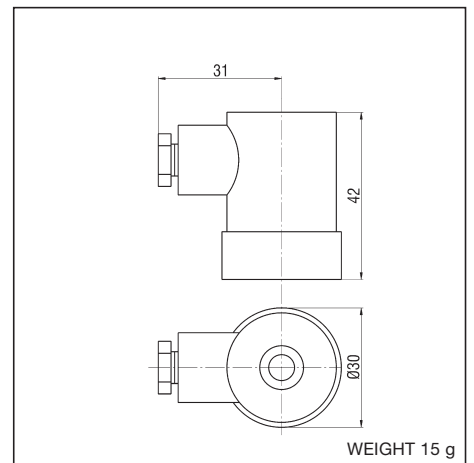
#### PRC - PRA



#### CONNECTOR (protection class IP54) - CN/PR54



#### CONNECTOR (protection class IP65) - CN/PR65



Symbol N.C.	Size	L1	L2	TYPE
	G 1/8	10	51	PRC8
	G 1/4	12	53	PRC4

Symbol N.O.	Size	L1	L2	TYPE
	G 1/8	10	51	PRA8
	G 1/4	12	53	PRA4

## CONTACTS EXCHANGE PRESSURE SWITCH SERIES PRCA

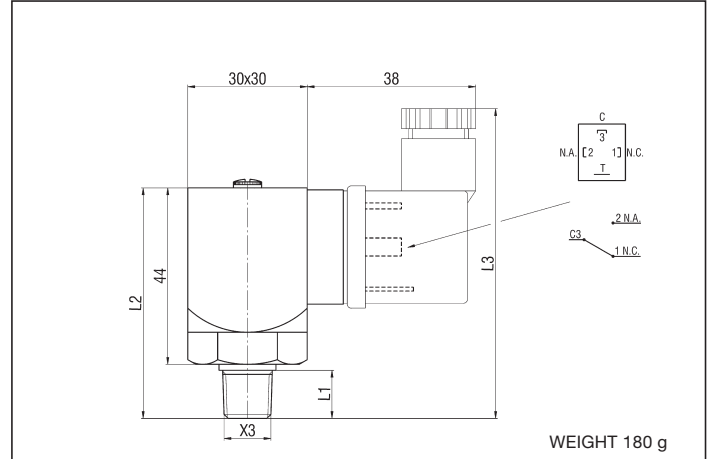
### TECHNICAL DATA

Max. switched voltage	250 V AC - DC
Max. switched current	5 A
Max. fluid temperature	100 °C
Protection class	IP 65
Adjusting range	0,5 ÷ 10 bar
Static overpressure	150 bar
Tolerance at 20°C	0,2
Differential	15 - 30% of setting value
Max. number of insertion	200 per minute
Connector (included)	ULR4P

### MATERIALS

Body	Passivated steel
Electric box	Anodized aluminium alloy
Diaphragm	FPM (Viton®)

### PRCA



Symbol N.C. / N.O.	Size	L1	L2	L3	TYPE*
	G 1/8	10	56	74	PRCA8
	G 1/4	12	53	76	PRCA4

\* These switches can rotate of 360°