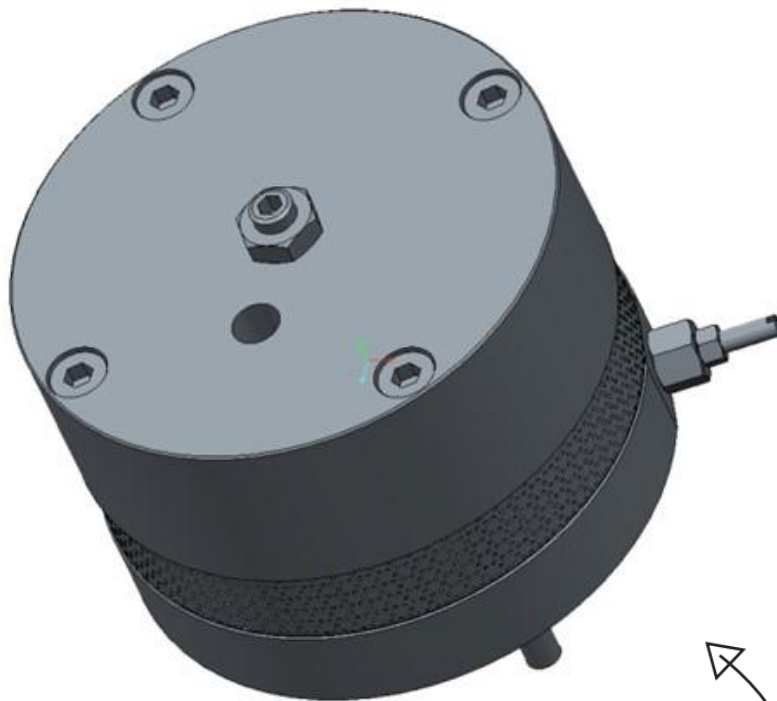


CSQ

INTEGRAL QUICK EXHAUST VALVE

INSTRUCTION MANUAL 2098



Engineering
GREAT Solutions

29/10/2025	04	Added “ADDENDUM 1: ADDITIONAL SAFETY PRECAUTIONS” – Rev.00. Removed chapter “CERTIFICATION”. Added note for exhaust connections facing down.			D.Pasini R.Valoti
05/10/2022	03	Added dust certifications table 7 and IECEx label section 4.1			M.Oberti N.Zenoni
31/01/2022	02	Revised			M.Oberti N.Zenoni
Date	Revision	Description			Compiled Approved

IMI STI S.r.l has taken every care in collecting and verifying the documentation contained in this Instruction Manual. The information herein contained are reserved property of IMI STI S.r.l

INDEX

1	GENERAL INFORMATION	4
1.1	GENERAL WARNING	4
1.2	GENERALITIES.....	4
1.3	MANUFACTURER.....	4
1.4	TERMS AND CONDITIONS.....	4
1.5	MANUFACTURER'S LIABILITY.....	5
1.6	APPLICABLE STANDARDS AND DIRECTIVES.....	5
1.7	SYMBOLGY USED	6
1.8	SIGNS OF WARNING	6
1.9	SIGNS OF OBLIGATION	6
2	DEVICE DESCRIPTION	7
2.1	GENERAL DESCRIPTION	7
2.2	MODEL SELECTION	8
3	TECHNICAL DATA	10
4	USER PROCEDURES	11
4.1	TRANSPORT.....	11
4.2	RECEPTION.....	11
4.3	STORAGE.....	11
4.4	INSTALLATION.....	12
4.5	CHECKS TO BE PERFORMED BEFORE INSTALLATION	12
4.6	DIMENSIONAL DRAWING	12
4.7	PNEUMATIC CONNECTIONS	12
4.8	EARTHING CONNECTIONS	13
4.9	DISASSEMBLING	13
5	OPERATION AND USE.....	14
5.1	OPERATION DESCRIPTION	14
5.2	PRODUCT TYPE 40	14
5.3	PRODUCT TYPE 41	17
5.4	PRODUCT TYPE 42	20
5.5	PRODUCT TYPE 43	23
5.6	PRODUCT TYPE 44	26
5.7	PRODUCT TYPE 45	29
5.8	PRODUCT TYPE 46	31
5.9	PRODUCT TYPE 47	33
5.10	PRODUCT TYPE 48	35

5.11	PRODUCT TYPE 49	37
5.12	PRODUCT TYPE 50	39
5.13	PRODUCT TYPE 51	42
5.14	PRODUCT TYPE 52	45
5.15	PRODUCT TYPE 53	47
5.16	PRODUCT TYPE 54	50
5.17	INTENDED USE.....	52
5.18	REASONABLY FORSESEEABLE MISUSE	52
5.19	OPERATING LIMITS.....	52
5.20	RESIDUAL RISKS.....	52
6	INSTRUCTION FOR THE OPERATOR	53
7	MAINTENANCE.....	54
7.1	PERIODIC INSPECTIONS	54
7.2	SPECIAL MAINTENANCE	54
7.3	REPAIRS	54
8	TROUBLESHOOTING.....	55
9	DECOMISSIONING.....	56
	ADDENDUM 1: ADDITIONAL SAFETY PRECAUTIONS	57

1 GENERAL INFORMATION

1.1 GENERAL WARNING



This Instruction Manual is an integral part of the machine, it should be carefully read before carrying out any operation and it should be kept for future references. The operators shall adopt the safety precautions required by the country where the product is installed.

1.2 GENERALITIES

IMI STI products are conceived, manufactured and controlled according to the Quality Control System in compliance with EN ISO 9001 International Standard.

1.3 MANUFACTURER

According to Machinery Directive 2006/42/EC, the Manufacturer of the described product is IMI STI.

IMI STI, Via Dei Caravaggi 15
24040 Levate, Bergamo, Italy
Tel. +39 035 29282
Fax +39 035 2928247
imisti.sales@imi-critical.com
sti.support@imi-critical.com

1.4 TERMS AND CONDITIONS

IMI STI guarantees each single product to be without defects and to be conform to current goods specifications. Unless otherwise stated on the purchased order, the warranty period is one year from the date of installation by the user, or eighteen months from the date of shipment to the first user, whichever occurs first, and considering that:

- the warranty does not cover products which have been subject to improper storage, improper installation, misuse, corrosion, or which have been modified or repaired by unauthorised personnel (it is not advisable that customer or end users modify the device characteristics);
- the warranty does not cover special products or components not covered by warranty in their turn by subcontractors.

1.5 MANUFACTURER'S LIABILITY

IMI STI declines all liability in the event of:

- the use of the product does not comply with local legislation on safety at work;
- disregard or incorrect application of the instructions provided on the product label and/or in the instruction manual;
- incorrect installation and/or use of the product;
- modifications without STI's authorisation and/or work done on the unit by unqualified or unsuitable persons.

1.6 APPLICABLE STANDARDS AND DIRECTIVES

2006/42/EC	Machinery Directive
2014/68/EU	Pressure Equipment Directive (PED)
EN ISO 80079-36	Explosive atmospheres. Non-electrical equipment for explosive atmospheres. Basic method and requirements
EN ISO 80079-37	Explosive atmospheres. Non-electrical equipment for explosive atmospheres. Non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k"
EN ISO 12100	Safety of machinery. General principles for design. Risk assessment and risk reduction
EN 60079-0	Explosive atmospheres - Part 0: Equipment - General requirements
EN 1127-1	Explosive atmospheres - Explosion prevention and explosion protection - Part 1
EN ISO 9001	Quality Management Systems. Requirements

Table 1

This product is designed in accordance with the applicable International Standards and Directives, but the following regulations must be observed in any case:

- general and safety regulations;
- plant specific regulations and requirements;
- proper use of personal devices, protective devices (glasses, clothing, gloves, etc), tools and transport equipment.

1.7 SYMBOLOGY USED

1.8 SIGNS OF WARNING

Be careful where the following symbols are shown. They indicate a potentially hazardous situation and they warn that if the steps are not properly performed, they may cause serious injury, death or long term risks to health of exposed persons.

		
General Danger	Crushing hazard	Power supply hazard

Table 2

1.9 SIGNS OF OBLIGATION

Be careful where the following symbols are shown. They indicate an obligation that must be respected.

					
General obligation	Obligation to wear protective clothing.	Obligation to wear protective footwear.	Obligation to wear a helmet.	Obligation to protect your eyes.	Obligation to protect your hearing.

Table 3

2 DEVICE DESCRIPTION

2.1 GENERAL DESCRIPTION

CSQ Quick Exhaust Valve is a specific device used in conjunction with solenoid valves or positioners whenever a quick opening and/or closing function is required. It increases the speed of the actuator without hunting as the air to be discharged from the actuator is exhausted to the atmosphere directly from the large derivative unit outlet and not through the positioner. Whenever a very high actuator speed is required, two derivative units can be installed in parallel on the same line.

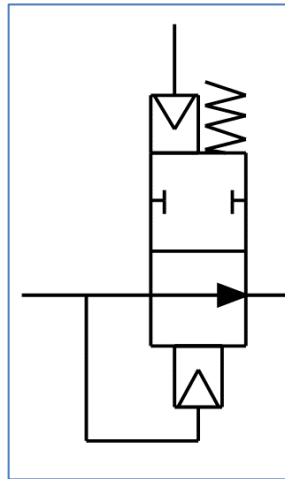


Figure 1

2.2 MODEL SELECTION

CSQ	-	S	-	M	-	P	-	T	-	C	-	O
-----	---	---	---	---	---	---	---	---	---	---	---	---

S - SIZE

040	Diameter 40mm
060	Diameter 60mm
100	Diameter 100mm
160	Diameter 160mm

M - MATERIAL

S0	Stainless Steel SS316
S1	Stainless Steel SS316 (Copper Free Execution)
A0	Aluminum
A1	Aluminum (Copper Free Execution)

P - PAINTING

00	Not Painted
01	Standard Painting Cycle (CVA.01)
99	Customized Painting

T - TEMPERATURE RANGE

H	-20°C / +85°C
S	-20°C / +70°C
L	-40°C / +70°C
E	-55°C / +70°C
U	-60°C / +100°C

C - CONNECTIONS

2TT	Pilot / Actuator / Exhaust
2TW	Pilot / Actuator / Exhaust
2XX	Pilot / Actuator / Exhaust
2XW	Pilot / Actuator / Exhaust
4YY	Pilot / Actuator / Exhaust
6ZZ	Pilot / Actuator / Exhaust

O - OPTIONS

SC	Standard Flow Bypass / Collected Exhaust
SA	Standard Flow Bypass / Free Exhaust
LC	Low Flow Bypass / Collected Exhaust
LA	Low Flow Bypass / Free Exhaust

Table 4

Below is the legend regarding the model selection relating to the "C - CONNECTIONS" section

Legend NPT/GAS		Legend HOLES	
1	1/8	A	0mm
2	1/4	B	0mm-5mm
3	3/8	C	12mm-17mm
4	1/2	E	21mm-25mm
5	3/4	G	26mm-31mm
6	1	M	33mm-34mm
7	1 1/4	P	Plug-in
8	1 1/2	T	40mm-45mm
9	2	V	46mm
		W	54mm-56mm
		X	56,1mm-62mm
		Y	69mm-100mm
		Z	160mm-270mm

Table 5



Not all product configurations are available.
For a better product selection, please contact imisti.sales@imi-critical.com or sti.support@imi-critical.com
For existing model see par. 6

3 TECHNICAL DATA

SIZE	40mm 60mm 100mm 160mm
BODY MATERIAL	Stainless steel 316 Alluminium
EXTERNAL PAINTING	Not painted Standard cycle painting (CVA.01) OPTION CUSTOMIZED PAINTING
EXTERNAL SURFACE TREATMENT	Anodized
GASKET MATERIAL	Nbr Viton Fluorosilicone
WORKING PRESSURE p min [Bar]	2,5
WORKING PRESSURE p max [Bar]	10,5
DESIGN PRESSURE p des [Bar]	12
WORKING TEMPERATURE T min [°C]	-20
WORKING TEMPERATURE T max [°C]	+85
EXTENDED TEMPERATURE T min [°C]	-60
EXTENDED TEMPERATURE T max [°C]	+100
STORAGE TEMPERATURE T min [°C]	-40
STORAGE TEMPERATURE T max [°C]	+95
PILOT PNEUMATIC CONNECTIONS	1/4" 1/2" 1"
ACTUATOR 1 PNEUMATIC CONNECTIONS	40mm-45mm 56,1mm-62mm 69mm-100mm 160mm-270mm
EXHAUST PNEUMATIC CONNECTIONS	40mm-45mm 54mm-56mm 56,1mm-62mm 69mm-100mm 160mm-270mm
GREASE	-
THREAD LOCKER	-
ADHESIVE	-
FLUID	Air
CV OUT MAX	50 113 314 >314
CV BYPASS MAX	-
INTERNATIONAL PROTECTION (IP)	-
LIFETIME	30 years

Table 6

- Tubing with diameter equal to 8mm or 3/8" are recommended as pilot tubing;
- Tubing with diameter greater than the product thread connection size are recommended as supply and exhaust tubing;

4 USER PROCEDURES



Not performing the following procedures will invalidate the product warranty

4.1 TRANSPORT



Always wear protective clothing, gloves, and eyewear to prevent personal injury. The lifting and handling shall be made by qualified staff and in compliance with the laws and valid provisions.

4.2 RECEPTION

Check if the model corresponds with the one reported on the purchase order and if no defects are visible on the product. Product related documents are furnished with documents accompanying the machinery where the product is mounted on. If the product is sold alone, contact IMI STI or download the documentation from IMI STI web site.

4.3 STORAGE

To maintain the product in perfect condition, proper attention must be observed to preserve the product during the storage period. Remember to:

- place the product on a wood surface pallet or on metallic support, avoiding direct contact with the ground;
- protect the product with appropriate covering;
- make sure that plastic plugs are present on the pneumatic connections. If stored outdoor, replace plastic plugs with metal plugs that guarantee perfect tightness;
- keep the product protected from weather conditions.

4.4 INSTALLATION



Always wear protective clothing, gloves, and eyewear to prevent personal injury. Check with your process or safety engineer for any additional measures that must be taken to protect against process media.

4.5 CHECKS TO BE PERFORMED BEFORE INSTALLATION

To allow a correct installation of the product, verify that the product outer surface is free from dust and dirt; if not, clean it and remove anything that might prevent a correct installation. Then, check if the coupling dimensions meet the specified ones and prepare all the necessary tools for the assembly and setting of the unit.

4.6 DIMENSIONAL DRAWING

For dimensional drawing, section and spare parts, see [chapter 5.0](#)

4.7 PNEUMATIC CONNECTIONS



Check that the supply pressure are lower than the product design pressure. Use appropriate pipes and fittings (type, rating, material and dimensions). The connection shall be made by qualified staff.

To guarantee the best performances, follow the

- properly deburr the ends of rigid pipes;
- properly clean the interior of pipes sending through them plenty of the supply fluid used in the system;
- mould and fasten the connection pipes in order to avoid overstress on the connection parts and to avoid loosening of the threaded connections;
- use the recommended quantity of pipe sealant, only on male threads (no-hardening sealant is strongly recommended);
- make the connections according to the machinery (i.e. actuator) pneumatic diagram;
- check that no leakage occurs from pneumatic connections. If necessary, tighten the fittings;
- collect tubing as indicated in the technical data table.
- It is recommended that, when possible, the accessory is mounted with exhaust connections facing down.

4.8 EARTHING CONNECTIONS

The earthing connection is guaranteed through the product fixing screws on the machinery and/or through the pneumatic fittings. If, for any reason, no earthing connection is guaranteed, ensure it by connect the product (or the machinery where the product is mounted) to earth.

4.9 DISASSEMBLING



Before starting any disassembly operations, it is mandatory to disconnect the pneumatic power and exhaust the product (no fluid under pressure inside the product, fittings, tubing).

The staff must be qualified for the required operation.

5 OPERATION AND USE



It is severely forbidden to use the product for purpose or application other than those for which it was designed and here above specified.

The product contains fluid under pressure: be careful when using it.

5.1 OPERATION DESCRIPTION

In the following paragraphs you will find information regarding the dimensional drawings, part list and the list with all the models currently available for each type of accessory with the relative spare parts.

5.2 PRODUCT TYPE 40

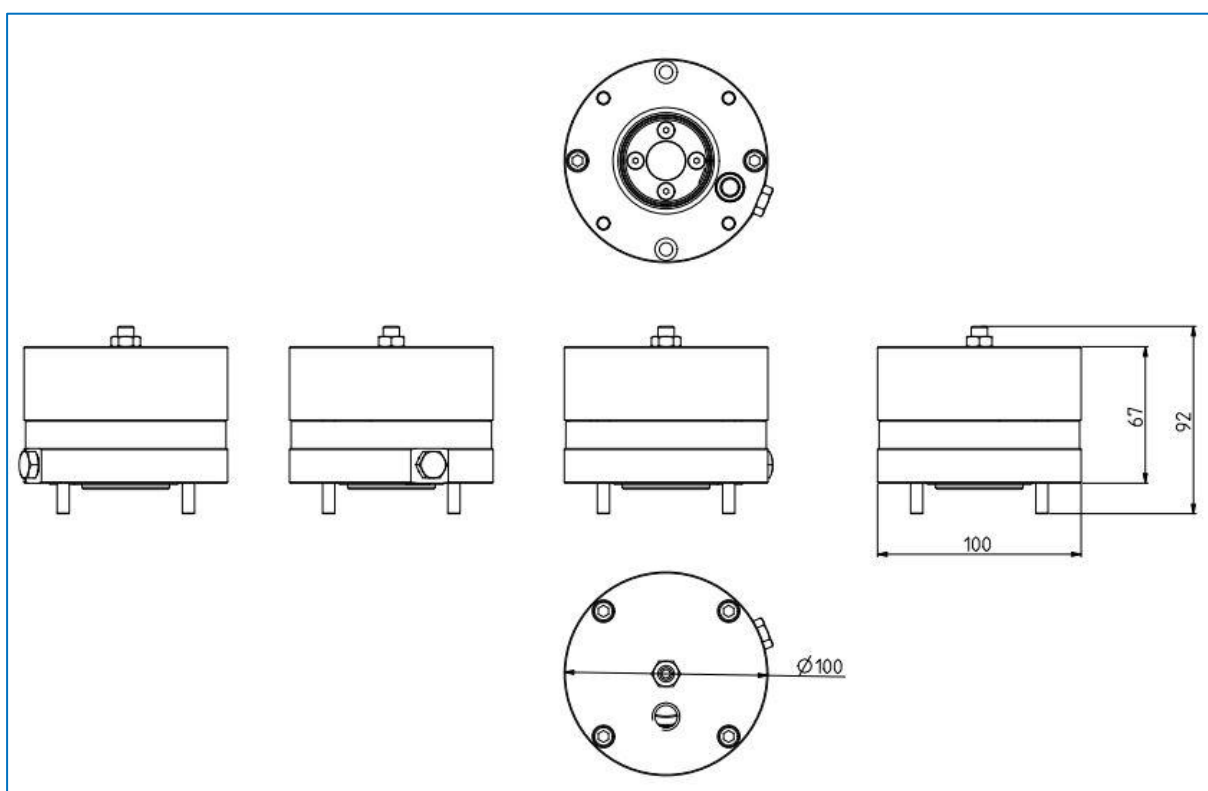


Figure 2 – Dimensional drawing

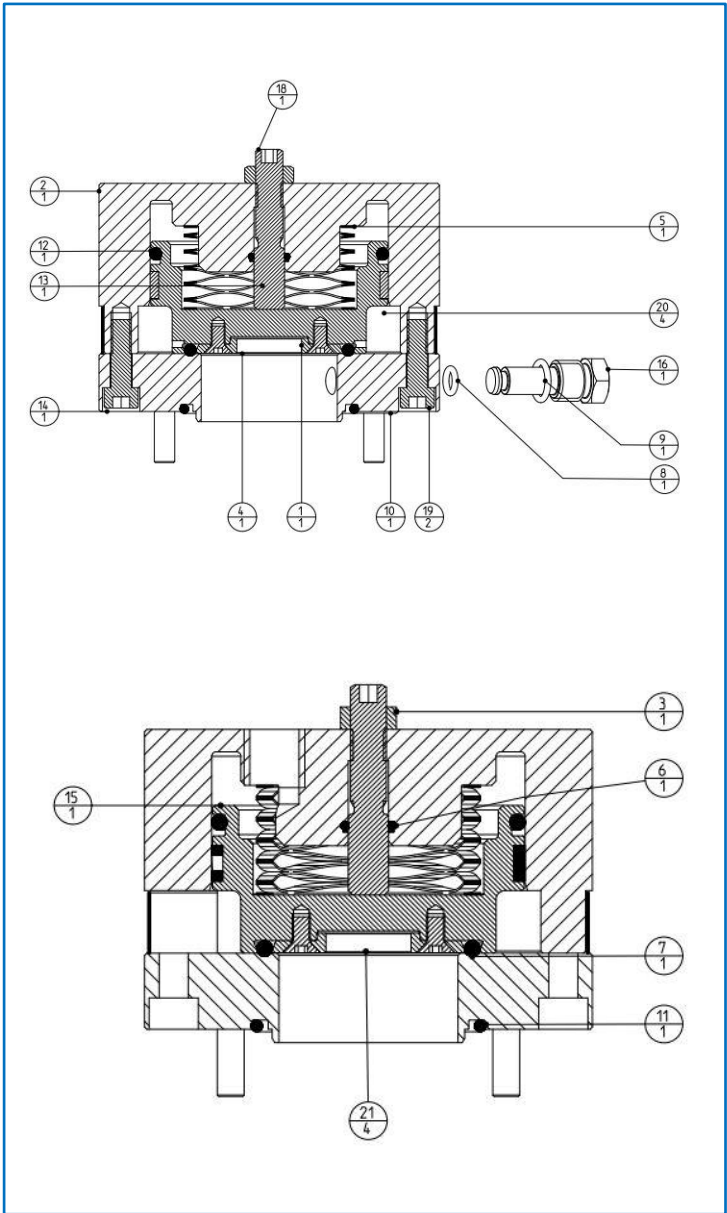


Figure 3 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		

Table 7 – Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-040-A0-00-H-2TT-LA	125354	125354	ALL
		181043	6-7-8-9-10-11-12-13
CSQ-040-A0-00-S-2TT-LA	125354	125354	ALL
		181043	6-7-8-9-10-11-12-13
CSQ-040-A0-00-L-2TT-LA	125354	125354	ALL
		181043	6-7-8-9-10-11-12-13
CSQ-040-A0-00-E-2TT-LA	125354	125354	ALL
		181043	6-7-8-9-10-11-12-13

Table 8 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.3 PRODUCT TYPE 41

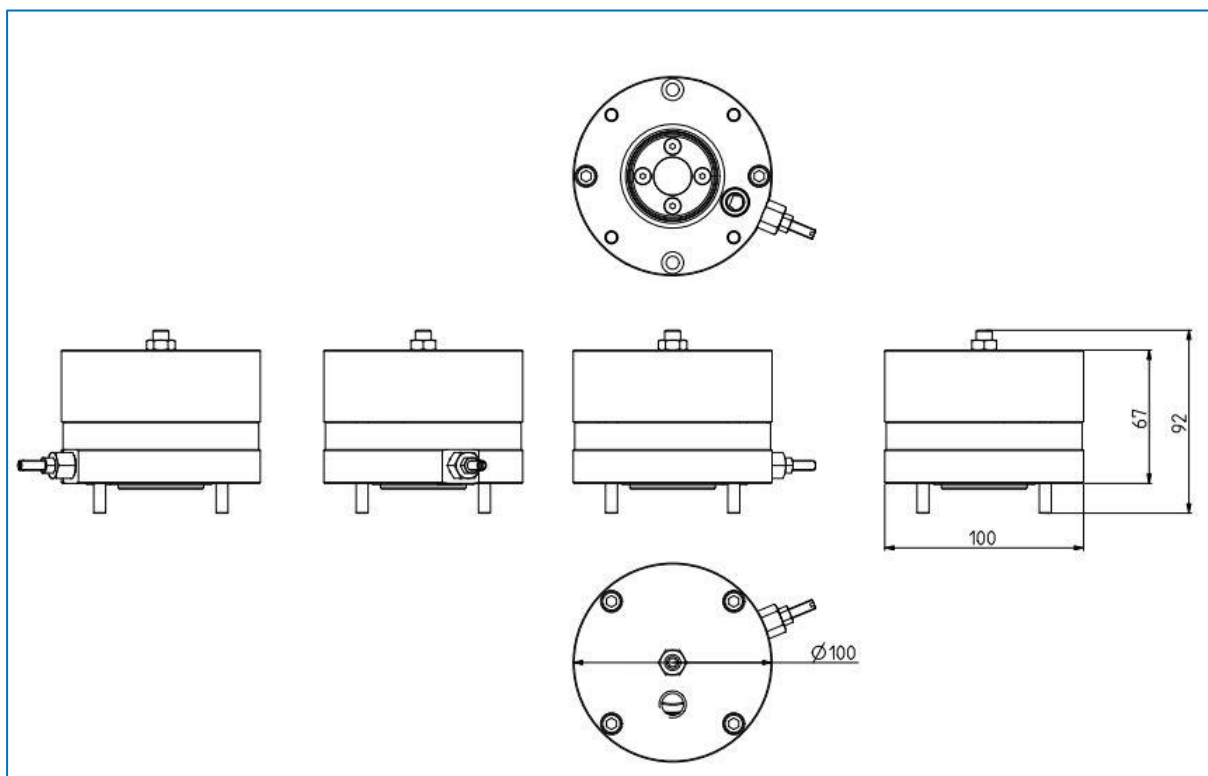


Figure 4 - Dimensional drawing

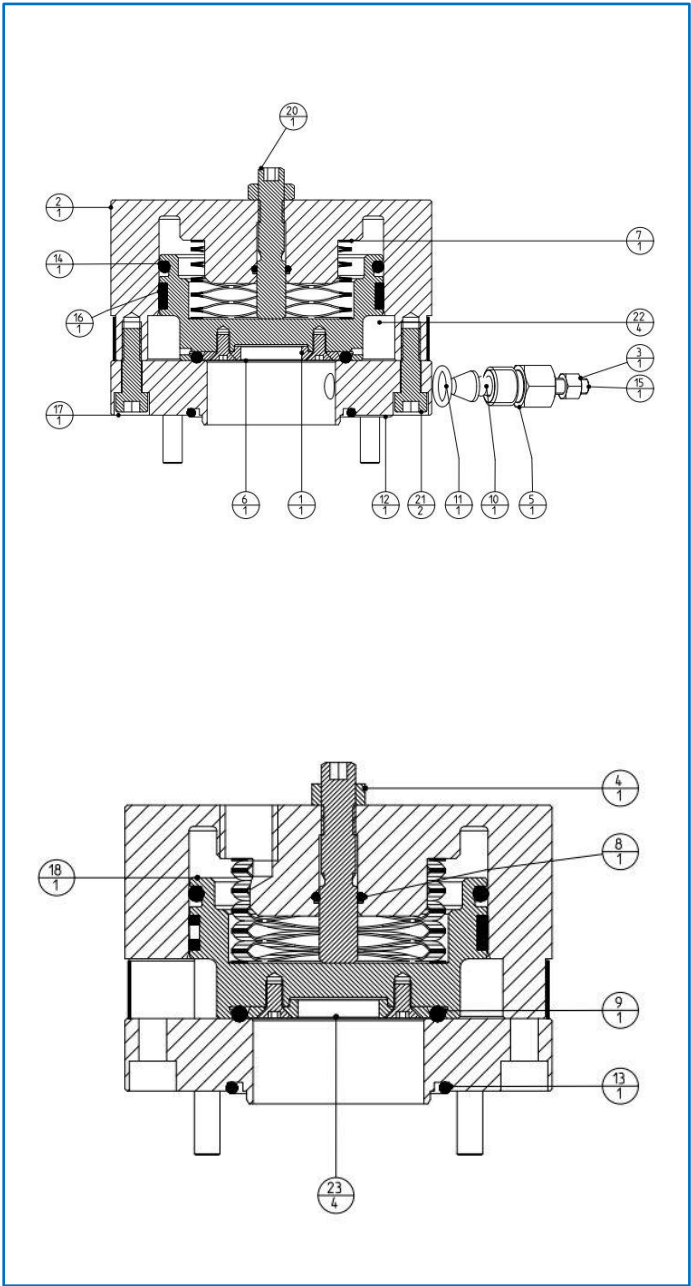


Figure 5 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		

Table 9 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER		POSITION
CSQ-040-A0-00-H-2TT-SA	140334	140334	ALL
		181046	8-9-10-11-12-13-14-16
CSQ-040-A0-00-S-2TT-SA	140334	140334	ALL
		181046	8-9-10-11-12-13-14-16
CSQ-040-A0-00-L-2TT-SA	140334	140334	ALL
		181046	8-9-10-11-12-13-14-16
CSQ-040-A0-00-E-2TT-SA	140334	140334	ALL
		181046	8-9-10-11-12-13-14-16

Table 10 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.4 PRODUCT TYPE 42

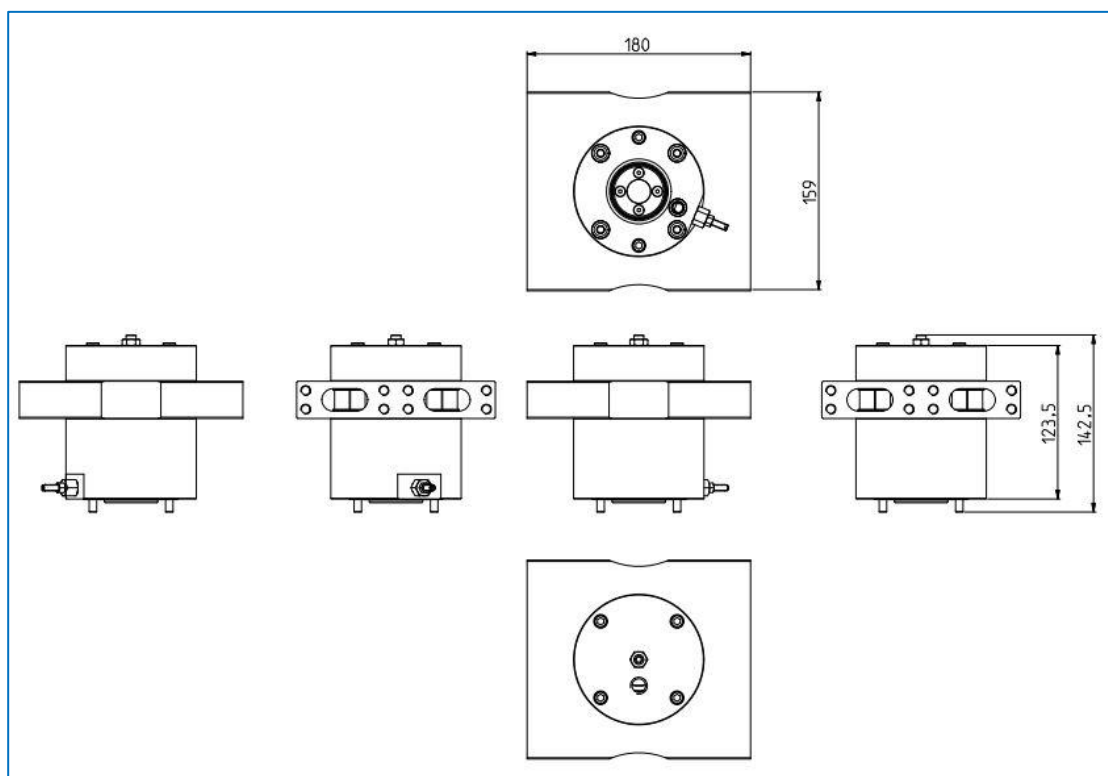


Figure 6 - Dimensional drawing

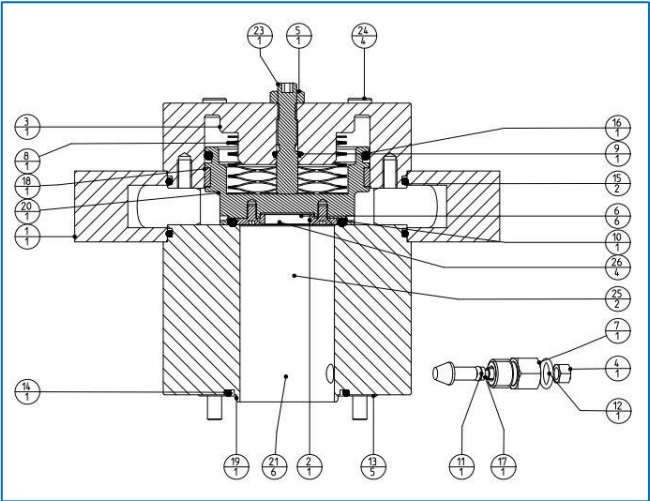


Figure 7 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		

Table 11 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-040-A0-00-H-2TW-SC	164102	181237	ALL + 4 OR3125
		181044	9-10-11-12-13-14-15-16-17+4 OR3125
CSQ-040-A0-00-S-2TW-SC	164102	181237	ALL + 4 OR3125
		181044	9-10-11-12-13-14-15-16-17+4 OR3125
CSQ-040-A0-00-L-2TW-SC	164102	181237	ALL + 4 OR3125
		181044	9-10-11-12-13-14-15-16-17+4 OR3125
CSQ-040-A0-00-E-2TW-SC	164102	181237	ALL + 4 OR3125
		181044	9-10-11-12-13-14-15-16-17+4 OR3125

Table 12 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.5 PRODUCT TYPE 43

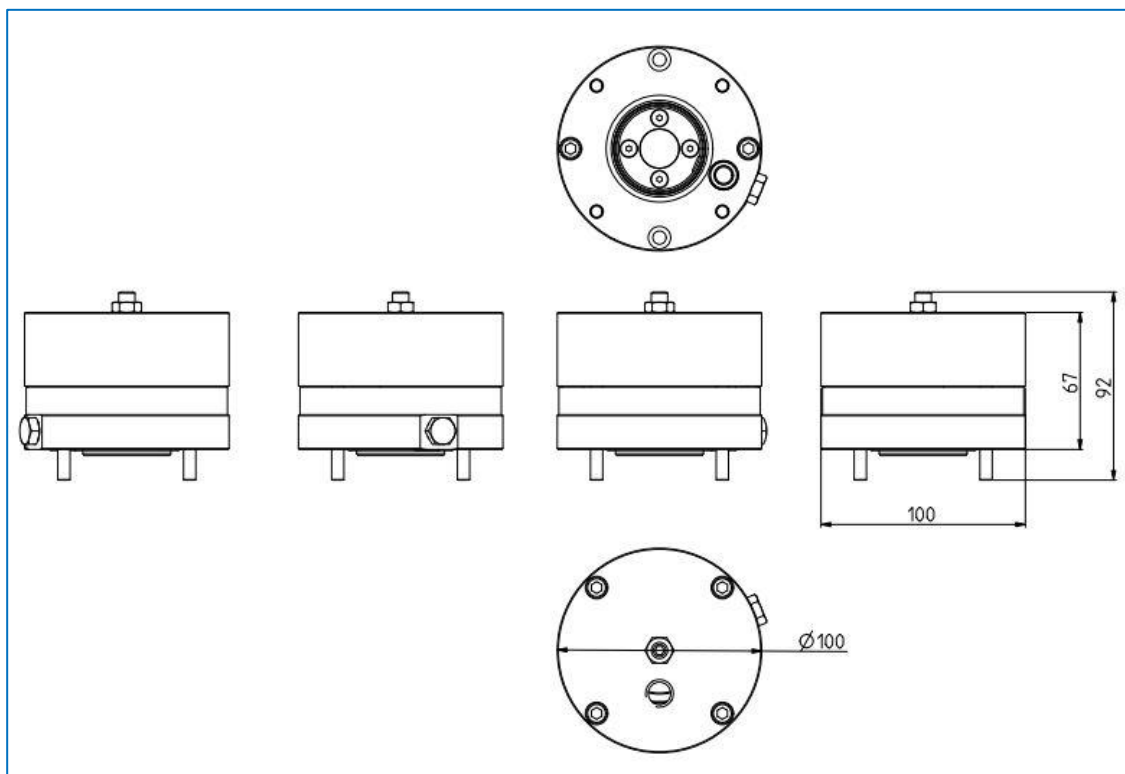


Figure 8 - Dimensional drawing

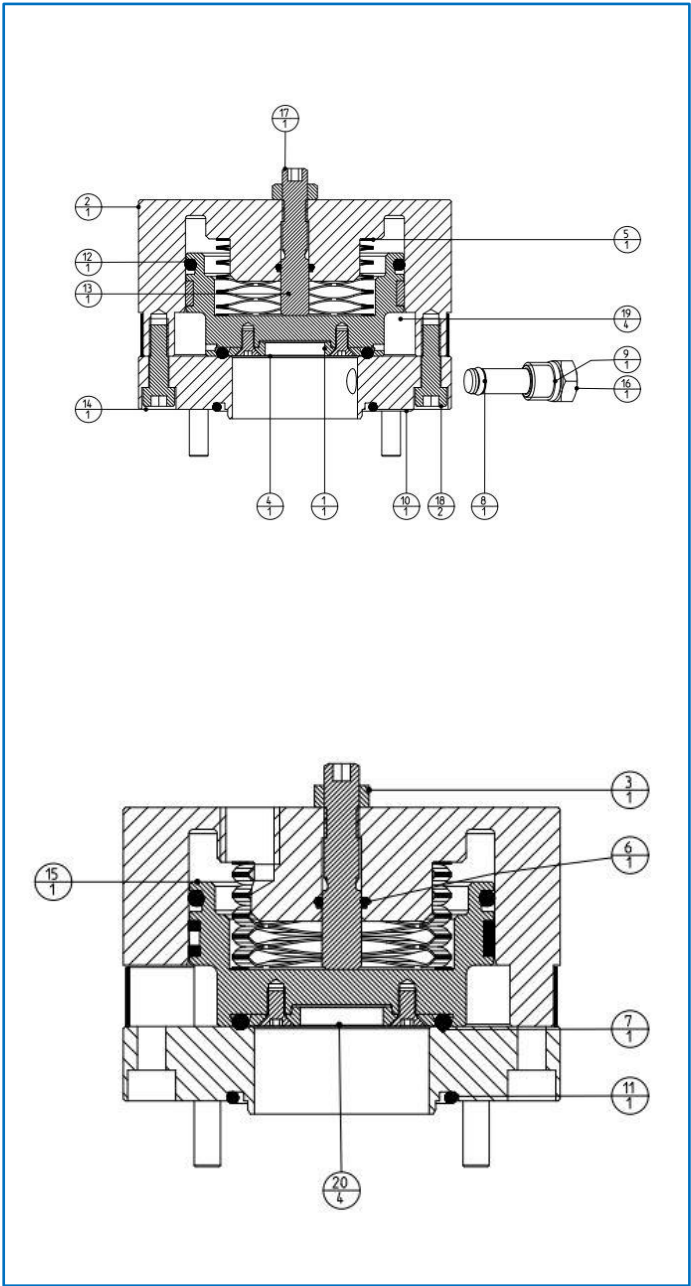


Figure 9 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Table 13 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-040-S1-00-H-2TT-LA	127037	127037	ALL
		181043	6-7-8-9-10-11-12-13
CSQ-040-S1-00-S-2TT-LA	127037	127037	ALL
		181043	6-7-8-9-10-11-12-13
CSQ-040-S1-00-L-2TT-LA	127037	127037	ALL
		181043	6-7-8-9-10-11-12-13
CSQ-040-S1-00-E-2TT-LA	127037	127037	ALL
		181043	6-7-8-9-10-11-12-13

Table 14 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.6 PRODUCT TYPE 44

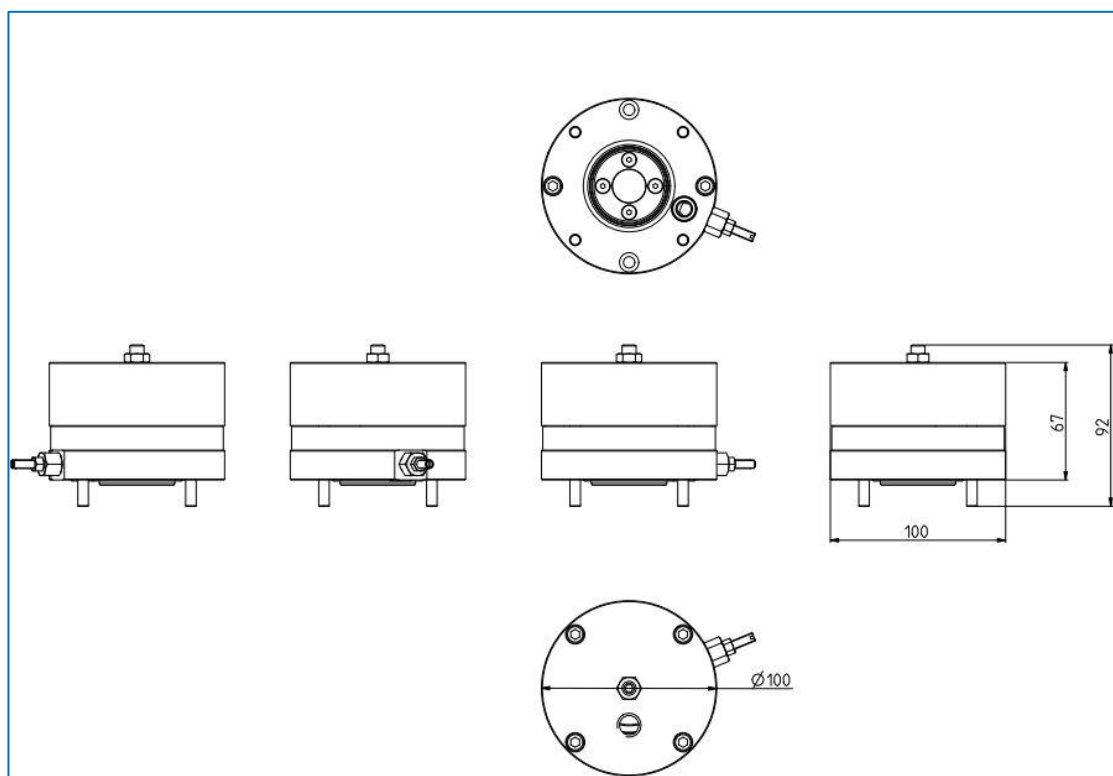


Figure 10 - Dimensional drawing

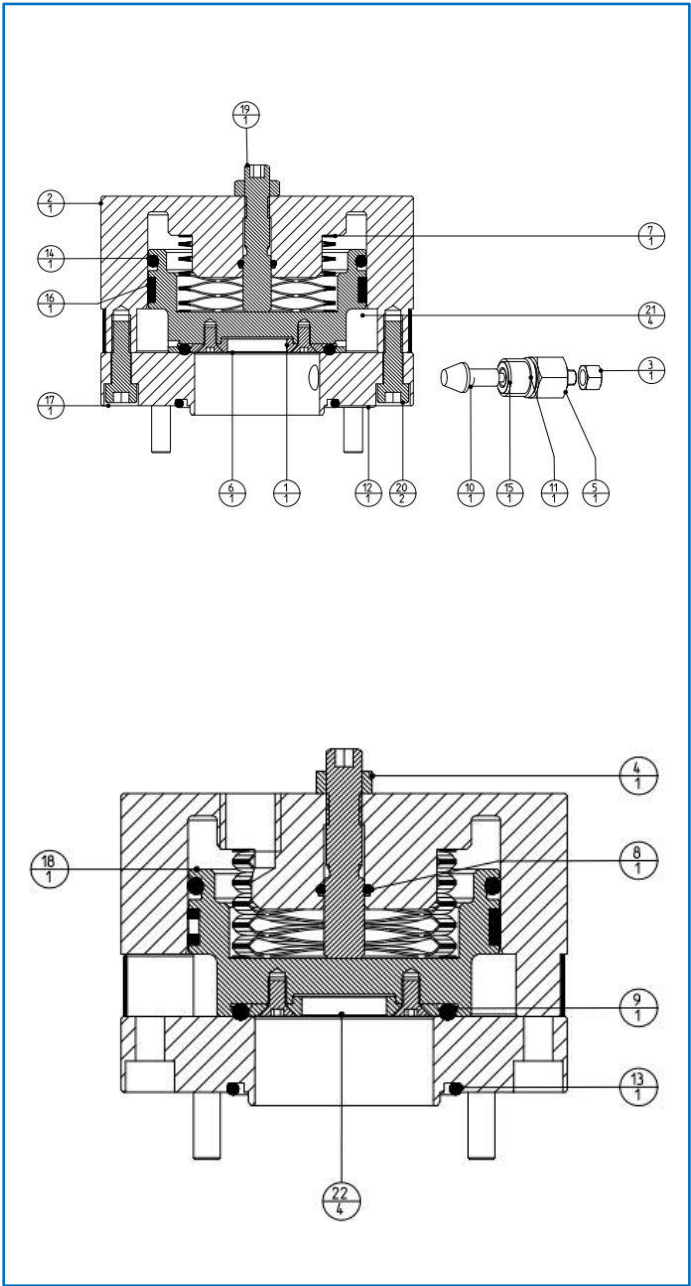


Figure 11 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Table 15 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-040-S1-00-H-2TT-SA	128777	128777	ALL
		181046	8-9-10-11-12-13-14-16
CSQ-040-S1-00-S-2TT-SA	128777	128777	ALL
		181046	8-9-10-11-12-13-14-16
CSQ-040-S1-00-L-2TT-SA	128777	128777	ALL
		181046	8-9-10-11-12-13-14-16
CSQ-040-S1-00-E-2TT-SA	128777	128777	ALL
		181046	8-9-10-11-12-13-14-16

Table 16 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.7 PRODUCT TYPE 45

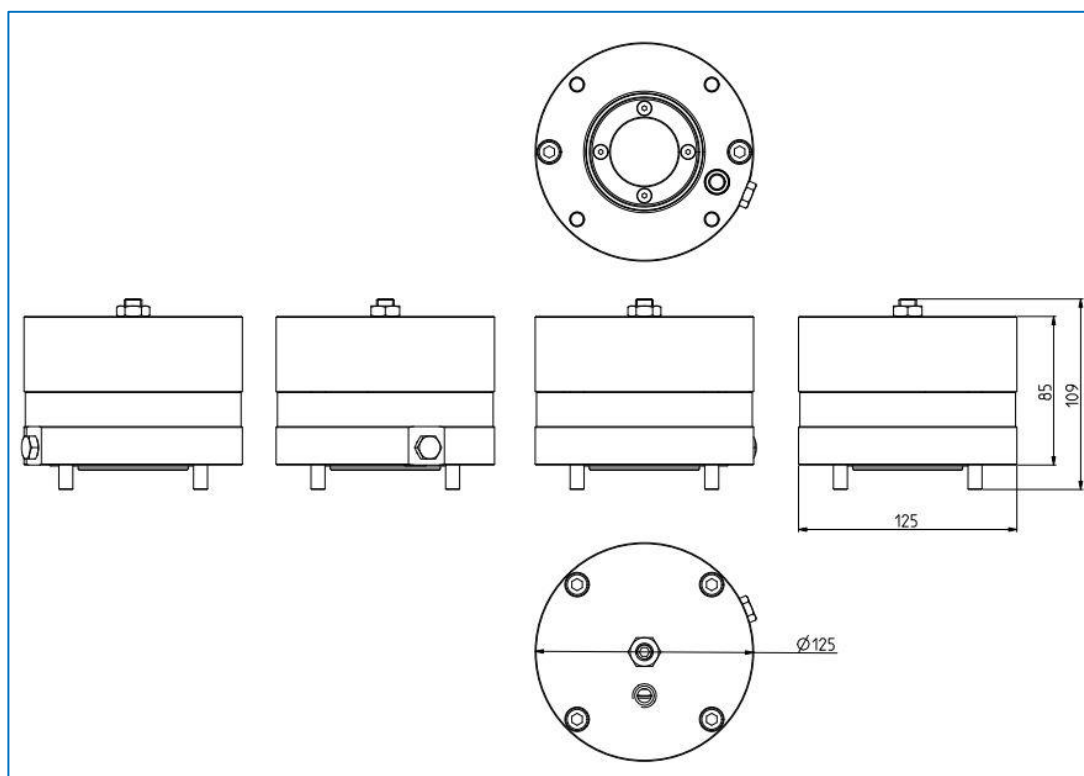


Figure 12 - Dimensional drawing

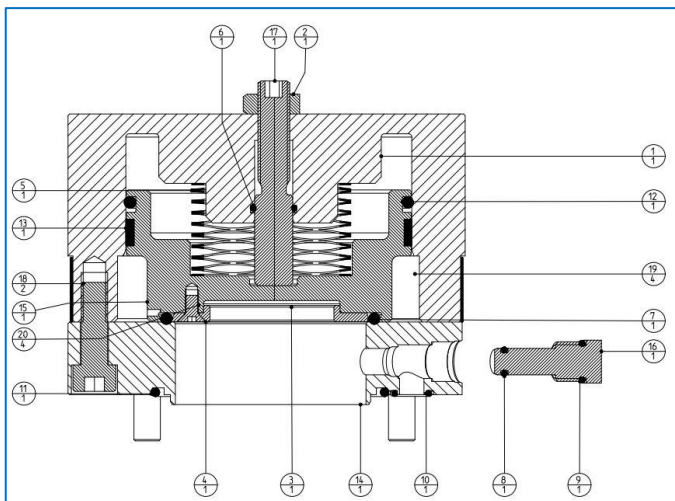


Figure 13 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Table 17 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-060-A0-00-H-2XX-LA	127999	127999	ALL
		181045	6-7-8-9-10-11-12-13
CSQ-060-A0-00-S-2XX-LA	127999	127999	ALL
		181045	6-7-8-9-10-11-12-13
CSQ-060-A0-00-L-2XX-LA	127999	127999	ALL
		181045	6-7-8-9-10-11-12-13
CSQ-060-A0-00-E-2XX-LA	127999	127999	ALL
		181045	6-7-8-9-10-11-12-13

Table 18 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in **par. 2.2** , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.8 PRODUCT TYPE 46

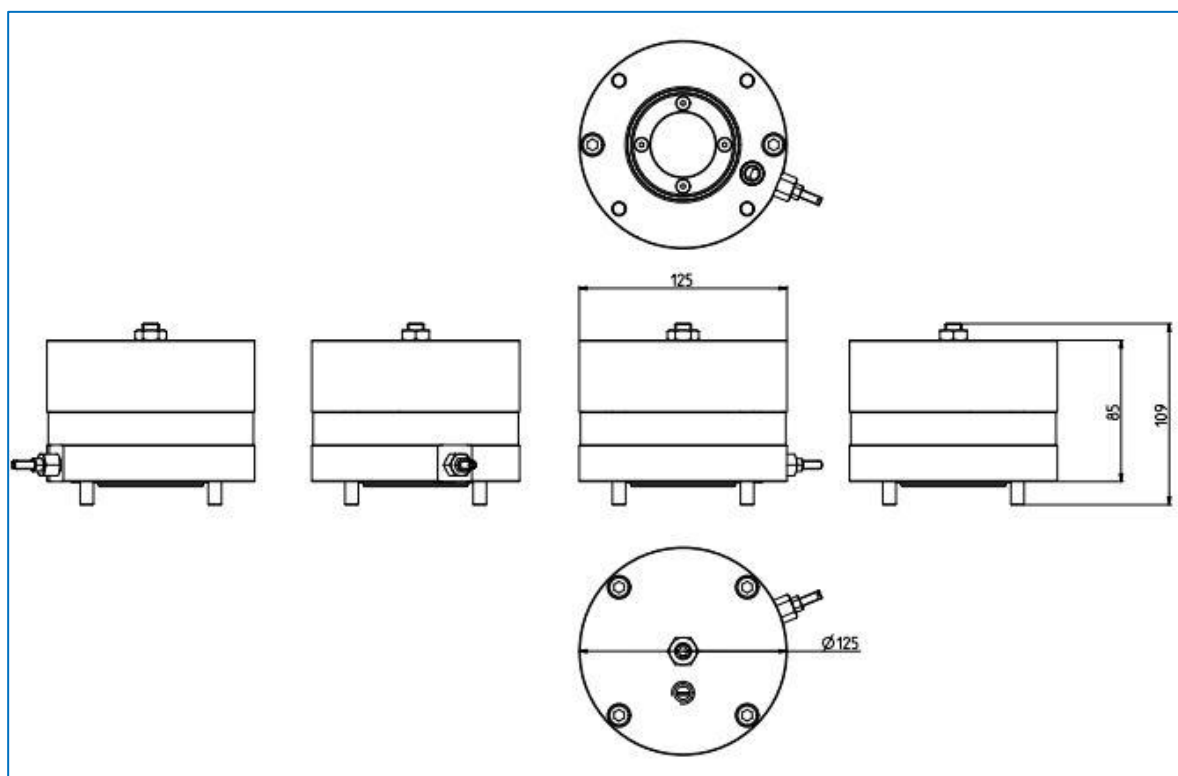


Figure 14 - Dimensional drawing

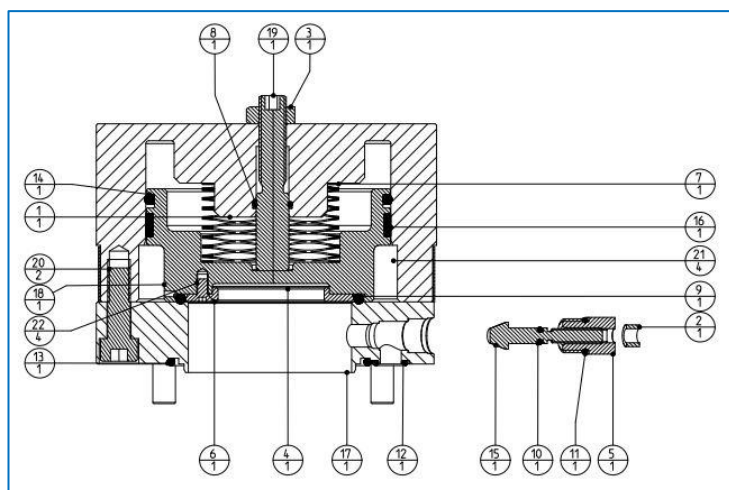


Figure 15 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Table 19 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-060-A0-00-H-2XX-SA	118913	118913	ALL
		181047	8-9-10-11-12-13-14-16
CSQ-060-A0-00-S-2XX-SA	118913	118913	ALL
		181047	8-9-10-11-12-13-14-16
CSQ-060-A0-00-L-2XX-SA	118913	118913	ALL
		181047	8-9-10-11-12-13-14-16
CSQ-060-A0-00-E-2XX-SA	118913	118913	ALL
		181047	8-9-10-11-12-13-14-16

Table 20 – Existing product and spare parts



The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

5.9 PRODUCT TYPE 47

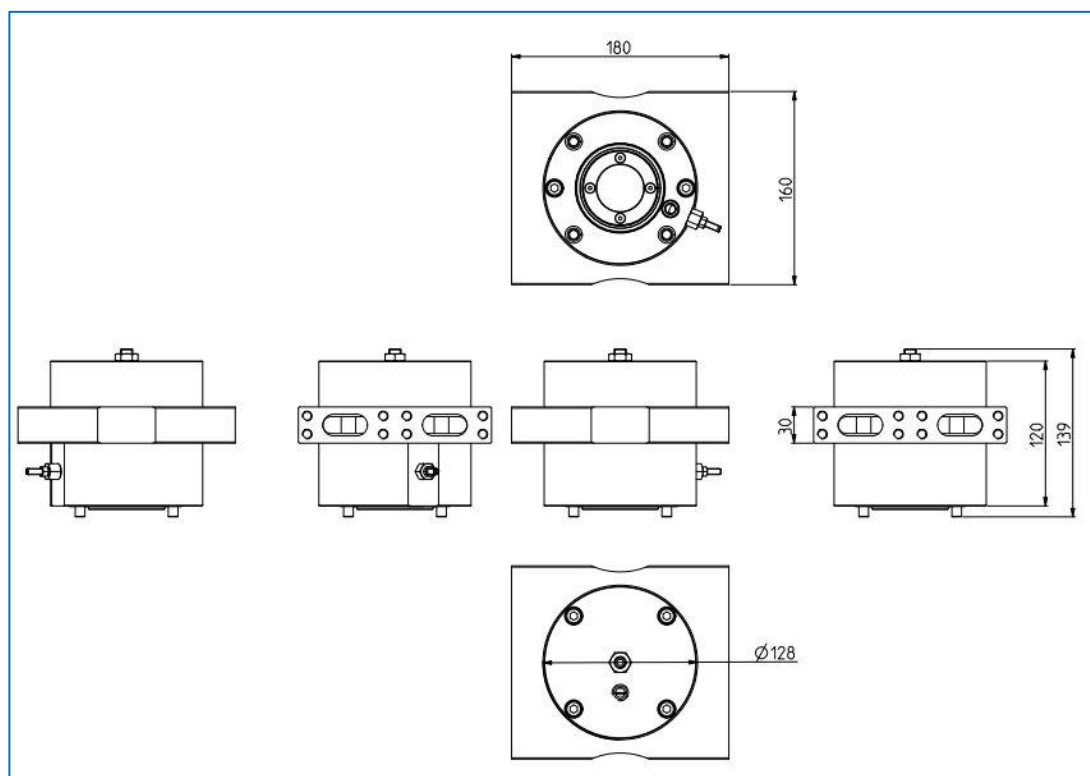


Figure 16 - Dimensional drawing

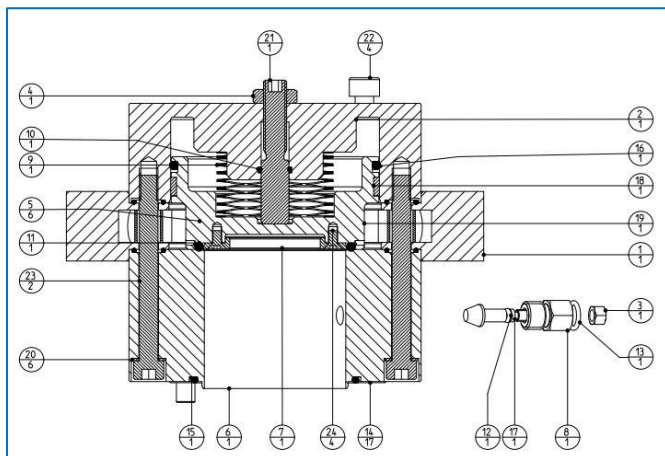


Figure 17 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Table 21 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-060-A0-00-S-2XW-SC	152904	181205	ALL + 4 OR3125
		181051	10-11-12-13-14-15-16-18-20+ 4 OR3125

Table 22 – Existing product and spare parts



The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

5.10 PRODUCT TYPE 48

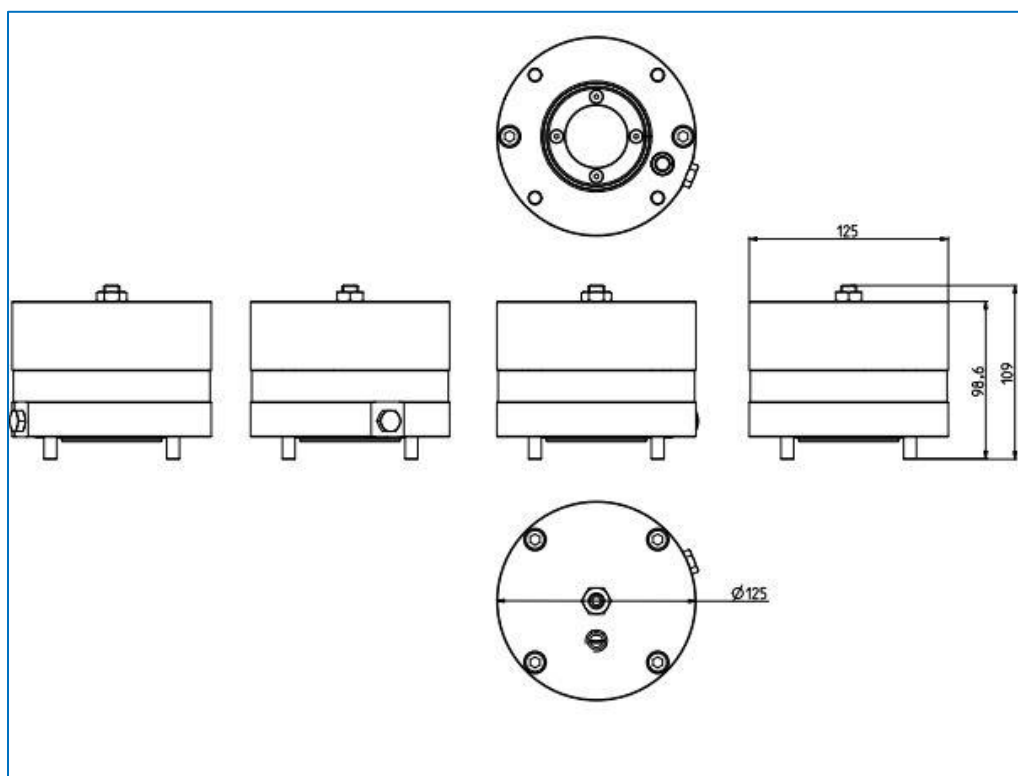


Figure 18 - Dimensional drawing

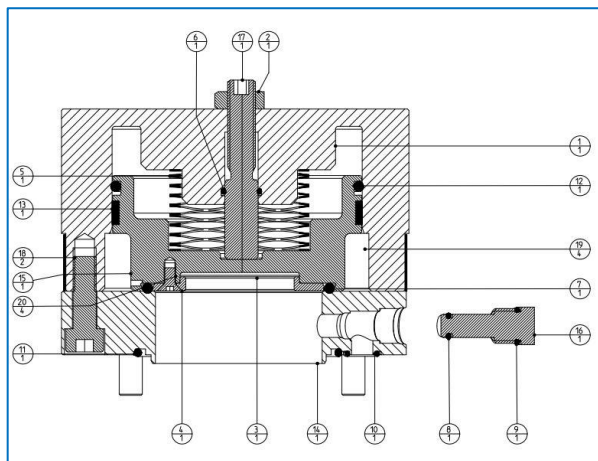


Figure 19 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Table 23 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-060-S1-00-H-2XX-LA	143242	143242	ALL
		181045	6-7-8-9-10-11-12-13
CSQ-060-S1-00-S-2XX-LA	143242	143242	ALL
		181045	6-7-8-9-10-11-12-13
CSQ-060-S1-00-L-2XX-LA	143242	143242	ALL
		181045	6-7-8-9-10-11-12-13
CSQ-060-S1-00-E-2XX-LA	143242	143242	ALL
		181045	6-7-8-9-10-11-12-13

Table 24 – Existing product and spare parts



The previous models are those currently available.
For further models refer to the model selection in **par. 2.2** , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

5.11 PRODUCT TYPE 49

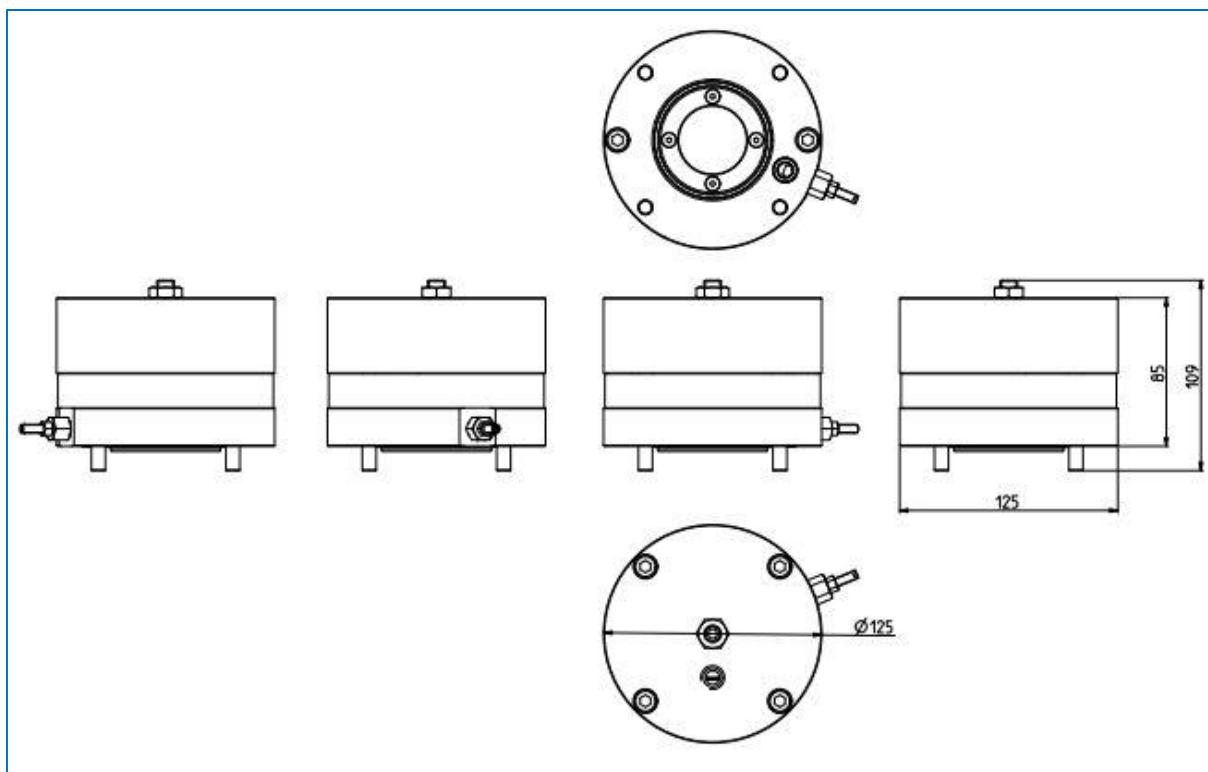


Figure 20 - Dimensional drawing

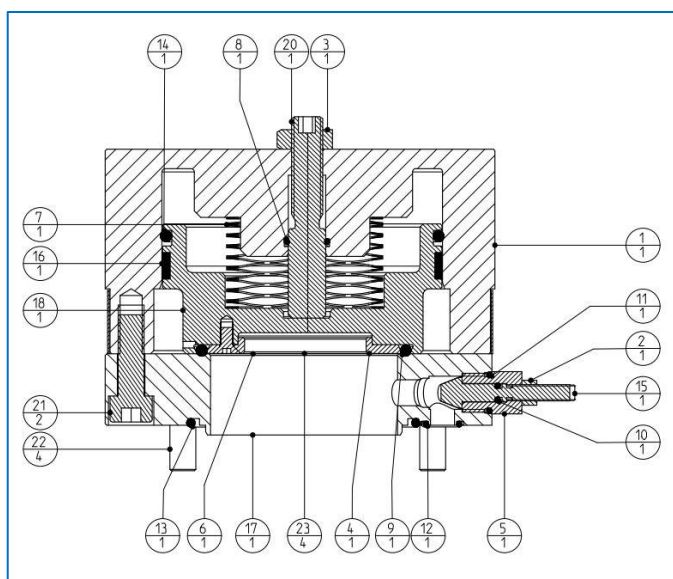


Figure 21 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		

Table 25 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	PART NUMBER	POSITION
CSQ-060-S1-00-H-2XX-SA	150599	150599	ALL
		181047	8-9-10-11-12-13-14-16
CSQ-060-S1-00-S-2XX-SA	150599	150599	ALL
		181047	8-9-10-11-12-13-14-16
CSQ-060-S1-00-L-2XX-SA	150599	150599	ALL
		181047	8-9-10-11-12-13-14-16
CSQ-060-S1-00-E-2XX-SA	150599	150599	ALL
		181047	8-9-10-11-12-13-14-16

Table 26 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.12 PRODUCT TYPE 50

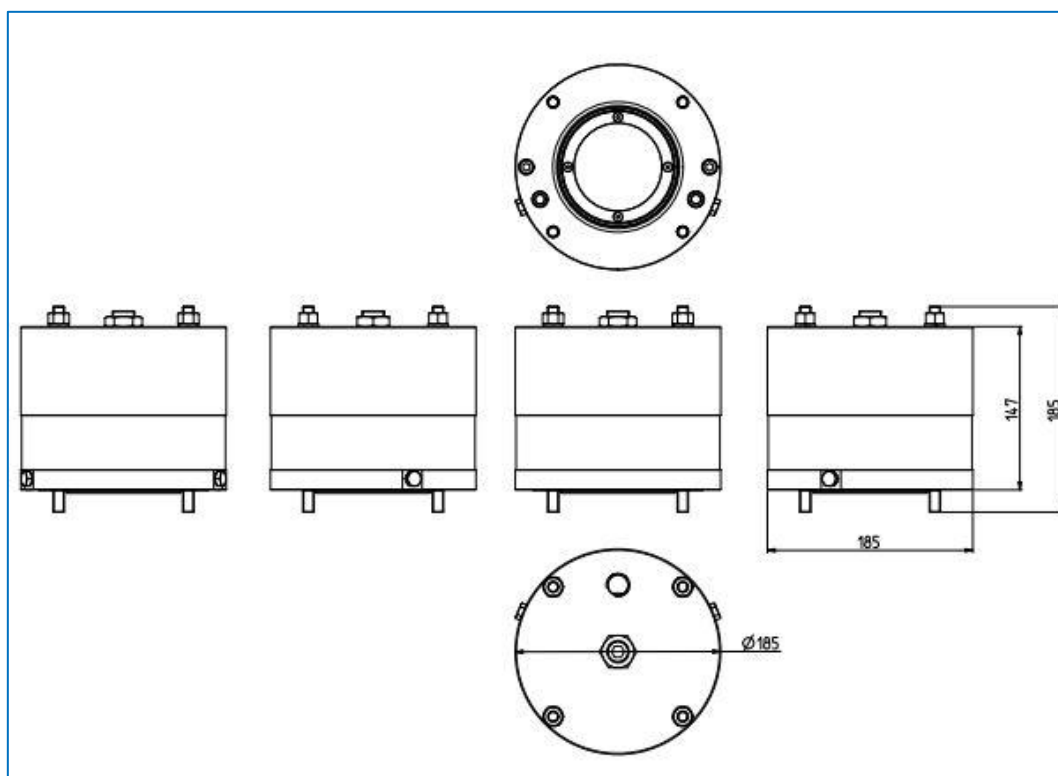


Figure 22 - Dimensional drawing

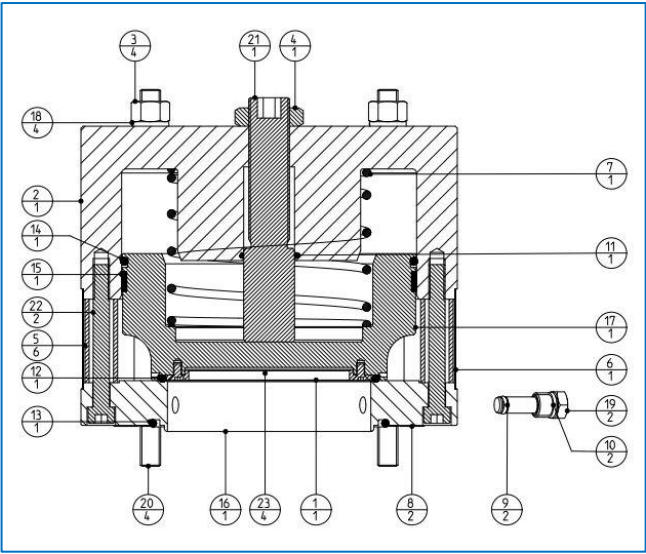


Figure 23 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		

Table 27 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-100-A0-00-H-4YY-LA	165290	165290	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-01-H-4YY-LA	170109	170109	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-00-S-4YY-LA	165290	165290	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-01-S-4YY-LA	170109	170109	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-00-L-4YY-LA	165290	165290	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-01-L-4YY-LA	170109	170109	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-00-E-4YY-LA	165290	165290	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-A0-01-E-4YY-LA	170109	170109	ALL
		181056	8-9-10-11-12-13-14-15

Table 28 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.13 PRODUCT TYPE 51

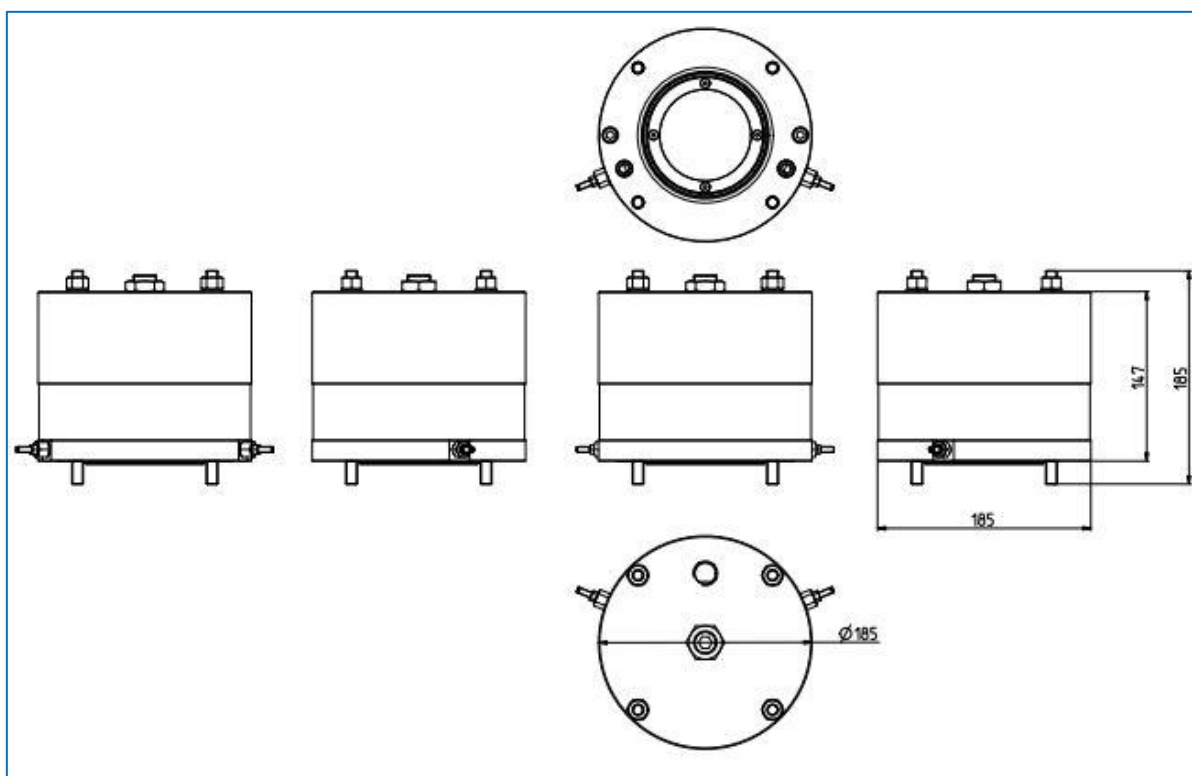


Figure 24 - Dimensional drawing

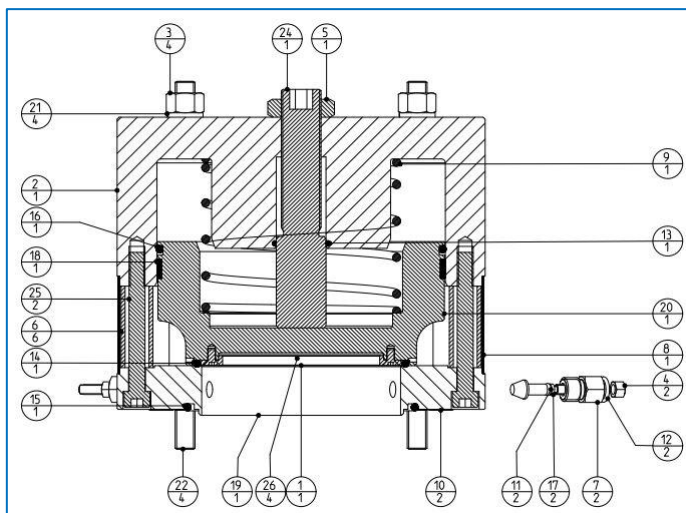


Figure 25 - Section

PART LIST		
Pos	Q.ty	Description
1	2	Assembly bypass
2	1	Cover O-ring
3	1	Body piston
4	4	High nut M10
5	1	Low nut M20x1.5
6	6	Tube spacer
7	1	Filter
8	1	Spring
9	2	Sealing O-ring 114
10	1	Sealing O-ring 2100
11	1	Sealing O-ring 4400
12	1	Sealing O-ring 4437
13	1	Sealing O-ring 4550
14	1	Slider pad
15	1	Plate spacer
16	1	Piston
17	4	Washer
18	4	Tie-rod M10
19	1	Adjusting screw M20x1.5
20	2	Screw TCEI M8x70
21	4	Screw TSPEI M4x8
22		
23		
24		
25		
26		

Table 29 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-100-A0-00-H-4YY-SA	160308	160308	ALL
		180059	10-11-12-13-14-15-16-18
CSQ-100-A0-00-S-4YY-SA	160308	160308	ALL
		180059	10-11-12-13-14-15-16-18
CSQ-100-A0-00-L-4YY-SA	160308	160308	ALL
		180059	10-11-12-13-14-15-16-18
CSQ-100-A0-00-E-4YY-SA	160308	160308	ALL
		180059	10-11-12-13-14-15-16-18

Table 30 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.14 PRODUCT TYPE 52

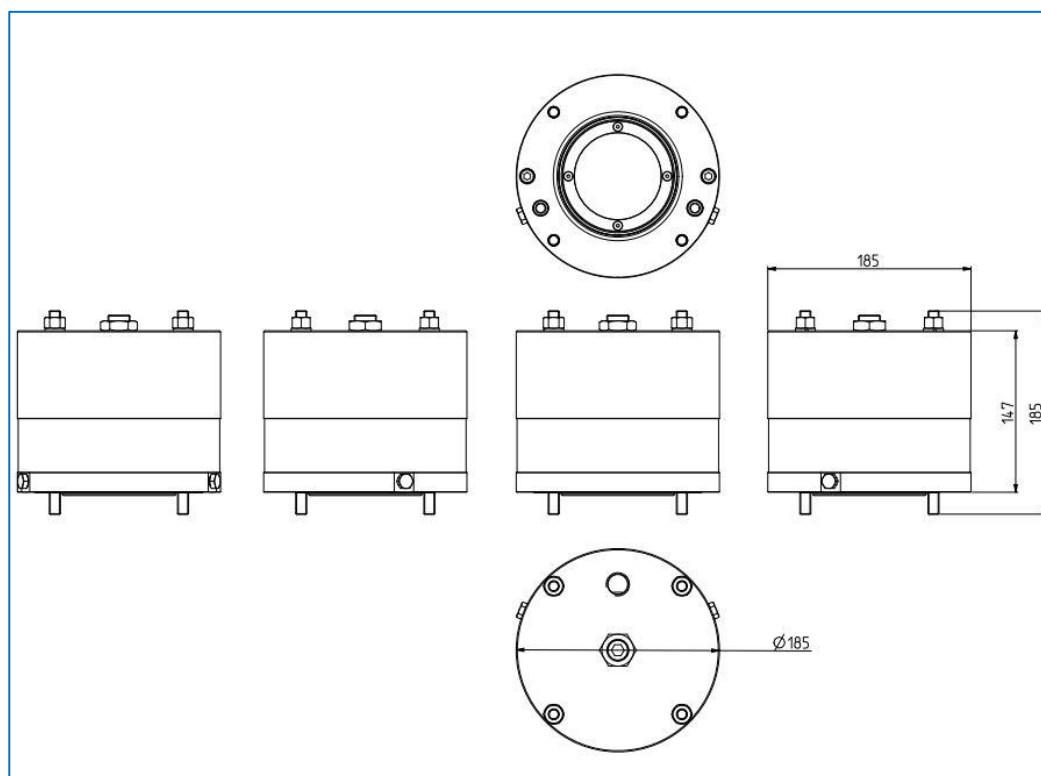


Figure 26 - Dimensional drawing

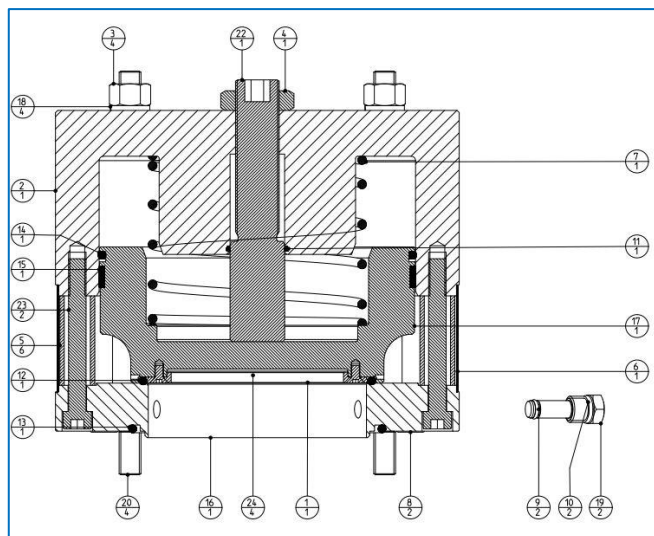


Figure 27 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Table 31 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-100-S1-00-H-4YY-LA	172514	172514	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-S1-00-S-4YY-LA	172514	172514	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-S1-00-L-4YY-LA	172514	172514	ALL
		181056	8-9-10-11-12-13-14-15
CSQ-100-S1-00-E-4YY-LA	172514	172514	ALL
		181056	8-9-10-11-12-13-14-15

Table 32 – Existing product and spare parts



The previous models are those currently available.
For further models refer to the model selection in **par. 2.2** , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

5.15 PRODUCT TYPE 53

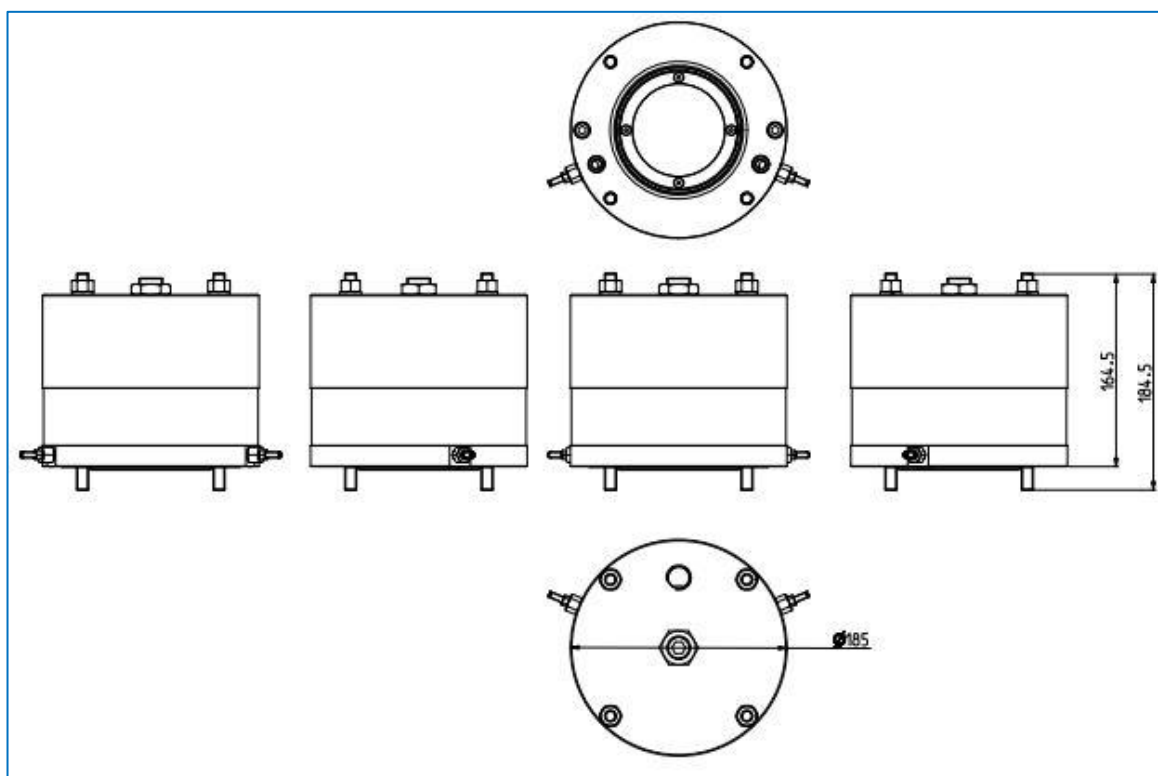


Figure 28 - Dimensional drawing

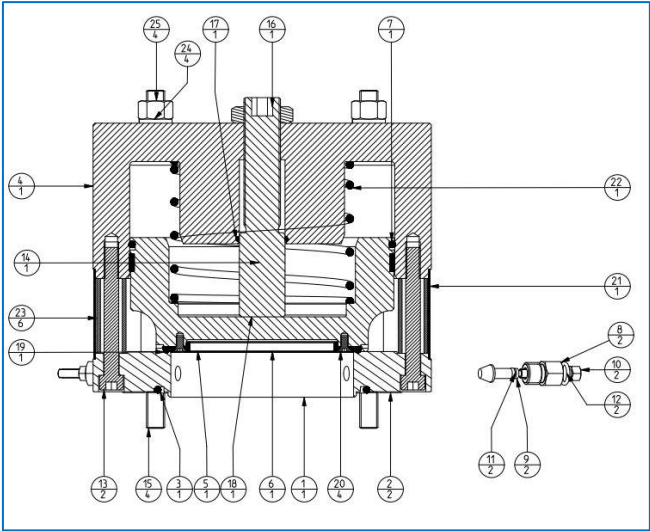


Figure 29 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Table 33 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-100-S1-00-H-4YY-SA	155307	155307	ALL
		181059	2-3-7-11-12-14-17-19
CSQ-100-S1-00-S-4YY-SA	155307	155307	ALL
		181059	2-3-7-11-12-14-17-19
CSQ-100-S1-00-L-4YY-SA	155307	155307	ALL
		181059	2-3-7-11-12-14-17-19
CSQ-100-S1-00-E-4YY-SA	155307	155307	ALL
		181059	2-3-7-11-12-14-17-19

Table 34 – Existing product and spare parts



The previous models are those currently available.
For further models refer to the model selection in **par. 2.2** , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

5.16 PRODUCT TYPE 54

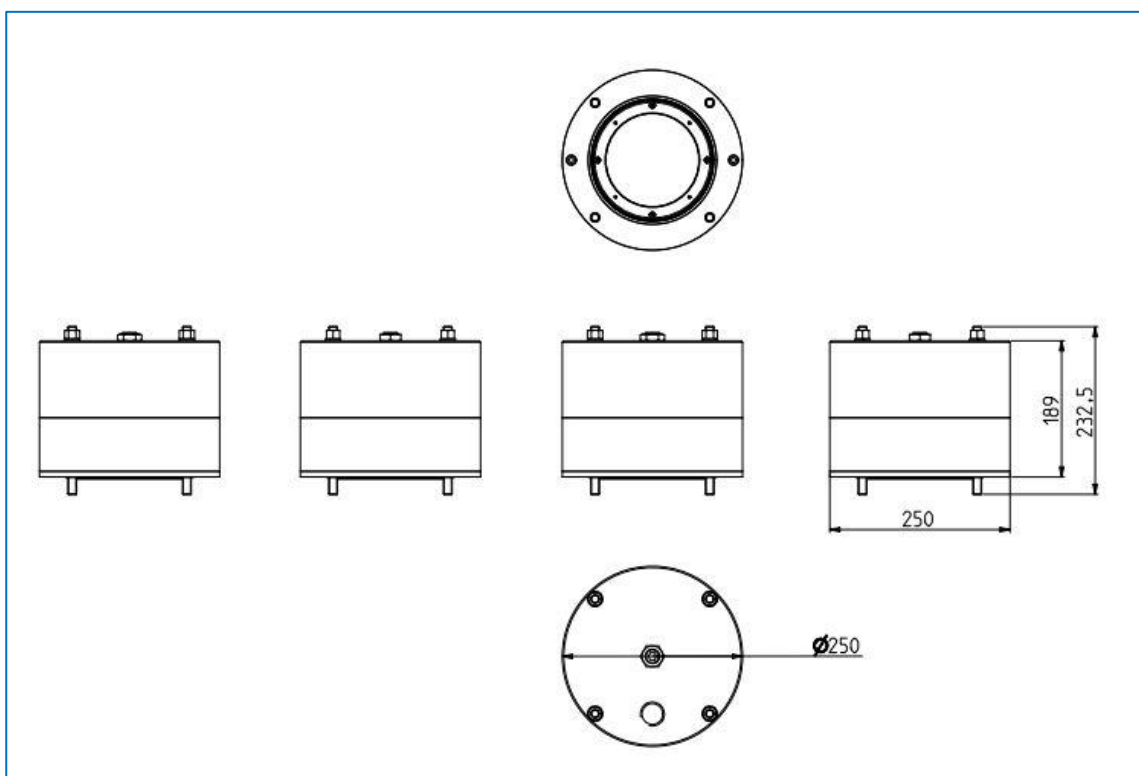


Figure 30 - Dimensional drawing

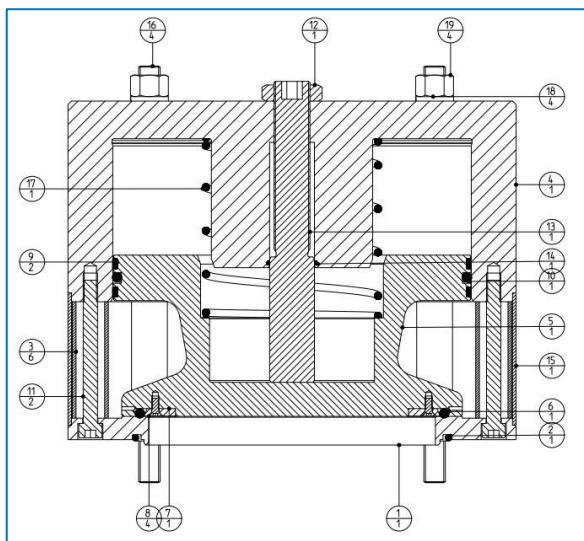


Figure 31 - Section

PART LIST		
Pos	Q.ty	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		

Table 35 - Part list

EXISTING PRODUCTS AND SPARE PARTS			
MODEL	PART NUMBER	SPARE	POSITION
CSQ-160-S1-00-S-6ZZ-LA	157407	157407	ALL
		181063	2-6-9-10-14

Table 36 – Existing product and spare parts



**The previous models are those currently available.
For further models refer to the model selection in par. 2.2 , contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.**

5.17 INTENDED USE

IMI STI will not be liable for any possible damage or physical injury resulting from use in other than the designated applications or by lack of care during installation, operation, adjustment or maintenance. Such risks lie entirely with the user.

Considering that IMI STI has no direct control over applications, operation or maintenance conditions, it is the operator's responsibility to comply with all applicable safety rules: it is the sole responsibility of the operator to ensure that the local health and safety regulations are adhered to.

Depending on the specific working conditions, additional precautions may be requested.

Please inform IMI STI if you face unsafe situations not described in this Instruction Manual.

5.18 REASONABLY FORSEEABLE MISUSE

A short list of reasonably foreseeable misuse:

- installation in ambient with not planned conditions (i.e. climatic conditions different from the specified conditions);
- incorrect fluid under pressure inside the product;
- supply pressure out of required range.

5.19 OPERATING LIMITS

The product label and/or this manual indicate the main operating conditions of this product.

5.20 RESIDUAL RISKS

A short list of possible risks:

- risk due to movements of loads during mounting phase;
- crushing during assemblage servicing;
- extreme high or low surface temperature, as consequence of ambient temperature, has to be considered a risk of person injury in case of contact;
- hazardous fluid emission (i.e. when natural gas is used as fluid under pressure).

6 INSTRUCTION FOR THE OPERATOR

During the start-up of the product, proceed as follows:

- check that the pressure and quality of the air supply (filtering degree, dehydration) are as prescribed;
- check that there are not leaks in the pneumatic connections. If necessary, tighten the fittings;
- set the product according the schematic diagram.

If the accessory is mounted in an hazardous location requiring an ATEX certification, read and apply the “ADDENDUM 1: ADDITIONAL SAFETY PRECAUTIONS” of this instruction manual.

7 MAINTENANCE

7.1 PERIODIC INSPECTIONS



Take care that a build-up of dust or dirt on the product can inhibit cooling and contribute to increase surface temperature. The user should plan and provide for a periodic cleaning / maintenance program that will maintain the external surface of the accessory free from excessive layer of dust.
Operation and maintenance shall be carried out by skilled staff.

Product disassembling and reassembling shall be carried out only by IMI STI authorized operators.

7.2 SPECIAL MAINTENANCE

The product does not need special maintenance considering standard applications. If special maintenance is required, send back the device to IMI STI.

Product disassembling and reassembling shall be carried out only by IMI STI authorized operators.



For the available part lists of each accessory refer to chapter 5 and subsequent paragraphs or contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

7.3 REPAIRS

Repairs shall be carried out by authorized operators. When needed, send back the device to IMI STI for any repairing.

Product disassembling and reassembling shall be carried out only by IMI STI authorized operators.



For the available part lists of each accessory refer to chapter 5 and subsequent paragraphs or contact imisti.sales@imi-critical.com or sti.support@imi-critical.com.

8 TROUBLESHOOTING

Event	Possible cause	Remedy
Do not work properly	Lack of pneumatic supply	Check supply line
	Low supply pressure	Adjust supply pressure
	Uncorrected by-pass stem adjustment	See Instruction for the operator
	Defective internal component (shutter, piston, ecc.)	Call IMI STI S.r.l.
Leakages on pneumatic circuits	Deterioration and/or damage to gasket and/or loosed fittings	Call IMI STI S.r.l.
	Damage to fittings	Call IMI STI S.r.l.

Table 37

9 DECOMISSIONING

Subject	Hazardous	Recyclable	Disposal
Metals	No	Yes	Use licensed recyclers
Plastics	No	Yes	Use specialist recyclers
Rubber (seals and O-rings)	Yes	No	May require special treatment before disposal, use specialist waste disposal companies
Oil and grease	Yes	Yes	May require special treatment before disposal, use specialist waste disposal companies

Table 38



Before starting any disassembly operations, it is mandatory to disconnect the pneumatic power and exhaust the product (no fluid under pressure inside the product, fittings, tubing).

The staff must be qualified for the required operation.

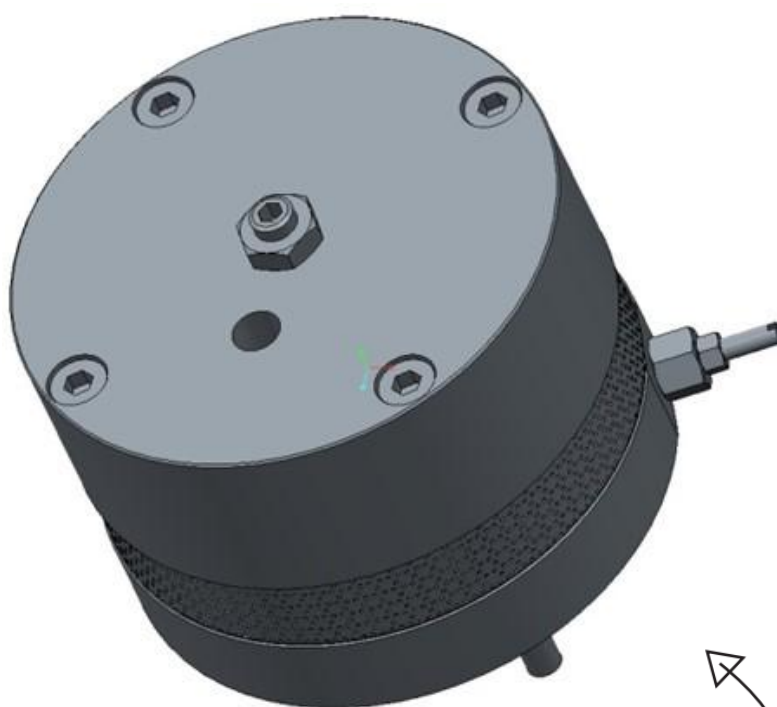


The product decommissioning shall be made by specialized operators
Check local authority regulation before disposal

CSQ

INTEGRAL QUICK EXHAUST VALVE

ADDENDUM 1: ADDITIONAL SAFETY PRECAUTIONS



Engineering
GREAT Solutions

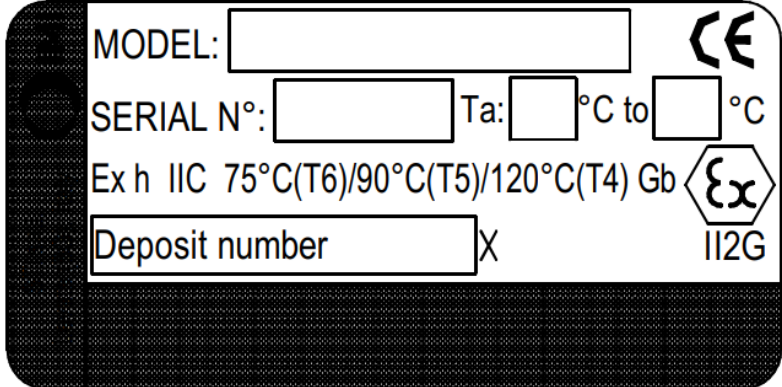
The Integral Quick Exhaust Valve (CSQ) accessory is ATEX certified under the following standards:

- DIRECTIVE 2014/34/UE.
- EN ISO 80079-36.
- EN ISO 80079-37.

According to the standards, the Integral Quick Exhaust Valve is marked as:

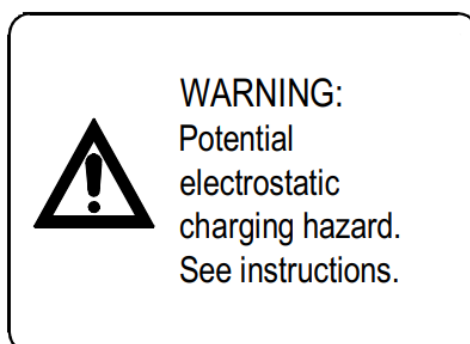
- Ex h IIB T6/T5/T4 Gb or Gc.
- Ex h IIC T6/T5/T4 Gb or Gc.

When certified, the product will be marked with the following label (or a similar one with the same information):

Ex h IIB T4/T5/T6 Gb or Gc	Ex h IIC T4/T5/T6 Gb or Gc
	

Some residual risks are present. Therefore, it is mandatory to follow the following instruction:

- The accessory must be grounded. This can be performed in two ways:
 - Ensuring electrical continuity between the product and the actuator upon which it is mounted on. The actuator must be properly grounded.
 - If available, by using one threaded hole to connect an earthing cable. The earthing cable shall be secured by employing proper means to avoid any unwanted unscrewing or rotation of the connector.
- For aluminum and stainless steel models, only if painting is requested, any charging mechanism stronger than manual rubbing must be avoided. When this must be respected, an additional label is positioned onto the casing:



IMI STI - Headquarters

Via Dei Caravaggi 15
24040 Levate (BG)
Italy

Tel. +39 035 2928.2
Fax +39 035 2928.247

IMI Critical Engineering

Lakeside, Solihull Parkway
Birmingham Business Park
Birmingham B37 7XZ
United Kingdom

Tel. +44 (0)121 717 3700
Fax +44 (0)121 717 3701

www.IMI-STIactuation.com
www.imi-critical.com
imisti.sales@imi-critical.com