



USER MANUAL



PAG180

Pulse Automatic Gate

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1. LAYOUT

1.1. Below is a typical layout for the gate. A plinth is required to be 250x250 wide and long, and 250mm deep. The concrete should be at least 15MPa strength, or to a civil engineers' specifications.

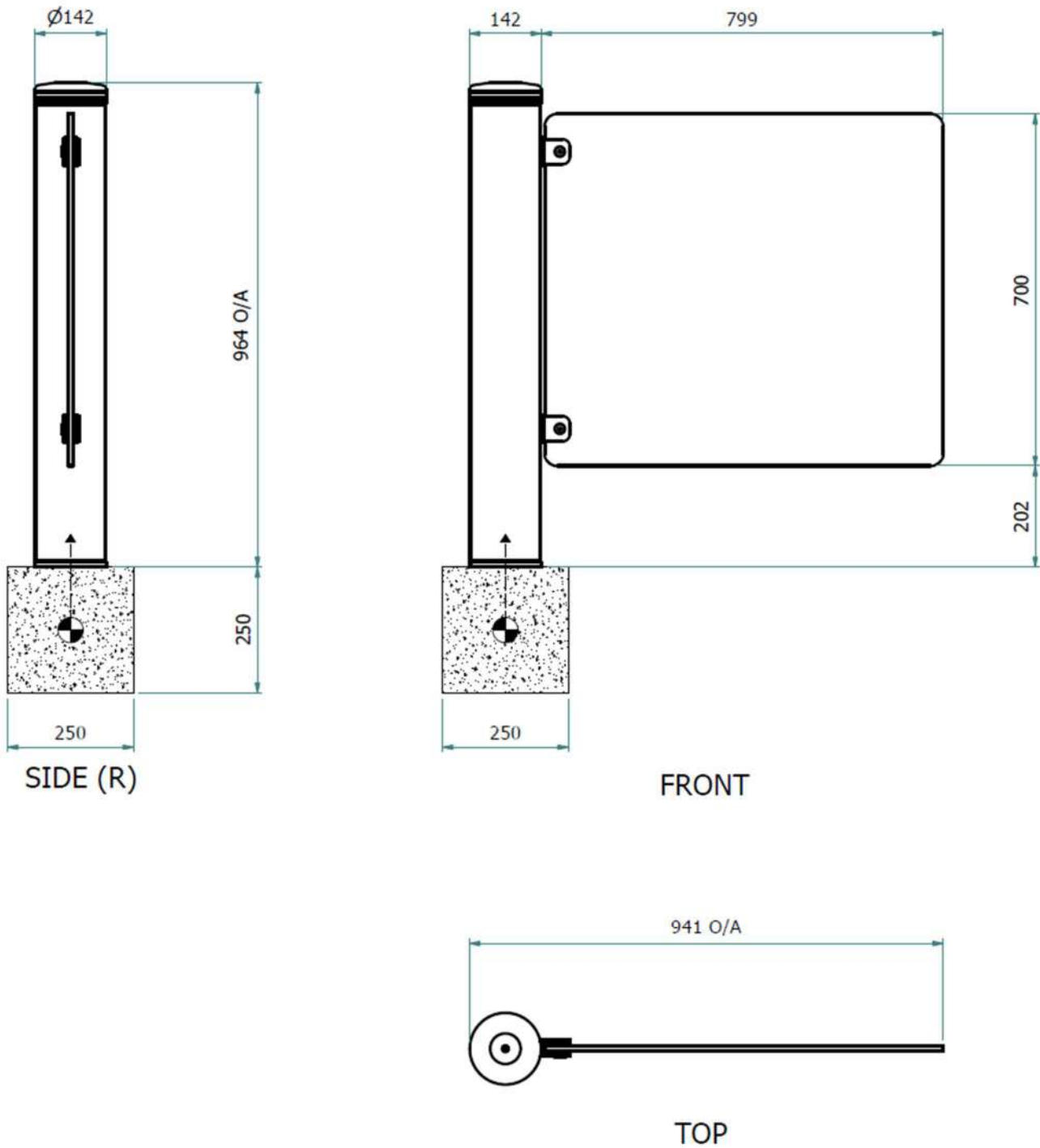


Figure 1: Typical layout of Pulse Special Needs Gate

- 1.2. The gate should be bolted down using 4 x RAWL sleeve anchors, M10 hex head cap screws at least 100mm deep.
- 1.3. There is a 76mm diameter hole in the centre of the base ring for power & control cable allowance.
- 1.4. The gate has a built-in controller and power supply and requires 220v AC 50Hz single phase power to be led to it. (For USA installations supplying 110V, see section 6)
- 1.5. The controller uses a common and a trigger for left opening and a trigger for right opening, normally open contact. These should be a dry contact pulse for 0,5 seconds.
- 1.6. Emergency hold open can be triggered from the terminal panel (*see paragraph 5.6, page 11.*). The trigger requires a latching contact to remain open (The emergency mode is active if the contact is closed.). Change the dipswitch on the control board to change the direction of opening when in emergency mode.
- 1.7. There is allowance for a reception trigger, which can be used with a remote or a pushbutton placed at the reception desk. The trigger has a push-to-open, push-to-close function.

2. PREPARATION FOR INSTALLATION

- 2.1. Below is a typical view for clearance required by the gate. At least 10mm is required at the back. At least 50mm is required from the glass edge to a wall and this should be no more than 100mm

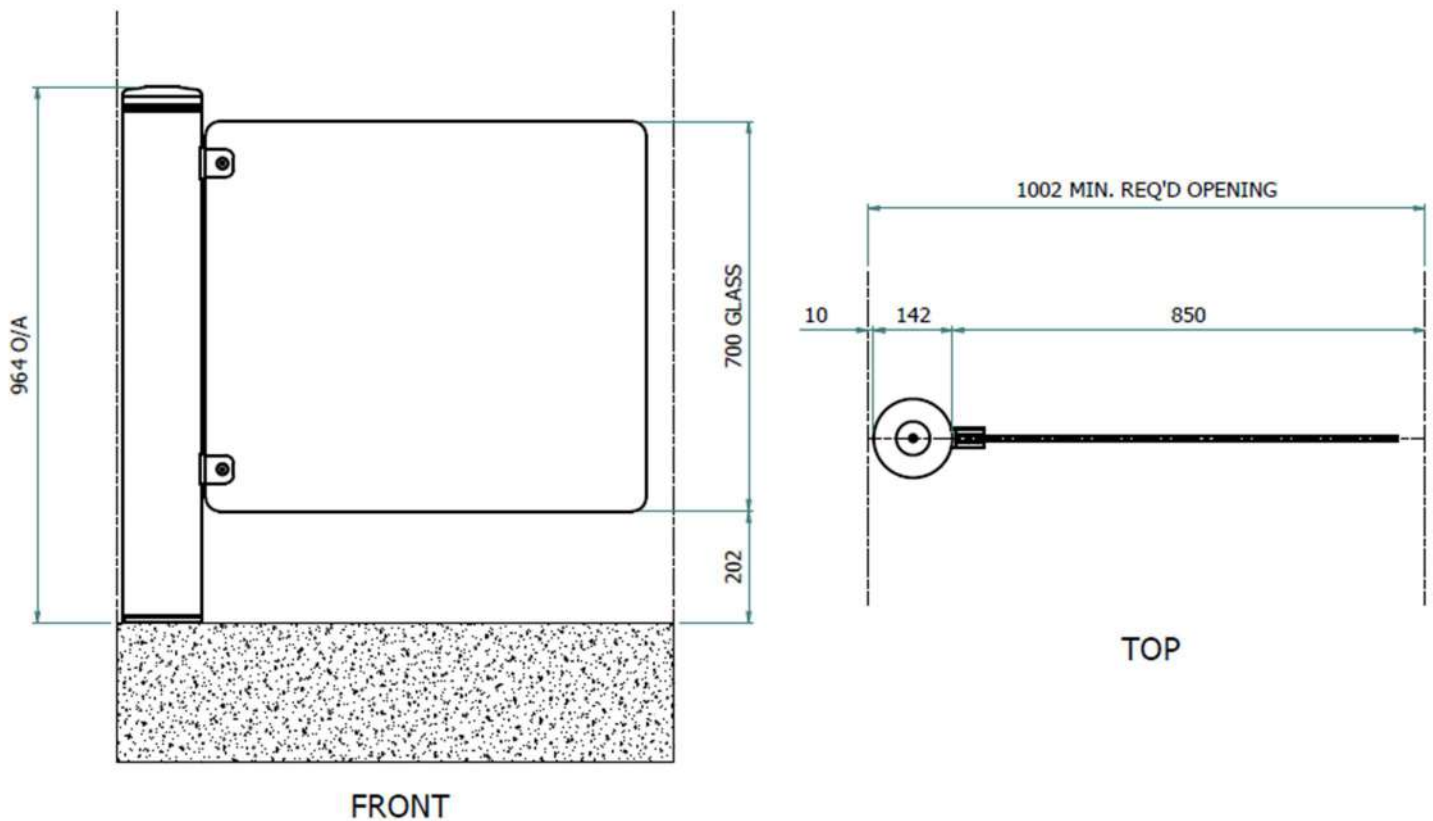


Figure 2: Installation clearance for the gate

- 2.2. Ensure the mounting area concrete strength is adequate and that a conduit is prepared for power & control cables. Also check that the floor is level and smooth.
- 2.3. The conduit should be flush with the floor and the power & control cables must extend +- 500mm from floor level to reach the connection terminals.

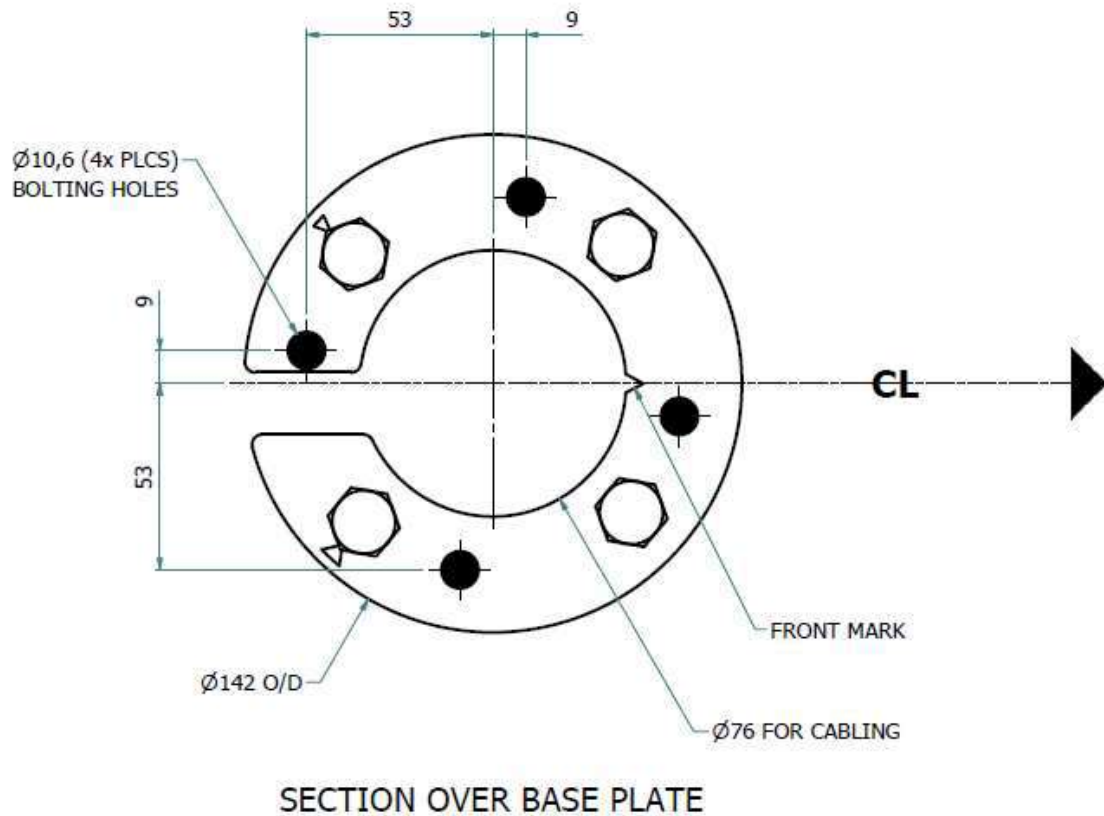


Figure 3: Base ring positioning & bolting holes

- 2.4. The base ring should be placed correctly positioned, with the 'V' front mark notch aligning with the centre line of the installation to the centreline of the installation.
- 2.5. Place the base ring, mark the holes with chalk. Remove and drill holes in concrete.
- 2.6. Bolt down the base assembly using the 4x bolting holes and suitable M10 Capscrew anchors.

3. PARTS

3.1. Below is an exploded view of the special needs gate and its main parts.

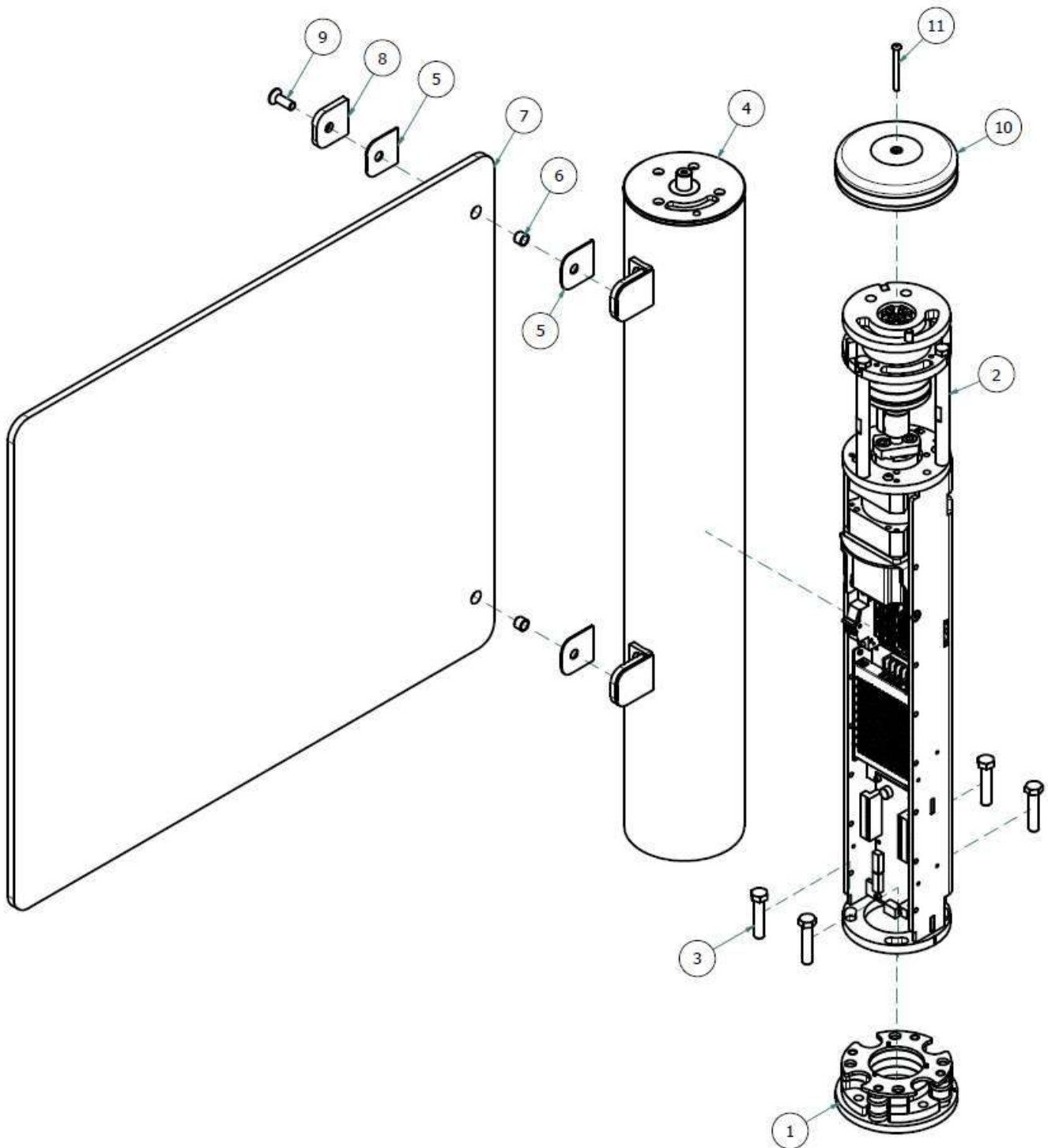


Figure 4: Gate frame Assembly

Item	Qty	Description	Part Number
1	1	Bottom Bracket Weldment	SNGA-WM-02
2	1	Main Structure Assembly	SNGA-WM-01
3	4	M12 x 55 Hex Set Screw, ZP	M12X55-HSS-ZP
4	1	Body Weldment	SNGA-WM-05
5	4	Glass Clamp Rubber	SNGA-PT-02
6	2	14x12x10 Nylon Sleeve	14x12x10-NYSL
7	1	Standard Gate Glass	SNGA-PT-01
8	2	Glass Mounting Tab	SNGA-LC-13
9	2	M10 x 30 Countersunk Capscrew, SS	M10x30-CSK-A2
10	1	Top Cover with LED Assembly	SNGA-SA-04
11	1	M6x60 Buttonhead Capscrew, ZP	M6x60-BHCS-ZP

4. OPENING & INSTALLATION

- 4.1. To open the structure, remove the top M6 screw (11) using a 4mm allen hex key. Lift off the top cover (10) taking care to disconnect the LED wires before removing entirely.
- 4.2. Lift off the body (4) with glass in place. The top of the body is engaged into a toothed bush and may require some force. Two people should lift the body, holding the glass and structure.
- 4.3. Unbolt the main structure (2) from the base bracket (1) by removing the 4 off M12 x 55 screws (3) using a 19 Spanner.
- 4.4. Place the base bracket on the floor over the conduit point as shown in *Figure 3: Base ring positioning & bolting holes*. Mark the hole positions for the holding down bolts as shown.
- 4.5. Drill the holes for the bolts and ensure that this lines up with the base bracket holes.
- 4.6. Pull the cabling through the centre hole of the base bracket, mount the base bracket down securely, pull the cabling through the bottom of the main structure and replace the structure onto the bracket using the bolts.
- 4.7. Connect the power and controls (see *section 5*) before replacing the body. The body must be placed with the controls facing toward the area where the gate will in the closed

position. If required, adjust the structure by loosening the screws (3) slightly and rotating the structure in the slots at the base.

5. CONNECTIONS AND SETUP

- 5.1. In the PAG700V02 controller, the most used triggers are wired to the terminal rail located above the power supply.
- 5.2. The power connections for mains power are also located at the terminal rail, with live wire connected to the circuit breaker.

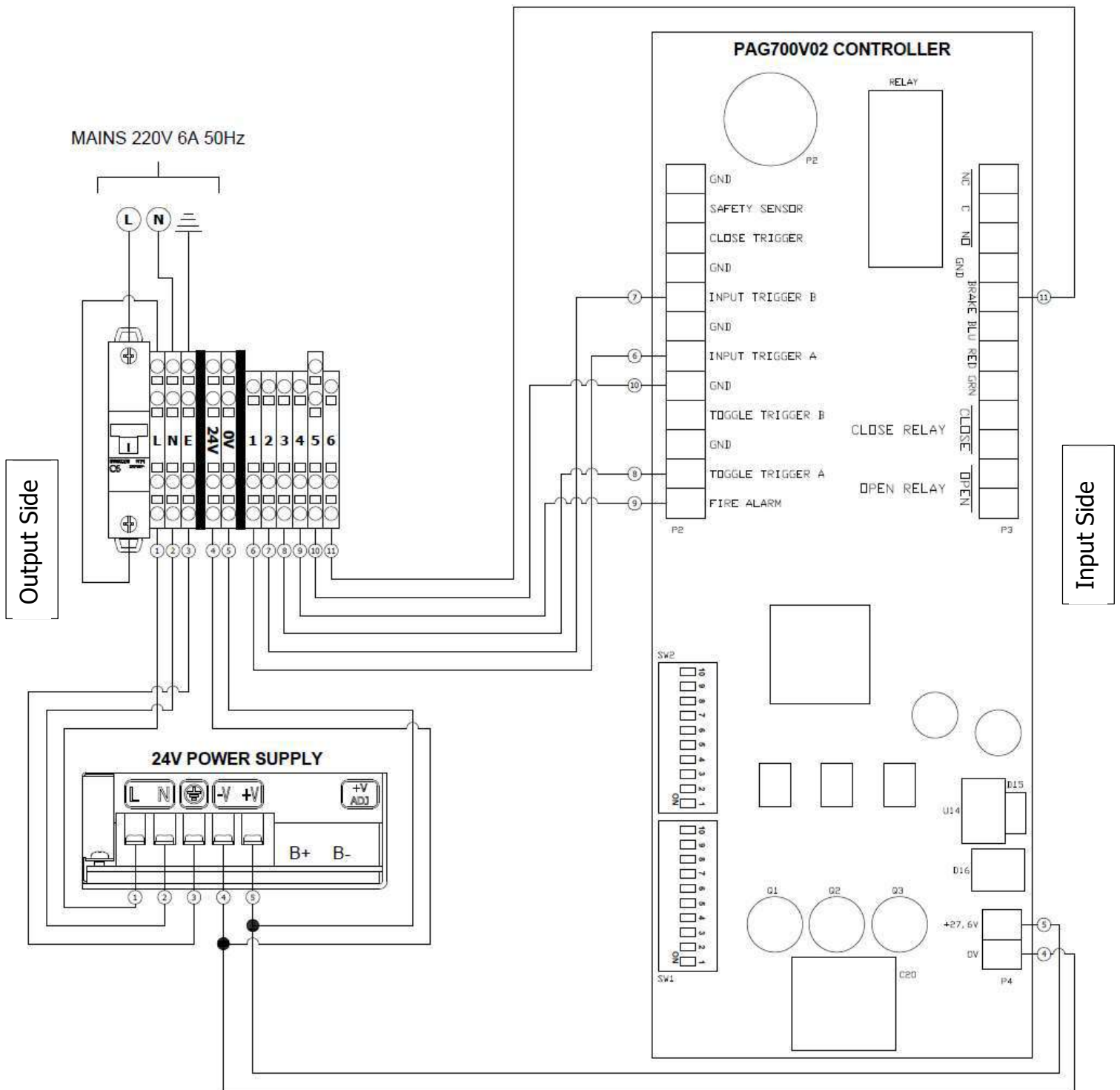


Figure 5: PAG700V02 Controller & Connections

5.3. Connect 220v AC live power as shown in the diagram *Figure 6:* .

- 5.4. Connect the terminals 1 and 5 (trigger A and ground), and the terminals 2 and 5 (trigger B and ground) to control direction 1 and 2. These are normally open dry contacts and require a pulse of 0,5 seconds closing the contact.
- 5.5. Connect the terminals 4 and 5 (emergency trigger and ground) (GND) to control the emergency opening (latch).
- 5.6. Connect the terminals 3 and 5 (toggle trigger A and ground) to use as an opening latch for a remote control or push button at the reception desk.

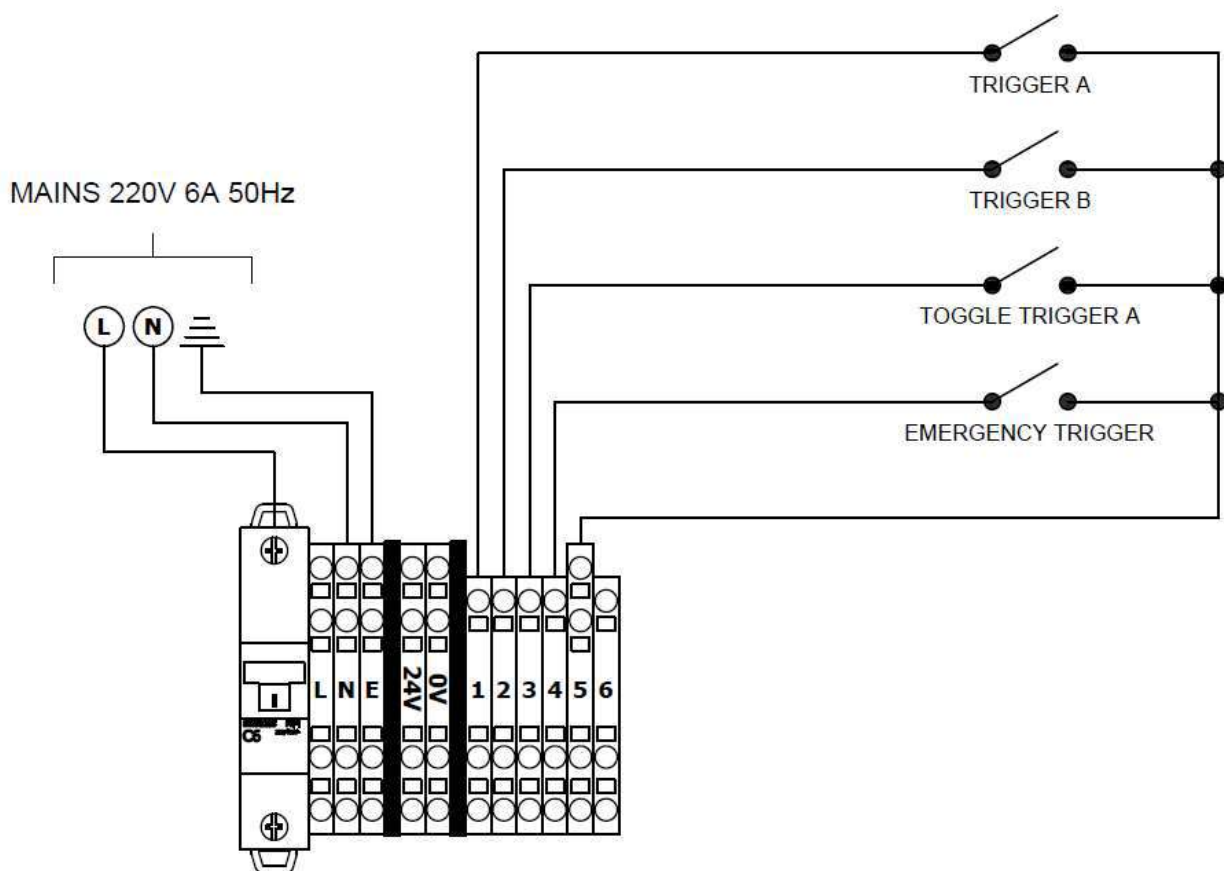


Figure 6: Client trigger connections

6. POWER SUPPLY AND VOLTAGE SELECTION

- 6.1. The power supply has a switch that should be set for either 220V or 110V (for USA installations). Remove the front screw, slide the perforated top back and up to remove, to access the switch.

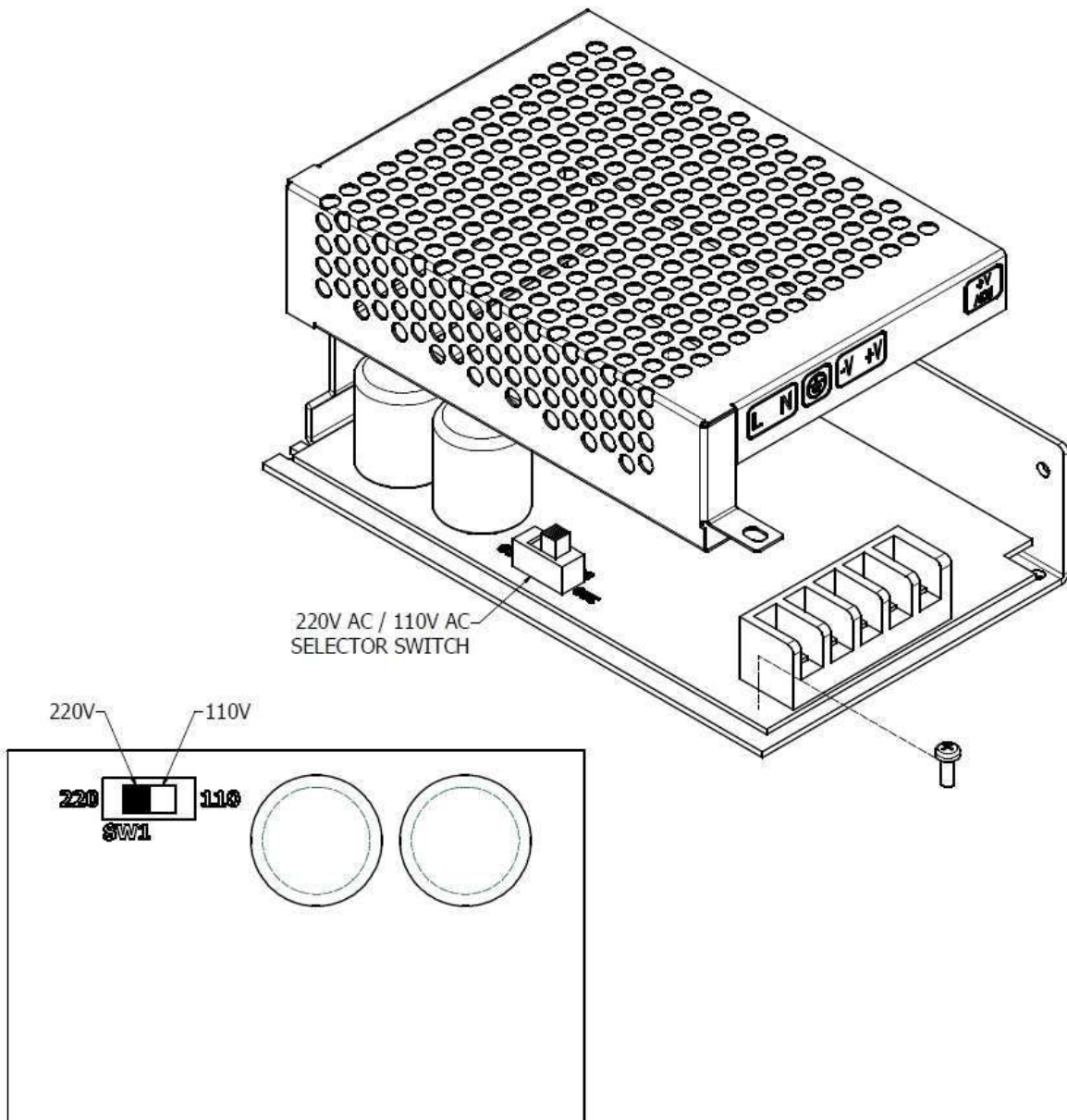


Figure 7: Power supply mains change 220v - 110v

7. CONTROLLER SWITCH SETTINGS

Switch	Function	On	Off	
1,2	Gate Open Speed - Slow	-	S1, S2	Controls the opening speed of the gate. The options are slow, medium slow, medium fast and fast.
1,2	Gate Open Speed - Med. Slow	S1	S2	
1,2	Gate Open Speed - Med. Fast	S2	S1	
1,2	Gate Open Speed - Fast	S1, S2	-	
3,4	Gate Close Speed - Slow	-	S3, S4	Controls the closing speed of the gate. The options are slow, medium slow, medium fast and fast.
3,4	Gate Close Speed - Med. Slow	S3	S4	
3,4	Gate Close Speed - Med. Fast	S4	S3	
3,4	Gate Close Speed - Fast	S3, S4	-	
5	Gate Motor Direction	CCW	CW	Controls the gate motor direction which is normally clockwise.
6	Input Test Enable	ON	OFF	
7	Motor Type	HOGAN	Velocity	Provision for different motors. Factory set.
8	Brake Mode in Open Position	ON	OFF	
9	Brake Mode in Closed Position	ON	OFF	
10	Fire Alarm Direction	B	A	Direction gate opens when fire alarm is triggered.
11	Open Trigger Memory	ON	OFF	Trigger memory for storing multiple triggers. This is by default off.

12,13	Auto Close Timer – 8 Sec	-	S12, S13	Controls the time the gate pauses after fully opening before closing again. The options are 8, 10, 15 and 30 seconds.
12,13	Auto Close Timer – 10 Sec	S12	S13	
12,13	Auto Close Timer – 15 Sec	S13	S12	
12,13	Auto Close Timer – 30 Sec	S12, S13	-	
14,15	Close Delay – 0 Sec	-	S14, S15	Delay before closing after the closing signal from a toggle trigger is received. The options are 0, 2, 4 and 6 seconds.
14,15	Close Delay – 2 Sec	S14	S15	
14,15	Close Delay – 4 Sec	S15	S14	
14,15	Close Delay – 6 Sec	S14, S15	-	
16	Operation Buzzer	ON	OFF	Buzzer sound on operation.
17	Spare	-	-	
18	Trigger Hold Open	ON	OFF	Hold open function for trigger if contact is closed indefinitely.
19	LEARN MODE – Switch ON for 5 seconds	ON	OFF	For factory settings.
20	Test Mode – 2 Second Auto Cycle	ON	OFF	

8. DRAWINGS

8.1. Drawings that are included with this manual is listed below:

8.1.1. SNGA-AS-01 – Rev. 6 (Sheet 1 & 2)

8.1.2. SNGA-SA-01 – Rev. 6

8.1.3. SNGA-SA-02 – Rev. 6

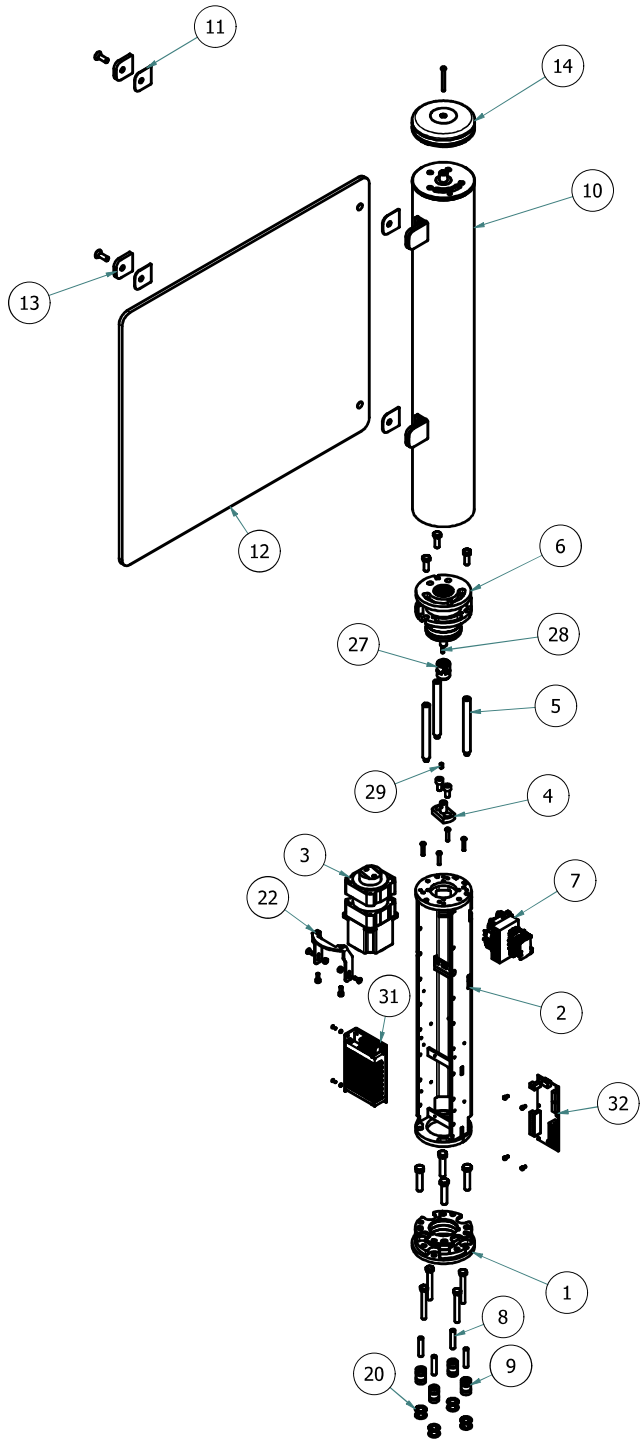
8.1.4. SNGA-SA-03 – Rev. 7

8.1.5. SNGA-SA-04 – Rev. 6

8.1.6. SNGA-SA-05 – Rev. 6

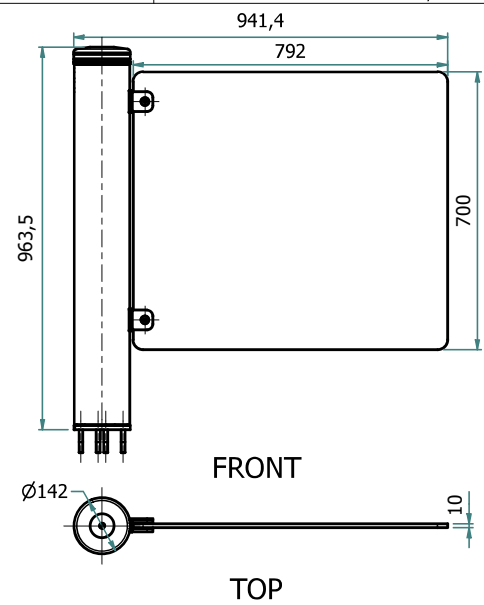
8.1.7. 1278-WD-01 – Rev. 1

8.1.8. 1278-WD-02 – Rev. 0



EXPLODED

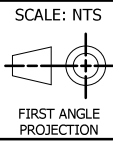
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNGA-WM-02	WELD ASSEMBLY: BOTTOM BRACKET
2	1	SNGA-WM-01	WELD ASSEMBLY: MAIN STRUCTURE
3	1	MOTOR-SWIFT	MOTOR-SWIFT
4	1	SNGA-WM-08	WELD ASSEMBLY: MOTOR COUPLING
5	3	SNGA-MA-06	SUPPORT PIN
6	1	SNGA-SA-01	SUB ASSEMBLY: MOTOR BRAKE
7	1	SNGA-SA-03	SUB ASSEMBLY: CIRCUIT BREAKER
8	4	SNGA-MA-01	PIN
9	4	SNGA-MA-05	CENTERING WHEEL
10	1	SNGA-WM-05	WELD ASSEMBLY: BODY
11	4	SNGA-PT-02	GLASS CLAMP RUBBER
12	1	SNGA-PT-01-1	GLASS GATE STD
13	2	SNGA-LC-13	GLASS MOUNTING TAB MOVING
14	1	SNGA-SA-04	ASSEMBLY: TOP COVER WITH LED
15	4	M6x30-BHCS-ZP	M6x30 BUTTONHEAD CAPSCREW, ZP
16	2	M10x20-SHCS-ZP	M10x20 SOCKETHEAD CAPSCREW, ZP
17	3	M10x30-HSS-ZP	M10x30 HEX SET SCREW, 4.8, ZP
18	2	M10x30-CSK-ZP	M10x30 SOCKETHEAD COUNTERSUNK CAPSCREW, ZP
19	1	M6x60-BHCS-ZP	M6x60 BUTTONHEAD CAPSCREW, ZP
20	8	o-ring-22x4	o-ring-22x4
21	2	M6x16-SHCS-ZP	M6x16 SOCKETHEAD CAPSCREW, ZP
22	1	SNGA-LC-26	MOTOR BRACKET
23	2	M6-HN-ZP	M6 HEX NUT, ZP
24	2	M6x16-CSK-ZP	M6x16 SOCKETHEAD COUNTERSUNK CAPSCREW, ZP
25	4	M10x80-HB-ZP	M10x80 HEX BOLT 4.8, ZP
26	4	M12x55-HSS-ZP	M12x55 HEX SET SCREW, 4.8, ZP
27	1	SNGA-SA-05	ASSEMBLY COUPLING - L 070
28	1	SNGA-MA-31	KEY
29	1	SNGA-MA-32	KEY
30	2	M6x8-FPSS-ZP	M6x8 FLAT POINT SET SCREW, ZP
31	1	SC-120-24	SC-120-24
32	1	PAG700TUR	BARRIER LOGIC
33	2	M3-HN-ZP	M3 HEX NUT, GR5
34	2	M3x10-CSK-ZP	M3x10 SOCKETHEAD COUNTERSUNK CAPSCREW, ZP
35	4	M4x8-SHCS-ZP	M4x8 SOCKETHEAD CAPSCREW, ZP



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DIMENSIONAL TOLERANCES
(UNLESS OTHERWISE SPECIFIED):

FROM:	TO	TOLERANCE
0	25	+- 0.25
26	100	+- 0.50
101	250	+- 1.00
251	500	+- 1.50
501	1000	+- 2.50
1001	>	+- 3.00

APPROVALS:

Drawn By:	Ben	2022/01/19
Designed By:	Ben	2022/01/19
Checked By:	C SACKS	2022/01/19
Eng Approved:	C SACKS	2022/01/19

MASS:
 44.39 kg

MATERIAL:
 Stainless Steel Grade 304 -

FINISH:
 NATURAL

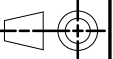
DESCRIPTION:
GENERAL ASSEMBLY

PART NUMBER:	REV:
SNGA-AS-01	6

PROJECT:

**SPECIAL NEEDS GATE
 AUTOMATIC**

SCALE: NTS



FIRST ANGLE
 PROJECTION

DIMENSIONAL TOLERANCES
 (UNLESS OTHERWISE SPECIFIED):

FROM:	TO	TOLERANCE
0	25	+- 0.25
26	100	+- 0.50
101	250	+- 1.00
251	500	+- 1.50
501	1000	+- 2.50
1001	>	+- 3.00

APPROVALS:

Drawn By:	Ben	2022/01/19
Designed By:	Ben	2022/01/19
Checked By:	C SACKS	2022/01/19
Eng Approved:	C SACKS	2022/01/19

MASS:

44,39 kg

MATERIAL:

Stainless Steel Grade 304 -

FINISH:

NATURAL

DESCRIPTION:

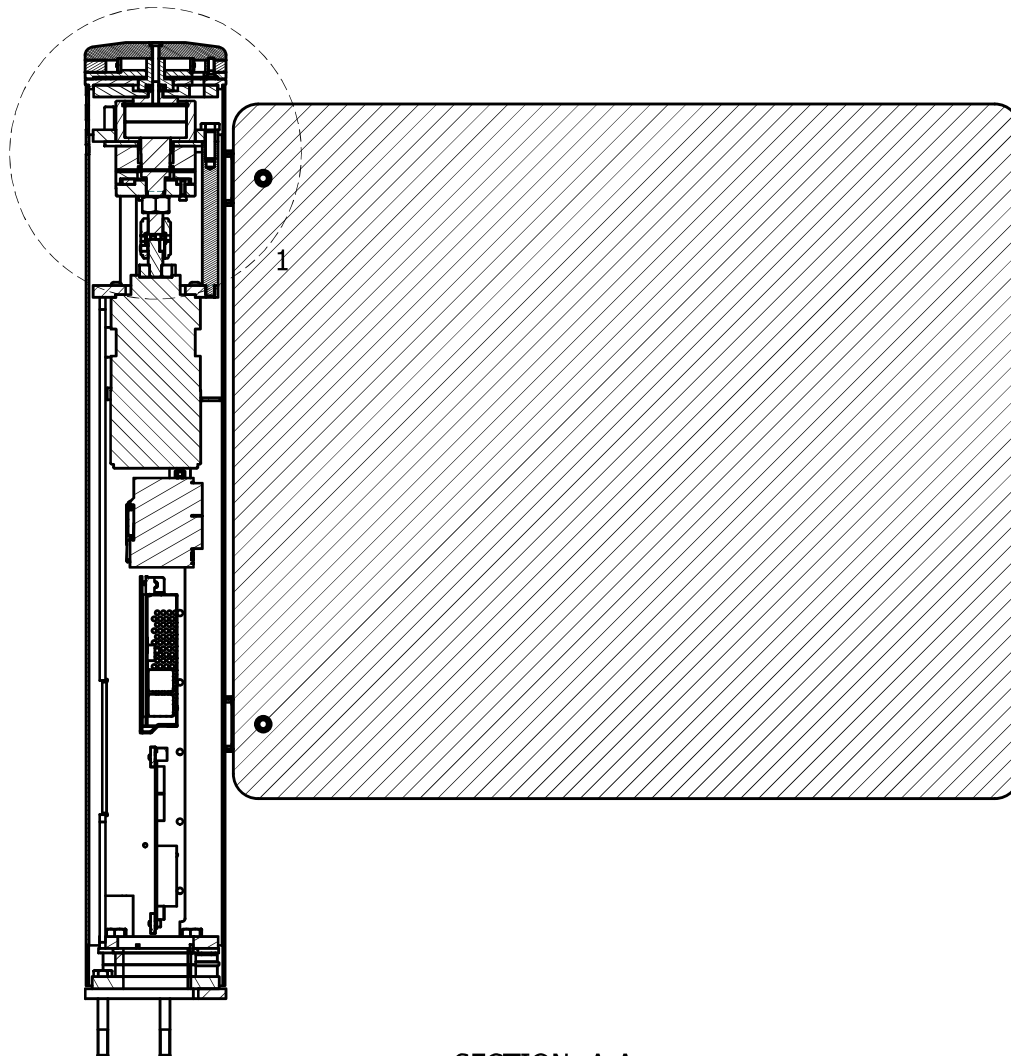
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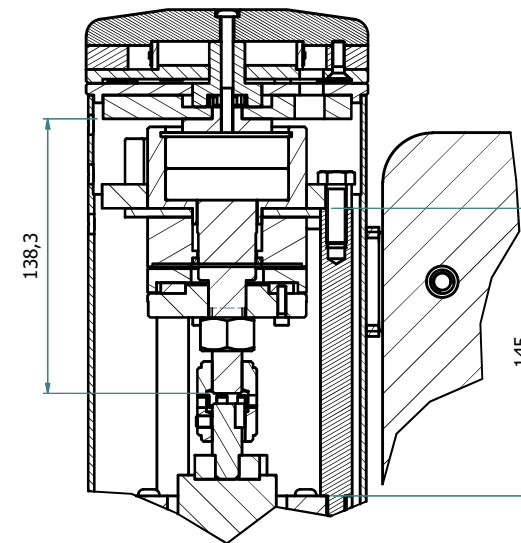
SNGA-AS-01

REV:

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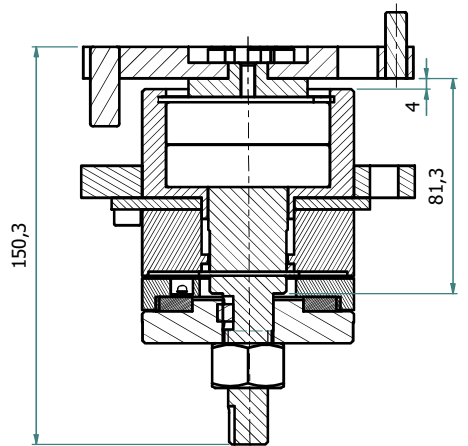
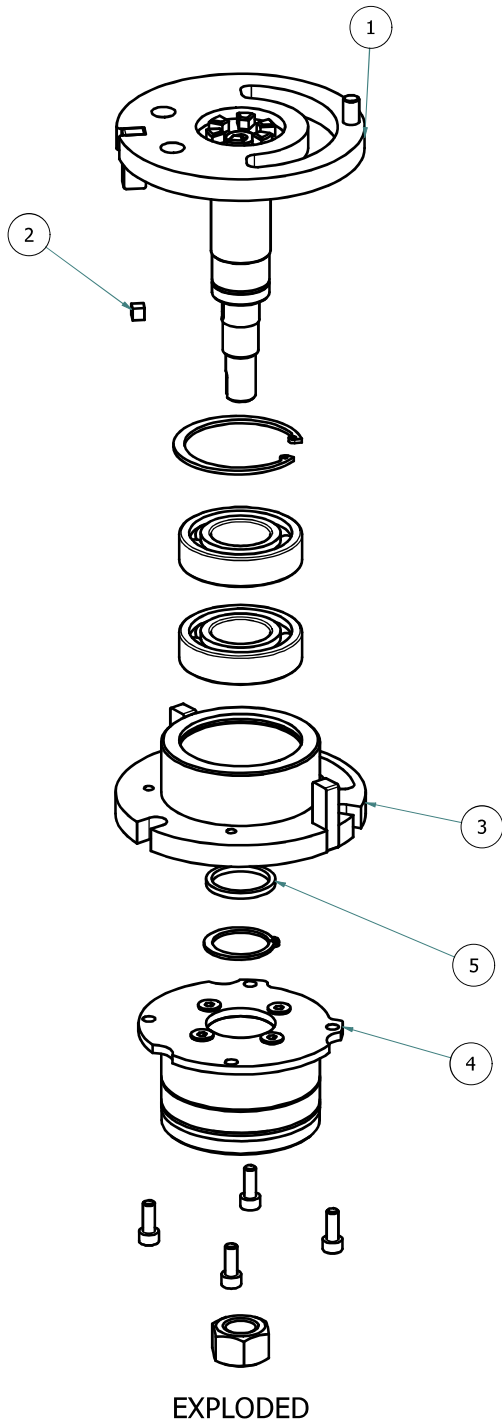
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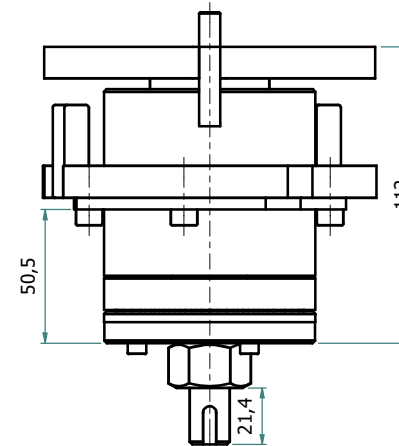
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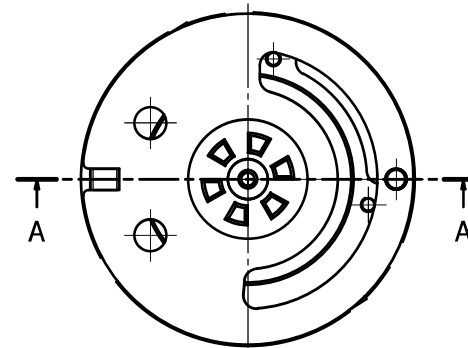
TOP



SECTION: A-A



TOP



FRONT

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	SNGA-WM-03	WELD ASSEMBLY: MAIN SHAFT	
2	1	SNGA-MA-25	KEY	
3	1	SNGA-WM-04	WELD ASSEMBLY: BEARING HOUSING	
4	1	SNGA-SA-02	SUB ASSEMBLY: BRAKE	
5	1	SNGA-MA-23	WASHER	
6	4	M6x16-SHCS-ZP	M6x16 SOCKETHEAD CAPSCREW, ZP	
7	1	M18-HN-ZP	M18 HEX NUT, ZP	
8	2	6206-2RS1-DGGB	62 OD x 30 ID x 16 H DEEP GROOVE BALL BEARING, 2RS	
9	1	62x2-CCIN-ZP	62x2 INTERNAL CIRCLIP, ZP	
10	1	30x1,5-CCEX-ZP	30x1,5 EXTERNAL CIRCLIP, ZP	

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FIRST ANGLE
PROJECTION

DIMENSIONAL TOLERANCES
(UNLESS OTHERWISE SPECIFIED):

FROM:	TO	TOLERANCE
0	25	+- 0.25
26	100	+- 0.50
101	250	+- 1.00
251	500	+- 1.50
501	1000	+- 2.50
1001	>	+- 3.00

APPROVALS:

Drawn By:	Ben	2022/01/19
Designed By:	Ben	2022/01/19
Checked By:	C SACKS	2022/01/19
Eng Approved:	C SACKS	2022/01/19

MASS:

4,20 kg

MATERIAL:

Steel, Mild -

FINISH:

Galvanised Finish

DESCRIPTION:

SUB ASSEMBLY: MOTOR BRAKE

PART NUMBER:

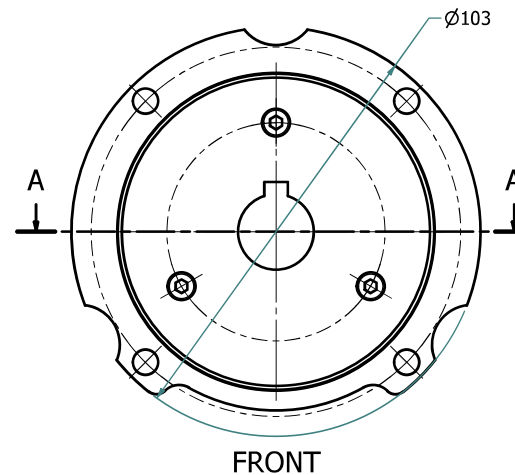
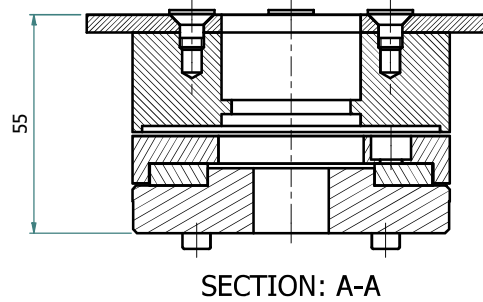
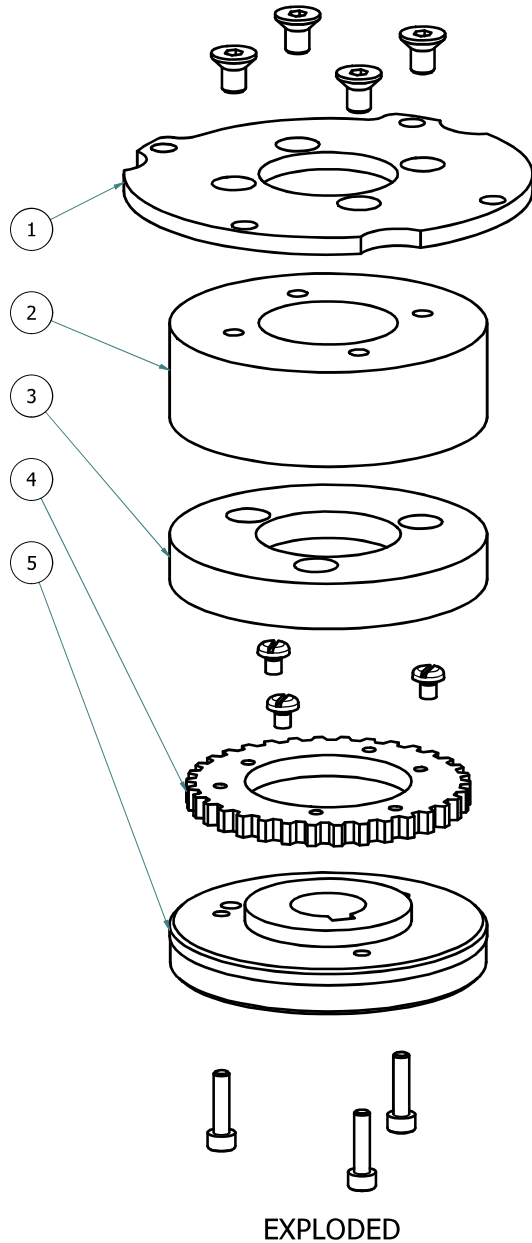
SNGA-SA-01

REV:

6

SHEET 1 OF 1

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNGA-LC-10	BRAKE FIX PLATE
2	1	BRAKE-1	BRAKE-1
3	1	BRAKE-2	BRAKE-2
4	1	BRAKE-3	BRAKE-3
5	1	SNGA-MA-04	BRAKE SUPPORT
6	3	M4X5-SPHS-ZP	M4X5-SPHS-ZP
7	3	M4x16-SHCS-ZP	M4x16 SOCKETHEAD CAPSCREW, ZP
8	4	M6x10-CSK-ZP	M6x10 SOCKETHEAD COUNTERSUNK CAPSCREW, ZP



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DIMENSIONAL TOLERANCES
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FROM:	TO	TOLERANCE
0	25	+- 0.25
26	100	+- 0.50
101	250	+- 1.00
251	500	+- 1.50
501	1000	+- 2.50
1001	>	+- 3.00

APPROVALS:

Drawn By:	Ben	2022/01/19
Designed By:	Ben	2022/01/19
Checked By:	C SACKS	2022/01/19
Eng Approved:	C SACKS	2022/01/19

MASS:

0,87 kg

MATERIAL:

Steel, Mild -

FINISH:

Galvanised Finish

DESCRIPTION:

SUB ASSEMBLY: BRAKE

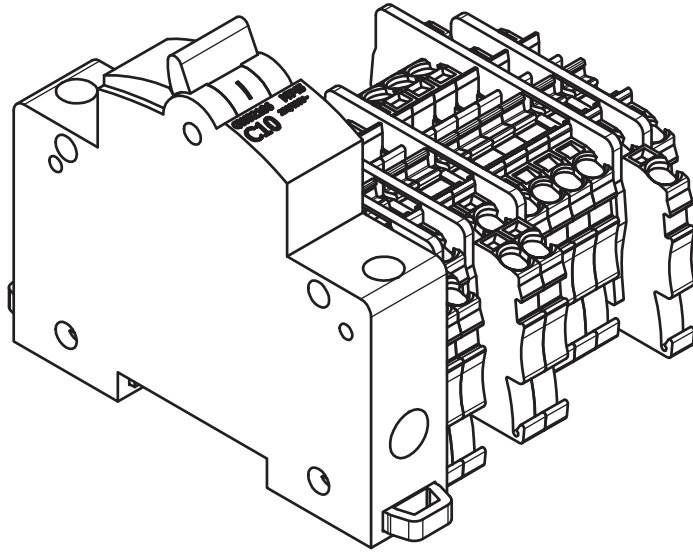
PART NUMBER:

SNGA-SA-02

REV:

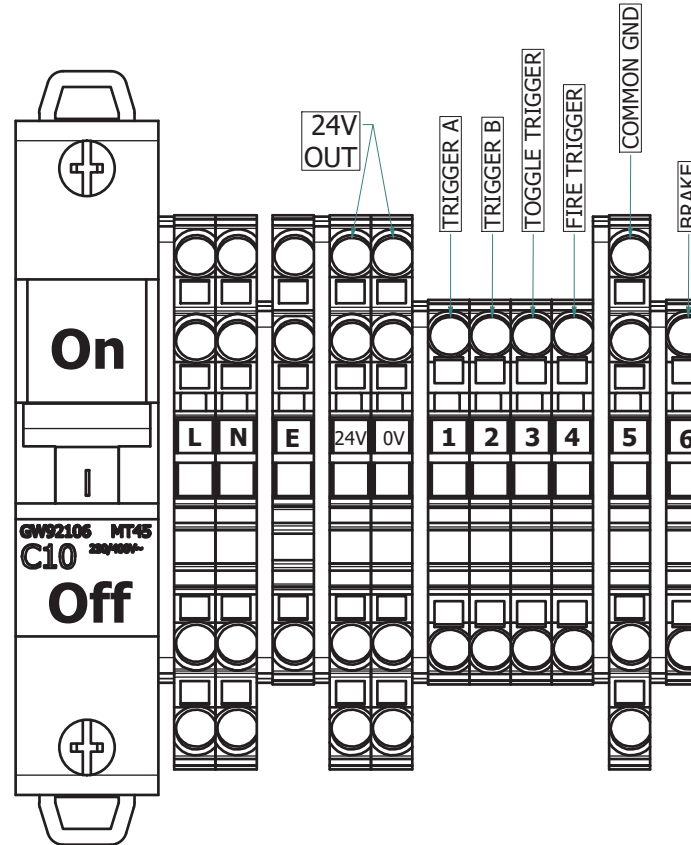
6

SHEET 1 OF 1



ISOMETRIC (TR)

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
2	1	GW92106_0_ASM	
3	3	2002-1403	
4	2	2002-1404	
5	1	2002-1307_0	
6	5	2002-1201	
7	3	2002-1294	
8	3	2002-1394	



FRONT

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 AUTOMATIC**

SCALE: NTS



DIMENSIONAL TOLERANCES
 (UNLESS OTHERWISE SPECIFIED):

FROM:	TO	TOLERANCE
0	25	+/- 0.25
26	100	+/- 0.50
101	250	+/- 1.00
251	500	+/- 1.50
501	1000	+/- 2.50
1001	>	+/- 3.00

APPROVALS:

Drawn By:	BP NEL	2022/04/12
Designed By:	BP NEL	2022/04/12
Checked By:	C SACKS	2022/04/12
Eng Approved:	C SACKS	2022/04/12

MASS:

0,20 kg

MATERIAL:

STD -

FINISH:

NATURAL

DESCRIPTION:

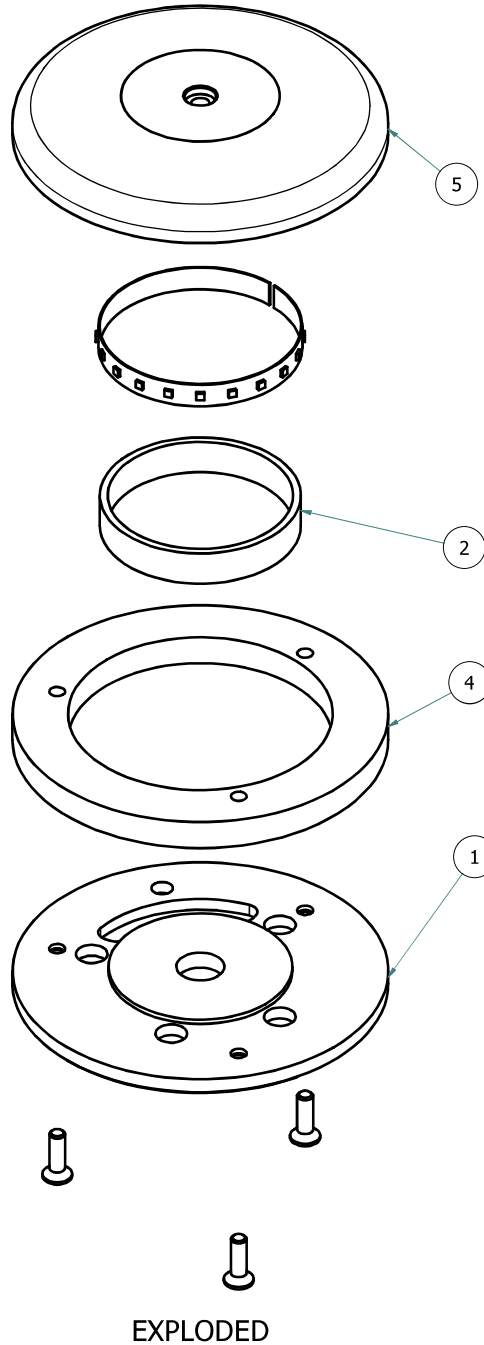
**SUB ASSEMBLY: CIRCUIT
 BREAKER**

PART NUMBER:

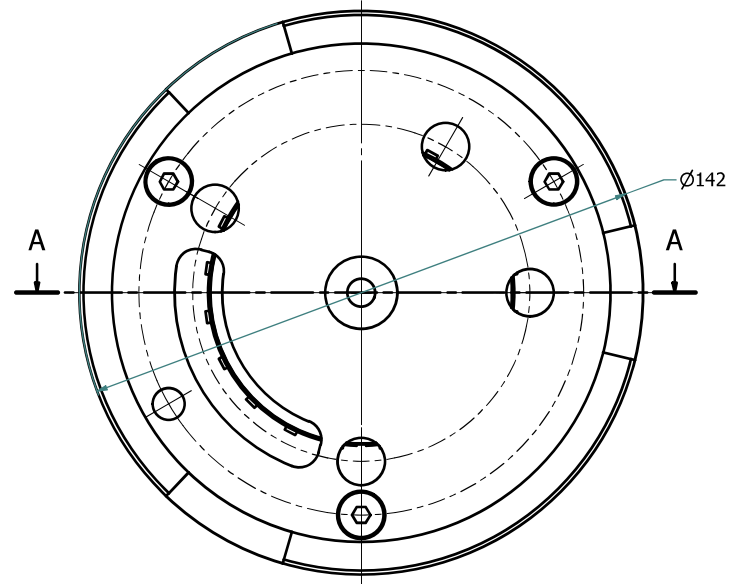
SNGA-SA-03

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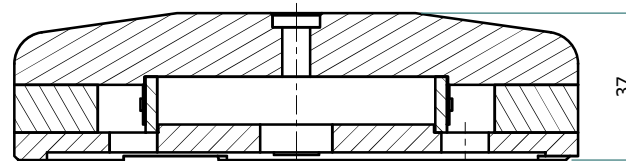
7



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SNGA-MA-24	LED SUPPORT PLATE
2	1	SNGA-MA-20	LED SUPPORT RING
3	1	LED-RING	LED-RING
4	1	SNGA-MA-16	LED COVER
5	1	SNGA-MA-15	TOP COVER
6	3	M6x20-CSK-ZP	M6x20 SOCKETHEAD COUNTERSUNK CAPSCREW, ZP



BOTTOM



SECTION: A-A

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P

**SPECIAL NEEDS GATE
 AUTOMATIC**

SCALE: NTS



FIRST ANGLE
 PROJECTION

DIMENSIONAL TOLERANCES
 (UNLESS OTHERWISE SPECIFIED):

FROM:	TO	TOLERANCE
0	25	+- 0.25
26	100	+- 0.50
101	250	+- 1.00
251	500	+- 1.50
501	1000	+- 2.50
1001	>	+- 3.00

APPROVALS:

Drawn By:	Ben	2022/01/19
Designed By:	Ben	2022/01/19
Checked By:	C SACKS	2022/01/19
Eng Approved:	C SACKS	2022/01/19

MASS:

2,70 kg

MATERIAL:

Stainless Steel Grade 304 -

FINISH:

Brush Finish # 200

DESCRIPTION:

ASSEMBLY: TOP COVER WITH LED

PART NUMBER:

SNGA-SA-04

REV:

6

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	SNGA-MA-27	COUPLING

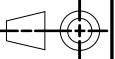
TURNSTILES.us

www.TURNSTILES.us
 Call 303 670 1099 * Text 303 918 9787
 patrick.mcallister@turnstiles.us

PR

**SPECIAL NEEDS GATE
 AUTOMATIC**

SCALE: NTS



FIRST ANGLE
 PROJECTION

DIMENSIONAL TOLERANCES
 (UNLESS OTHERWISE SPECIFIED):

FROM:	TO	TOLERANCE
0	25	+- 0.25
26	100	+- 0.50
101	250	+- 1.00
251	500	+- 1.50
501	1000	+- 2.50
1001	>	+- 3.00

APPROVALS:

Drawn By:	Ben	2022/01/19
Designed By:	Ben	2022/01/19
Checked By:	C SACKS	2022/01/19
Eng Approved:	C SACKS	2022/01/19

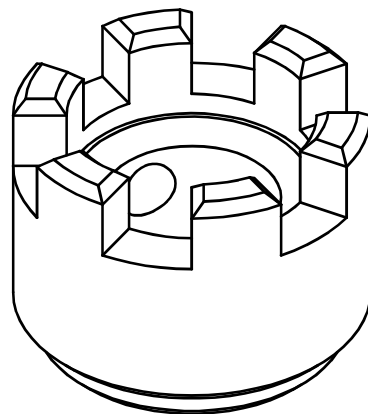
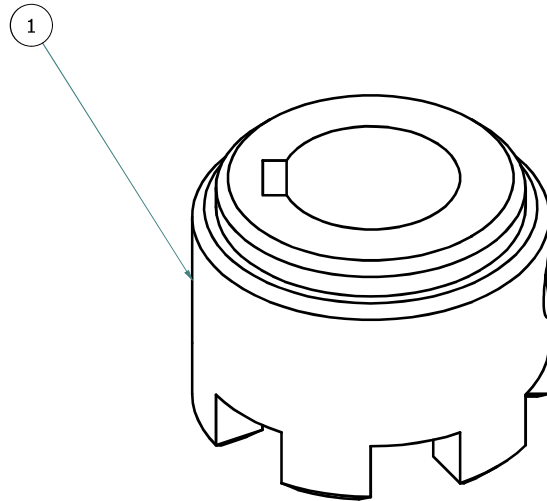
MASS:	0,14 kg
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MATERIAL:	Steel, Mild -
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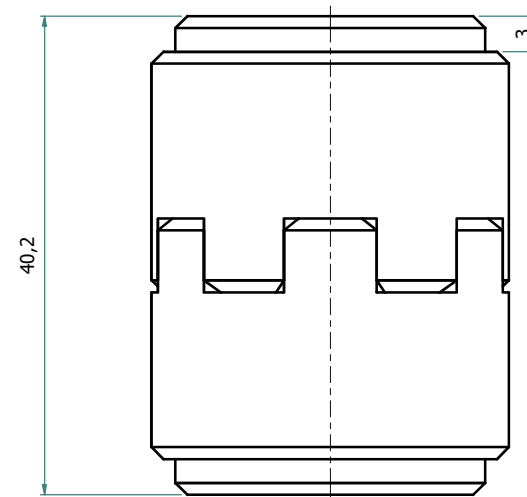
FINISH:	Galvanised Finish
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DESCRIPTION:	ASSEMBLY COUPLING - L 070
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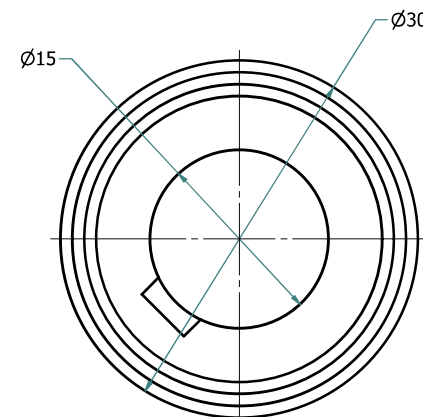
PART NUMBER:	SNGA-SA-05	REV:	6
--------------	-------------------	------	----------



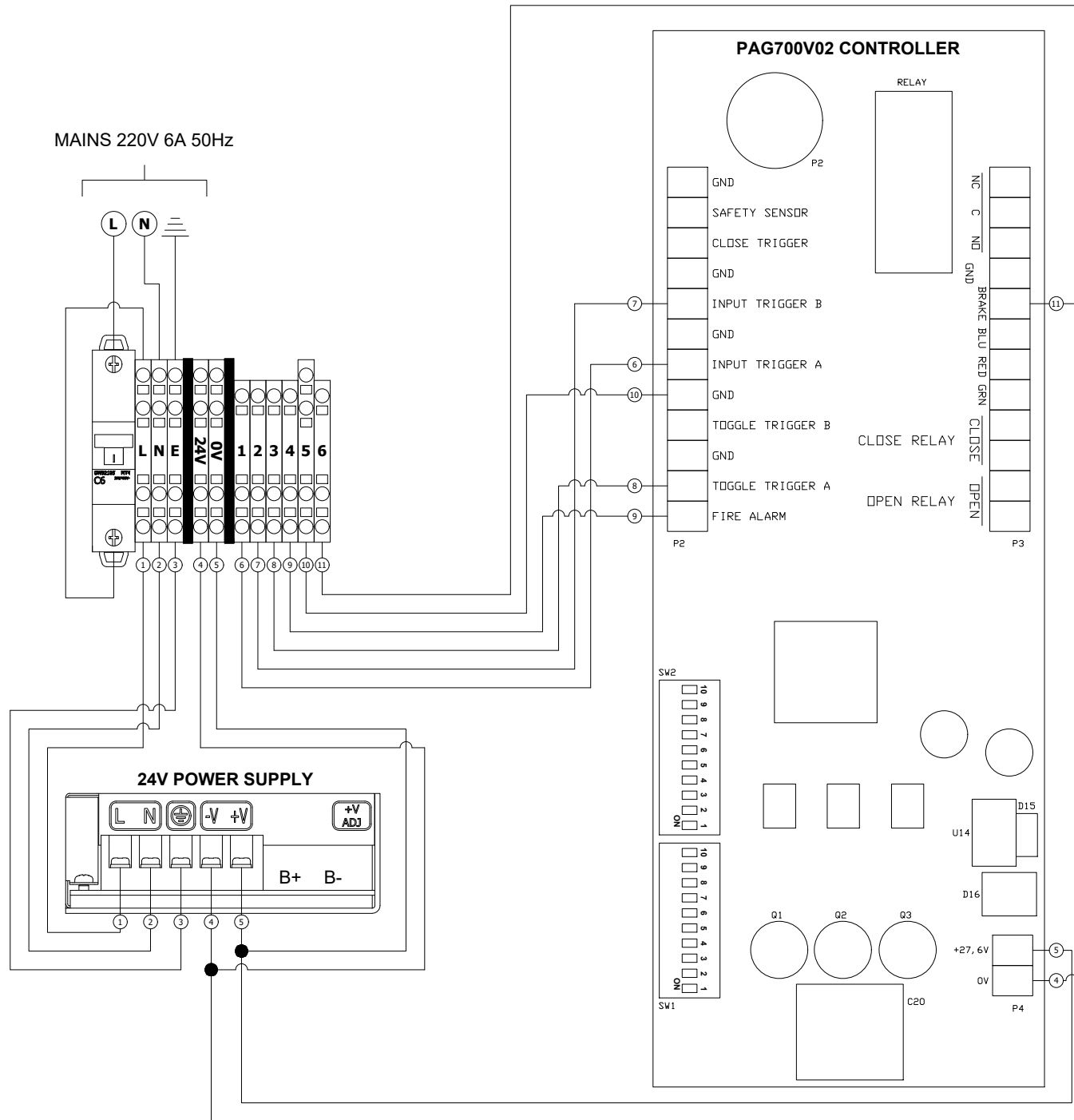
EXPLODED



FRONT



TOP



PROJECT #:

1278

PROJECT:

**AUTOMATIC SPECIAL
 NEEDS GATE**

SITE:

CLIENT:

DIMENSION TOLERANCES (Unless otherwise specified):		SCALE: NTS
FROM:	TO	TOLERANCE
0	25	+/- 0.25
26	100	+/- 0.50
101	250	+/- 1.00
251	500	+/- 1.50
501	1000	+/- 2.50
1001	>	+/- 3.00

APPROVALS: PAGE SIZE: A4

Drawn: ----	----
Checked: ----	----
Approved: ----	----

DESCRIPTION:

**PAG700V02 CONTROLLER
 GENERAL DIAGRAM**

NUMBER:

1278-WD-01

REV:

1

PROJECT #:

1278

PROJECT:

**AUTOMATIC SPECIAL
 NEEDS GATE**

SITE:

CLIENT:

DIMENSION TOLERANCES
 (Unless otherwise specified): SCALE: NTS

FROM:	TO	TOLERANCE
0	25	+ - 0.25
26	100	+ - 0.50
101	250	+ - 1.00
251	500	+ - 1.50
501	1000	+ - 2.50
1001	>	+ - 3.00

APPROVALS: PAGE SIZE: A4

Drawn:	----	----
Checked:	----	----
Approved:	----	----

DESCRIPTION:

**PAG700V02 CONTROLLER
 SECONDARY DIAGRAM**

NUMBER:

1278-WD-02

REV:

0

