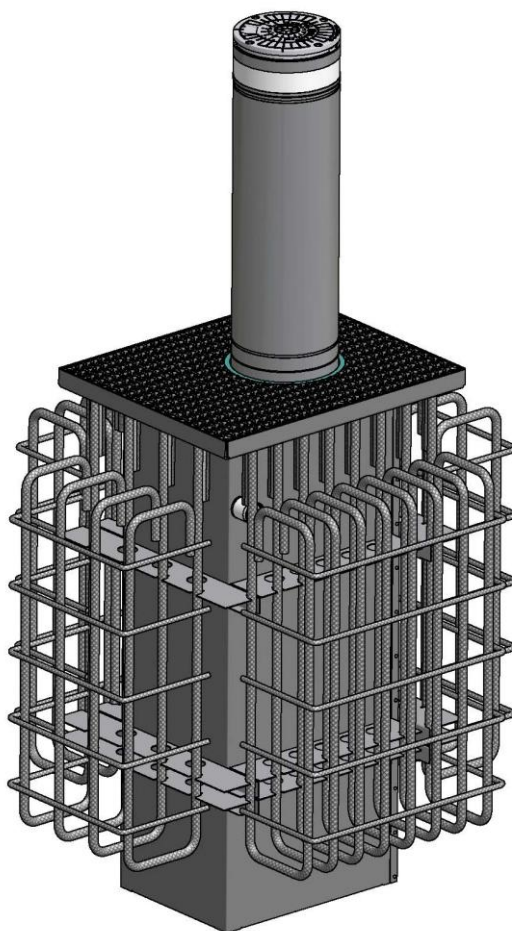


High Security RISING BOLLARD RB90HS



Installation notice (original notice)

Rev 00

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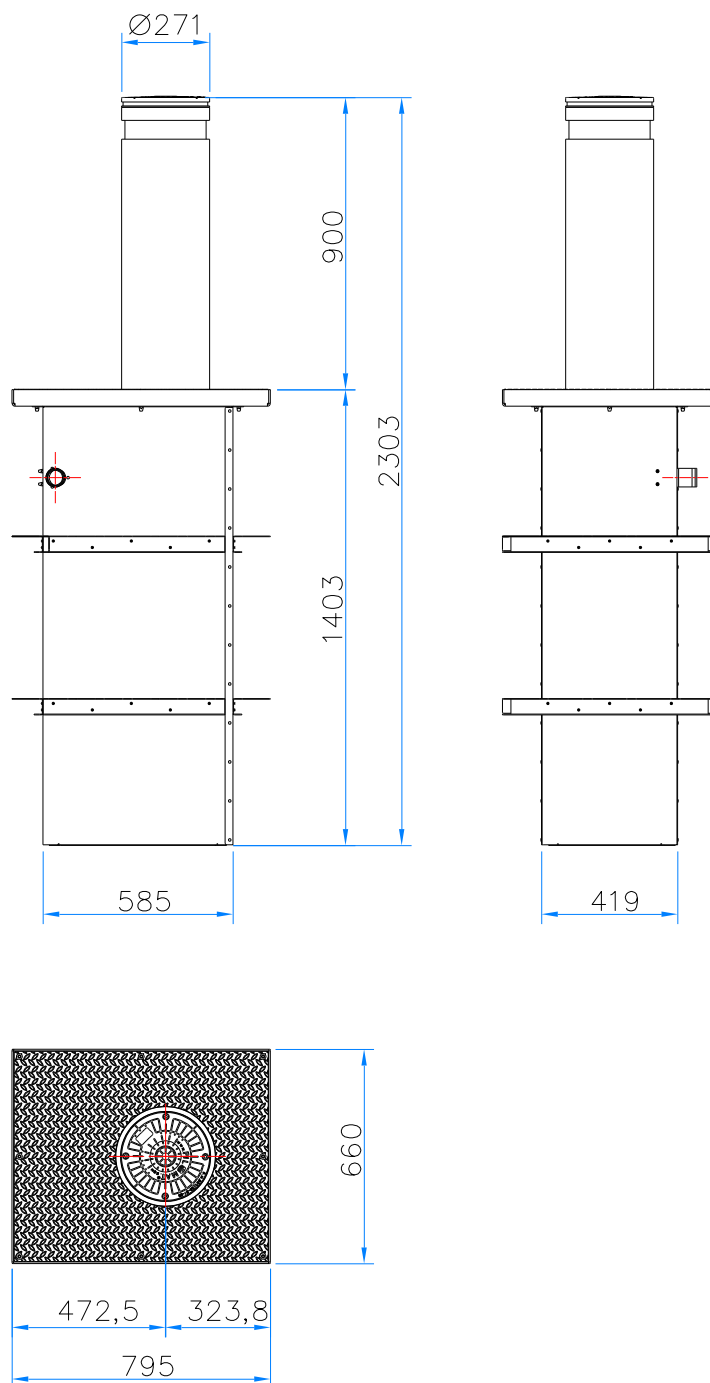
1) SAFETY WARNINGS

- This manual must be available to all persons required to work on the equipment: the installer, maintenance operator, end user, etc.
- This equipment is intended to obstruct the passage of vehicles and is not to be used for another purpose without risk for the user and for the integrity of the equipment.
Automatic Systems shall not be held liable for damage resulting from an inappropriate use of the equipment.
- Do not install this equipment in an explosive area.
- Do not add non-original or non-approved accessories (contact between different metals causes a galvanic effect that adversely affects the corrosion resistance of the equipment)
- The contractor shall install the equipment in compliance with local standards.
- Any operation on the equipment must be carried out by qualified personnel informed about the electrical and mechanical risks of negligent manipulation. Any work on this product that is unauthorized or carried out by an unqualified technician will automatically void the manufacturer's guarantee.
- Caution must be exercised when handling any internal element liable to be live or moving.
- The equipment is configured in "minimum risk" mode for its users. The parameters must only be altered with full knowledge of the facts by qualified personnel and shall not in any way invoke the liability of Automatic Systems.
- The equipment must be fully visible to the user before being actuated.
- The equipment must be thoroughly checked by an approved technician after any collision, even when there may be no visible damage.
- The installation of detection loops must be validated by qualified personnel who will determine their optimal configuration (adapted to vehicle type and passageway).
WARNING: The risk of injury exists for people when using standard detection loops: they can incorrectly detect trucks and (motor)bikes and close the gate on them!

2) TECHNICAL SPECIFICATIONS

- Traffic obstacle comprising a 275 mm diameter, 25 mm thick painted steel mobile cylinder, height above ground: 900 mm.
- Impact resistance without deformation (guaranteed operation): 100,000 joules.
Impact resistance with permanent deformation: 2,000,000 joules.
- Power supply: 230 VAC \pm 10% single phase – 1.7 kW - 50 Hz / 2 kW – 60 Hz.
- Bollard protection class: IP67.
- Complies with EC standards.

3) DIMENSIONS



Les dimensions sont données
en mm.
De afmetingen zijn gegeven in
mm.

Ne pas mesurer sur le plan.
Niet meten op het plan.

DESIGNATION :
BESTEMMING :

RB90HS bollard

Ce plan est notre propriété et ne peut être cédé à des tiers ni être recopié sans autorisation écrite de Automatic Systems.
Dit plan blijft onze eigendom en mag niet voorgelegd aan derden noch worden gekopieerd zonder schriftelijke toelating van Automatic Systems.

AUTOMATIC
SYSTEMS
IBR GROUP

Avenue Mercator. 5 - B-1300 Wavre
www.automaticsystems-group.com

DESSINE :
GETEKEND :

DATE :
DATUM :

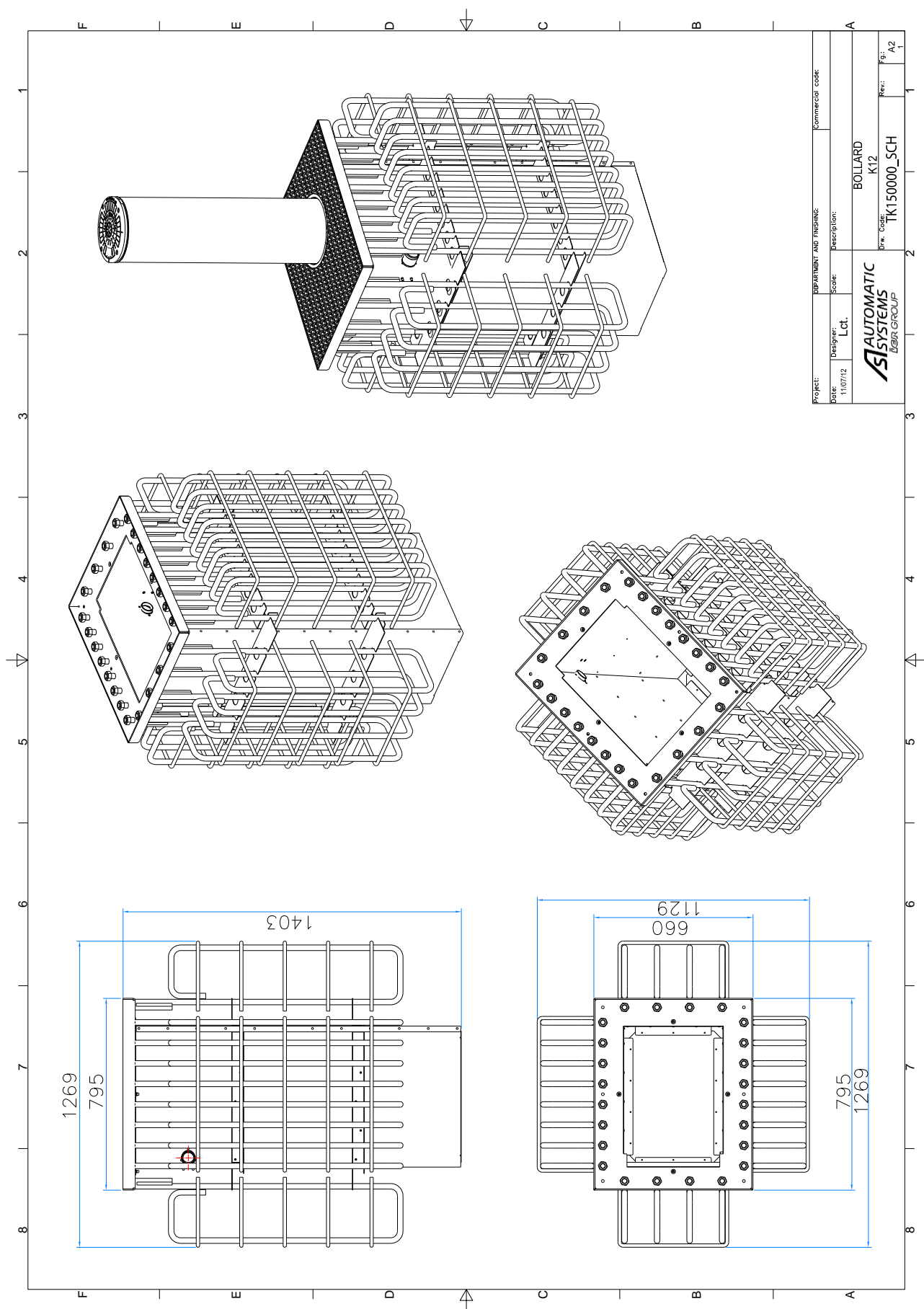
N° DOSSIER :
N° DOSSIER :

08/08/2012

VERIFIE :
NAGEZIEN :

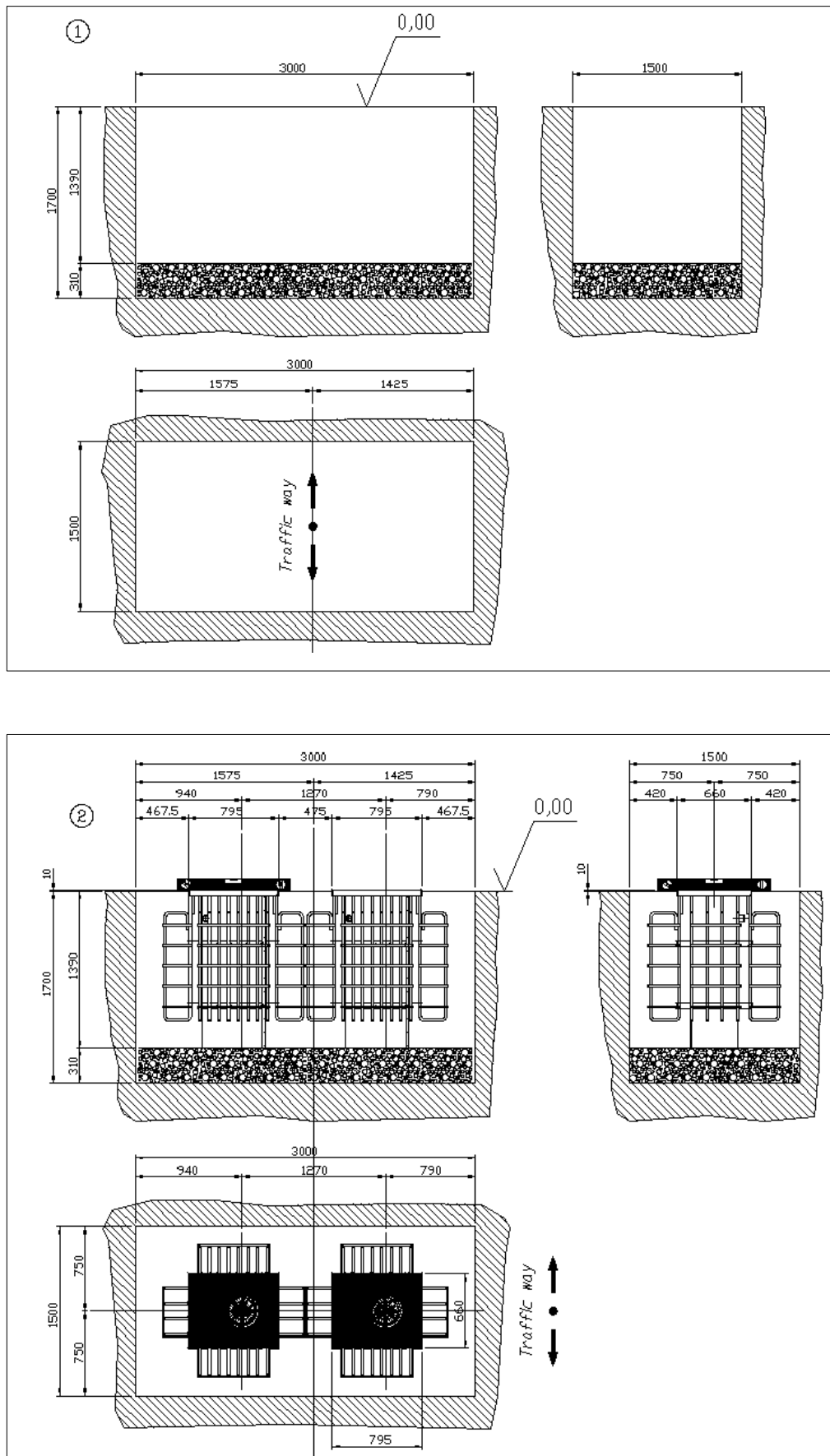
ECHELLE :
SCHAAL :

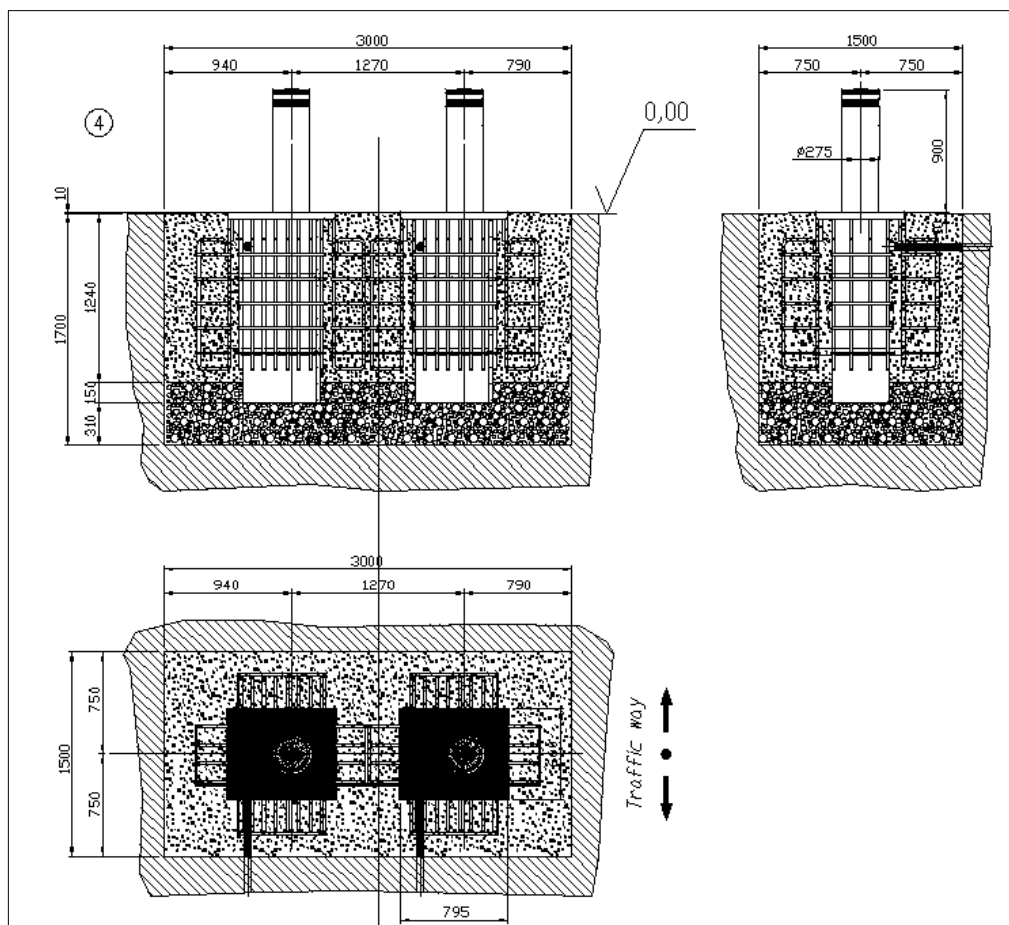
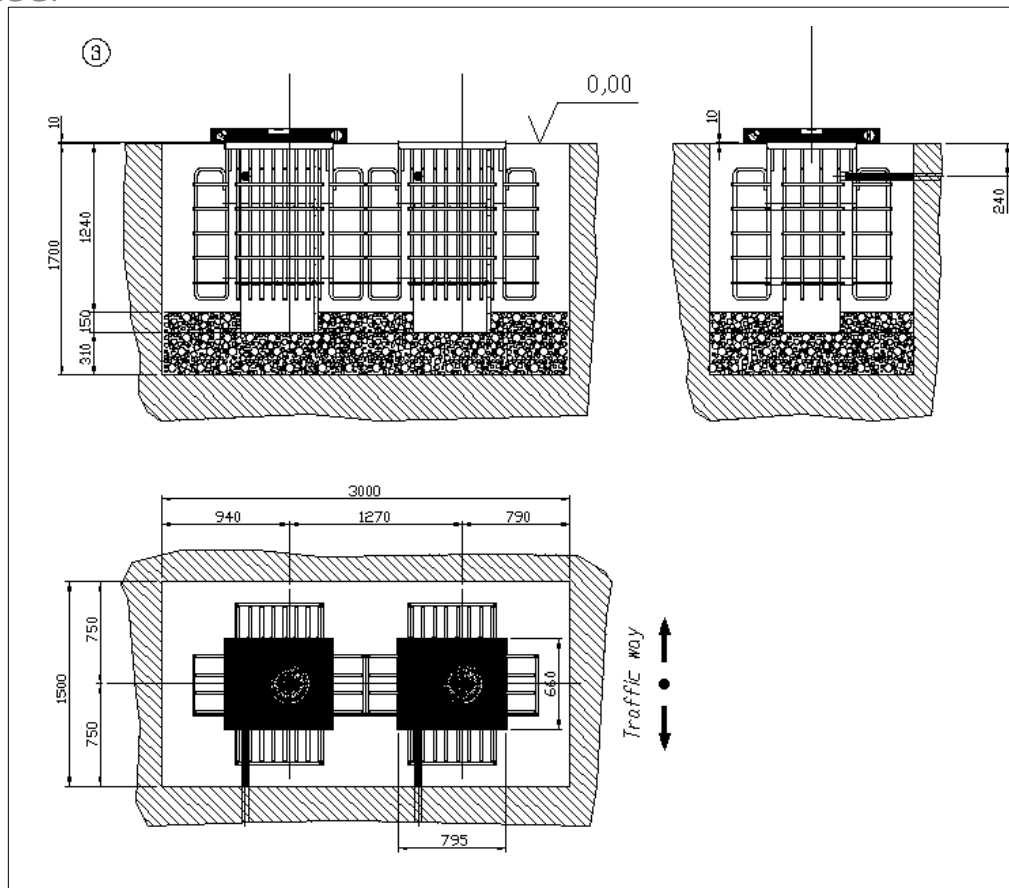
PLAN N° :
PLAN N° :



Project:		DESIGN AND FINISHING		Commercial code	
Date:	11/07/12	Scale:		Description:	
Designer:	Ldt.				
AUTOMATIC SYSTEMS IBR GROUP				BOLLARD K12	
				Draw. Code:	TK150000_SCH
				Rev.:	A2
					1

4) INSTALLATION (DIMENSIONS IN MM)





SEQUENCE

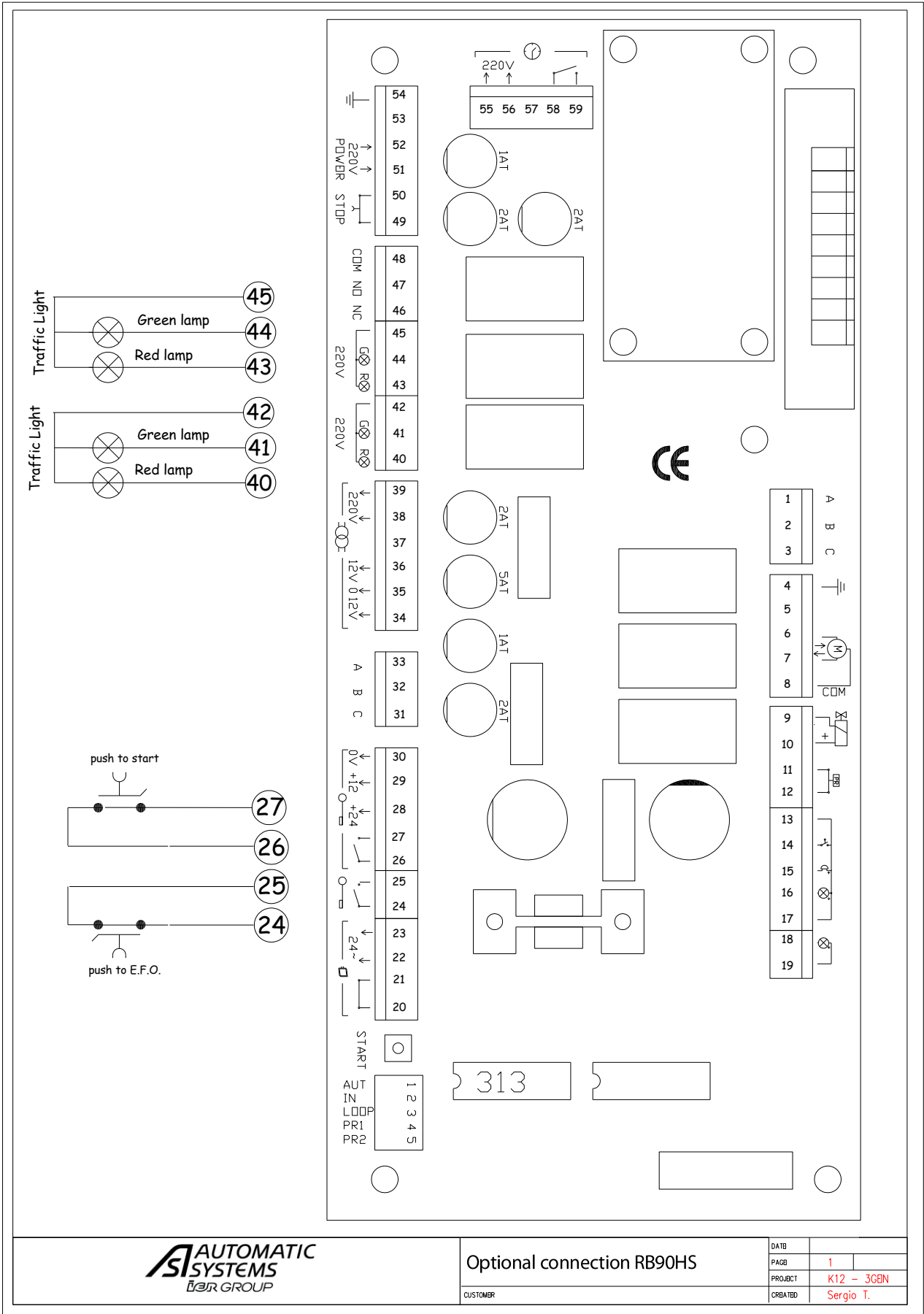
Note 1: The inductive loops have to be placed to a distance not inferior than 90 cm from the middle of the pits to avoid that the movement of the bollards disturb them.

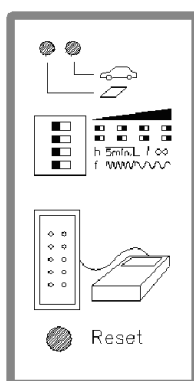
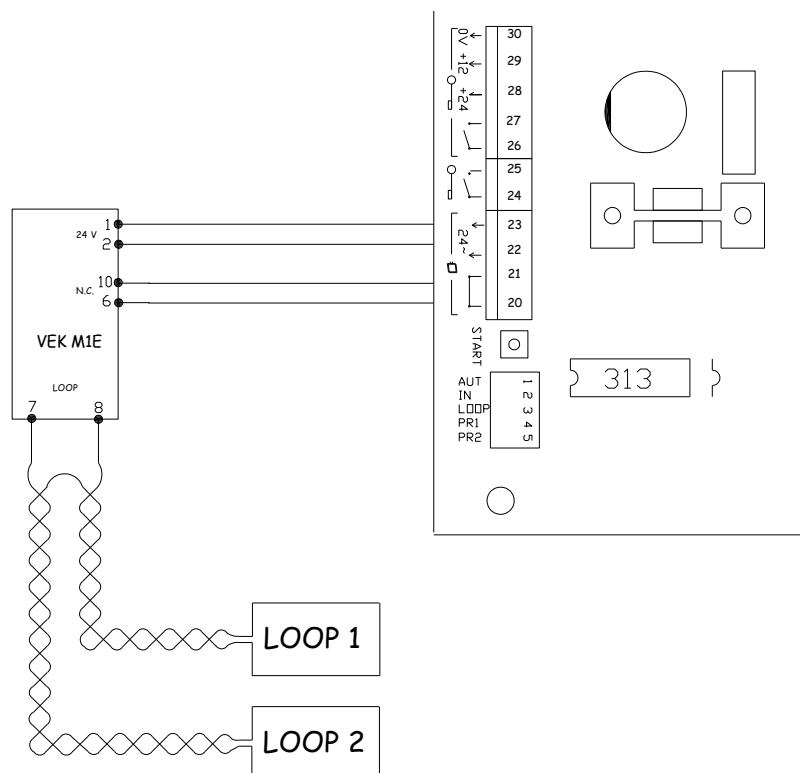
Note 2: The above drawings show a configuration with 2 bollards and must be adapted to the real configuration.

- 1) If installed in a sloping road, a drain trough equipped with covering grid must be placed on the **upstream** side of the bollards.
- 2) Dig a hole down to 1.70 m in depth approx. A sector side shall be 1.50 m approx. The length has to be 1.50 m per bollard approx. (⇒ **drawing step 1**)
- 3) Check the drainage of the pit: pour approximately 200 liters of water and check that it is absorbed in under 30 minutes.
Failing this, remove the standing water by means of a 100 mm diameter drain pipe connected to a drainage system (sewer or immersion pump).
- 4) Pour gravel into the pit (8-20 mm diameter to ensure good drainage), over a depth of approximately 31 cm (to be adjusted according to the next steps). Compact it by means of appropriate vibrating tool to avoid subsequent settlement and level it (⇒ **drawing step 1**).
- 5) Install on the pits the supplied reinforcement cages (⇒ **drawing step 2**).
- 6) Set the metallic pits down on the gravel in such a way that (⇒ **drawing step 2**):
 - It is correctly oriented in the direction of traffic: as the bollards are not centered in the casing, it is essential that all the casings of a group of bollards face in the same direction.
 - The top of the frame extends 1 cm above the road surface, in order to limit rainwater infiltration. Adjust the gravel bed if necessary.
 - The casing is vertically plumb to avoid scratching the cylinder during raising and lowering.
 - The casings forming a group are perfectly aligned (attach them to a single metal bar to adjust them together).
- 7) Once the pits are laid, add other gravel (grain 8 to 20 mm. in diameter approx.) until a thickness of 15 cm approx. is reached. Compact it by means of appropriate vibrating tool to avoid subsequent settlement and level it (⇒ **drawing step 3**).
- 8) Once the pits are laid and before concrete casting, set a PVC sheath 50 mm in internal diameter for each pit, linking the electrical input of each pit to the control unit (⇒ **drawing step 3**).
Form large radius bends.
The clearance between the conduit and the pit must be minimal to prevent concrete entering the pit during the subsequent stages.
If the distance between the bollard and the electric box exceeds the length of cable supplied (10 m standard, optional up to max 50 m), provide a junction box.
- 11) Control again that the pits are leveled.
- 9) Pour a concrete (Rck = 30 N/mm² min) around the casing up to a level of approximately 7 cm below the road level (thickness for the road surfacing) (⇒ **drawing step 4**).
The concrete must be thick enough not to flow within the gravel, in order to avoid blocking the drainage holes.

Note: the concrete should be poured in two steps to prevent uplift due to the pressure of the liquid concrete: place approximately 50 cm of concrete and allow it to set before completing the remainder. Vibrate the concrete to ensure that it is properly compacted over the full height in order to withstand the weight of the traffic. Ensure that no concrete has entered the casing. Let the concrete dry and harden.

- 10) Lay the other eventual PVC sheath from the control unit to the laying point of other apparatus (ex: traffic lights, inductive loops, etc.).
- 11) Place the electric cables in the PVC sheath.
- 12) Bring the bollards at the installation point, threading the connection line in the placed PVC sheaths already prepared and lay the bollards in the pits.

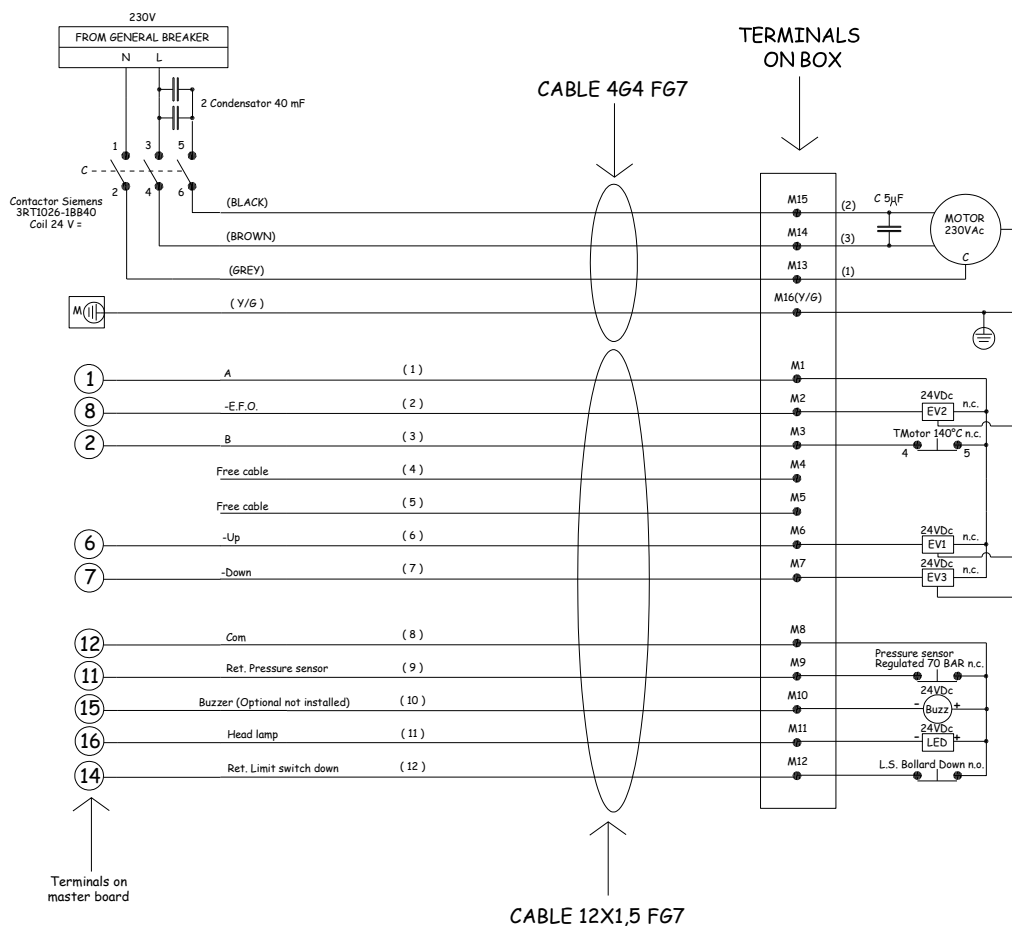




Adjustment possibilities			
Sensitivity level	DIP-Switch		Default
	1	2	
LOW	OFF	OFF	
MIDDLE-LOW	ON	OFF	
MIDDLE-HIGH	OFF	ON	X
HIGH	ON	ON	
Holding Time			
	3		
5 MINUTES	OFF		X
INFINITE	ON		
Frequency level			
	4		
HIGH	OFF		
LOW	ON		X

Green Led	Red Led	DETECTOR CONDITION
Loop Control	Loop Condition	
OFF	OFF	Lack of supply voltage
ON	OFF	Reset
FLASHES	OFF	Adjustment
ON	OFF	Detector is ready, loop free
ON	ON	Detector is ready, loop occupied
OFF	FLASHES	Loop failure
PULSATES	OFF	Loop free, after temporary failure
PULSATES	ON	Loop occupied, after temporary failure

EV1= Up
EV2= Activated=E.F.O.
EV3= Activated=Down



6) DECLARATION OF EC COMPLIANCE

Déclaration CE de conformité

Nous, soussignés,

AUTOMATIC SYSTEMS s.a.
Avenue Mercator, 5
B-1300 WAVRE
Belgique

Déclarons que les machines

**Borne escamotable automatique
de haute sécurité
RB B90 HS**

sont conformes aux dispositions des Directives,
normes et autres spécifications suivantes:

- Directive Sécurité des Machine 2006/42/CE.
- Directive Basse Tension 2006/95/CE.
- Directive Compatibilité électromagnétique 2004/108/CE.

Fait à WAVRE,
le : 2013.02.18
Nom du signataire : Yves THERASSE
Fonction : Directeur du développement
Signature :

EC declaration of conformity

We, undersigned,

AUTOMATIC SYSTEMS s.a.
Avenue Mercator, 5
B-1300 WAVRE
Belgium

Herewith declare that the following machines

**High Security
rising bollard
RB 90 HS**

are in accordance with the conditions of the following
Directives, standards and other specifications:

- Machinery Directive 2006/42/CE
- Low-voltage Directive 2006/95/CE
- Electromagnetic compatibility Directive 2004/108/EC

Made in WAVRE
Date: 2013.02.18
Name : Yves THERASSE
Function : Director of Development
Signature :

Y Therasse





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