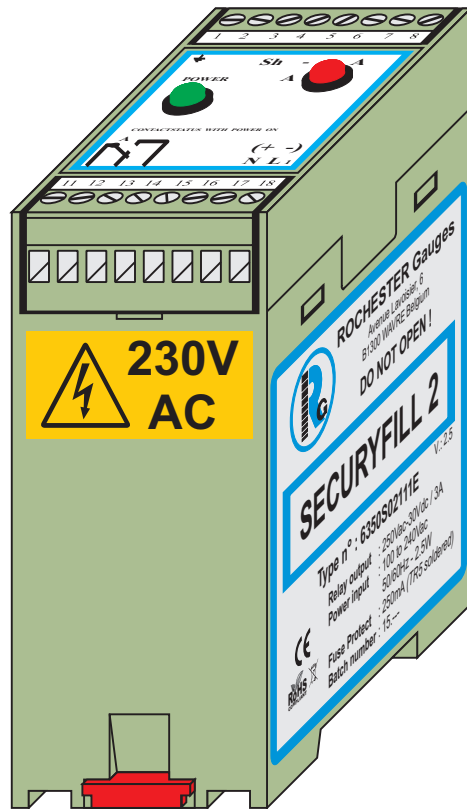
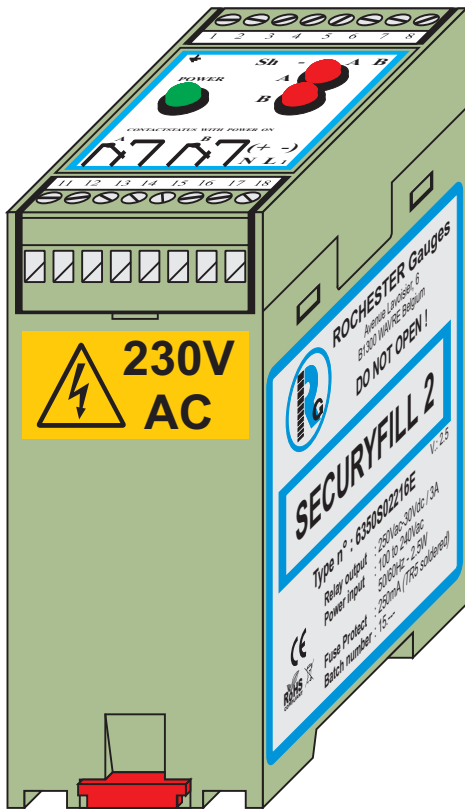




TECHNICAL INFORMATION

Receiver SECURITYFILL II



ROCHESTER GAUGES INTERNATIONAL S.A.

Z.I. WAVRE NORD - AVENUE LAVOISIER, 6 - 1300 WAVRE - BELGIUM

Phone: +32(0)10241010 Fax: +32(0)10228139 Web site: <http://www.rochester-gauges.be> E-mail: info@rochester-gauges.be

MADE IN EUROPE

Rev 2.3 (07/2015)

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Receiver - general data	3
1.2 Receiver identification label	3
1.3 ID code structure	4
1.4 Receiver with one output contact - Truth tables	4
1.5 Receiver with two output contacts - Truth tables	4
1.6 Block diagrams	5

2. CONNEXION

Note	6
2.1 General instructions for Connection to a optoswitch transmitter	7
2.2 Typical Installation	8

4. ANNEXES

LiYCY-OB 0.75mm ² cable data sheet	9
Conformity declaration	10
RoHS declaration	11

Receiver SECURITYFILL II

MADE IN
EUROPE

CHAPTER 1

INTRODUCTION

This Optoswitch transmission unit provides up to (2) factoryset level detectors and consists of a transmitter and a receiver. Designed to be mounted behind the Magnetel dial or on a 7290 serie gauge, the transmitter consists of an explosion proof Exd IIBT6, IP65 aluminium housing including up to 2 opto-electronic switches and 2 powerful magnets mounted on the supporting shaft of the switch paddle. This arrangement allows to maintain the direct reading on the tank. The transmitter is supplied with its cable and with a 2m double insulated, shielded 3x0.75mm² or 4x0.75mm² (liYCY-OB) cable (depending on the model). The transmitter signal is processed by the receiver "Securyfill II" which incorporates the output relays.



Optoswitch on 7293 gauge



Securyfill II

1.1 Receiver - General Data

Receiver is enclosed in a ABS box (45x75x105mm) to be mounted on DIN rail.

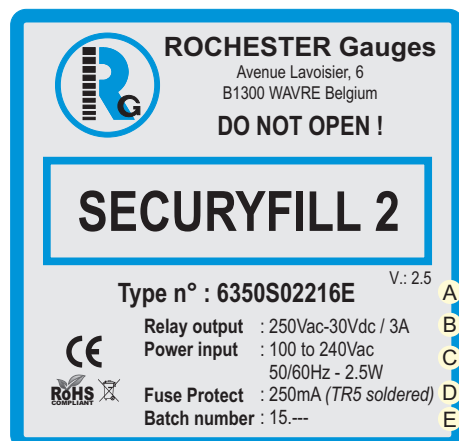
Output on volt free inverters 250Vac-3A. Relays are deenergised when level setpoints are reached (below or above as required).

Status of relays shown by Led (Led glows when associated level setpoint is reached).

Receiver to be installed in control room outside Ex area or to be mounted in a explosion proof Eexd enclosure with adequate ventilation.

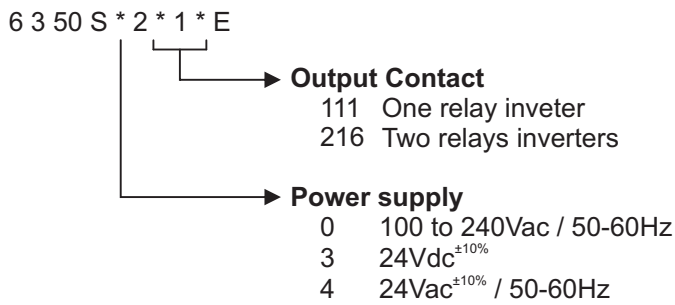
- Connections : screw terminals 2.5mm²
- Input voltage : (specify on order) 24Vac^{±10%}/50-60Hz, 24Vdc^{±10%} or Universal « 100-240Vac/50-60Hz »
- Power rate : ± 1.2VA

1.2 Receiver identification label



- A : ID number (see page 4)
- B : Power on each Relay Output
- C : Receiver power supply
- D : Value of protection Fuse (not replacement)
- E : Receiver production batch number
(yy.xxx : yy=year and xxx= running no.)

1.3 ID code structure



1.4 Receiver with One output contact - Truth Tables

Connecting to a Transmitter with one « MIN » Set-point

Power Supply	Levels (L)	Leds		Relay A
		POWER	A	
OFF	X	OFF	OFF	OFF
ON	$L > A$	ON	OFF	ON
ON	$L \leq A$	ON	ON	OFF

Connecting to a Transmitter with one « MAX » Set-point

Power Supply	Levels (L)	Leds		Relay A
		POWER	A	
OFF	X	OFF	OFF	OFF
ON	$L < A$	ON	OFF	ON
ON	$L \geq A$	ON	ON	OFF

1.5 Receiver with Two output contacts - Truth Tables

Connecting to a Transmitter with two « MIN » Set-points

Power Supply	Levels (L)	POWER	Leds		Relays	
			A	B	A	B
OFF	X	OFF	OFF	OFF	OFF	OFF
ON	$L > A$	ON	OFF	OFF	ON	ON
ON	$B < L \leq A$	ON	ON	OFF	OFF	ON
ON	$L \leq B$	ON	ON	ON	OFF	OFF

Connecting to a Transmitter with one « MIN » and one « MAX » Set-points

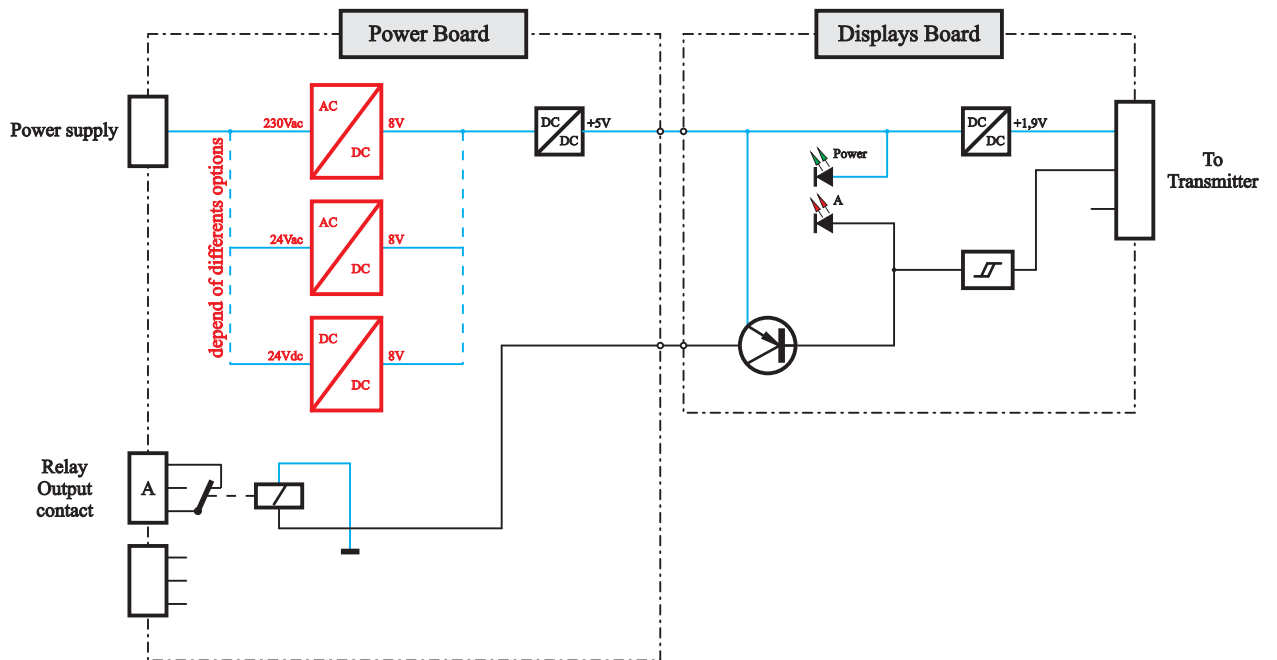
Power Supply	Levels (L)	POWER	Leds		Relays	
			A	B	A	B
OFF	X	OFF	OFF	OFF	OFF	OFF
ON	$B < L < A$	ON	OFF	OFF	ON	ON
ON	$L \geq A$	ON	ON	OFF	OFF	ON
ON	$L \geq B$	ON	OFF	ON	ON	OFF

Connecting to a Transmitter with two « MAX » Set-points

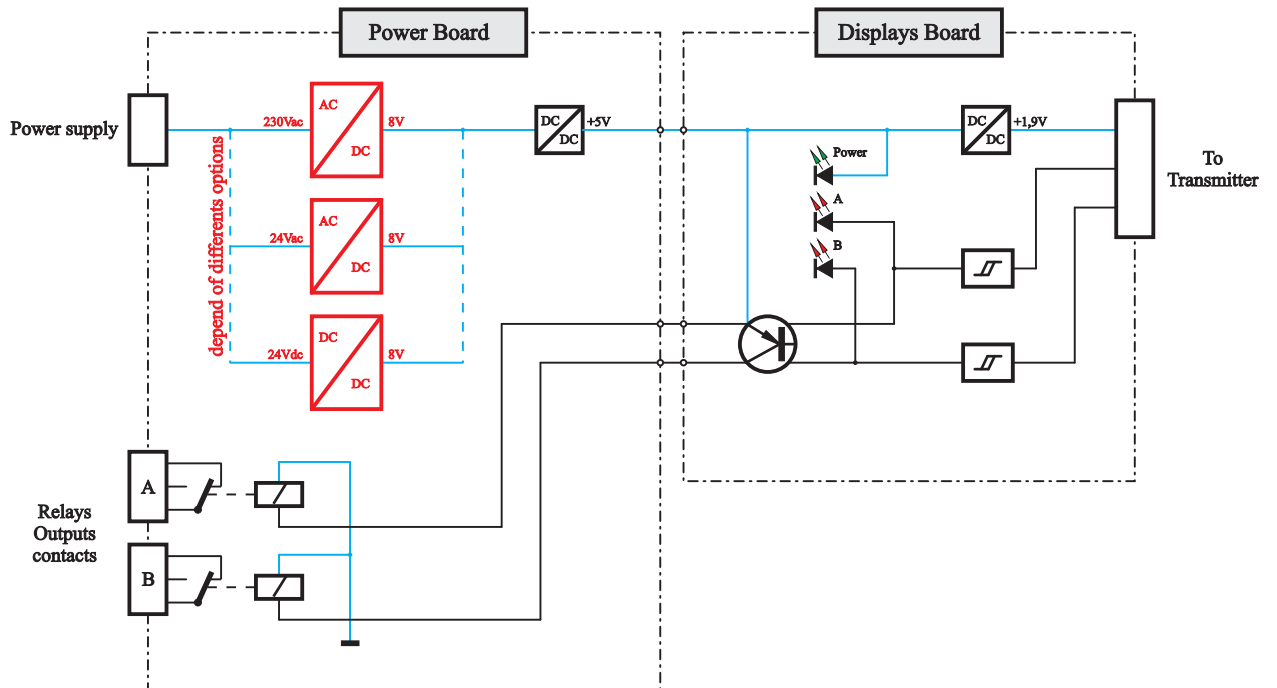
Power Supply	Levels (L)	POWER	Leds		Relays	
			A	B	A	B
OFF	X	OFF	OFF	OFF	OFF	OFF
ON	$L < B$	ON	OFF	OFF	ON	ON
ON	$L \geq A$	ON	ON	ON	OFF	OFF
ON	$B \leq L < A$	ON	OFF	ON	ON	OFF

1.6 Block diagrams

With one output contact



With two output contacts

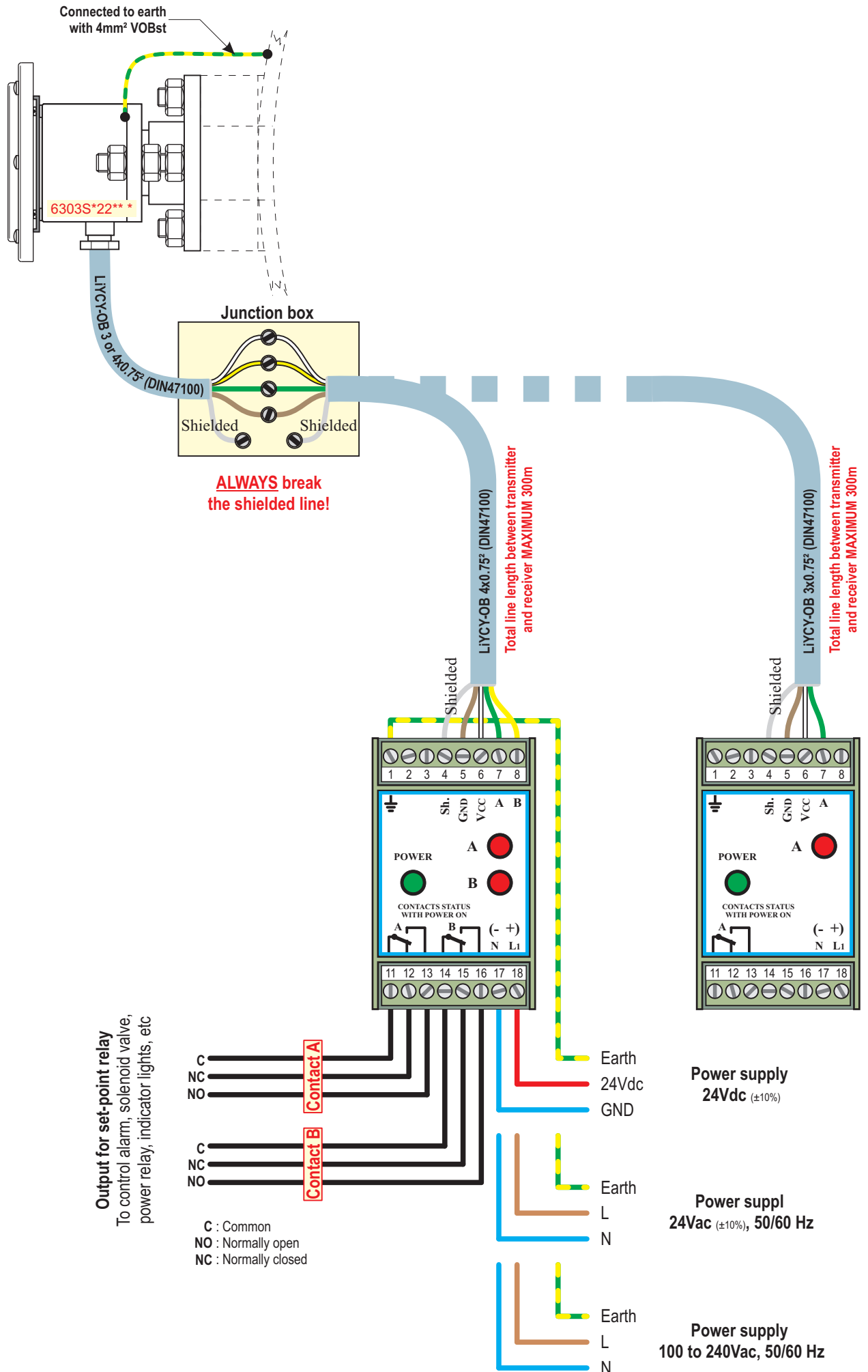


CHAPTER 2

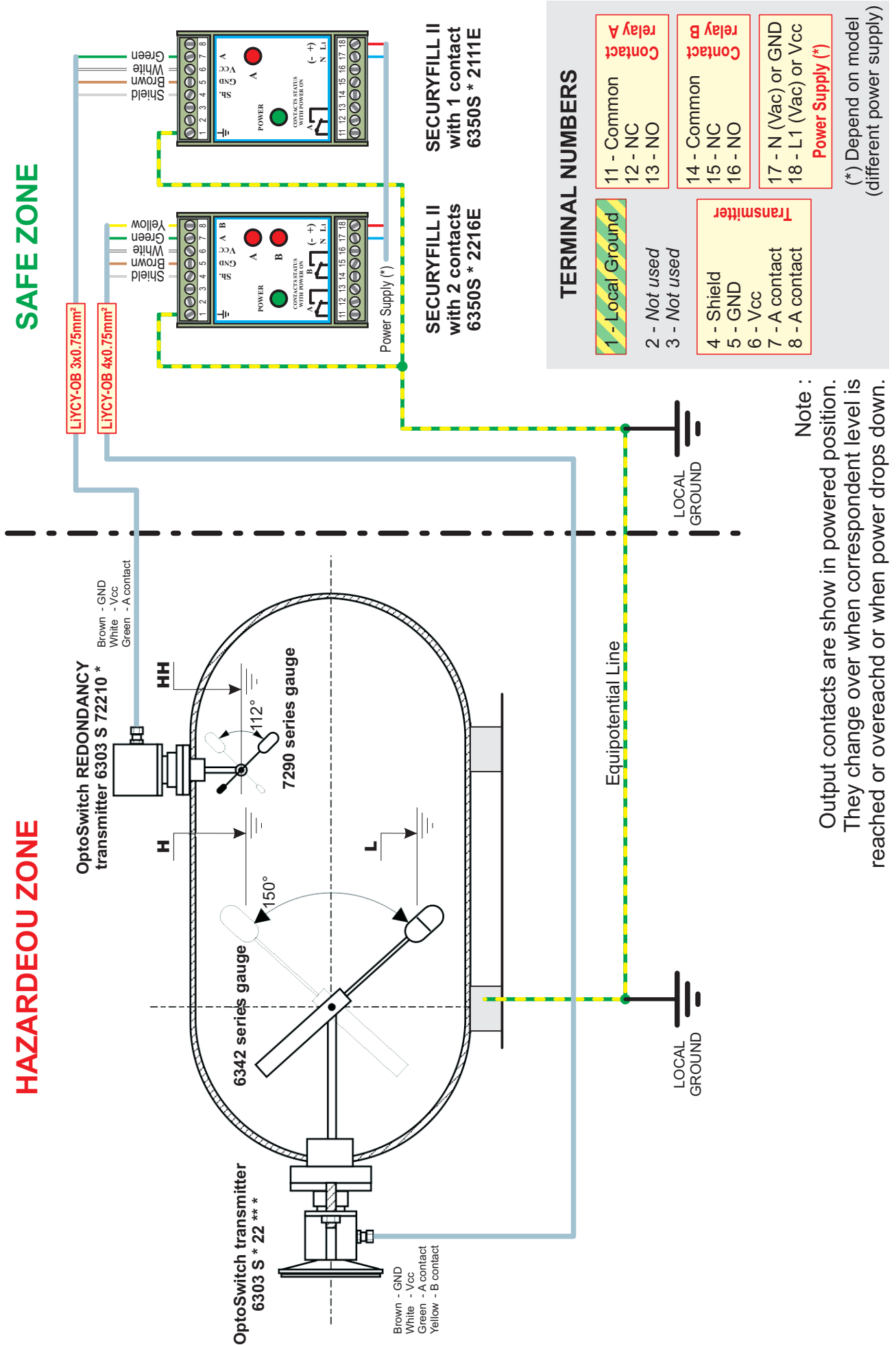
CONNECTION / WIRING

Note : _____

2.1 General Instructions for connection to a optoswitch transmitter



2.2 Typical installation (Two Levels set-points & One Extra Filling Warning)



LiYCY-OB 0.75 mm²

CABLE DATA SHEET

Multi-core cables shielded by a synthetic material with extra-flexible multi-strand conductors twisted in layers, with electromagnetic protection (CY shielding: tinned copper braid)
These cables are manufactured in accordance with DIN 47100. The cores are counted starting from the outer layer, towards the centre.

Temperature range :

Installation and service	-20°C à +80°C
Transport and storage	-30°C à +80°C

Use :

Shielded connecting cables used for the transmission of signals, measuring, controls, telephony, interphone systems and for applications in the electrical industry.

LiYCY-OB standards :

Manufactured in accordance with standards VDE 0295, 0250, 0271, 0812, 0814, 0817.
In accordance with CEI 20-35/IEC 332.1 and CEI 20-22/IEC 332.3 Cat. C, lead-free CEI 20-52
Nominal section : 0.75mm²
Conductor diameter : 2.2mm
No. strands : 24 x 0.22 mm in diameter

Cable Description :

Core	: multi-strand, red copper
Insulation	: coloured PVC in accordance with DIN 47100, 105°C PVC
Twisted	: by layer
Assembly	: by mylar sheet
Screening	: tinned copper braid (90% density)
Outer sheath	: RAL 7001 grey PVC, flame-retardant NPI CEI 20-22

Cable specifications :

Bending radius	: 10 x cable diameter
Insulation resistance	: minimum 20MΩ/Km
Operating voltage	: 500V
Test voltage	: minimum de 1.200V (1.2KV)

Electrical properties at 25°C :

Conductor resistance	: maximum 26Ω/Km
Capacitance between 2 conductors	: 130pF/m at 800Hz frequency
capacitance entre cond. & shield	: 230pF/m
Load	: maximum 13 A

Mechanical properties :

Number of conductors [mm ²]	diameter extérieur [mm]	weight [Kg/Km]
2 x 0.75	6.0	57.0
3 x 0.75	6.2	66.0
4 x 0.75	8.0	87.0
6 x 0.75	8.6	125.0

Colour standard DIN 47100 :

Conductor number	Colour
1	white
2	brown
3	green
4	yellow
5	grey
6	pink

Source : Valentin catalogue (0.75mm² part specification)
Legrand electrical catalogue (part standard DIN 47100)

CONFORMITY DECLARATION

6350SxxxxxE

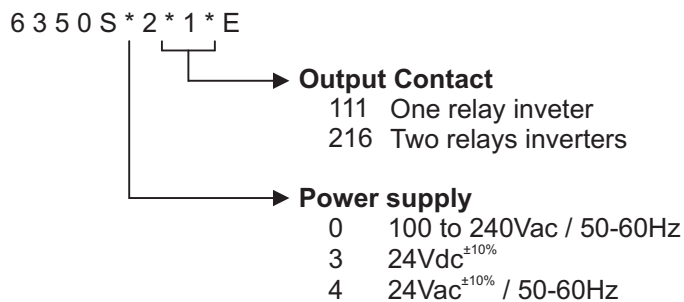
Wavre, 15 July 2015

I, PIERRE Lionel, Managing Director

ROCHESTER Gauges International S.A.

Zone Industriel Nord
Avenue Lavoisier, 6
B-1300 Wavre BELGIUM

hereby certify that the receiver
SECURITYFILL II
bearing the following details:



conforms to the various European Directives currently in force, that is:

Directive 2004/108/CE EMC, standards EN 61000-4 and EN 55022 (class B)
with limits required by .:

EN 61000-4-1 (2007)
EN 61000-4-2 (2009)
EN 61000-4-3 (2006) + A1 (2008) + A2 (2009) + A3 (2010)
EN 61000-4-4 (2004) + A1 (2010)
EN 61000-4-5 (2006)
EN 61000-4-6 (2009)

Directive 2006/95/CE Low Voltage, standards EN 60950 and EN 50116.

PIERRE Lionel
Managing Director

Receiver SECURITYFILL II

MADE IN
EUROPE

RoHS DECLARATION

6350SxxxxxE

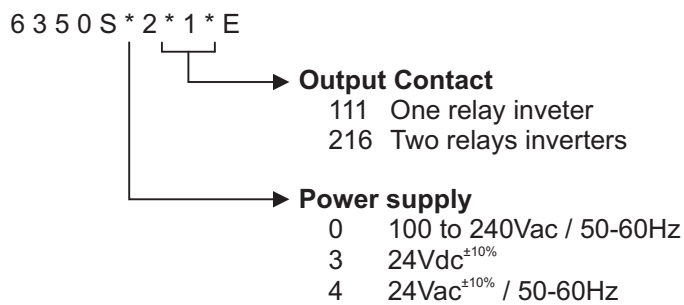
Wavre, 22 September 2014

I, PIERRE Lionel, Managing Director

ROCHESTER Gauges International S.A.

Zone Industriel Nord
Avenue Lavoisier, 6
B-1300 Wavre BELGIUM

hereby certify that the receiver
SECURYFILL II
bearing the following details:



conforms to the various European Directives currently in force, that is:

Directive 2011/65/EC RoHS.
Directive 143/2011 REACH.

PIERRE Lionel
Managing Director

Receiver SECURYFILL II

MADE IN
EUROPE