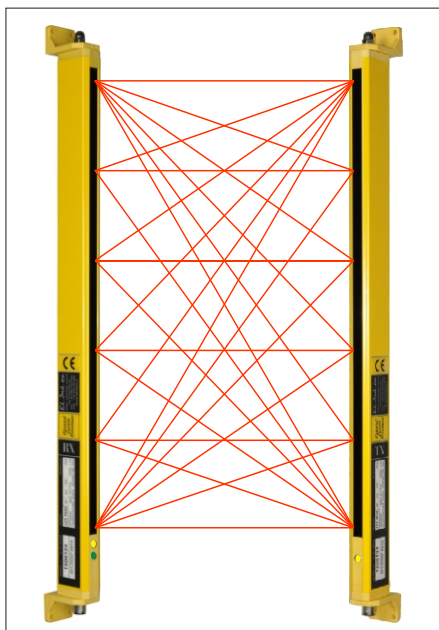# LC3 - P036

Safety Light Curtain   TYPE 3   - SIL 2   SILCL 2 PL d
Safety Light Curtain   TYPE 4* - SIL 3*   SILCL 3 PL e

CE

Resolution	**36 mm - hand**
Protected Height	**144÷2088 mm**
Range	**HP ÷ 16 meters**
Output	**2 switches - ON/OFF**
Directives	**2006/42/EC - 2014/30/EC - 2014/35/EC**
Standards	**CEI-EN 61496-1:2014 - CEI-EN 61496-2:2014**
Certificate	**N.0068/ETI - MAC/029-2015**

Light curtain Type 3 (*) self resetting with :
- **EDM** function **=** External Device Monitoring
- **TEST INPUT**
- **SRS** = manual start restart after an intervention and switch on the device by choosing the option SRS

The light curtain is supplied in series with a connector output M12 and with orientable support brackets (SMO)

(*) Upgrading to **TYPE 4** through a control unit BOX 2/4 which implements the following functions :
- **Outputs** 2 switches 5A/250V (safety relays)
- **EDM** (External Device Monitoring)
- **Led Diagnostic** for failures signalling
- **Contact AUX (Ausiliary) NC** normally closed

PROTECTED AREAS HEIGHT

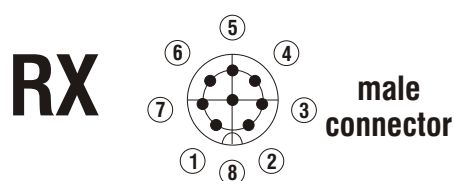| Product Code	Protected Height mm HP	Total Height mm H / SMO	Total Height mm H / SEA	Response time ms	Number of controlled rays
LC3 - P036	144	269	219	14	3x3
LC3 - P036	216	341	291	16	4x4
LC3 - P036	288	413	363	18	5x5
LC3 - P036	360	485	435	20	6x6
LC3 - P036	432	557	507	22	7x7
LC3 - P036	504	629	579	24	8x8
LC3 - P036	576	701	651	26	9x9
LC3 - P036	648	773	723	28	10x10
LC3 - P036	720	845	795	30	11x11
LC3 - P036	792	917	867	32	12x12
LC3 - P036	864	989	939	34	13x13
LC3 - P036	936	1061	1011	36	14x14
LC3 - P036	1008	1133	1083	38	15x15
LC3 - P036	1080	1205	1155	40	16x16
LC3 - P036	1152	1277	1227	42	17x17
LC3 - P036	1224	1349	1299	44	18x18
LC3 - P036	1296	1421	1371	46	19x19
LC3 - P036	1368	1493	1443	48	20x20
LC3 - P036	1440	1565	1515	50	21x21
LC3 - P036	1512	1637	1587	52	22x22
LC3 - P036	1584	1709	1659	54	23x23
LC3 - P036	1656	1781	1731	56	24x24
LC3 - P036	1728	1853	1803	58	25x25
LC3 - P036	1800	1925	1875	60	26x26
LC3 - P036	1872	1997	1947	62	27x27
LC3 - P036	1944	2069	2019	64	28x28
LC3 - P036	2016	2141	2091	66	29x29
LC3 - P036	2088	2213	2163	68	30x30

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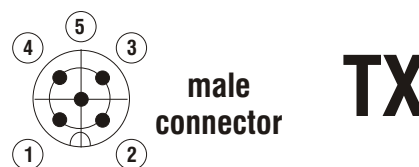
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Safety Category	TYPE 3 - SIL 2 SILCL2 PL d / TYPE 4* - SIL 3* SILCL3 PL e
Power Supply	24Vdc ± 10%
Absorption TX unit Absorption RX unit	80 mA max 70 mA max
Output	2 switches SW1 - SW2 (ON/OFF) free from potential 0,3 Acc @ 24Vdc/ac
Output Protection	Short circuit and overcharge through self restoring fuses. After an overcharge or shortcircuit it is necessary to power off and wait some seconds before the normal working restart
LED Signallings	**TX** Unit - Yellow Led = Power Supply **RX** Unit BICOLOR LED { Green = Active Protection Red = Alarm - Yellow Led = Manual Operation Note : for more insight into the light signals see Chapter **INSTALLATION - WIRING - DIAGNOSTICS** of **INSTRUCTION MANUAL**
Housing	Polished aluminium RAL1021
Housing Section	22 x 36 mm
Protection Degree	IP54 (opzional IP67 - IP69K)
Working Temperature	0 / +55 °C
PFHd	10^{-8} until to $< 10^{-7}$
RX Connection TX Connection	Fully shielded cable PUR/PP - lenght 10 meters pre-wires with connector female straight M12 8 poles (non included in the supply) Fully shielded cable PUR/PP - lenght 10 meters pre-wires with connector female straight M12 5 poles (non included in the supply)
Fixing	SMO - orientable support brackets (standard version) SEA - antivibrating elastic supports (optional)

PIN OUT CONNECTOR   M12

RX   male connector

5
6   4
7   3
1   8   2

1) **White** = **EDM / (SRS optional)**
2) **Brown** = **+   24Vdc**
3) **Green** = ⚬/ SW1 } CONTACTS IN
4) **Yellow** = ⚬/   } ALARM
5) **Grey**   = ⚬/ SW2 } STATE
6) **Pink**   = ⚬/
7) **Blue**   = —
8) **Red**   = **MODE**
   Shield = ⏚

TX   male connector

5
4   3
1   2

1) **Brown** = **+   24Vcc**
2) **White** = **TEST INPUT** ┈┈┈┈
3) **Blue** = **—**   ⚬
4) **Black** = **TEST INPUT** ┈┈┈┈
5) **Grey** = **N.C.**
   Shield = ⏚

TEST INPUT = Opening contact TEST INPUT (PIN2/4) is simulated
the interruption of the curtain and testing the correct opening
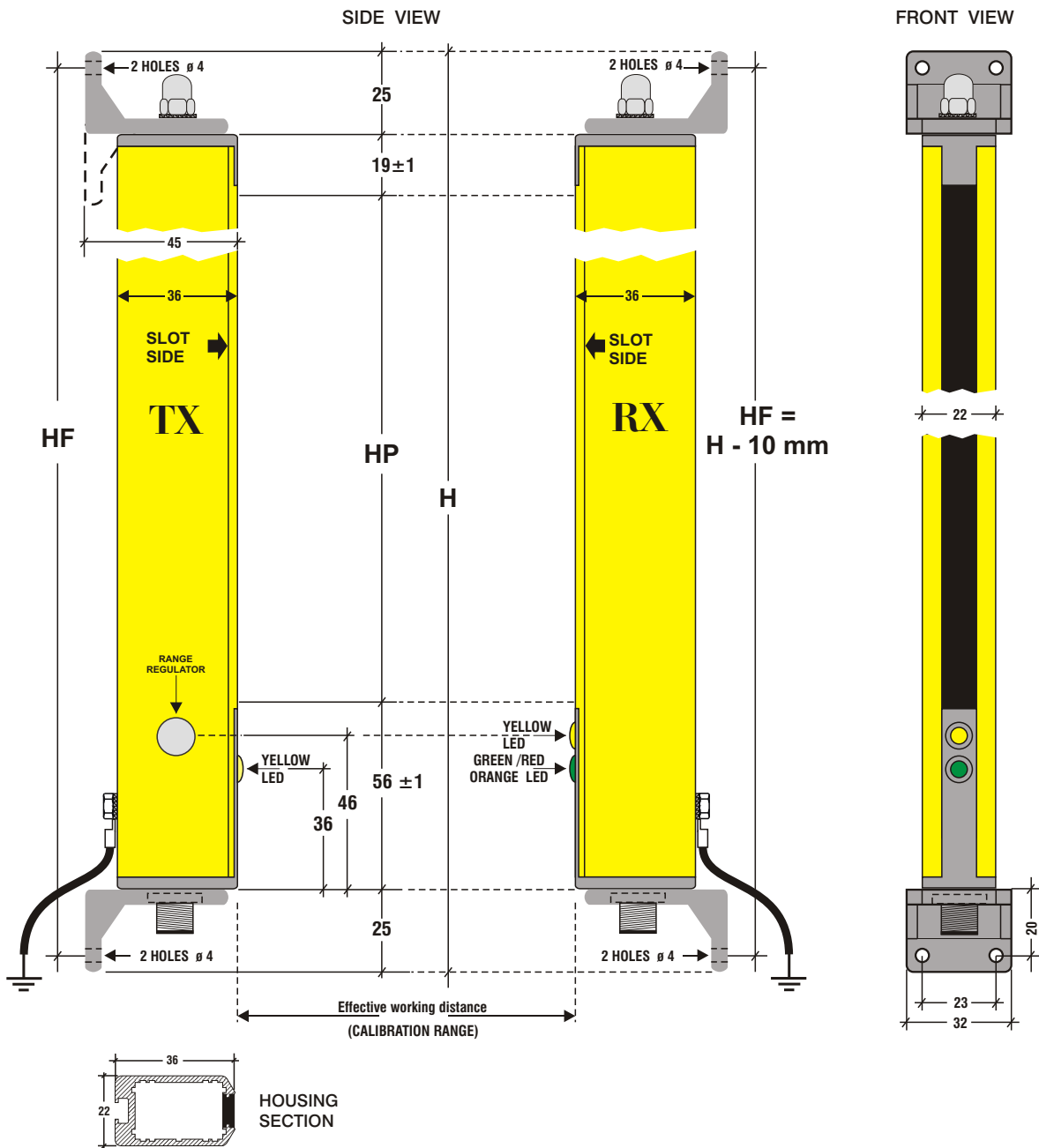of the outputs SW1 - SW2 of the receiving unit

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MARCH 2016

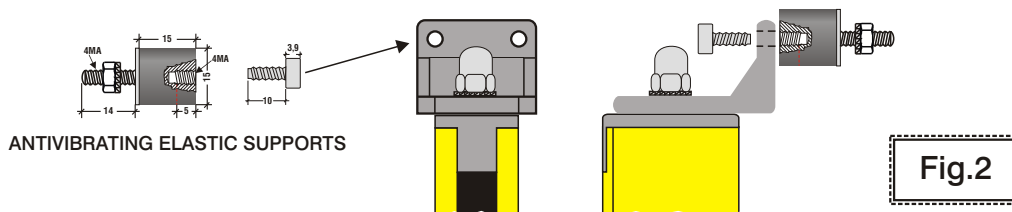The manufacturer reserves the right to modify the products and the details of this TECHNICAL SHEET at any time without prior notification
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VERSION MOUNTING SOLUTION "SMO" (STANDARD)

Fig.1

SIDE VIEW

FRONT VIEW

2 HOLES ø 4

2 HOLES ø 4

25

19±1

45

36

36

SLOT SIDE

SLOT SIDE

TX

RX

HF

HP

H

HF = H - 10 mm

RANGE REGULATOR

YELLOW LED

YELLOW LED

GREEN /RED ORANGE LED

56 ±1

46

36

22

2 HOLES ø 4

2 HOLES ø 4

25

20

Effective working distance
(CALIBRATION RANGE)
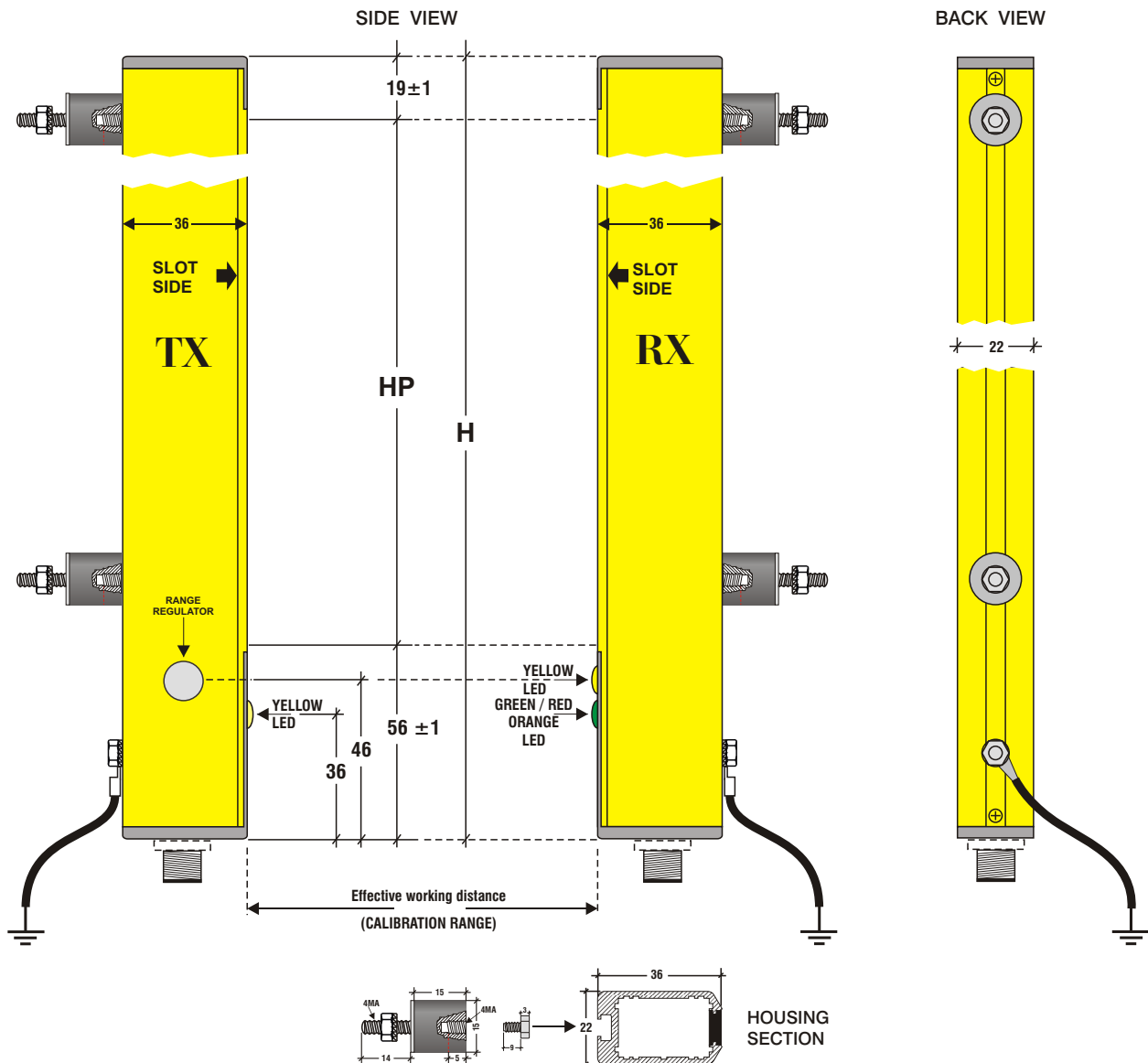
23

32

36

22

HOUSING SECTION

KIT - 8A (accessory)

Separately you can purchase KIT - 8A (see ACCESSORIES section) consists of a box of N° 8 antivibrating elastic supports, inclusive of the respective screws, to apply to SMO brackets (upper / lower) as shown in Fig.2.

4MA

15

15

4MA

3.9

10

14

5

ANTIVIBRATING ELASTIC SUPPORTS

Fig.2

VERSION MOUNTING SOLUTION "SEA" (OPTIONAL)

Fig.3

SIDE VIEW

BACK VIEW

19±1

36

SLOT SIDE

SLOT SIDE

36

TX

RX

HP

H

22

RANGE REGULATOR

YELLOW LED

YELLOW LED

GREEN / RED ORANGE LED

56 ±1

46

36

Effective working distance

(CALIBRATION RANGE)

15

4MA

4MA

36

22

HOUSING SECTION

14

5

Note :

With the SEA fixing solution, a number of anti-vibration elastic supports proportional to the total height H, are inserted at the factory in the rear rail of the light curtain, as shown in Fig.3.

The antivibrating elastic supports can slide freely in the rear guide so as to facilitate the final mounting at the desired points.

This solution allows to reduce the total dimensions while maintaining the ability to meet the mechanical vibrations.

Additional antivibrating elastic supports can be requested by the customer when ordering.

OPTIONS

SRS	Manual Restart
SEA	Antivibrating elastic supports (see Fig.3)
CB60 IP67	IP67 protection in transparent cylindric
CB60 IP69K	IP69K protection in transparent cylindric

ACCESSORIES
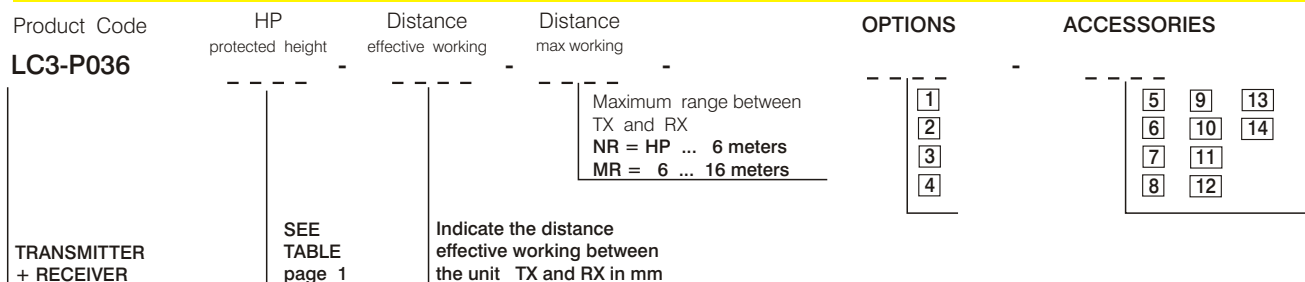
COD 5	Fully shielded cable PUR/PP - lenght 10 meters pre-wires with connector female straight M12 5 poles (non included in the supply)
COD 8	Fully shielded cable PUR/PP - lenght 10 meters pre-wires with connector female straight M12 8 poles (non included in the supply))
BOX 2/4 (*)	External control unit for TYPE 4 upgrading
BOX - MUT	External control unit for neutralization MUTING
SPV100	Mirror column for enclosures (depending on the HP protected of the light curtain, check on the respective technical sheet SPV100 the HU of the mirror)
SPV100 PLUS	Mirror column **UNBREAKABLE** for enclosures (depending on the HP protected of the light curtain, check on the respective technical sheet SPV100PLUS the HU of the mirror)
BTO	Orientable Ground Base in INOX 135x150mm to use with SPV100 - SPV100 PLUS
COLV	Triangular column to allocate the light curtain for construction enclosures
COLV + BTO	Triangular column to V + Orientable Ground Base in INOX 135x150mm to use with SPV100 - SPV100 PLUS
KIT - 8A	Kit of N°. 8 antivibrating elastic supports including the respective screws to be applied to SMO brackets (upper / lower) as shown in Fig.2

HOW TO ORDER THE OPTIONS and THE ACCESSORIES

SRS	1
SEA	2
CB60 IP67	3
CB60 IP69K	4

COD 5	5
COD 8	6
BOX 2/4	7
BOX MUT	8
SPV100	9
SPV100 PLUS	10
BTO	11
COLV	12
COLV + BTO	13
KIT - 8A	14

INSERT NUMBER
CORRESPONDING
IN ORDER
LIGHT CURTAIN

HOW TO ORDER THE LIGHT CURTAIN

Product Code · HP protected height · Distance effective working · Distance max working · OPTIONS · ACCESSORIES

LC3-P036

Maximum range between TX and RX
NR = HP ... 6 meters
MR = 6 ... 16 meters

OPTIONS: 1 2 3 4

ACCESSORIES: 5 9 13 / 6 10 14 / 7 11 / 8 12

TRANSMITTER + RECEIVER

SEE TABLE page 1

Indicate the distance effective working between the unit TX and RX in mm

Example

LC3 - P036 - 720 - 1000 - NR + 1 2 - - + 5 6 7 - - - - - - -