LC3 - P120
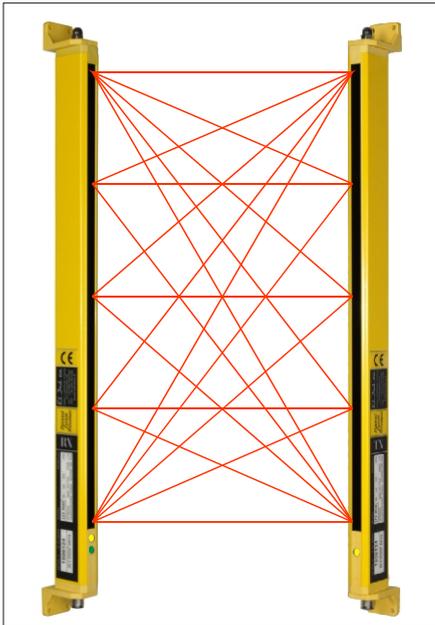
Safety Light Curtain TYPE 3 - SIL 2   SILCL 2 PL d
Safety Light Curtain TYPE 4* - SIL 3*   SILCL 3 PL e

CE

Resolution	**120 mm - body**
Protected Height	**240 ÷ 1920 mm**
Range	**HP ÷ 30 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)   - **Led Diagnostic** for failures signalling
- **EDM** (External Device Monitoring)   - **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 - P120	240	365	315	12	2x2
LC3 - P120	480	605	555	14	3x3
LC3 - P120	720	845	795	16	4x4
LC3 - P120	960	1085	1035	18	5x5
LC3 - P120	1200	1325	1275	20	6x6
LC3 - P120	1440	1565	1515	22	7x7
LC3 - P120	1680	1805	1755	24	8x8
LC3 - P120	1920	2045	1995	26	9x9

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TECHNICAL FEATURES

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

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

TX   male connector

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
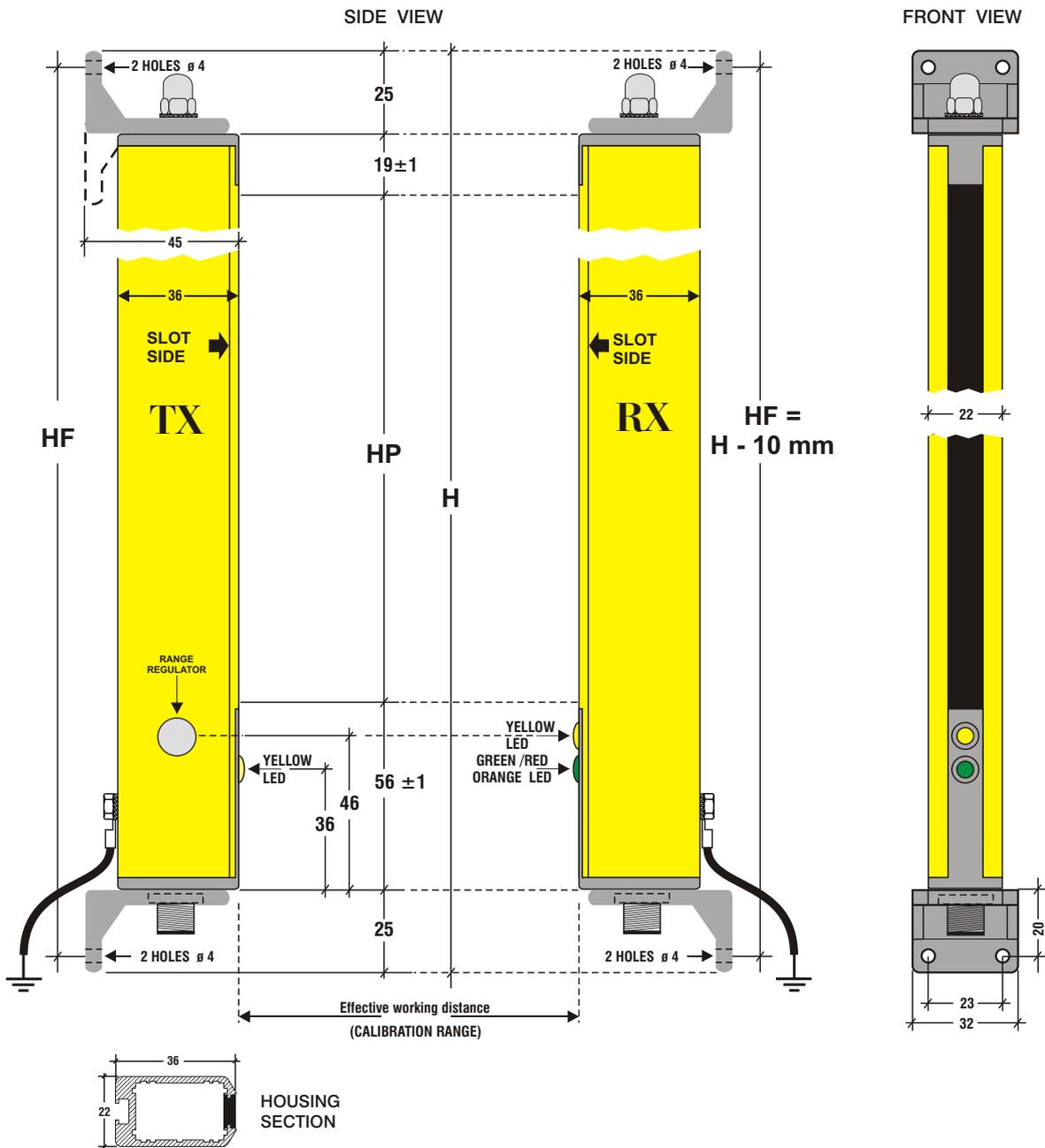
VERSION MOUNTING SOLUTION "SMO" (STANDARD)

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

22

RANGE REGULATOR

YELLOW LED

YELLOW LED

GREEN /RED
ORANGE LED

YELLOW LED

56 ± 1

46

36

25

2 HOLES ø 4

2 HOLES ø 4

20

23

32

Effective working distance
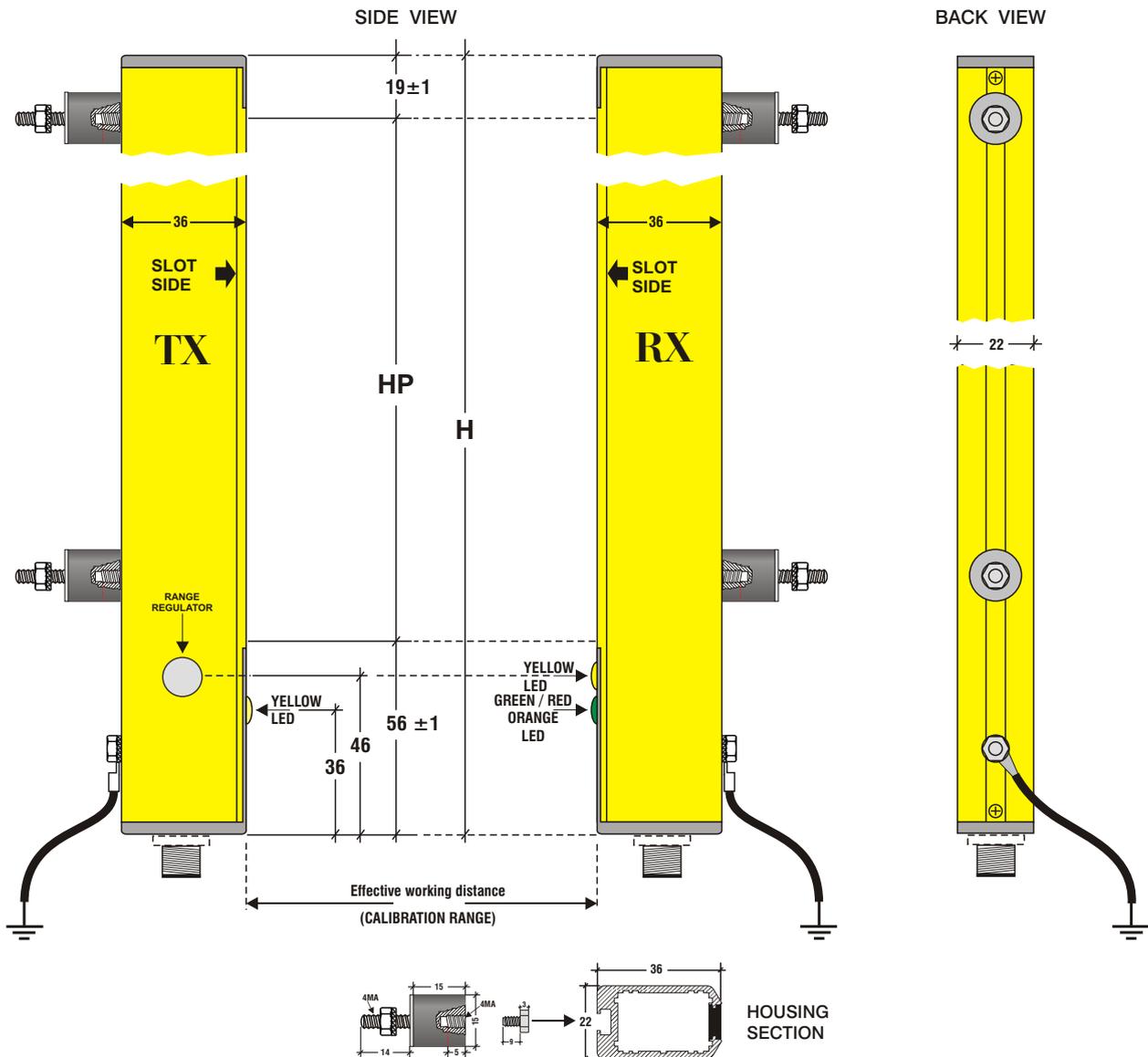(CALIBRATION RANGE)

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

14

5

10

ANTIVIBRATING ELASTIC SUPPORTS

Fig.2
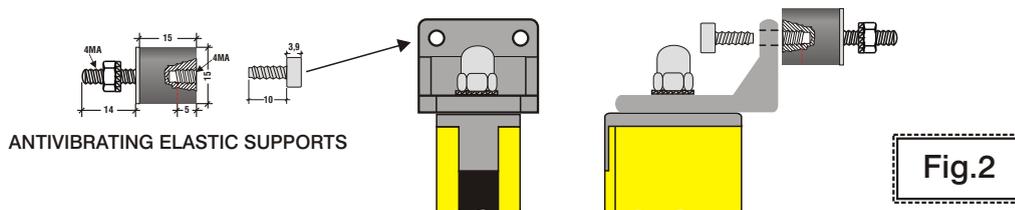
VERSION MOUNTING SOLUTION "SEA" (OPTIONAL)

Fig.3

SIDE VIEW

BACK VIEW

19±1

36

36

SLOT SIDE

SLOT SIDE

TX

RX

HP

H

RANGE REGULATOR

YELLOW LED

YELLOW LED

GREEN / RED ORANGE LED

22

56 ±1

46

36

Effective working distance

(CALIBRATION RANGE)

4MA

15

4MA

3

36

22

15

HOUSING SECTION

14

5

9

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.

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OPTIONS

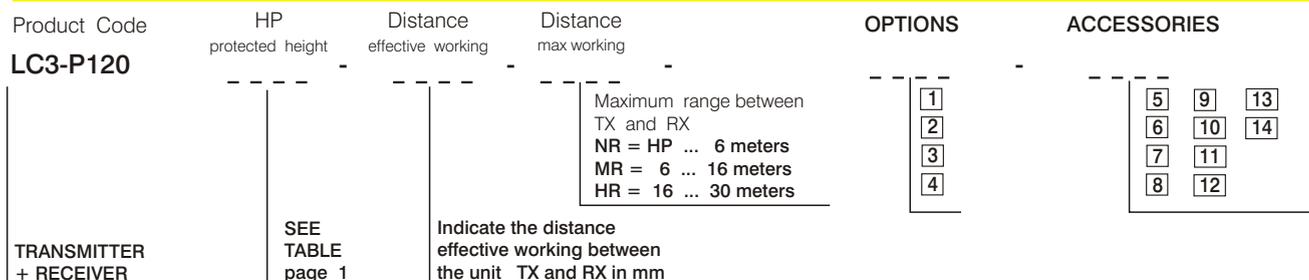|	
SRS	Manual Restart
SEA	Antivibrating elastic supports (see Fig.3)
CB60 IP67	IP67 protection in transparent cylindric
CB60 IP69K	IP69K protection in transparent cylindric

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	COD 5	5
SEA	2	COD 8	6
CB60 IP67	3	BOX 2/4	7
CB60 IP69K	4	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 **LC3-P120**

HP protected height

Distance effective working

Distance max working

OPTIONS

ACCESSORIES

_ _ _ _ - _ _ _ _ - _ _ _ _ - _ _

Maximum range between TX and RX
NR = HP ... 6 meters
MR = 6 ... 16 meters
HR = 16 ... 30 meters

TRANSMITTER + RECEIVER

SEE TABLE page 1

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

OPTIONS: 1 2 3 4

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

Example

LC3 - P120 - 480 - 1000 - NR   +   1 2 - -   +   5 6 7 - - - - - - -

OPTIONS

ACCESSORIES