Ø 30

## 10÷30 Vdc - 3 WIRES NPN OR PNP OUTPUT





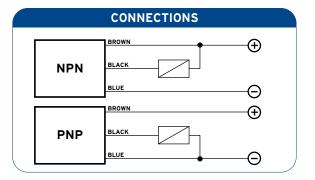


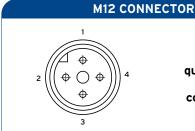
- 10 mm to 15 mm operating distance shielded, unshielded Short housing models
- Cable or M12 connector models
- Output status LED

ILE	СН	NI	CA	ᆫᄓ	A	Α.

	SHIELDED UNSHIELDED		
OPERATING DISTANCE (Sn)	10 mm 15 mm		
POWER SUPPLY	10 ÷ 30 Vdc (-15 / +10%)		
RIPPLE	≤10%		
HYSTERESIS	< 10%		
OUTPUT CURRENT	200 mA max.		
CONSUMPTION	< 10 mA @ 24 Vdc		
SATURATION VOLTAGE	< 1.8 V (I = 100 mA)		
INDICATORS	Yellow LED		
SWITCHING FREQUENCY	300 Hz		
DELAY AT POWER ON	≤ 50 ms		
REPEATABILITY	≤3%		
SHORT CIRCUIT PROTECTION	Present (self-resetting)		
PROTECTIONS CIRCUIT	Against polarity reversal - inductive loads		
OPERATING TEMPERATURE	- 25 ÷ +60 °C		
MECHANICAL PROTECTION	IP67		
CONNECTIONS	2 m cable (3 x 0.25 mm <sup>2</sup> )		
HOUSING MATERIAL	Nickel-plated brass		
WEIGHT	210 g cable version		
	170 g M12 connector cable		
_			

<sup>(4)</sup> Device marking (5) II 3D IP67 T6X.



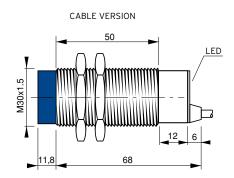


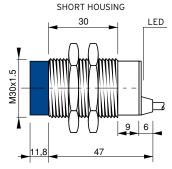
View of quadripole male connector

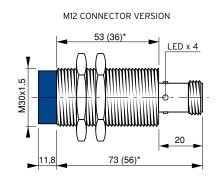
## **CONFIGURATION**

Outputs		PIN nu	ımbers	
	1	2	3	4
(NO or NC)	+		_	NO/NC

## **DIMENSIONS (mm)**







(\*) The dimensions in brackets refer to short housing models Note: the front part in blue is valid only for unshielded models













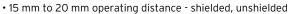
### **MODEL SELECTION TABLE** CONSTRUCTION DIAMETER OUTPUT CONNECTION A= shielded standard housing 04 = 4 mm 1 = 10-30 Vdc PNP NO 02 = 500 mm CABLE 05 = 5 mm B= shielded short housing 2 = 10-30 Vdc PNP NC 03 = 2 m CABLE 08 = 8 mmC= unshielded standard housing 3 = 10-30 Vdc NPN NO S1 = M8 CONN. 12 = 12 mm D= unshielded short housing 4 = 10-30 Vdc NPN NC S2 = M12 CONN. 5 = 10-30 Vdc PNP NO-NC 18 = 18 mm E= shielded standard housing, double operating distance 30 = 30 mm F= unshielded standard housing, double operating distance 6 = 10-30 Vdc NPN NO-NC G= shielded short housing, double operating distance 7 = 24-230 Vac - 2 wires NO H= unshielded short housing, double operating distance 8 = 24-230 Vac - 2 wires NC I= shielded standard metal housing 9 = 10-30 Vac - 2 wires NO-NC L= unshielded standard metal housing 0 = 12-30 Vac - 4 wires

		PRODUCT TABLE		
DESCRIPTION	CONNECTION	SHIELDED	HOUSING	ORDER CODE
IS-30-A1-03	2 m CABLE	yes	standard	95B061420
IS-30-A1-S2	M12 CONNECTOR	yes	standard	95B061430
IS-30-A2-03	2 m CABLE	yes	standard	95B061440
IS-30-A2-S2	M12 CONNECTOR	yes	standard	95B061450
IS-30-A3-03	2 m CABLE	yes	standard	95B061380
IS-30-A3-S2	M12 CONNECTOR	yes	standard	95B061390
IS-30-A4-03	2 m CABLE	yes	standard	95B061400
IS-30-A4-S2	M12 CONNECTOR	yes	standard	95B061410
IS-30-B1-03	2 m CABLE	yes	short	95B062220
IS-30-B1-S2	M12 CONNECTOR	yes	short	95B062230
IS-30-B2-03	2 m CABLE	yes	short	95B062240
IS-30-B2-S2	M12 CONNECTOR	yes	short	95B062250
IS-30-B3-03	2 m CABLE	yes	short	95B062180
IS-30-B3-S2	M12 CONNECTOR	yes	short	95B062190
IS-30-B4-03	2 m CABLE	yes	short	95B062200
IS-30-B4-S2	M12 CONNECTOR	yes	short	95B062210
IS-30-C1-03	2 m CABLE	no	standard	95B061820
IS-30-C1-S2	M12 CONNECTOR	no	standard	95B061830
IS-30-C2-03	2 m CABLE	no	standard	95B061840
IS-30-C2-S2	M12 CONNECTOR	no	standard	95B061850
IS-30-C3-03	2 m CABLE	no	standard	95B061780
IS-30-C3-S2	M12 CONNECTOR	no	standard	95B061790
IS-30-C4-03	2 m CABLE	no	standard	95B061800
IS-30-C4-S2	M12 CONNECTOR	no	standard	95B061810
IS-30-D1-03	2 m CABLE	no	short	95B062620
IS-30-D1-S2	M12 CONNECTOR	no	short	95B062630
IS-30-D2-03	2 m CABLE	no	short	95B062640
IS-30-D2-S2	M12 CONNECTOR	no	short	95B062650
IS-30-D3-03	2 m CABLE	no	short	95B062580
IS-30-D3-S2	M12 CONNECTOR	no	short	95B062590
IS-30-D4-03	2 m CABLE	no	short	95B062600
IS-30-D4-S2	M12 CONNECTOR	no	short	95B062610



# Ø 30 DOUBLE OPERATING DISTANCE

10÷30 Vdc - 3 WIRES NPN OR PNP OUTPUT



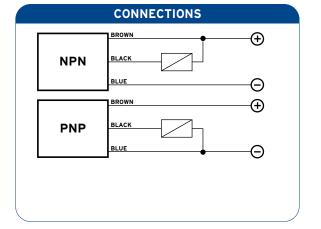
- Short housing models
- Cable or M12 connector models
- Output status LED



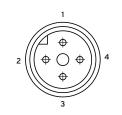


## TECHNICAL DATA

	SHIELDED	UNSHIELDED	
OPERATING DISTANCE (Sn)	15 mm	20 mm	
POWER SUPPLY	10 ÷ 30 Vdc	(-15 / +10%)	
RIPPLE	≤1	0%	
HYSTERESIS	< 1	0%	
OUTPUT CURRENT	200 m	A max.	
CONSUMPTION	< 10 mA	@ 24 Vdc	
SATURATION VOLTAGE	< 1.2 V (I	= 100 mA)	
INDICATORS	Yello	w LED	
SWITCHING FREQUENCY	200	) Hz	
DELAY AT POWER ON	≤7:	5 ms	
REPEATABILITY	≤:	3%	
SHORT CIRCUIT PROTECTION	Present (se	lf-resetting)	
PROTECTION CIRCUIT	Against polarity reve	ersal - inductive loads	
OPERATING TEMPERATURE	- 25 ÷	+70 °C	
MECHANICAL PROTECTION	IP	67	
CONNECTIONS	2 m cable (3	2 m cable (3 x 0.25 mm²)	
HOUSING MATERIAL	Nickel-pla	ated brass	
WEIGHT	210 g cab	le version	
	170 g M12 cor	nnector version	



## **M12 CONNECTOR**

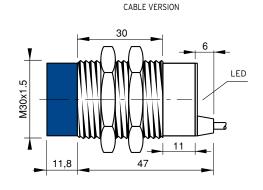


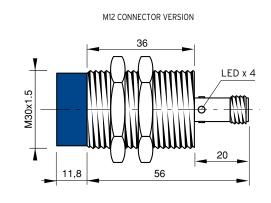
View of quadripole male connector

### **CONFIGURATION**

ı	Outputs		PIN nu	mbers	
ı	Outputs	1	2	3	4
	(NO or NC)	+		_	NO/NC

## **DIMENSIONS (mm)**

















### **MODEL SELECTION TABLE** CONSTRUCTION DIAMETER OUTPUT CONNECTION A= shielded standard housing 04 = 4 mm 1 = 10-30 Vdc PNP NO 02 = 500 mm CABLE 05 = 5 mm B= shielded short housing 2 = 10-30 Vdc PNP NC 03 = 2 m CABLE 08 = 8 mmC= unshielded standard housing 3 = 10-30 Vdc NPN NO S1 = M8 CONN. 12 = 12 mm D= unshielded short housing 4 = 10-30 Vdc NPN NC S2 = M12 CONN. 5 = 10-30 Vdc PNP NO-NC 18 = 18 mm E= shielded standard housing, double operating distance 30 = 30 mm F= unshielded standard housing, double operating distance 6 = 10-30 Vdc NPN NO-NC G= shielded short housing, double operating distance 7 = 24-230 Vac - 2 wires NO H= unshielded short housing, double operating distance 8 = 24-230 Vac - 2 wires NC I= shielded standard metal housing 9 = 10-30 Vac - 2 wires NO-NC L= unshielded standard metal housing 0 = 12-30 Vac - 4 wires

PRODUCT TABLE					
DESCRIPTION	CONNECTION	SHIELDED	HOUSING	ORDER CODE	
IS-30-G1-03	CABLE	yes	short	95B063680	
IS-30-G1-S2	M12	yes	short	95B063690	
IS-30-G2-03	CABLE	yes	short	95B063700	
IS-30-G2-S2	M12	yes	short	95B063710	
IS-30-G3-03	CABLE	yes	short	95B063640	
IS-30-G3-S2	M12	yes	short	95B063650	
IS-30-G4-03	CABLE	yes	short	95B063660	
IS-30-G4-S2	M12	yes	short	95B063670	
IS-30-H1-03	CABLE	no	short	95B063760	
IS-30-H1-S2	M12	no	short	95B063770	
IS-30-H2-03	CABLE	no	short	95B063780	
IS-30-H2-S2	M12	no	short	95B063790	
IS-30-H3-03	CABLE	no	short	95B063720	
IS-30-H3-S2	M12	no	short	95B063730	
IS-30-H4-03	CABLE	no	short	95B063740	
IS-30-H4-S2	M12	no	short	95B063750	



## **Ø 30 DOUBLE OPERATING DISTANCE** 10÷30 Vdc - 4 WIRES NPN OR PNP OUTPUT



- 15 mm to 20 mm operating distance shielded, unshielded
- Short housing
- Cable or M12 connector models
- 200mA NPN or PNP
- Output status LED

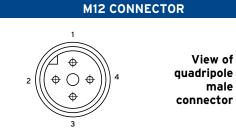




## **TECHNICAL DATA**

	SHIELDED	UNSHIELDED
OPERATING DISTANCE (Sn)	15 mm	20 mm
POWER SUPPLY	10 ÷ 30 Vdc	(-15 / +10%)
RIPPLE	≤1	0%
HYSTERESIS	< 1	0%
OUTPUT CURRENT	200 m	A max.
CONSUMPTION	< 10 mA	@ 24 Vdc
SATURATION VOLTAGE	< 1.2 V (I	= 100 mA)
INDICATORS	Yello	w LED
SWITCHING FREQUENCY	200	) Hz
DELAY AT POWER ON	≤7:	5 ms
REPEATABILITY	≤:	3%
SHORT CIRCUIT PROTECTION	Present (se	lf-resetting)
PROTECTION CIRCUIT	Against polarity reve	ersal - inductive loads
OPERATING TEMPERATURE	- 25 ÷	+70 °C
MECHANICAL PROTECTION	IP	67
CONNECTIONS	2 m cable (3	x 0.25 mm <sup>2</sup> )
HOUSING MATERIAL	Nickel-pla	ated brass
WEIGHT	210 g cab	le version
	170 g M12 cor	nnector version

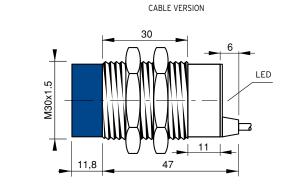
# NPN BLACK WHITE BLUE BROWN HITE BLUE PNP BLACK BLUE BROWN HITE BLACK BLUE NO NC

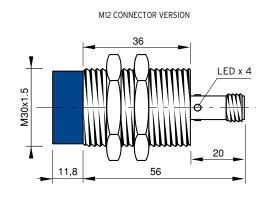


## CONFIGURATION

Outputs		PIN nu	ımbers	
Outputs	1	2	3	4
(NO + NC)	+	NC	_	NO

## **DIMENSIONS (mm)**

















MODEL SELECTION TABLE						
CONSTRUCTION	OUTPUT	CONNECTION				
A= shielded standard housing	1 = 10-30 Vdc PNP NO	02 = 500 mm CABLE				
B= shielded short housing	2 = 10-30 Vdc PNP NC	03 = 2 m CABLE				
C= unshielded standard housing	3 = 10-30 Vdc NPN NO	S1 = M8 CONN.				
D= unshielded short housing	4 = 10-30 Vdc NPN NC	S2 = M12 CONN.				
E= shielded standard housing, double operating distance	5 = 10-30 Vdc PNP NO-NC					
F= unshielded standard housing, double operating distance	6 = 10-30 Vdc NPN NO-NC					
G= shielded short housing, double operating distance	7 = 24-230 Vac - 2 wires NO					
H= unshielded short housing, double operating distance	8 = 24-230 Vac - 2 wires NC					
I= shielded standard metal housing	9 = 10-30 Vac - 2 wires NO-NC					
L= unshielded standard metal housing	0 = 12-30 Vac - 4 wires					
	CONSTRUCTION  A= shielded standard housing B= shielded short housing C= unshielded standard housing D= unshielded short housing E= shielded standard housing, double operating distance F= unshielded standard housing, double operating distance G= shielded short housing, double operating distance H= unshielded short housing, double operating distance H= shielded standard metal housing	CONSTRUCTION  A= shielded standard housing  B= shielded short housing  C= unshielded standard housing  D= unshielded short housing  E= shielded standard housing  D= unshielded standard housing  C= unshielded standard housing  A= 10-30 Vdc NPN NO  D= unshielded standard housing  A= 10-30 Vdc NPN NC  E= shielded standard housing, double operating distance  F= unshielded standard housing, double operating distance  C= shielded short housing, double operating distance  C= shielded short housing, double operating distance  C= 24-230 Vac - 2 wires NO  H= unshielded standard metal housing  C= shielded standard metal housing  C= 10-30 Vac - 2 wires NC  C= shielded standard metal housing  C= 10-30 Vac - 2 wires NC				

PRODUCT TABLE					
DESCRIPTION	CONNECTION	SHIELDED	HOUSING	ORDER CODE	
IS-30-G5-03	CABLE	yes	short	95B063820	
IS-30-G5-S2	M12	yes	short	95B063830	



## Ø 30 DOUBLE OPERATING DISTANCE 12÷30 Vdc - 4 WIRES PROGRAMMABLE OUTPUT



- 15 mm to 20 mm operating distance shielded, unshielded
- Programmable outputs: NPN/PNP, NO or NC
- Cable models
- Nickel-plated brass
- Output status LED
- 200 mA max output

15	Se	rı	es



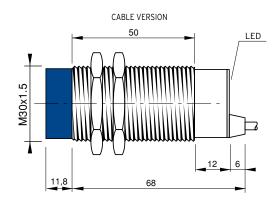
## **TECHNICAL DATA**

	SHIELDED	UNSHIELDED	
OPERATING DISTANCE (Sn)	15 mm	20 mm	
POWER SUPPLY	12 ÷ 30 Vdc (-15/+10%)		
RIPPLE	≤1	0%	
HYSTERESIS	< 10%		
OUTPUT	NPN or PNP	(selectable)	
CONTACT	NO or NC (	selectable)	
OUTPUT CURRENT	200 m	A max.	
CONSUMPTION	< 1.2 mA	@ 24 Vdc	
SATURATION VOLTAGE	< 1,8 V (I :	= 100 mA)	
INDICATORS	Yellow LED		
SWITCHING FREQUENCY	200 Hz		
DELAY AT POWER ON	≤ 50 ms		
REPEATABILITY	≤ 3%		
SHORT CIRCUIT PROTECTION	Present (self-resetting)		
PROTECTIONS CIRCUIT	Against polarity reversal - inductive loads		
OPERATING TEMPERATURE	- 25 ÷	+70 °C	
MECHANICAL PROTECTION	IP	67	
CONNECTIONS	2 m cable (4	x 0.25 mm <sup>2</sup> )	
HOUSING MATERIAL	Nickel-plated brass		
WEIGHT	210 g cable version		
	170 g M12 co	nnector cable	
(1) Device marking 🖾 II 3D IP67 T6X.			

### **CONNECTIONS** NPN **PNP** NO BLACK NO Θ ( **NPN PNP** WHITE BLACK NC NC

These sensors, thanks to the unpaired output circuit offer 4 output configurations (NPN-NO, NPN-NC, PNP-NO, PNP-NC) on the  $\,$ same model.

## **DIMENSIONS (mm)**















MODEL SELECTION TABLE				
DIAMETER	CONSTRUCTION	OUTPUT	CONNECTION	
04 = 4 mm	A= shielded standard housing	1 = 10-30 Vdc PNP NO	02 = 500 mm CABLE	
05 = 5 mm	B= shielded short housing	2 = 10-30 Vdc PNP NC	03 = 2 m CABLE	
08 = 8 mm	C= unshielded standard housing	3 = 10-30 Vdc NPN NO	S1 = M8 CONN.	
12 = 12 mm	D= unshielded short housing	4 = 10-30 Vdc NPN NC	S2 = M12 CONN.	
18 = 18 mm	E= shielded standard housing, double operating distance	5 = 10-30 Vdc PNP NO-NC		
30 = 30 mm	F= unshielded standard housing, double operating distance	6 = 10-30 Vdc NPN NO-NC		
	G= shielded short housing, double operating distance	7 = 24-230 Vac - 2 wires NO		
	H= unshielded short housing, double operating distance	8 = 24-230 Vac - 2 wires NC		
	I= shielded standard metal housing	9 = 10-30 Vac - 2 wires NO-NC		
	L= unshielded standard metal housing	0 = 12-30 Vac - 4 wires		

		PRODUCT TAI	BLE	
DESCRIPTION	CONNECTION	SHIELDED	HOUSING	ORDER CODE
IS-30-E0-03	CABLE	yes	standard	95B063860



## 24÷230 Vac - 2 WIRES WIRES NO OR NC OUTPUT



- 10 mm to 15 mm operating distance shielded, unshielded
- · Cable or M12 connector models
- Very low consumption < 0,7 mA Inrush current (20ms) 1.5A
- 300mA max output





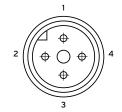
## **TECHNICAL DATA**

	SHIELDED	UNSHIELDED
OPERATING DISTANCE (Sn)	10 mm	15 mm
POWER SUPPLY	24 ÷ 230 Vac	c (-15/+10%)
NET FREQUENCY	50 ÷	60 Hz
HYSTERESIS	< 1	10%
OUTPUT CURRENT	300 m	A max.
OUTPUT CURRENT	20 m	A min.
INRUSH CURRENT	1,5 A ma	x. (20 ms)
RESIDUAL CURRENT	< 0,	7 mA
SATURATION VOLTAGE	< 5 V (I = 100 mA)	
INDICATORS	Yellow LED	
SWITCHING FREQUENCY	12 Hz	
DELAY AT POWER ON	≤ 300 ms	
REPEATABILITY	≤3%	
OPERATING TEMPERATURE	-25 ÷ +70 °C	
MECHANICAL PROTECTION	IP67	
CONNECTIONS	2 m cable (2 x 0.25 mm²)	
HOUSING MATERIAL	Nickel-pla	ated brass
WEIGHT	210 g cab	ole version
	170 g M12 co	nnector cable

## **CONNECTIONS BROWN** 24 ÷ 230 Vac ЭN

Warning: Output short circuit are not possible. Wrong supply cable connections can damage the sensor. Therefore sensors whose output status is short-circuited will not be replaced under warranty.

## **M12 CONNECTOR**

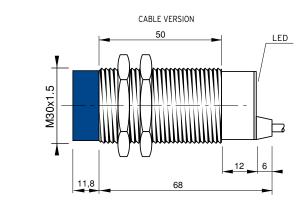


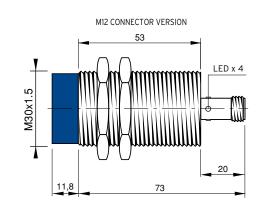
View of quadripole male connector.

## **CONFIGURATION**

Outputs		PIN nu	ımbers	
	1	2	3	4
(NO or NC)	L		N	

## **DIMENSIONS (mm)**

















	MODEL SELECTION T	ABLE	
DIAMETER	CONSTRUCTION	OUTPUT	CONNECTION
04 = 4 mm	A= shielded standard housing	1 = 10-30 Vdc PNP NO	02 = 500 mm CABLE
05 = 5 mm	B= shielded short housing	2 = 10-30 Vdc PNP NC	03 = 2 m CABLE
08 = 8 mm	C= unshielded standard housing	3 = 10-30 Vdc NPN NO	S1 = M8 CONN.
12 = 12 mm	D= unshielded short housing	4 = 10-30 Vdc NPN NC	S2 = M12 CONN.
18 = 18 mm	E= shielded standard housing, double operating distance	5 = 10-30 Vdc PNP NO-NC	
30 = 30 mm	F= unshielded standard housing, double operating distance	6 = 10-30 Vdc NPN NO-NC	
	G= shielded short housing, double operating distance	7 = 24-230 Vac - 2 wires NO	
	H= unshielded short housing, double operating distance	8 = 24-230 Vac - 2 wires NC	
	I= shielded standard metal housing	9 = 10-30 Vac - 2 wires NO-NC	
	L= unshielded standard metal housing	0 = 12-30 Vac - 4 wires	

		PRODUCT TAE	BLE	
DESCRIPTION	CONNECTION	SHIELDED	HOUSING	ORDER CODE
IS-30-A7-03	CABLE 2m	yes	standard	95B062900
IS-30-A7-S2	M12 CONNECTOR	yes	standard	95B062910
IS-30-A8-03	CABLE 2m	yes	standard	95B062920
IS-30-A8-S2	M12 CONNECTOR	yes	standard	95B062930
IS-30-C7-03	CABLE 2m	no	standard	95B063020
IS-30-C7-S2	M12 CONNECTOR	no	standard	95B063030
IS-30-C8-03	CABLE 2m	no	standard	95B063040
IS-30-C8-S2	M12 CONNECTOR	no	standard	95B063050



## **Ø 30 DOUBLE OPERATING DISTANCE** 24÷230 Vac/dc - 2 WIRES NO OR NC OUTPUT

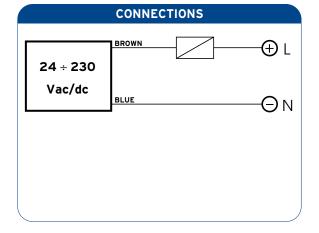


- 15 mm to 20 mm operating distance shielded, unshielded
- Short circuit protection AC/DC
- Cable models
- Inrush current (20ms) 2.5A
- 350mA max output

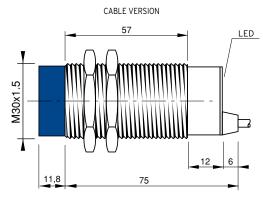


# TECHNICAL DATA

	SHIELDED	UNSHIELDED	
OPERATING DISTANCE (Sn)	15 mm	20 mm	
POWER SUPPLY	24 ÷ 230 Vac/dc (-15/+10%)		
NET FREQUENCY	50 ÷ 60 Hz		
HYSTERESIS	< 1	0%	
OUTPUT CURRENT	350 m	A max.	
OUTPUT CURRENT	4 m <i>F</i>	min.	
INRUSH CURRENT	2,5 A ma	x. (20 ms)	
RESIDUAL CURRENT	< 1,	5 mA	
SATURATION VOLTAGE	< 6 V (I=100mA)		
INDICATORS	Yellow LED		
SWITCHING FREQUENCY	12 Hz		
DELAY AT POWER ON	≤ 300 ms		
SHORT CIRCUIT PROTECTION	Present (self-resetting)		
REPEATABILITY	≤ 3%		
OPERATING TEMPERATURE	-25 ÷ +70 °C		
MECHANICAL PROTECTION	IP67		
CONNECTIONS	2 m cable (2	x 0.25 mm <sup>2</sup> )	
HOUSING MATERIAL	Nickel-pl	ated brass	
WEIGHT	210 g cab	le version	



## **DIMENSIONS (mm)**















MODEL SELECTION TABLE				
DIAMETER	CONSTRUCTION	OUTPUT	CONNECTION	
04 = 4 mm	A= shielded standard housing	1 = 10-30 Vdc PNP NO	02 = 500 mm CABLE	
05 = 5 mm	B= shielded short housing	2 = 10-30 Vdc PNP NC	03 = 2 m CABLE	
08 = 8 mm	C= unshielded standard housing	3 = 10-30 Vdc NPN NO	S1 = M8 CONN.	
12 = 12 mm	D= unshielded short housing	4 = 10-30 Vdc NPN NC	S2 = M12 CONN.	
18 = 18 mm	E= shielded standard housing, double operating distance	5 = 10-30 Vdc PNP NO-NC		
30 = 30 mm	F= unshielded standard housing, double operating distance	6 = 10-30 Vdc NPN NO-NC		
	G= shielded short housing, double operating distance	7 = 24-230 Vac - 2 wires NO		
	H= unshielded short housing, double operating distance	8 = 24-230 Vac - 2 wires NC		
	I= shielded standard metal housing	9 = 10-30 Vac - 2 wires NO-NC		
	L= unshielded standard metal housing	0 = 12-30 Vac - 4 wires		

	PRODUCT TABLE				
DESCRIPTION	CONNECTION	SHIELDED	HOUSING	ORDER CODE	
IS-30-E7-03	CABLE	yes	standard	95B063910	