

PHOTOCELLS

TS10 TRANSMITTER RS10 RECEIVER

- DESCRIPTION
- TECHNICAL DETAILS
- CONNECTIONS
- VERSIONS&DIMENSIONS
- INSTALLATIONS POSSIBILITIES



DESCRIPTION

The TS 10 / RS 10 series is an infrared transmitter and receiver unit in a small compact self-contained design. Operating voltage range is 10 -30 VDC. Output is NPN or PNP.

Short circuit and reverse polarity protection is standard. The transmitter TS is furnished with test and range adjustment.

The sensors can be installed in reaches from 0 up to 12 m.

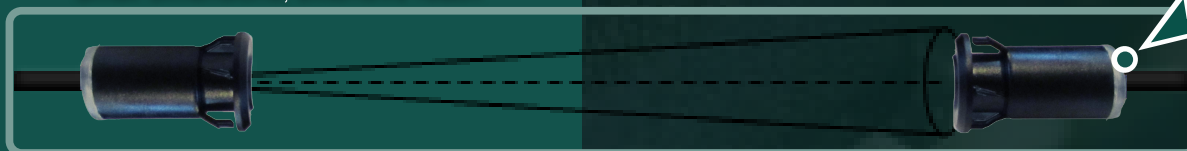
The sensors can penetrate considerable amounts of dirt/dust besides being extremely insensitive to external foreign light and electrical interferences.

The sensors are equipped with GREEN light indication its now easy to see when they are getting power, "tool for installation and also a tool for troubleshooting"

The sensors are fully sealed with a IP67 tightness.

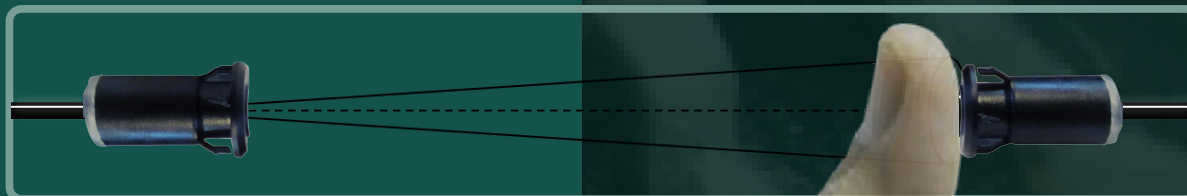
DALMATIC VIRENSORS' ARGUMENTATION FOR FREEDOM & COMFORT

Small dimensions, extensive reach



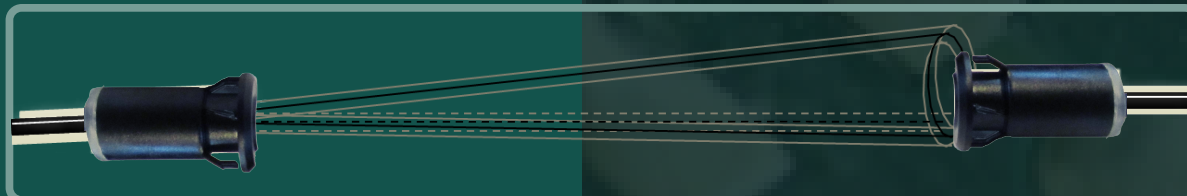
The combination of extremely small sensor dimensions of Ø10 L 30mm and a reach of up to 12m, facilitates that the sensors can be built into any machine even in locations with very poor accessibility.

insensitive to dirt and dust



A dirty/dusty environment is not normally associated with the use of photo cells. Only Ø5 mm of the sensor's Ø10mm surface forms the light sensitive part. This creates a light sensitivity, which results in surface build dirt/dust being easily penetrated.

Setting and vibrations



In connection with installation and operation on machinery with severe vibration and over long distances the usage of optical sensors is often connected with major setting and operation difficulties. The TS10 / RS10 sensor series is fully sealed in order to ensure tightness (IP 67) and prevent operation errors due to vibrations. The optical design ensures controlled opening angles and thus a simplification of sensor setting even over long distances.

High Power Sensors

insensitive to dirt & dust versions

TECHNICAL DETAILS

ORDER KEY

			receiver				
Versions	No Adjustment	Test & Adjustment	PNP Versions		NPN Versions		Ref.
Types	TS 100 CP10 C 5	TS 10 1 CP10 C 5	RS 100 CP10 C 5	RS 10 1 CP10 C 5	RS 10 2 CP10 C 5	RS 10 3 CP10 C 5	Fig.5
	TS 10 0 TP12 C 5	TS 10 1 TP12 C 5	RS 10 0 TP12 C 5	RS 10 1 TP12 C 5	RS 10 2 TP12 C 5	RS 10 3 TP12 C 5	Fig.6
	TS 100 FP12 C 5	TS 10 1 FP12 C 5	RS 10 0 FP12 C 5	RS 10 1 FP12 C 5	RS 10 2 FP12 C 5	RS 10 3 FP12 C 5	Fig.7
Output type			PNP NC	PNP NO	NPN NC	NPN NO	
Conn. Skeme	Fig. 1	Fig. 2	Fig. 3		Fig. 4		
Power	10 - 30 VDC						
Housing	Polycarbonate (PC)						
Range	Range 0 - 12 m (15 m max.) Hysteresis 15 - 20 %						

COMPLETE FREEDOM

The Vir-sensor self-Contain sensor system with integrated Amplifier offers considerable advantages within flexible installation compared to conventional compact systems.

Installation as direct system:

Objects that refract the optical connection between TS 10 & RS 10 make the output on the change its status. Use the intensification wire on the TS 10 to determine what kind of objects that is to be detected.

Installation of proximity sensors:

Objects that pass in front of the sensors TS 10 & RS 10 and create an optical connection make the RS output change its status. Adjust the proper range on TS 10.

Installation with dazzling background :

If the TS 10 and RS 10 is installed in an angle the system reach will be reduced enabling the system to be use e.g for height detection. The setting is optimised by way of the intensification wire (TS 10).

Reflex mirror installation:

Installed TS 10 & RS 10 next to each other opposite a reflector an optical connection will be established. Any object that passes inbetween the mirror and the sensors makes the RS10 output change its status. Adjust the sensitivity properly. Be aware of a certain proximity sensor effect, as the sensors do not employ lenses.

"Shoot around corner" installation:

Other installations could be "shoot around corner" by way of one or several mirrors. Install one or several mirrors to direct the beam from the transmitter to the receiver. Every passage of the mirror will activate the output.

The possibilities are infinite !

TRANSMITTER "TA10" ELECTRICAL DATA

Power supply	10 - 30 VDV
Power Supply LED	Green LED
Reverse polarity protection	Yes
Current consumption	25 mA @ 10 VDC / 10 mA @ 30 VDC
Test input	Yes (>1 VDC on the Black wire)
Range Adjustment	Yes 20 - 100% (from < 2 > 10 VDC on the black wire)

RECEIVER "RA10" ELECTRICAL DATA

Power supply	10 - 30 VDV
Reverse polarity protection	Yes
Current consumption	6 mA @ 10 - 30 VDC
Output	PNP ; NPN ; NO or NC (Selection by model)
Output LED	Yellow LED
Output Load	< 200 mA (max Capacitive load 1uF / 0.5A)
Short circuit protection	Yes
Reaktion time ton // toff	3 mS / 5 mS
Frequency of operation	125 Hz
Hysteresis	15 - 20 %

OPTICAL DATA

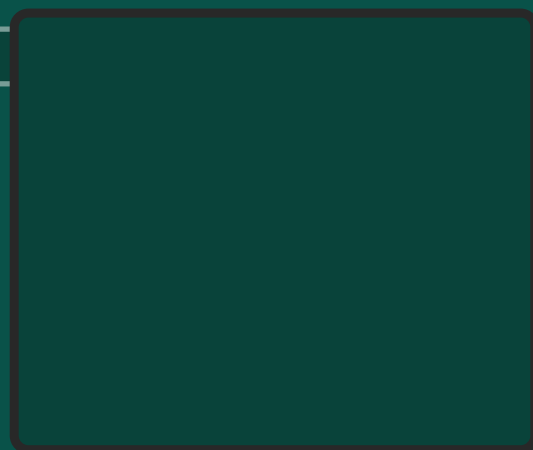
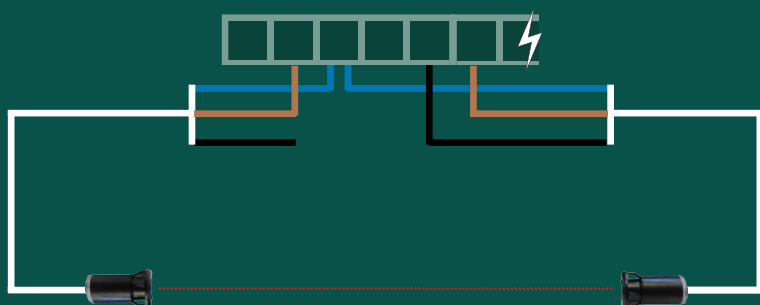
Working range	0 - 12 m
Max range	15 m
Light wave length	IR 880 nm, pulsed
Max. Surrounding light according	EN 60947-5-2
Light immunity	50 000 lux
Optical angle	+/- 10°

MECHANICAL DATA

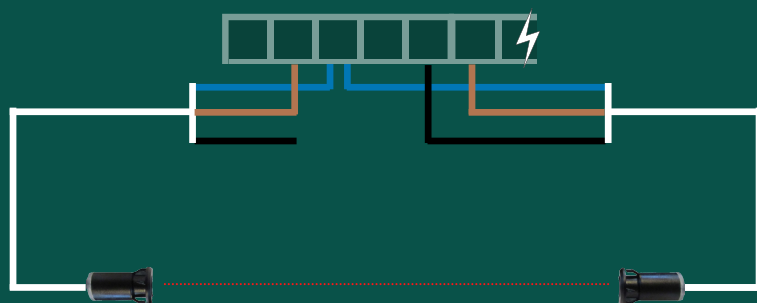
Sealing class	IP 67	IEC 529
Temperature, operation	-20...+60 °C	IEC 68-2-14
Temperature, storage	-20...+80 °C	IEC 68-2-14
Vibration	10-55Hz 1.5mm pp	IEC 68-2-6
Housing	Polycarbonate	PC
Shock	30 G	IEC 68-2-27
Cable	3*0.14 mm² PVC	IEC 68-2-27
Min cable bending radius	Min. 45 mm	IEC 68-2-27
Max. Cable pull force	Max. 60 N	IEC 947-5-2
Standard cable length	5 m	
Max. Recommended cable length	100m	
Weight 5 m	app. 100 g	

CONNECTIONS ON DALMATIC CONTROLLERS

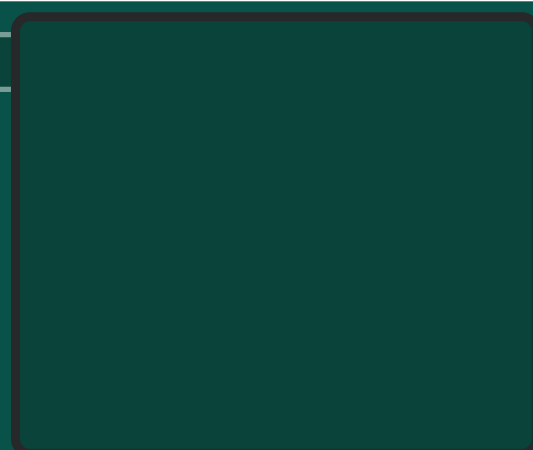
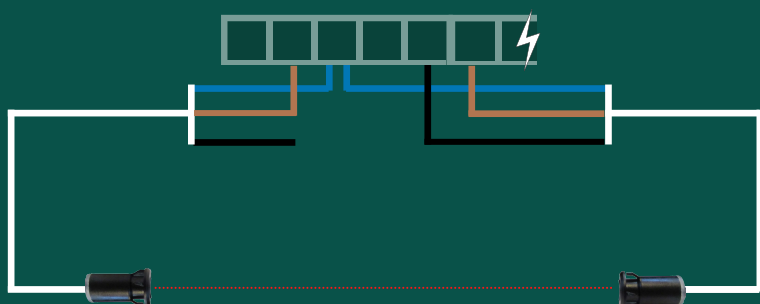
DALMATIC B.2 CONTROL



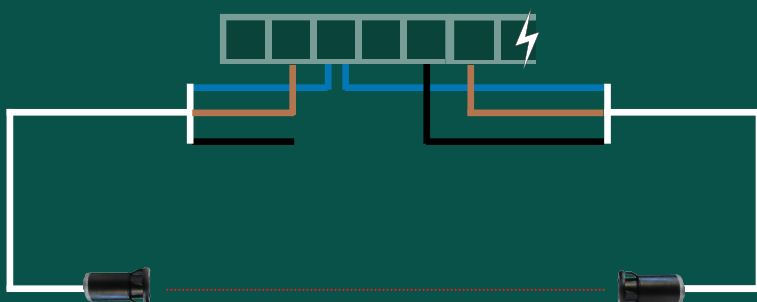
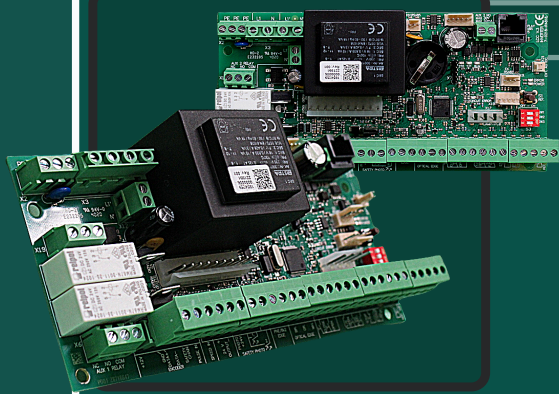
DALMATIC V.7E CONTROL



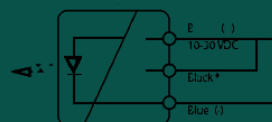
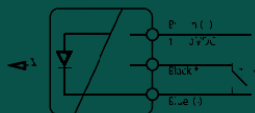
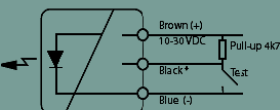
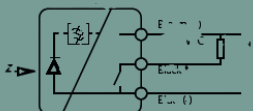
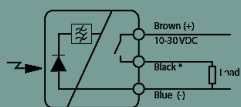
DALMATIC KV1 CONTROL



DALMATIC LCCV3D



CONNECTIONS



VERSIONS & DIMENSIONS



CP10 HOUSING

L = 30 MM
Ø = 10 MM

TP12 HOUSING

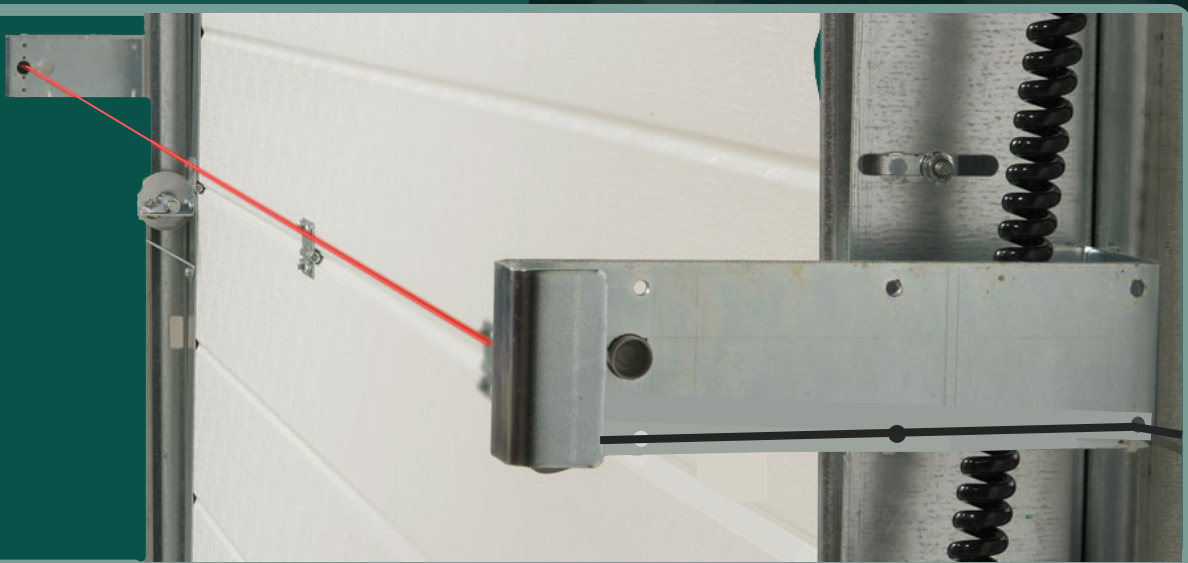
L = 30 MM
Ø = 12 MM THREAD



FP12 HOUSING

L=24 MM
Ø=12 MM SNAP

INSTALLATIONS POSSIBILITIES



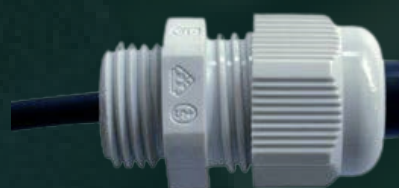
Dalmatic carries a wide range of products in door automation, fire gate automation, eddy current brakes, lane detectors and door gear motors - and produces everything from deadman controls to advanced controls with microprocessors.

In addition, we also develop and manufacture individual solutions according to the customer's needs and wishes.

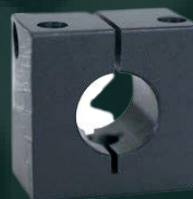
All our products comply with relevant regulatory requirements

CHOOSE THE ACCESSORY THAT MAKES YOUR INSTALLATION EASIER. FEEL FREE TO CONTACT US IF YOU HAVE SPECIAL WISHES

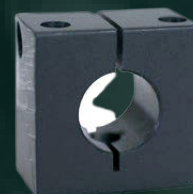
PG10 (NEMT Ø10 MONTERING)



VM 10 (Ø 10 MONTERINGSBESLAG)



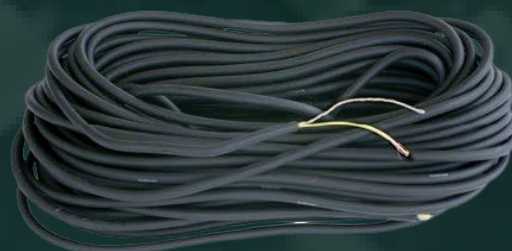
VM 12 (Ø12 MONTERINGSBESLAG)



VM 2810 (Ø 10 MONTERINGSBESLAG)



**CTA-)
KABEL Ø3,85 FOR SENSOR SERIE TA10**



**CRA-)
KABEL Ø3,85 FOR SENSOR SERIE RA10**



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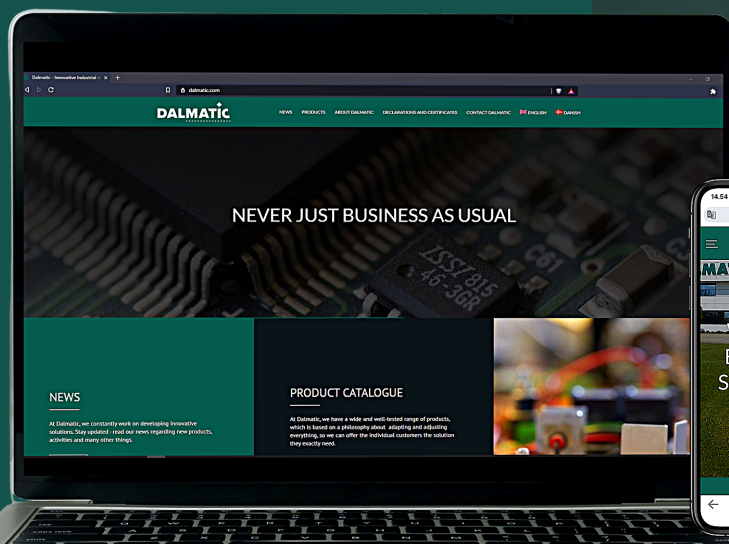
Call or write us. We are ready to help if you have questions or need help with your order.



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