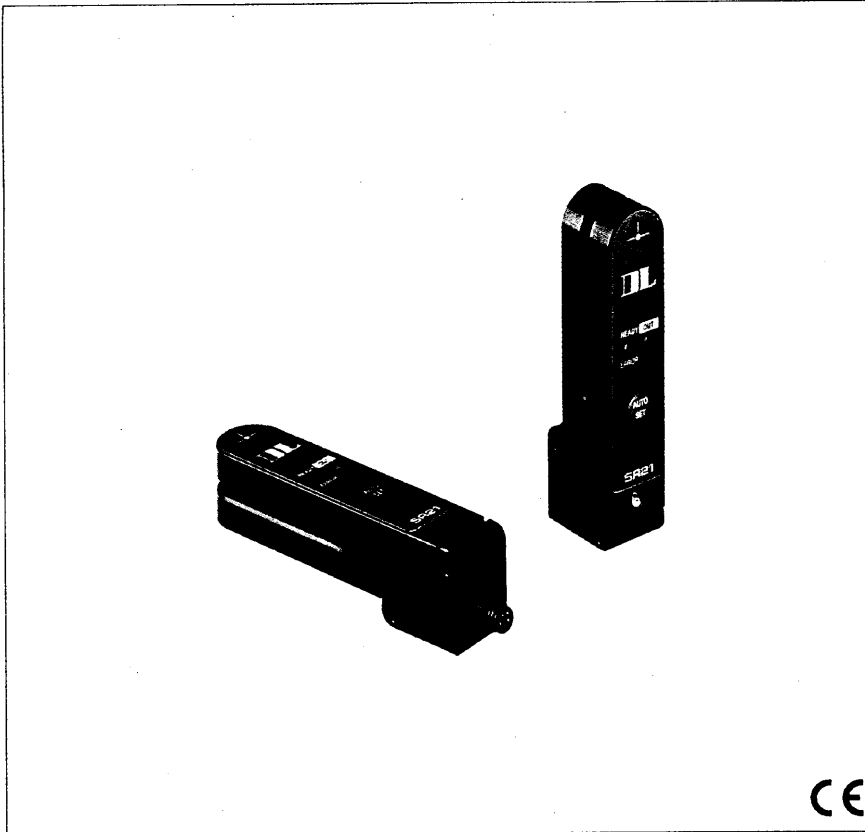


721-2549



## SR21 Series

- Sensor setting is fast and fully automatic
- Command interface composed by a key and two leds
- Microprocessor control of all sensor functions
- Low response time and high detection precision
- High immunity to optic interference and ambient light
- NPN/PNP double output with overload protection
- 90° rotating fixing block with M8 connector
- Metal structure with IP65 protection

SR21

### TECHNICAL DESCRIPTION

The **SR21** series is composed of opto-electronic slot sensors, where all the settings are fully automatic and are controlled by a microprocessor. The operator has to simply press a button for the acquisition of all the characteristics of the target. Acquired data is stored in a non-volatile memory, therefore it is not necessary to repeat the operation until a new sensor setting is required.

The Auto-Set button is located on the upper part of the sensor, where a yellow led indicates the output status, and a green/red bicolour led provides operating and error indications. The reference lines to centre the target are present on both top and bottom sides of the sensor. The connection diagram is reported on the lower side of the sensor.

The microprocessor inside the sensor controls and synchronises the emitting, receiving and output circuits, offering excellent response time, detection precision and immunity to optic interference and ambient light.

The NPN and PNP output on different connector poles is protected against overloads and short circuits.

The series is composed of the **SR21-AR** model, with infrared emission, which represents a standard for this kind of sensor, and the **SR21-AH** model, with red or green visible emission, particularly indicated for the detection of colour contrasts. In this model, the selection between the green or red emission is automatic during the acquisition step.

The sensors of the **SR21** series are constructed in a solid metal structure, with polycarbonate labels and glass lenses. It also has IP65 protection class. The mechanical fixing block, which contains the M8 connector, can be rotated to 90°, adapting itself to the most varied necessities of installation.

### APPLICATIONS

- Detection of coloured marks on transparent background
- Label presence detection
- Bi-state edge guiding (on/off)
- Ribbon continuity control
- Thread tension control
- Hole check on thin materials



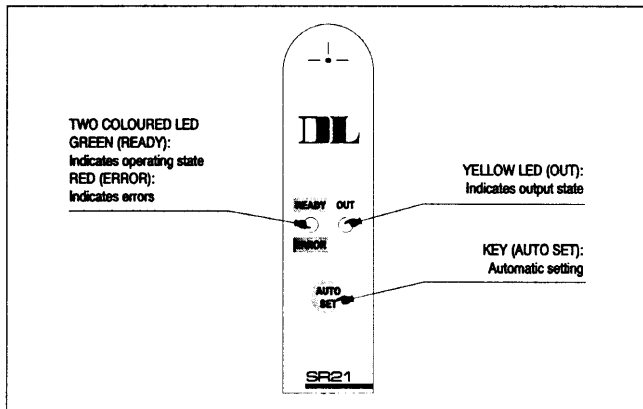
**MODELS**

TYPE	EMISSION	ORDER NO.
SR21-AH	Red/Green	963261010
SR21-AR	Infrared	963261000

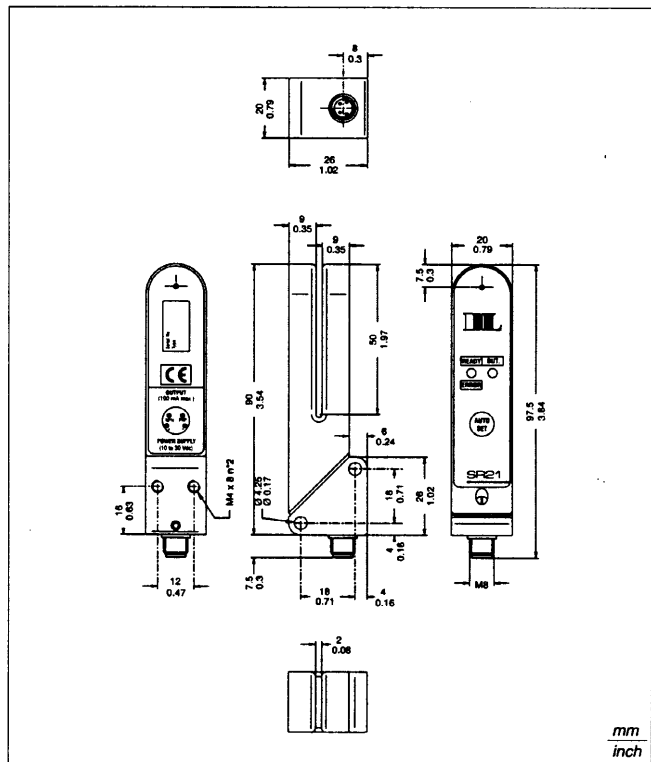
**SPECIFICATIONS**

POWER SUPPLY	10 to 30 Vdc; reversed polarity protection	WEIGHT	65 g
RIPPLE VOLTAGE	2 Vpp max.	HOUSING MATERIAL	ZAMA with polycarbonate labels
CONSUMPTION	55 mA max.; output current excluded	MECHANICAL PROTECTION	IP65
OUTPUT TYPE	NPN and PNP on different poles; 10K pull up/down resistance	OPERATING TEMPERATURE	0 to 55°C
OUTPUT CURRENT	100 mA max.; short circuit protection	STORAGE TEMPERATURE	-20 to 70°C
SATURATION VOLTAGE	1V max. (NPN); 2V max. (PNP)	HUMIDITY	35 to 85 RH (not condensing)
RESPONSE TIME	80 μs max.	CONNECTOR	M8 - 4 poles connector, on a 90° rotating fixing block
EMISSION FREQUENCY	Light modulated at 20 KHz ±10%	INDICATORS	READY/ERROR green/red bicolour LED and OUT yellow LED
EMISSION TYPE	Infrared 880 nm (-AR version); visible red/green (-AH version)	KEYBOARD	AUTO SET button
AMBIENT LIGHT REJECTION	3000 lux with incandescent lamp; 10000 lux with solar light	DATA RETENTION	EEPROM non-volatile memory
LENS MATERIAL	Glass	START-UP TEST TIME	2 s., with output in off status
SLOT WIDTH	2 mm		
LIMITS OF THE TARGET	1,5 mm maximum thickness; 1 mm minimum width		

**CONTROL PANEL**



**DIMENSIONS**



**CONNECTIONS**

