



Same powerful core technology, designed for different applications

Detection & Analysis Capabilities

DIR technical support













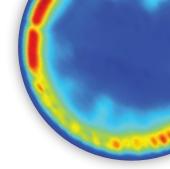
Yes



Technical specifications	<sup>2</sup> VS	12VSlite
Line capacity	300 bpm	up to 150 bpm
Maximum line speed	500 mm (19.6 in) /sec	250 mm (9.8 in) /sec
Maximum bottle weight	1.5 kg (3.3 lb.)	4 kg (8.8 lb.)
Maximum bottle height	21 cm (8.2 in)	50 cm (19.6 in)
Maximum bottle width	12 cm (4.7 in)	30 cm (11.8 in)
Process control		
Immediate accept/ reject of each bottle	Yes	Yes
Rejection unit	Integrated DIR rejection unit	Interfaces with standard rejection units. *Optional DIR integration of external rejection system at extra cost.
Rejection verification	Yes	No
Secondary rejection for convey cleanup in case of alarm (Gate)	or Yes	No
Conveyor speed monitoring	Yes	No
Feeding wheel control	Yes	No
Reports	Multiple	Basic
System support		
Built in troubleshooting application	Yes	No
Documentation	User Manual and Maintenance Manual with full validation documentation	User Manual and Maintenance Manual

Yes





## $I^2VS$

## <sup>12</sup>VSlite

System Hardware		
Camera	High sensitivity IR Camera	High sensitivity IR Camera
Computer	Beckhoff PC-Panel/PLC Computer	Standard PC panel industrial computer
PLC	Beckhoff PC-Panel/PLC Computer	Standard PLC
Structure	Pharma class stainless cabinet	Modular stand
Height adjustment	Automatic camera height adjustment (servo)	Manual
UPS	Integrated UPS for 2 hour autonomy	None
Industry Standards		
Regulatory compliance	GMP, 21 CFR 11	Standard electrical and safety
User interface	Defined users per level (for auditing purposes)	Open access to all users

## About DIR Technologies

DIR Technologies is the developer and provider of first-in-industry thermography-based inspection solutions for pharmaceutical primary packaging quality assurance and process control. DIR solutions offer a quantum leap from commonly used methods of sampling by providing 100% in-line, non-intrusive inspection that does not result in production slowdown. DIR Technologies is leading the way in the use of thermal imaging in the pharmaceutical industry for PAT applications and has filed several patents on the subject.

DIR Technologies is currently in the process of expanding the company's product portfolio to include quality assurance and process control solutions for non-pharmaceutical packagers.

The company was established in 2009 and is jointly owned by major Israeli defense companies Rafael Advanced Defense Systems, LTD (www.rafael.co.il) and Elbit Systems (www.elbitsystems.com), and Israeli-American fund SCP Vitalife (www.scpvitalife.com). DIR Technologies is a spin-off of SCD – SemiConductor Devices (www.scd.co.il), one of the largest manufacturers of advanced Infrared sensors worldwide.

DIR Technologies is located in Haifa, Israel.

US Patent 9,791,395 | European Patent 2992317 | Israel Patent 226111