Lightweight	*Compact Dimensions*	*Direct and 90° reading*

APPLICATIONS

- Chemical and biomedical analysis machines
- ATM (Automatic Teller Machines)
- Print & Apply systems
- OEM integration in automatic machines

ADVANTAGES

- Extended product applicability in high throughput processes thanks to a scanning speed up to 500 scans/s
- Excellent performance on high resolution codes with reduced minimum reading distance
- The motor can be switched on and off via software commands depending on application needs
- Allows flexible installation thanks to compact dimensions and direct/90° reading window options

HIGHLIGHTS

- Cost effective
- Very compact dimensions
- Direct and 90° reading window models for smart mounting
- Wide reading field at a short reading distance
- Motor on/off control via software commands
- Dual serial interface
- Scanning speed up to 500 scans/s
- Light weight (< 100g / 3.53 oz. without cable)
- IP65 (NEMA 4) protection class

GENERAL DESCRIPTION

- DS1100 is specifically designed to be easily integrated in OEM equipments: very compact dimensions, light weight, direct and 90° reading window models availability allow flexible mounting and positioning in narrow spaces.
- DS1100 is ideal for use in chemical and biomedical analysis machines, pharmaceutical code analyzers, automatic teller machines, printing systems, video rental and film processing machines. It can also be used on assembly lines, as well as simple work in progress and quality control applications.
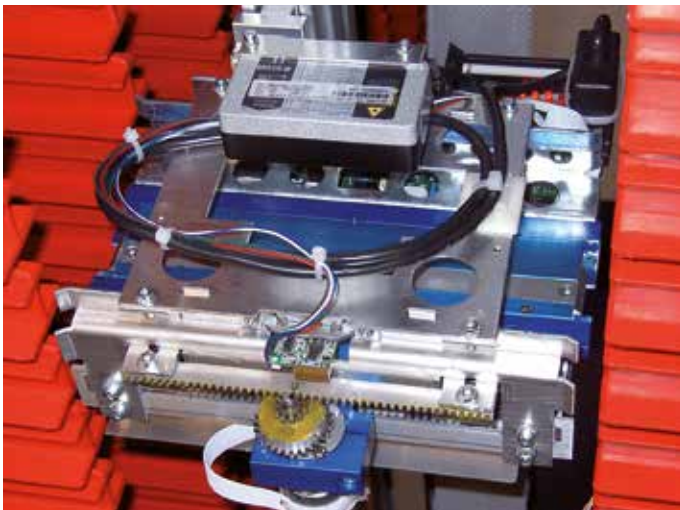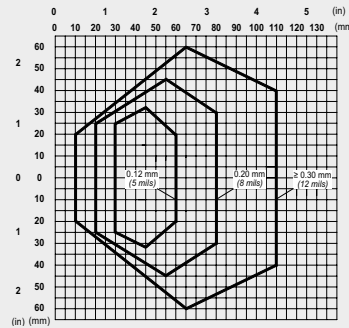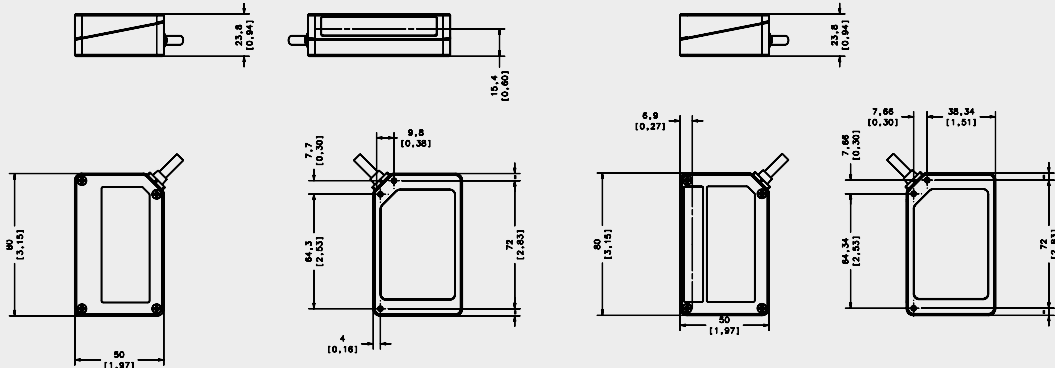
READING DIAGRAMS
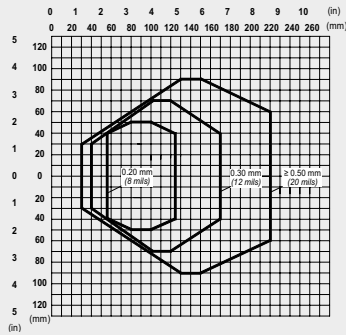
CONDITIONS

Code = Interleaved 2/5 or Code 39
PCS = 0.90
Pitch angle = 0°
Skew angle = 15°
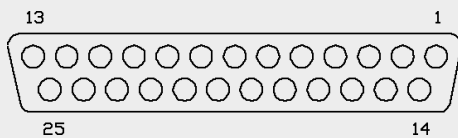Tilt angle = 0°

CONDITIONS

Code = Interleaved 2/5 or Code 39
PCS = 0.90
Pitch angle = 0°
Skew angle = 15°
Tilt angle = 0°

DIMENSIONS

mm / inch

ELECTRICAL CONNECTIONS

25-PIN D-SUB CONNECTOR PINOUT		
Pin	Name	Function
9,13	VS	Power supply input voltage +
25	GND	Power supply input voltage -
1 *	CHASSIS	Chassis Ground
2, 21	TXAUX	TX RS232 Auxiliary Interface
3, 20	RXAUX	RX RS232 Auxiliary Interface
4	RTX485-	RTX- RS485 Main Interface
5	RTX485+	RTX+ RS485 Main Interface
7	SGND	Signal Ground
8	OUT1+	Output 1 +
11	OUT2+	Output 2 +
18	IN1 -	Input 1 -
19	EXT TRIG-	External trigger -
12, 22	GND	Input/Output reference
23, 24	NU	Not Used
6,10,14,15,16,17	NC	Not Connected

* Pins 1 and 25 are connected together internally.

MODELS AND ACCESSORIES

MODELS	
Order No.	Description
939101000	DS1100-1100 STD RESOLUTION, RS232+RS485, LINEAR
939101010	DS1100-1101 STD RESOLUTION, RS232+RS485, LINEAR, 90°
939101020	DS1100-1110 STD RESOLUTION, RS232+RS485, R1
939101030	DS1100-1111 STD RESOLUTION, RS232+RS485, R1, 90°
939101040	DS1100-2100 HIGH RESOLUTION, RS232+RS485, LINEAR
939101050	DS1100-2101 HIGH RESOLUTION, RS232+RS485, LINEAR, 90°
939101060	DS1100-2110 HIGH RESOLUTION, RS232+RS485, R1
939101070	DS1100-2111 HIGH RESOLUTION, RS232+RS485, R1, 90°
ACCESSORIES	
Order No.	Description
93ACC1040	DC5-2200 DC CONVERTER 4-30 VDC TO 5 VDC

TECHNICAL DATA

Dimensions	80 x 50 x 22 mm (3.15 x 1.97 x 0.89 in.)	
Weight	<100 g (<3.53 oz.) without cable	
Case material	Magnesium (body) + Polycarbonate (cover)	
Operating temperature	0 to 45°C (32 to 113 °F)	
Storage temperature	–20 to 70 °C (-4 to 158 °F)	
Humidity	90% non condensing	
Vibration resistance	IEC 68-2-6 test FC 1.5mm; 10 to 55 Hz; 2 hours on each axis	
Shock resistance	IEC 68-2-27 test EA 30 G; 11 ms; 3 shocks on each axis	
Protection class	IP65	
Light source	Visible laser diode (630 to 680 nm)	
Scanning speed	500 scans/sec	
	DS1100-11xx	DS1100-21xx
Resolution	Up to 0.20 mm (8 mils)	Up to 0.12 mm (5 mils)
Reading distance	Up to 220 mm on 0.50 mm (20 mils) codes	Up to 110 mm on 0.30 mm (12 mils) codes
Depth of field	Up to 190 mm on 0.50 mm (20 mils) codes	Up to 100 mm on 0.30 mm (12 mils) codes
Aperture angle	70 degrees	
Raster aperture	15 mm (0.6 in) at 220 mm (8.7 in)	
Readable codes	Code 2/5, Code39, Code93, Code128, EAN/UPC, EAN128, Codabar, Pharmacode	
Multilabel reading	Up to 6 different symbologies during the same reading phase	
Communication interfaces	Main port RS485 Half Duplex up to 115.2 Kbit/s	
	Auxiliary port RS232 up to 115.2 kbps	
Digital inputs	Two SW programmable (NPN only)	
Digital outputs	Two SW programmable, event driven	
Device programming	Windows™ based SW (WinHost™) via serial link	
	Serial Host Mode Programming sequences	
Operating modes	'On-line', 'Serial On-line', 'Automatic', 'Test', 'Verifier'	
Led indicators	Power On, Good Read, Trigger, Data TX, Laser On	
Laser classification	IEC 825-1 Class2; CDRH Class II	
Laser control	Safety system to turn laser off in cases of motor slowdown or failure	
Motor control	Motor On/Off command string and Motor Speed SW programmable	
Power supply	5 VDC (4 to 30 VDC with converter)	
Power consumption	1.5 W max	