

Embedded Bar Code Readers



APPLICATIONS

- OEM integration in automatic machines
- Chemical and biomedical analysis machines
- Document handling machines
- Print & Apply systems
- Packaging machines
- ATL (Automated Tape Library)

ADVANTAGES

- Excellent performance and reliability on all main bar code symbologies thanks to high scanning speed and advanced optic features.
- High reading performance on damaged or poorly printed bar codes
- Excellent performance on high resolution codes with reduced minimum reading distance

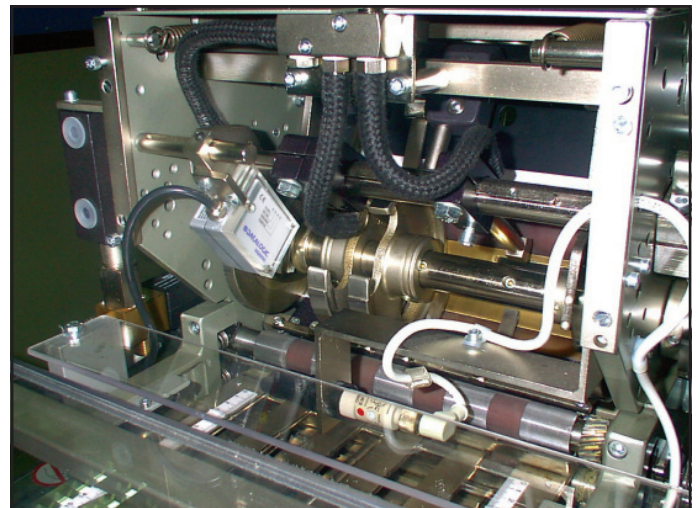
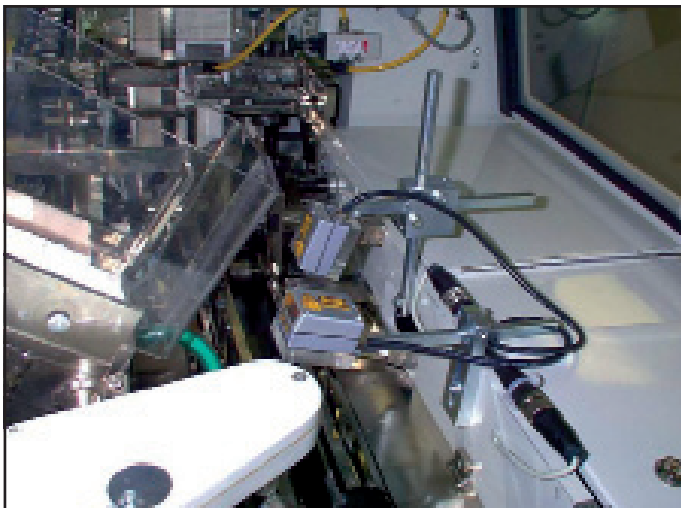
HIGHLIGHTS

- Extremely compact dimensions
- Very high density code reading (up to 0.076 mm / 3mils)
- Scanning speed up to 500 scans/s
- Dual serial interface
- Light weight (150 g / 5.29 oz. without cable)
- IP65 (NEMA 4) rugged industrial housing

GENERAL DESCRIPTION

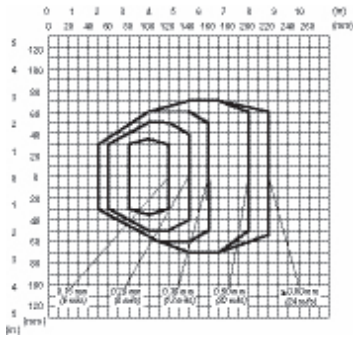
DS2200 is designed for OEM and other applications requiring easy integration, high reliability and cost effectiveness. Datalogic Automation's advanced technology and experience in miniaturized laser components enables development of a compact industrial laser scanner without compromising reading performance and industrial quality standards.

In conformity with the needs of automatic machinery, DS2200 features very compact dimensions, light weight and IP65 rugged industrial housing.



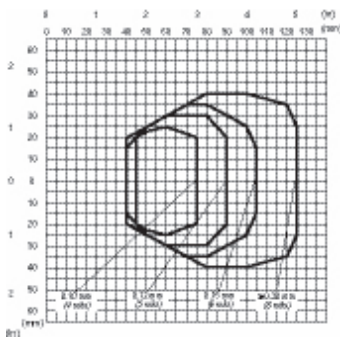
READING DIAGRAMS

DS2200-1XXX (STANDARD RESOLUTION)



CONDITIONS

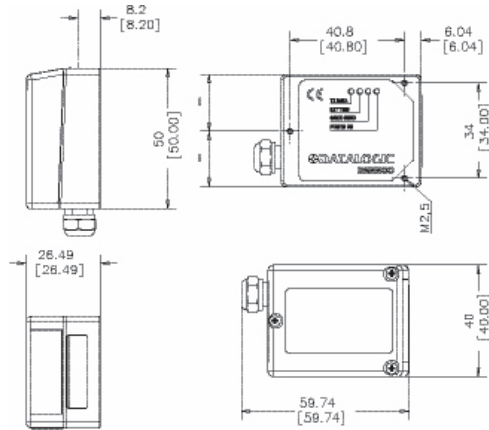
Code = Interleaved 2/5 or Code 39
 PCS = 0.90
 Pitch angle = 0°
 Skew angle = 15°
 Tilt angle = 0°



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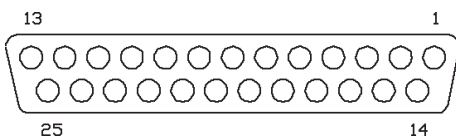
DIMENSIONS



mm / inch

ELECTRICAL CONNECTIONS

All DS2200 models are equipped with a cable terminated with a 25-pin female D-sub connector for connection with the power supply and input/output signals.



25-pin Female D-sub Connector

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 |
| 19 | EXT TRIG- | External Trigger - |
| 10,12,22 | I/O REF | I/O reference |
| 8 | OUT1 + | Output 1 + |
| 11 | OUT2 + | Output 2 + |
| 2 | TXAUX | TX RS232 Aux. Interface |
| 3 | RXAUX | RX RS232 Aux. Interface |
| 4 | RTX485- | RTX- RS485 Main Interface |
| 5 | RTX485+ | RTX+ RS485 Main Interface |
| 7 | SGND | Signal Ground |
| 16 | NGND | Internal Use - for Service only |
| 17 | FPE | Internal Use - for Service only |
| 6,14,15,18,20,21,23,24 | NC | Not Connected |

MODELS AND ACCESSORIES

| MODELS | |
|-----------|--|
| Order No. | Description |
| 930161000 | DS2200-1100 STD RESOLUTION, LINEAR, RS485+RS232, 5V |
| 930161030 | DS2200-1110 STD RESOLUTION, R1, RS485+RS232, 5V |
| 930161040 | DS2200-2100 HIGH RESOLUTION, LINEAR, RS485+RS232, 5V |
| 930161050 | DS2200-2110 HIGH RESOLUTION, R1, RS485+RS232, 5V |

| ACCESSORIES | |
|-------------|---|
| Order No. | Description |
| 93A201030 | GFC-2200 90° READING MIRROR |
| 93ACC1040 | DC5-2200 DC CONVERTER 4-30 VDC TO 5 VDC |

TECHNICAL DATA

| | | |
|--------------------------|---|---------------------------------------|
| DIMENSIONS | 50 x 40 x 28 mm (1.97 x 1.57 x 1.10 in) | |
| WEIGHT | 150 g (5.29 oz.) | |
| CASE MATERIAL | Die-cast Zinc | |
| OPERATING TEMPERATURE | 0 to 40 °C (32 to 104 °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 | |
| | DS2200-11x0 | DS2200-21x0 |
| RESOLUTION | Up to 0.15 mm (6 mils) | Up to 0.076 mm (3 mils) |
| READING DISTANCE | Up to 220 mm on 0.60 mm (24 mils) codes | Up to 125mm on 0.20 mm (8 mils) codes |
| DEPTH OF FIELD | Up to 170 mm on 0.60 mm (24 mils) codes | Up to 85 mm on 0.20 mm (8 mils) codes |
| APERTURE ANGLE | 52 degrees | 62 degrees |
| RASTER APERTURE | 15 mm (0.6 in) at 220 mm (8.7 in) for R1 Raster models | |
| 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 | External Trigger (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, External Trigger, Good Read, TX Data | |
| LASER CLASSIFICATION | IEC 825-1 Class2; CDRH Class II | |
| LASER CONTROL | Safety system to turn laser off in cases of motor slowdown or failure | |
| POWER SUPPLY | 5 VDC (4 to 30 VDC with converter) | |
| POWER CONSUMPTION | 2 W max | |