Code Reader

V400-R1

Multi-code reading at a touch

- Accurate reading of Barcode and Data-matrix
- Easy adjustment of parameters
- 1.3 MPixel CMOS image sensor
- Flexible installation: front and side view variants

Ordering information

Code Reader

Name	Type	Order code
Multi Code Reader	Front view	V400-R1CF
	Side view	V400-R1CS

Cables

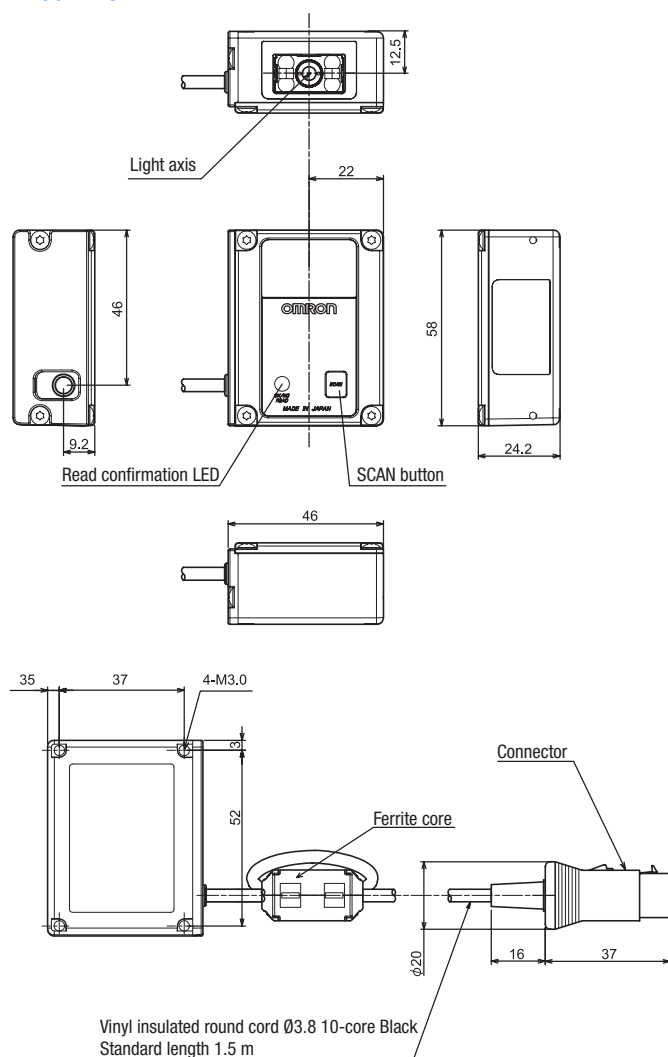| Name	Length	Order code
PC communication cable (incl. Power)	0.8 m	V509-W011D
	5 m	V509-W016D
PLC communication cable (incl. Power)	0.8 m	V509-W011
	5 m	V509-W016

Specifications

Item	V400-R1CF/V400R1CS
Bar code	JAN/EAN/UPC (A, E), CODE39, NW-7, ITF Industrial2of5, CODE93, CODE128 (including EAN128), RSS
2D code	DataMatrix (ECC200), QR Code, Micro QR Code, PDF417, RSS
Number of reading digits	No upper limit (depends on bar width and reading distance)
Light source	Four red LEDs (wave length: 630 nm)
Aiming light	Two green LEDs (wave length: 527 nm)
Minimum resolution	0.1 mm (bar code), 0.169 mm (2D code)
Image capture device	CMOS area sensor (1280 (H) x 1024 (V))
Working distance (WD)	60 mm
Field of view	52 x 41 mm (for WD = 60 mm)
Skew angle	-50 to 0°, 0 to +50°
Pitch angle	-50 to 0°, 0 to +50°
Tilt angle	360°
Reading of bar codes on curved surfaces	R > 15 mm (JAN8), R > 20 mm (JAN13)
Communication specification	RS-232C
OK/NG outputs	NPN open collector output
Function setting method	Menu sheet reading method or host command method
Reading trigger	External trigger (Transistor input)
	Trigger by command (RS-232C)
	Trigger a test reading by pressing the SCAN button on the product

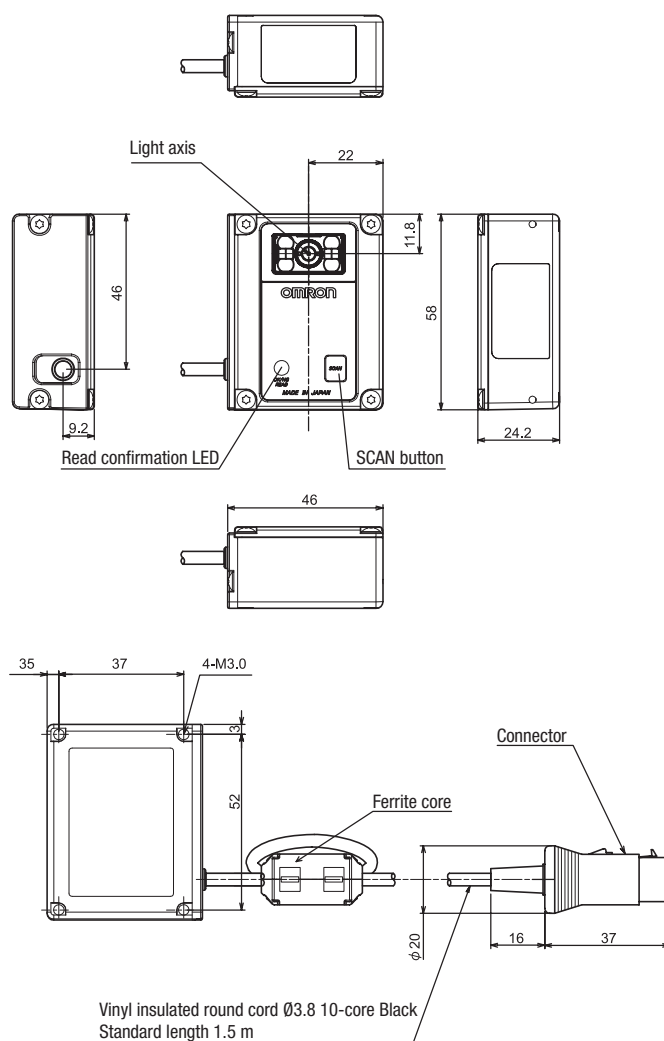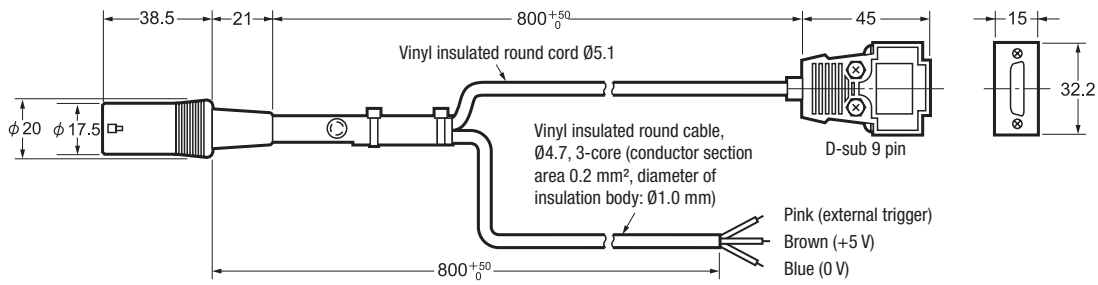| Item	V400-R1CF/V400R1CS
OK/NG signals	OK signal is turned on to indicate a successful read
	OK signal is turned on to indicate a successful read of registered label
	NG signal is turned on to indicate a successful read of a non-registered label
Indication LED	OK LED (green) illuminates to indicate a successful read NG LED (red) illuminates for failed reading with an error message output
Buzzer	Notifies a successful reading with a buzzer sound (Muting available)
Power voltage	4.5 to 5.5 VDC
Consumption current	During operation: 500 mA or less; during standby: 300 mA or less
Ambient temperature	At operation: 0 to + 45° C; At storage: 2 to + 60° C
Ambient humidity	At operation and storage: 20 to 85% RH (with no icing or condensation)
Ambient atmosphere	No corrosive gases
Ambient light resistance	10,000 lx (fluorescent lamp), 100,000 lx (sunlight)
Vibration resistance	12 to 100 Hz, 19.6 m/s² (2G), 1 hour each in three directions
Degree of protection	IP54 (IEC60529)
Weight	Approximately 270 g (including cables, ferrite core, mounting bracket, insulation board and screws)
Dimensions	58 x 46 x 24.2 mm
Input connector	Round DIN connector
Accessories	Operation manual, ferrite core, menu sheet, mounting bracket, insulation board, M3 x 8 screws (four), M5 x 10 screws (two)
Housing	Aluminum die-cast (ADC12)

Dimensions

Multi-code reader

V400-R1CF

V400-R1CS

Mounting bracket

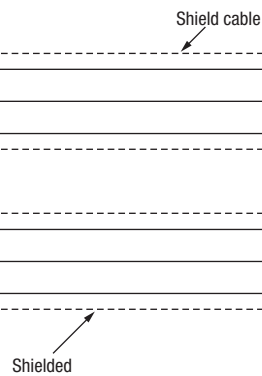Vision Sensors

Base

3.5 37±0.1
3
52±0.1
2-R3
4-Ø5.4 through holes

2-R13
Ø5.4 through hole
+1° 0°
30°
30°
+1° 0°
58±0.2
2-R2.7
R13±0.1
12±0.2

92±0.2
80±0.2
12±0.1
30
2-Ø5.4 through holes
4-C1
2-M5 through holes
13±0.1

90°±0.5°
30
2
66±0.2

Cable for programmable controller connection

V509-W011

38.5 21 800⁺⁵⁰₀ 45 15

Vinyl insulated round cord Ø5.1

φ20 φ17.5

Vinyl insulated round cable, Ø4.7, 3-core (conductor section area 0.2 mm², diameter of insulation body: Ø1.0 mm)

D-sub 9 pin
32.2

Pink (external trigger)
Brown (+5 V)
Blue (0 V)

800⁺⁵⁰₀

Upper equipment side
D-sub 9-pin

Reader side
DIN 8-pin connector

Shield cable

No.	Signal name
1	SD
2	RD
3	RS
4	CS
5	TRIG
6	-
7	SG
8	+5 V

Signal name	No.
FG	1
SD	2
RD	3
RS	4
CS	5
-	6
-	7
-	8
SG	9

(External trigger)
(+5 V)
(0 V)

Cable for connecting PC
V509-W011D

Reader side
DIN 8-pin connector

No.	Signal name
1	SD
2	RD
3	RS
4	CS
5	TRIG
6	-
7	SG
8	+5 V

Upper equipment side
D-sub 9-pin

Signal name	No.
FG	1
SD	2
RD	3
RS	4
CS	5
-	6
-	7
-	8
SG	9
Shield wire	Connector Cover

Shield cable

Shielded

(External trigger)
(+5 V)
(0 V)