

**Discontinuation Notice of Safety Laser Scanner
Type OS3101 series**

Product Discontinuation



Safety laser scanner
Type OS3101 series
Accessories
(Cables & Mounting brackets)
Type F39-RS2 series



Recommended Replacement

Safety laser scanner
Accessories
(Cables & Mounting brackets)
Type OS32C series

Discontinuation date : The end of March, 2012

Caution on recommended replacement

- Dimensions and mounting dimensions are different.
- Depend on current OS3101 application, OS32C would not match for wire connection, characteristics and operation ratings.
- Easy convert cable from OS3101 to OS32C is released, but it is not catalog item.

Difference from discontinued product

| Model | Body Color | Dimensions | Wire connection | Mounting Dimensions | Characteristics | Operation ratings | Operation methods |
|-------------------|------------|------------|-----------------|---------------------|-----------------|-------------------|-------------------|
| Type OS32C series | * | -- | -- | -- | -- | -- | -- |

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible



- : No corresponding specification

* Accessories (cables and mounting brackets so on) are only for OS3101. Production is ended according to the production end of OS3101.

Product Discontinuation and recommended replacement

| Product discontinuation | Recommended replacement |
|--------------------------------|---------------------------------|
| Type OS3101-2-PN-S | Type OS32C-BP or Type OS32C-SP1 |
| Type OS3101-CBL-10PT | Type OS32C-CBL-10M |
| Type OS3101-CBL-20PT | Type OS32C-CBL-20M |
| Type OS3101-CBL-30PT | Type OS32C-CBL-30M |
| Type F39-RS2-C2 | Type OS32C-ECBL-02M |
| Type F39-RS2-C4 | Type OS32C-ECBL-05M |
| Type OS3101-BKT | Type OS32C-BKT1 |
| Type OS3101-BPT | Type OS32C-BKT3 |
| Type OS3101-MT | Type OS32C-MT |
| Type OS3101-WIN-KT | Type OS32C-WIN-KT |
| Type OS3101-DST-KT | No need for Type OS32C |

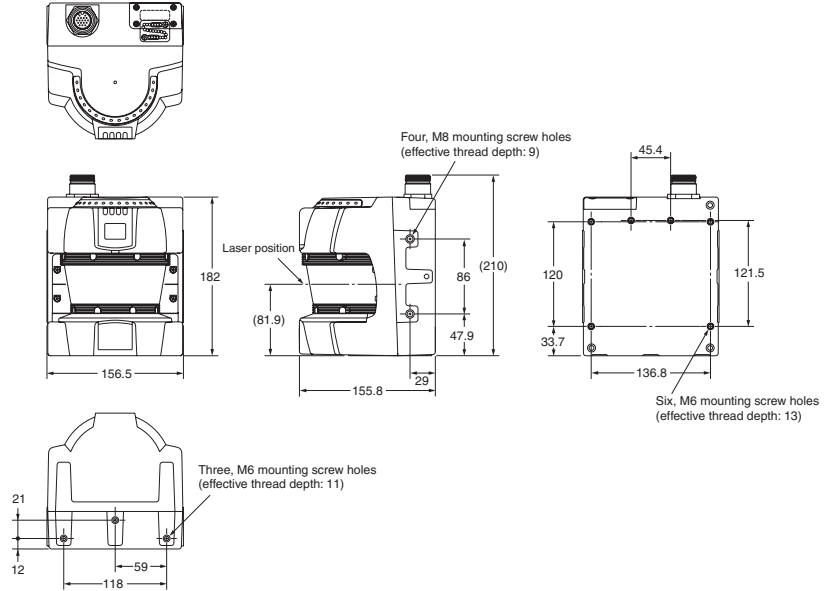
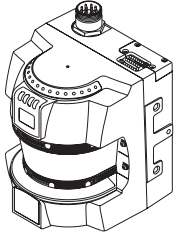
Body color

| Product discontinuation Type OS3101 series | Recommendable replacement Type OS32C series |
|--|---|
|  |  |

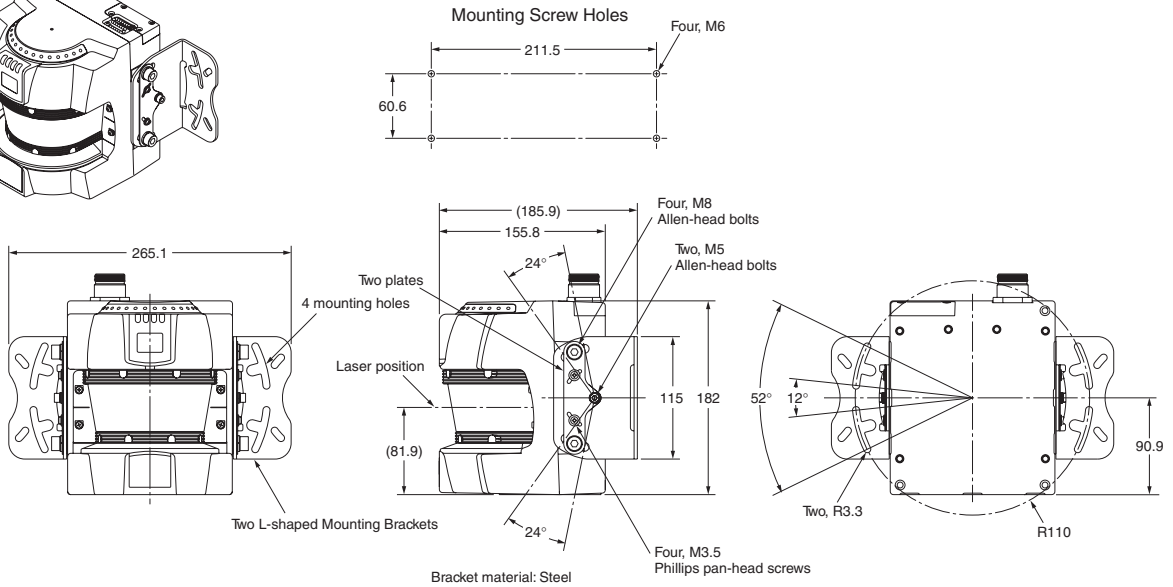
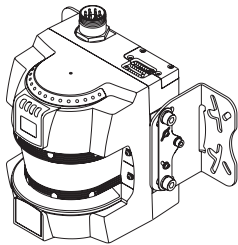
Dimensions

Product discontinuation Type OS3101 series

● Safety Laser Scanner OS3101-2-PN-S



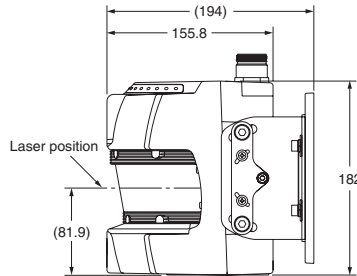
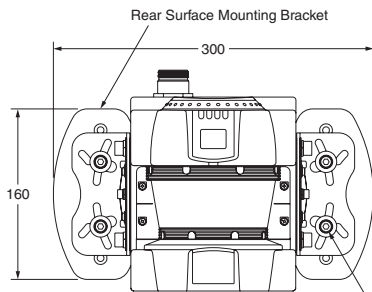
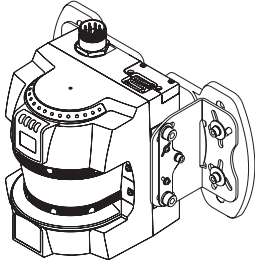
● Safety Laser Scanner with L-shaped Mounting Brackets (Outward Bracket Mounting) OS3101-2-PN-S + OS3101-BKT



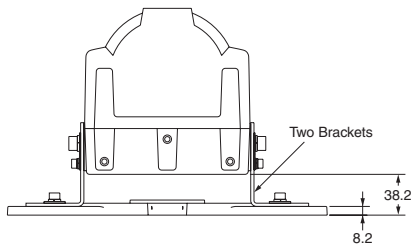
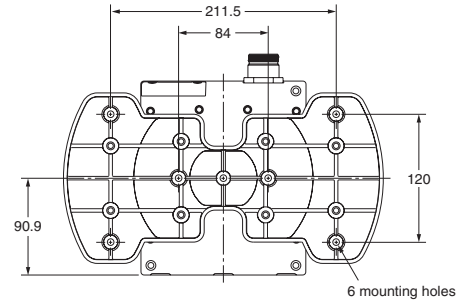
Dimensions

Product discontinuation Type OS3101 series

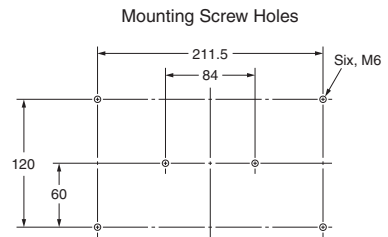
● Safety Laser Scanner with L-shaped Mounting Brackets and Rear Surface Mounting Bracket OS3101-2-PN-S + OS3101-BKT + OS3101-BPT



Four, M6 Allen-head bolts



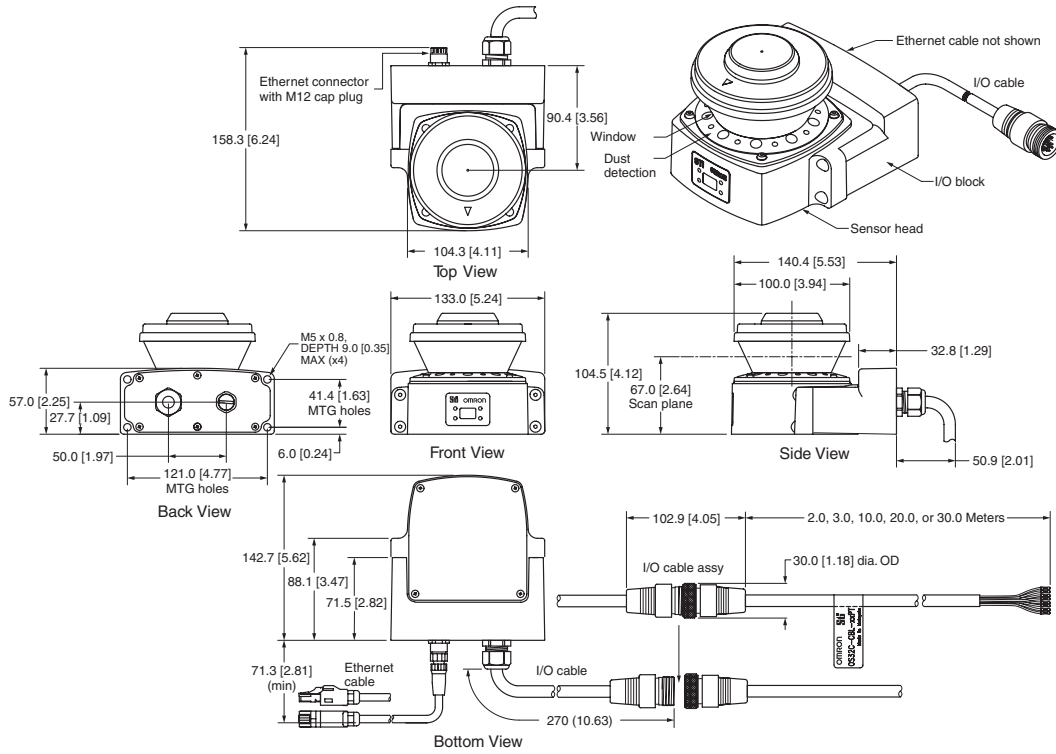
Bracket material: Aluminum



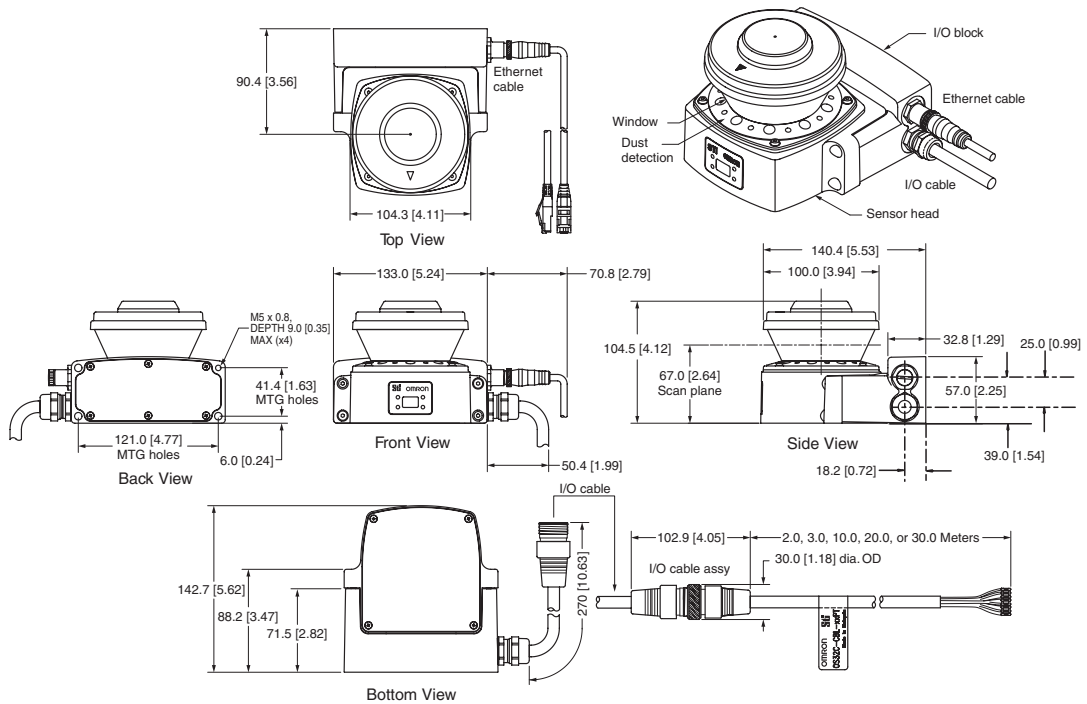
Dimensions

Recommendable replacement Type OS32C series

OS32C with Back Location Cable Entry OS32C-BP



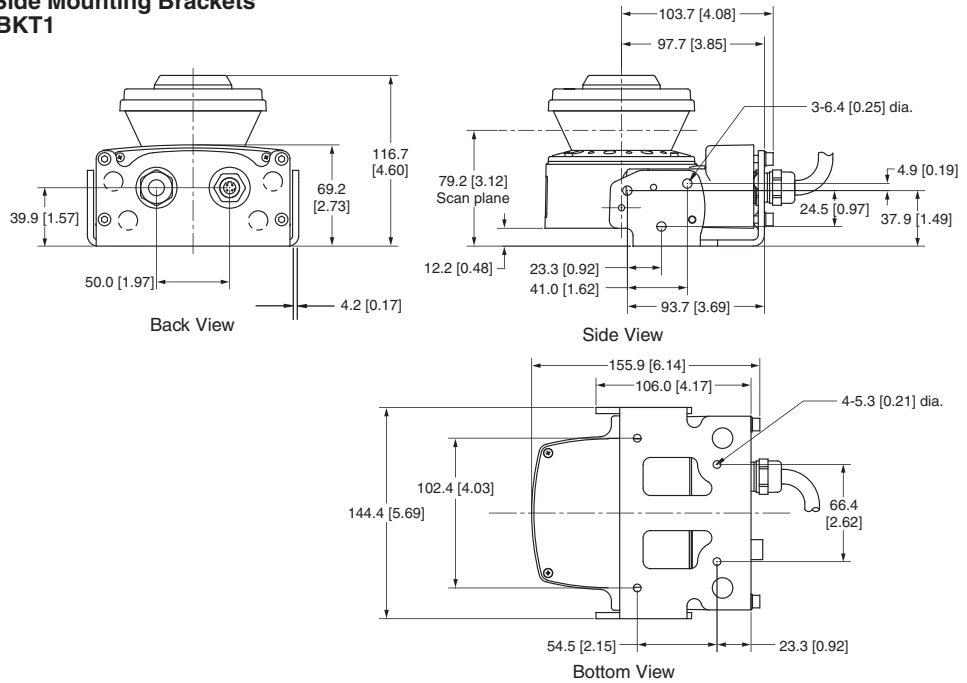
OS32C with Side Location Cable Entry OS32C-SP1



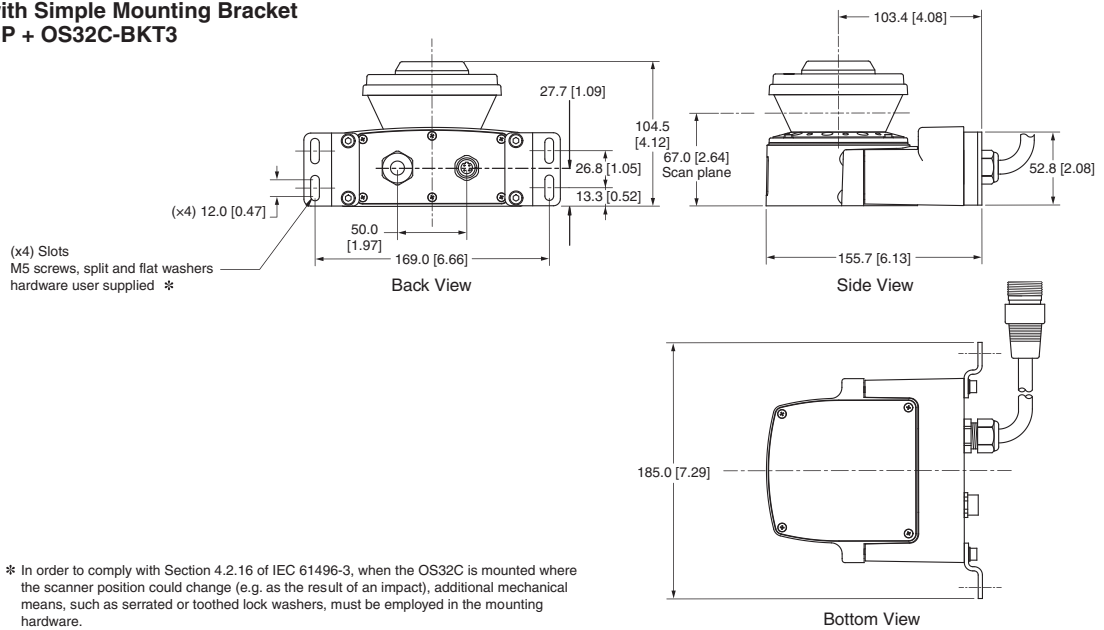
Dimensions

Recommendable replacement Type OS32C series

OS32C with Bottom/Side Mounting Brackets OS32C-BP + OS32C-BKT1



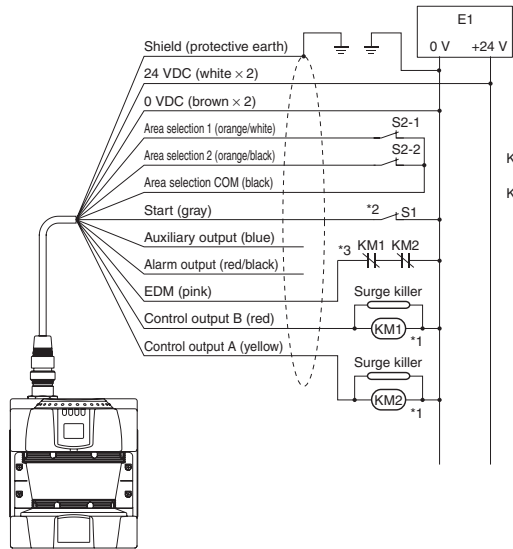
OS32C with Simple Mounting Bracket OS32C-BP + OS32C-BKT3



Wire Connection

Product discontinuation Type OS3101 series

● Basic Connection Example (Using Only the OS3101, Category 3)



S1: Start input
 S2-1/S2-2: Area setting selector
 When area setting 1 is selected: S2-1 is short-circuited, S2-2 is open
 When area setting 2 is selected: S2-1 is open, S2-2 is short-circuited
 (For details, refer to the *Instruction Manual*.)
 KM1, KM2: Safety relays with forcibly guided contacts (G7SA)
 M1: 3-phase motor
 E1: 24-VDC power supply

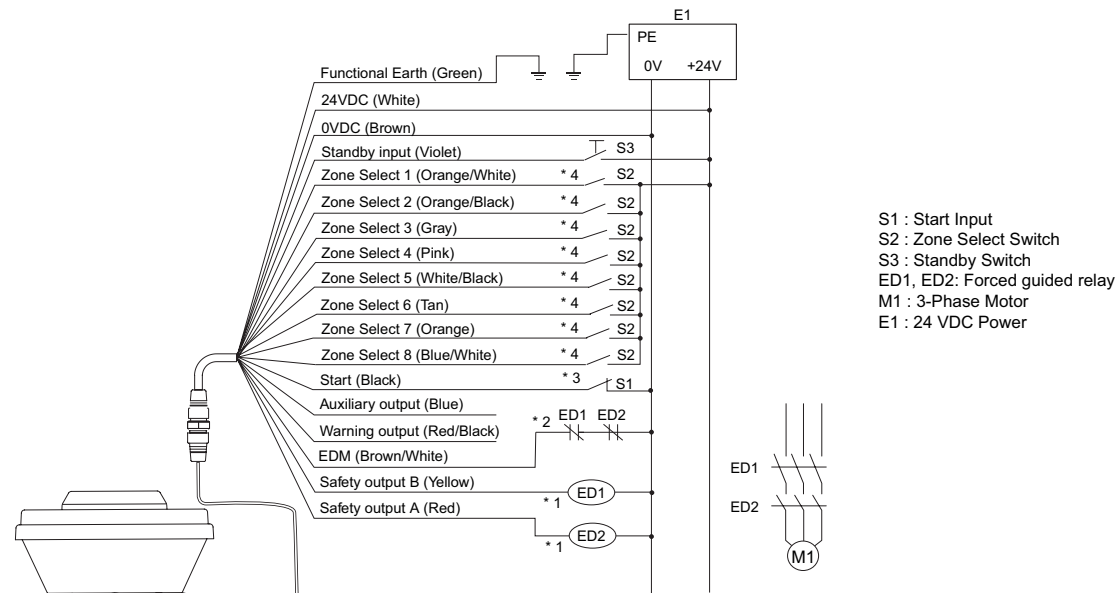
- OS3101 Settings
- EDM
 - Start/restart interlock

- *1. Connect the surge killer that is included with the Safety Laser Scanner in parallel with KM1, KM2.
- *2. Use NC contacts for the start input.
- *3. If the EDM is not used, use the setting software to set the EDM to OFF, and then connect the EDM wire (pink) to 0 VDC.

Wire Connection

Recommendable replacement Type OS32C series

Basic connection with single OS32C unit
Category 3, Performance Level d (ISO13849-1)



OS32C Configuration
- External Device Monitoring Enabled
- Start/Restart Interlock

- *1. External devices (ED1, ED2) are forced guide relays. (G7Z, G7SA, G7S, etc)
 - *2. If the External Device Monitoring is not used, connect brown/white wires to 0 V, and then turn OFF the External Device Monitoring with the configuration software.
 - *3. Use NC-contact for a start input.
 - *4. For zone select switch setting, refer to OS32C Series User's Manual. When using only one zone, no connection is needed for the zone select inputs.
- Note: This wiring example is for category 3.

Characteristics

| | Product discontinuation Type OS3101 series | Recommendable replacement Type OS32C series |
|------------------------------------|---|--|
| Sensor Type | Type3 Safety laser scanner | |
| Safety category | Category 3 safety application | Category 3, Performance Level d (ISO13849-1:2008) |
| Detection capability | Configurable; Non-transparent with a diameter of 62mm (1.8% reflectivity or greater) | Configurable; Non-transparent with a diameter of 30, 40, 50, 70mm (1.8% reflectivity or greater) |
| Monitoring Zone | Monitoring Zone Set Count (Safety Zone + Warning Zones) : 2 sets max. | Monitoring Zone Set Count (Safety Zone + 2 Warning Zones) : 70 sets max. |
| Operating Range | Safety Zone: 4.0m Warning Zone: 15.0m | Safety Zone: 3.0m (min. obj. resolution of 50mm or 70mm) 2.5m (min. obj. resolution of 40mm) 1.75m (min. obj. resolution of 30mm) Warning Zone: 10.0m |
| Maximum Measurement Error | 135mm | 100mm |
| Detection Angle | 180° | 270° |
| Response Time | Response time from ON --> OFF: From 80ms (2 scans) to 680ms (up to 17 scans) Response time from OFF --> Response time from ON --> OFF plus 400msec | Response time from ON --> OFF: From 80ms (2 scans) to 680ms (up to 17 scans) Response time from OFF --> Response time from ON --> OFF plus 100msec to 60sec (Configurable) |
| Line voltage | DC24V ±20% | DC24V +25%/-30% |
| Power Consumption | 20W typical (without output load) | Normal operation: 5W max., 4W typical (without output load) Standby mode: 3.75W (without output load) |
| Emission Source (Wavelength) | Infrared Laser Diode (905nm) | Infrared Laser Diode (905nm) |
| Laser Protection Class | CLASS 1: IEC/EN60825-1 (2001) CLASS 1: JIS6802 (2005) CLASS 1: CFR21 1040.10, 1040.11 | CLASS 1: IEC/EN60825-1 (2007) CLASS 1: JIS6802 (2005) CLASS 1: CFR21 1040.10, 1040.11 |
| Safety Output (OSSD) | PNP transistor x 2, load current of 625mA max., | PNP transistor x 2, load current of 250mA max., |
| Auxiliary Output (Non-Safety) | PNP transistor x 1, load current of 100mA max. | NPN/PNP transistor x 1, load current of 100mA max. |
| Warning Output (Non-Safety) | PNP transistor x 1, load current of 100mA max. | NPN/PNP transistor x 1, load current of 100mA max. |
| Operation Mode | Auto Start, Start Interlock, Start/Restart Interlock | Auto Start, Start Interlock, Start/Restart Interlock |
| Input (External Device Monitoring) | ON: 0V short (input current of 50mA), OFF: Open | ON: 0V short (input current of 50mA), OFF: Open |
| Input (Start) | ON: 0V short (input current of 20mA), OFF: Open | ON: 0V short (input current of 20mA), OFF: Open |
| Input (Zone Select) | ON: connect Zone Select COM (input current of 20mA), OFF: Open | ON: 24V short (input current of 5mA), OFF: Open |

Characteristics

| | Product discontinuation Type OS3101 series | Recommendable replacement Type OS32C series |
|-----------------------------------|---|--|
| Connection Type | Power Cable: 14-pin metal-connector Communication Cable: RS-232C, 9-pin D-sub connector & straight cable | Power Cable: 18-pin mini-connector (pigtail) Communication Cable: M12, 4-pin connector |
| Connection with PC | Communication : RS-232C Baud rate : 9600,19200,38400,115200bps OS Supported : Windows2000, Windows XP Professional, Windows XP Home Edition | Communication : Ethernet OS Supported : Windows2000, Windows XP Professional, Windows XP Home Edition, Windows Vista, Windows 7 |
| Indicators | ON indicator : Green, OFF indicator : Red, Interlock Indicator : Yellow, Warning/Auxiliary Output Indicator : Orange, Status/Diagnostic Display: 2 x 7-segment LEDs, Individual Sector Indicators: Red LED x 16 | RUN indicator : Green, STOP indicator : Red, Interlock Indicator : Yellow, Warning/Auxiliary Output Indicator : Orange, Status/Diagnostic Display: 2 x 7-segment LEDs, Individual Sector Indicators: Red LED x 8 |
| Protective Circuit | Protection against output load short and reverse power connection | Protection against output load short and reverse power connection |
| Ambient Temperature | Operation: 0 to +50 deg. C, Storage: -25 to 70 deg. C | Operation: -10 to +50 deg. C, Storage: -25 to +70 deg. C |
| Ambient Humidity | Operation & Storage: 95%RH max., non-condensing | Operation & Storage: 95%RH max., non-condensing |
| Ambient Operation Illumination | Incandescent lamp: Illumination on receiving surface 1500lx max. (an angle of laser scanning plane and disturbance light must be +/-5 degrees or more) | Incandescent lamp: Illumination on receiving surface 1500lx max. (an angle of laser scanning plane and disturbance light must be +/-5 degrees or more) |
| Enclosure Rating | IP65 (IEC60529) | IP65 (IEC60529) |
| Dielectric withstand voltage | AC350V 50/60Hz 1min | AC350V 50/60Hz 1min |
| Insulation resistance | 100k-ohm or higher (500VDC) | 20Mega-ohm or higher (500VDC) |
| Impact Resistance | 98m/s ² 1000 times for each of X, Y, and Z directions (IEC60068-2-29) | 98m/s ² 1000 times for each of X, Y, and Z directions (IEC60068-2-29) |
| Vibration | 10 to 55Hz double-amplitude of 0.7mm, 20 sweepings for X, Y, and Z directions (IEC60068-2-6) | 10 to 55Hz double-amplitude of 0.7mm, 20 sweepings for X, Y, and Z directions (IEC60068-2-6) |

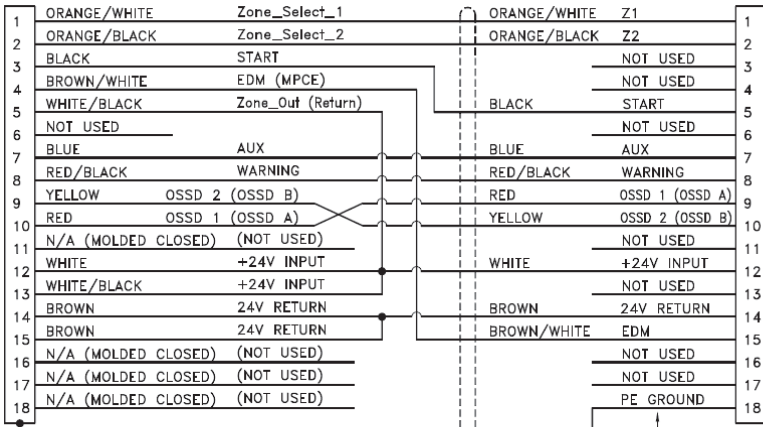
Convert cable

| | |
|--|---|
| Product discontinuation Type OS3101 series | Recommendable replacement Type OS32C series |
|--|---|

Type OS32-ADAPT-OS31. This convert cable can be connected OS3101 cable and OS32C

CONNECTIONS TO SAFETY
MONITORING DEVICE
OS3101

END "A"
18-POS STRAIGHT
14-PIN
MALE CONNECTOR



OS32C

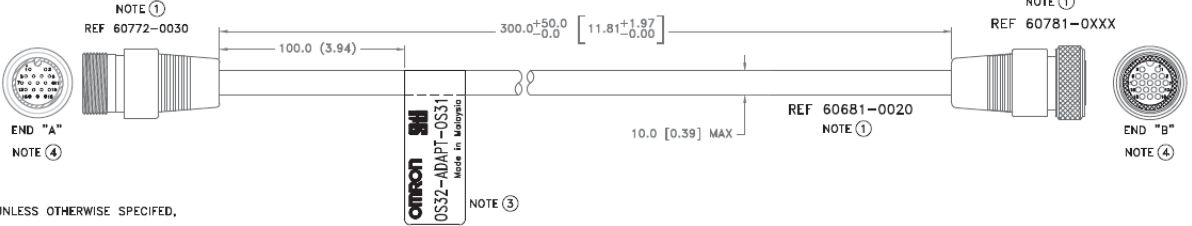
END "B"
18-POS STRAIGHT
18-SOCKET
FEMALE CONNECTOR



NOTE ② BRAID AND FOIL SHIELD MAKES CONTACT WITH DRAIN WIRE AND METAL CONNECTOR

CONNECT DRAIN WIRE TO #18 CONTACT

NOTE ②



UNLESS OTHERWISE SPECIFIED,