

**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

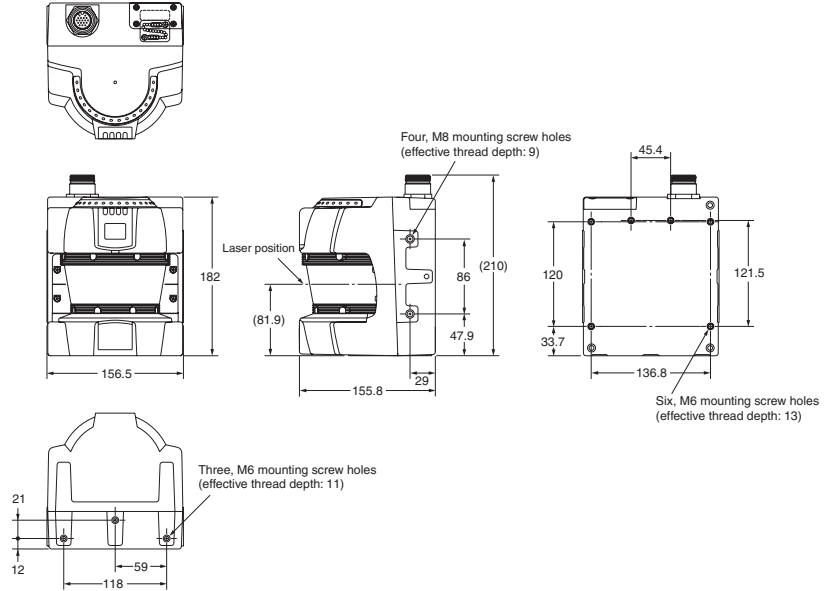
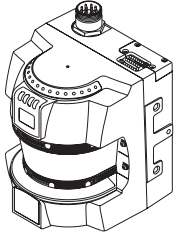
Body color

Product discontinuation Type OS3101 series	Recommendable replacement Type OS32C series
	

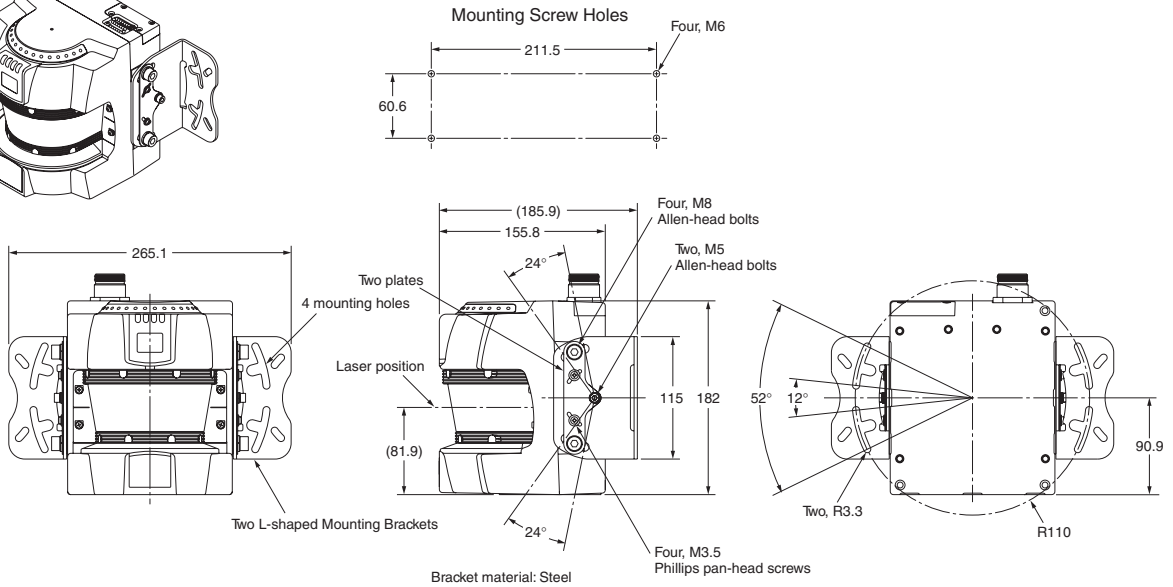
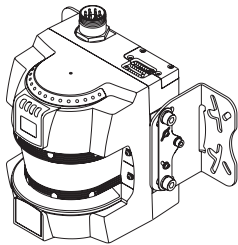
Dimensions

Product discontinuation Type OS3101 series

● Safety Laser Scanner OS3101-2-PN-S



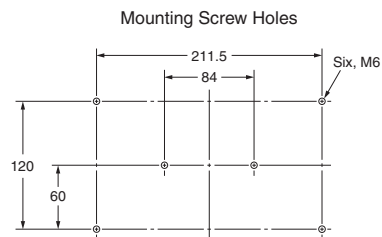
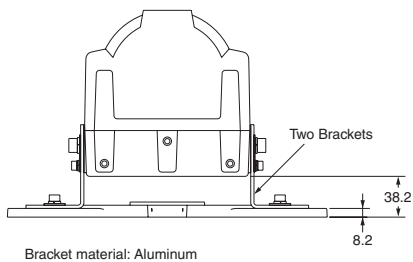
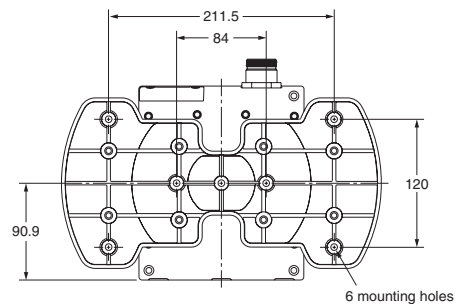
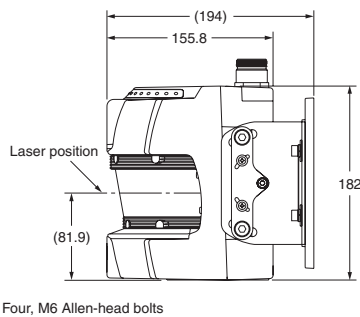
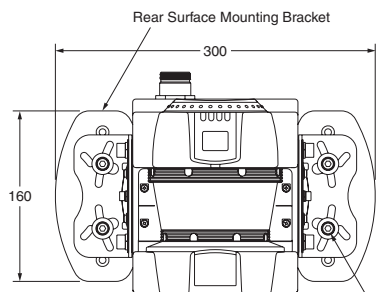
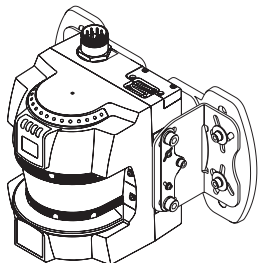
● Safety Laser Scanner with L-shaped Mounting Brackets (Outward Bracket Mounting) OS3101-2-PN-S + OS3101-BKT



Dimensions

Product discontinuation Type OS3101 series

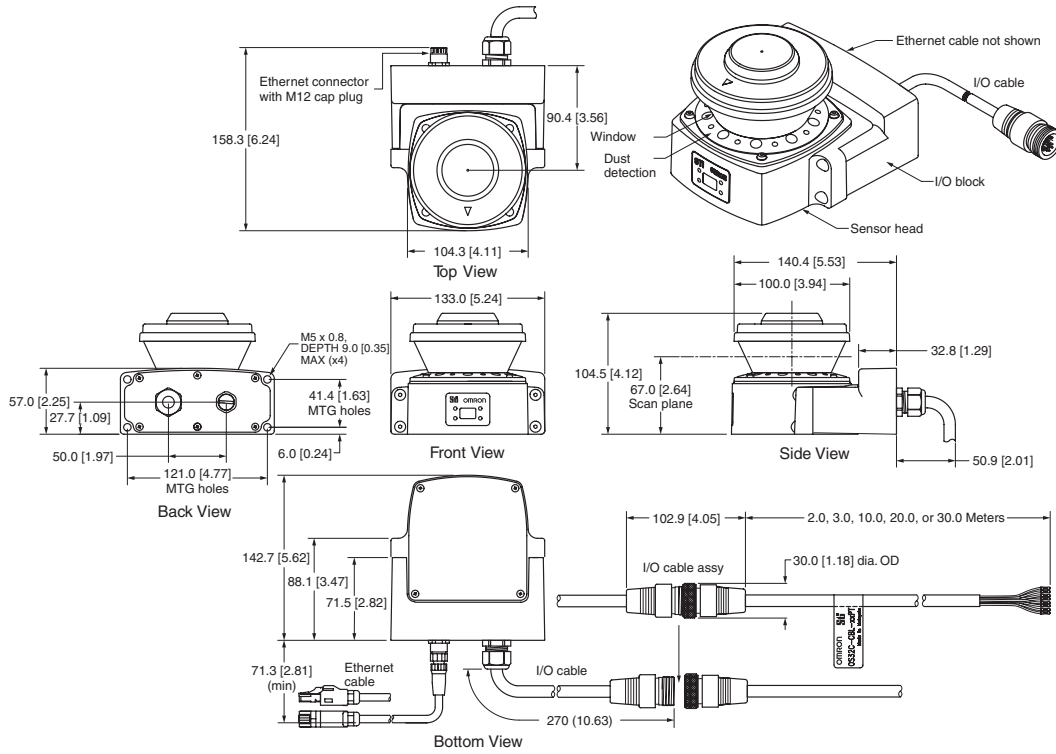
● Safety Laser Scanner with L-shaped Mounting Brackets and Rear Surface Mounting Bracket OS3101-2-PN-S + OS3101-BKT + OS3101-BPT



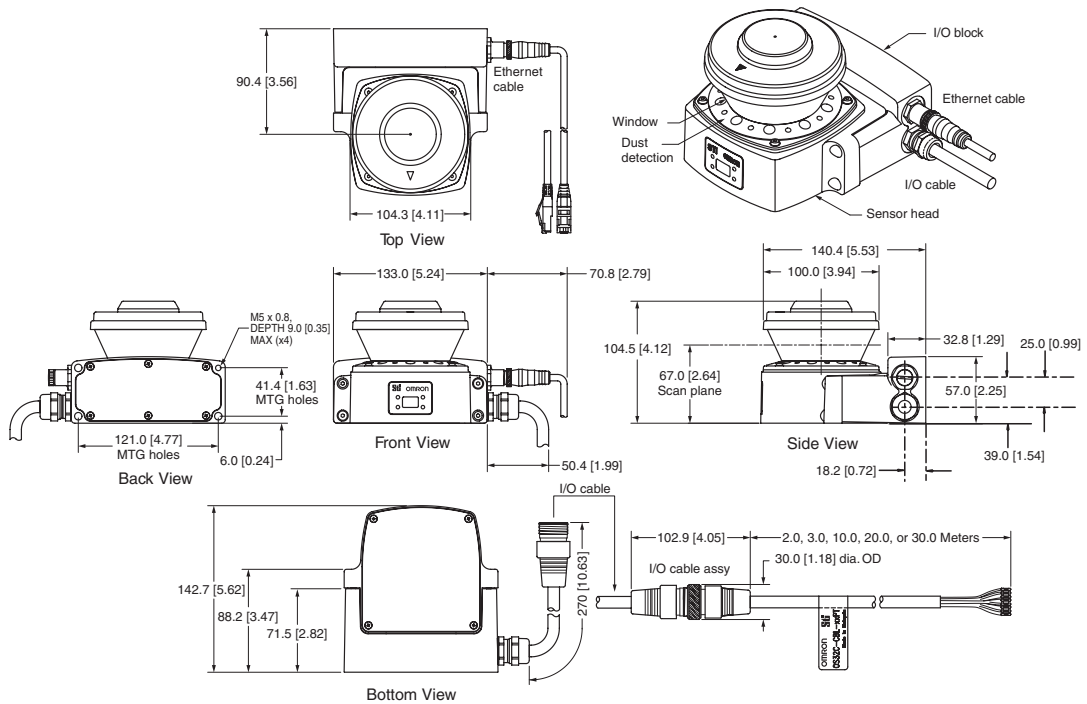
Dimensions

Recommendable replacement Type OS32C series

OS32C with Back Location Cable Entry OS32C-BP



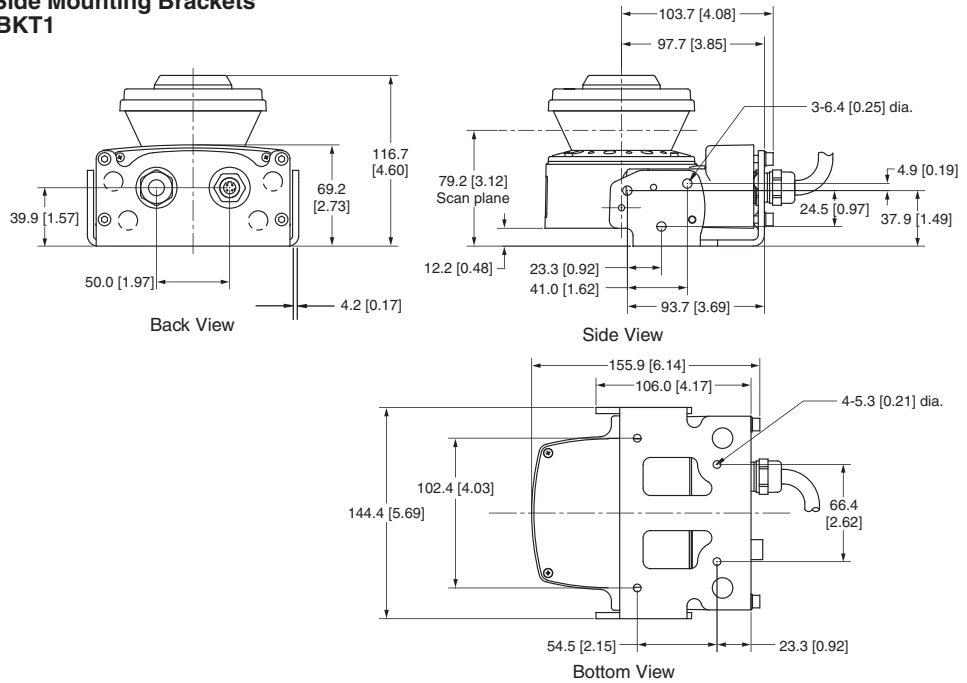
OS32C with Side Location Cable Entry OS32C-SP1



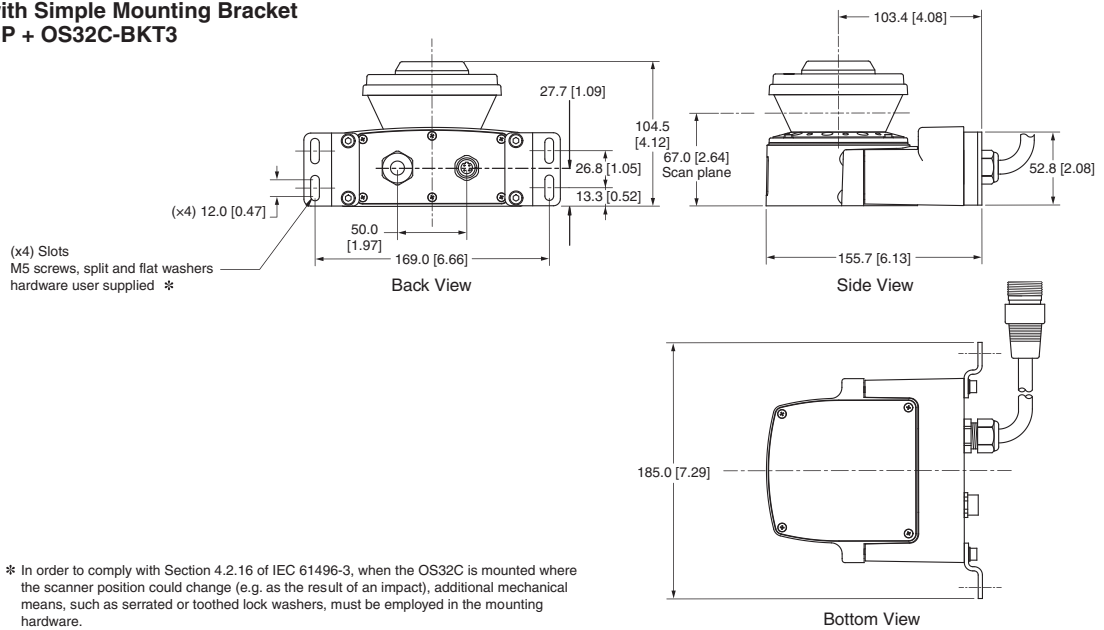
Dimensions

Recommendable replacement Type OS32C series

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



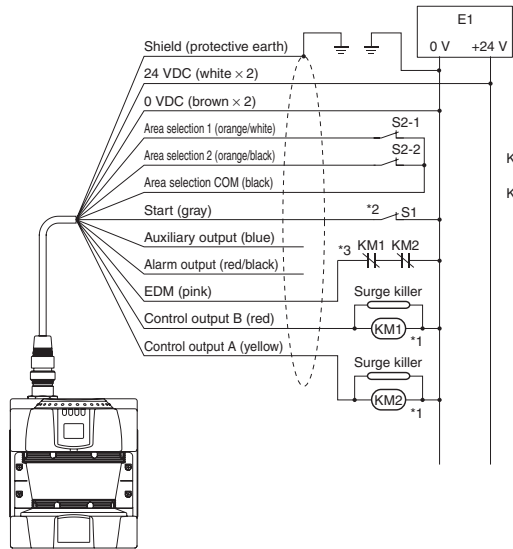
OS32C with Simple Mounting Bracket OS32C-BP + OS32C-BKT3



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

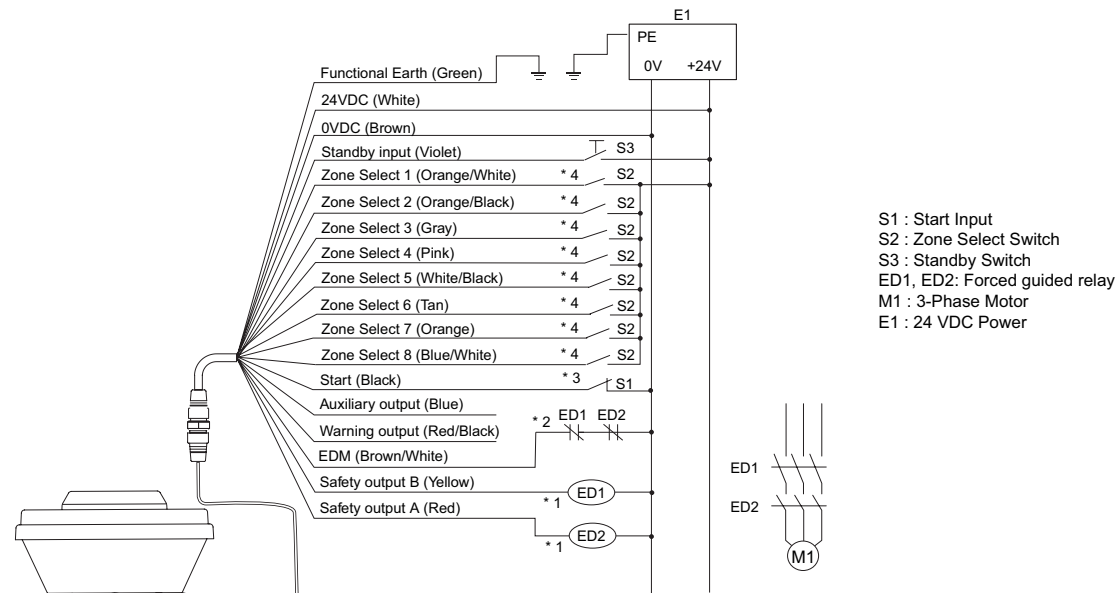
- OS3101 Settings
- EDM
 - Start/restart interlock

- *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)

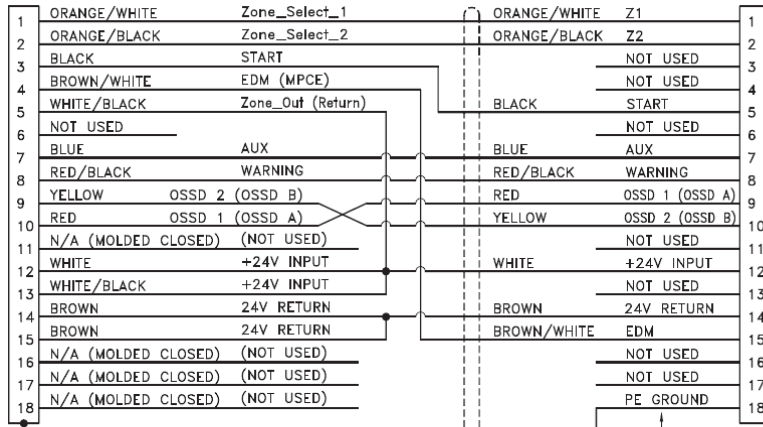
Convert cable

Product discontinuation Type OS3101 series	Recommendable replacement Type OS32C series
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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



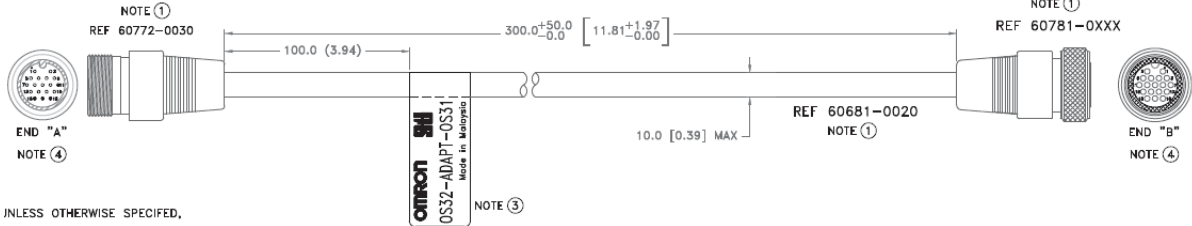
OS32C

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,