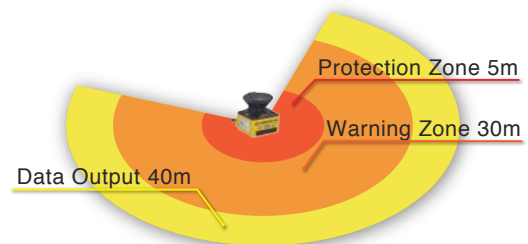


Safety Laser Scanner

Type 3 (IEC61496-1, IEC61496-3)
SIL 2 (Type B, HFT=1) (IEC61508)



UAM-05LPA-T301 / T301C



At a glance

- Max. range for protection zone : 5m
- Max. range for warning zone : 30m
- Configurable patterns : Up to 128 options
- High precision data : Available via Ethernet
- Enhanced durability : Improved environmental resistance and noise immunity
- Size : W80xD80xH95mm

Type	Model	Safety	Data output	No. of field sets
Detection output	UAM-05LPA series	○	○	128
	UAM-05LP series	○	○	32

Product description

- Safety standard certified
- UAM-05LPA safety laser scanner offers comprehensive protection for a wide range of applications, from basic to complex.
- UAM-05LPA safety laser scanner features improved environmental resistance, making it more durable against dust and dirt.
- UAM-05LPA safety laser scanner has enhanced noise tolerance, which helps prevent malfunctions due to electrical interference.
- User-friendly safety Area Designer software, along with USB and Ethernet interfaces, provides an enhanced experience and superior performance.

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Specification		UAM-05LPA-T301	UAM-05LPA-T301C
Electronics	Supply voltage	24VDC $\pm$ 10% (when operation using converter power supply) 24VDC -30%/+20% (when operation using battery)	
	Supply current	6W (without load) / 50W (with load)	
	Light source	Pulsed laser diode (905nm) , Laser class 1	
Detection	Maximum distance (Protection zone)	5m	
	Distance tolerance	+100mm	
	Maximum distance (Warning zone)	30m	
	Maximum distance (Data output)	40m	
	Distance accuracy (Data output)	$\pm$ 20mm	
	Detection capability	From black-reflector sheet (1.8%) to retro-reflector sheet	
	Minimum detectable width	ϕ 30 mm	
	Angle	270°	
	Scanning speed	30msec	
Function	No. of OSSD	Max. 2 sets	
	No. of area patterns	Max. 128	
	Response time	Delay time : 60msec to 2010msec Dwell time : 270msec to 2010msec	
Interface / Software	Interface for area configuration	micro USB type-B / Ethernet	
	Interface for data output	Ethernet	
	Interface for master slave function	RS485	
	Area configuration	Configured by software	
General	Ambient illuminance	Less than 1,500lx	
	Ambient operating temperature and humidity	Temperature : -10~50°C Humidity : below 95%RH (without dew, frost)	
	Storage temperature and humidity	Temperature : -25~70°C Humidity : below 95%RH (without dew, frost)	
	Vibration resistance	10 to 55Hz Sweep rate : 1 octave/min Amplitude : 0.35 mm $\pm$ 0.05 mm	
	Shock resistance	98m/s ² (10G)	
	IP protection	IP65	
	Weight	800g	500g
	Size W x D x H (mm)	80 x 80 x 95	
	Material	Optical window : Polycarbonate, Case : Aluminum	
	Connection cable	Flying lead cable : 3m	Waterproof connector : 0.3m
Standards	Safety level	PL d, SIL 2, Type 3	

Connection

Power source, I/O cable :

UAM-05LPA-T301 :

Cable length 3000mm flying lead

[Option cable for extension]

UAM-5C10 : 10m / UAM-5C20 : 20m

UAM-05LPA-T301C :

Cable length 300mm with water proof connector

ODU / Model No.S13K0C-P22PFG0-8500

[Option connector cable]

UAM-5C02C : 2m / UAM-5C05C : 5m / UAM-5C10C : 10m / UAM-5C20C : 20m

Ethernet connector :

M8 waterproof connector 4 core A-code socket (Female)

[Option cable]

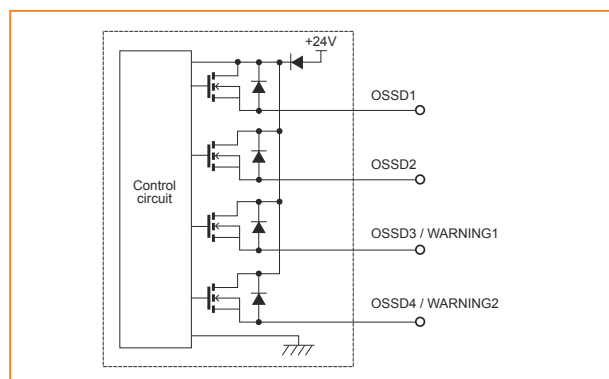
UAM-ENET : Cable with 3m length

Color	Function
Brown	Power Supply : 24VDC
Blue	Power Supply : 0VDC
Red	Protection zone output 1
Yellow	Protection zone output 2
Red / Black	Warning zone output 1 / Protection zone output 3
Yellow / Black	Warning zone output 2 / Protection zone output 4
Purple	Area switching Input A
Gray	Area switching Input B / Muting input 3 / Encoder input 3(4)_A
White	Area switching Input C / Override input 1 / Encoder input 1_A
Pink	Area switching Input D / Muting input 1 / Encoder input 1_B
Green	Area switching Input E / External device monitoring 1 / Encoder input 3(4)_A

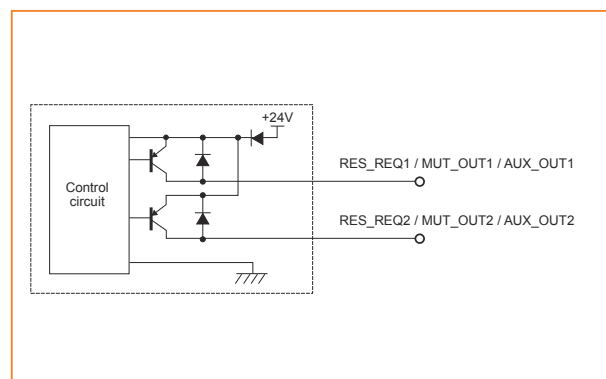
Color	Function
Purple / Black	Area switching Input A invert
Gray / Black	Area switching Input B invert / Muting input 4 / Encoder input 3(4)_B
White / Black	Area switching Input C invert / Override input 2 / Encoder input 2_A
Pink / Black	Area switching Input D invert / Muting input 2 / Encoder input 2_B
Green / Black	Area switching Input E invert / External device monitoring 2 / Encoder input 3(4)_B
Yellow / Green	Reset input 1 / Encoder input 3(4)_A
Yellow / Blue	Reset input 2 / Encoder input 3(4)_B
Orange	RES_REQ 1 / MUT_OUT 1 / AUX_OUT 1
Orange / Black	RES_REQ 2 / MUT_OUT 2 / AUX_OUT 2
White / Blue	RS485+
White / Red	RS485-
Shield wire	Frame ground

I/O circuit

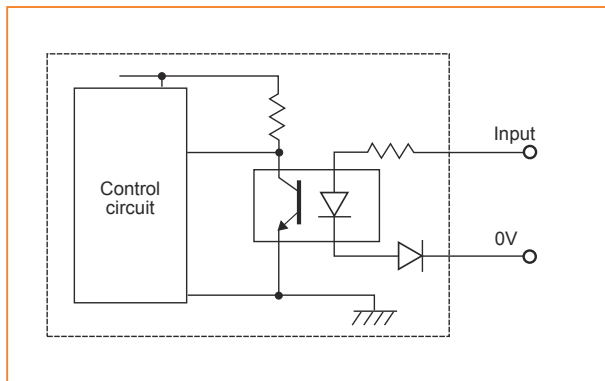
OSSD / Warning output circuit



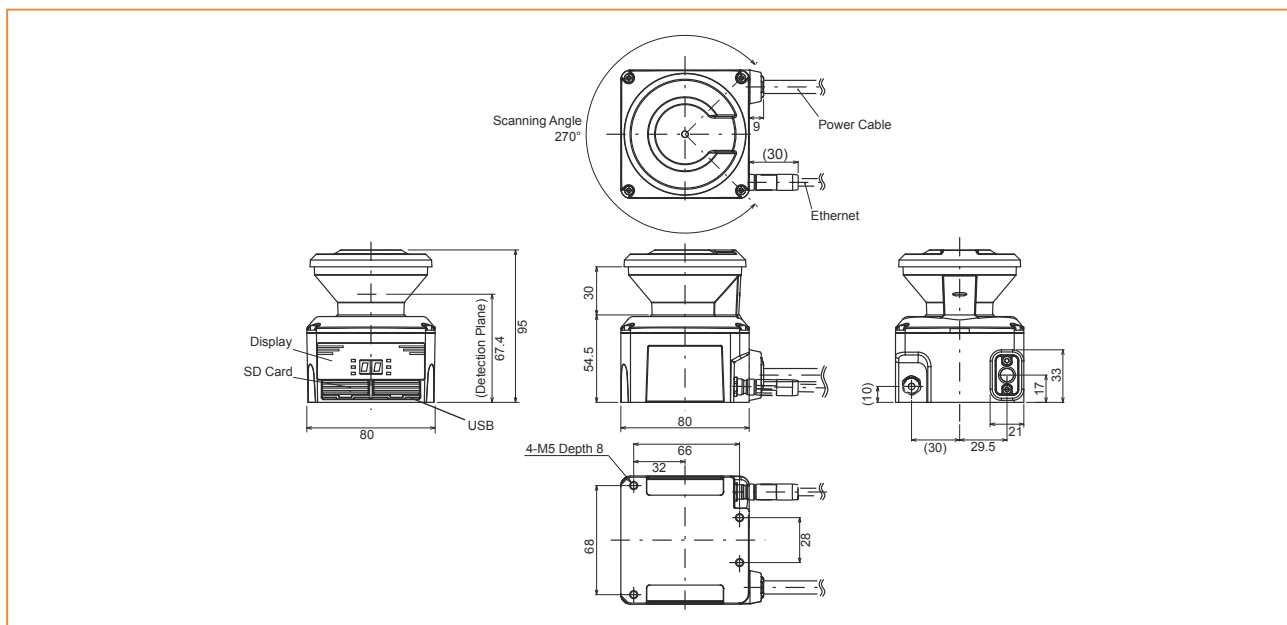
Other output circuits



Input circuit



External dimension



Option

Extension cable (for UAM-05LPA-T301)

Model	Code	Length
UAM-5C10	UZ00066	10m
UAM-5C20	UZ00067	20m

Connector cable (for UAM-05LPA-T301C)

Model	Code	Length
UAM-5C02C	UZ00081	2m
UAM-5C05C	UZ00082	5m
UAM-5C10C	UZ00083	10m
UAM-5C20C	UZ00084	20m

USB cable

Model	Code	Length
UAM-MUSB	UZ00065	1m

Ethernet cable

Model	Code	Length
UAM-ENET	UZ00062	3m

Bracket / Optical window

Model	Code	Ref.
UAM-BK03	UZ00059	Base mounting bracket
UAM-BK04	UZ00060	Rear mounting bracket
UAM-BK05	UZ00061	Cover bracket
UAM-BK06	UZ00103	Protection cover bracket
UAM-W004	UZ00174	Replacement optical window