

RAV mobile overheight vehicle detection system

Mobile system, complete set · Art. 7822120

TECHNICAL FEATURES

RoHS
Compliant

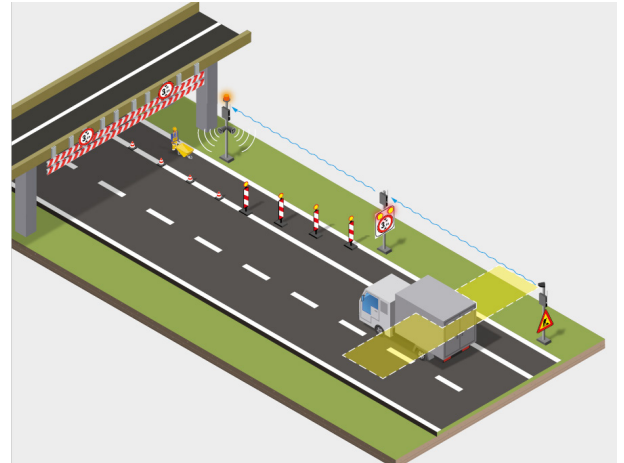
WEEE
Marked

CE
Marked

12 V
Battery / solar

Wireless
Max. 1 km

Complete mobile RAV system for temporary protection of roadworks, temporary bridges, gantries and site entrances against overheight vehicles. The laser scanner connects to the master control unit with a THB plug; on detection the master drives its own warning devices and sends the signal by radio to two slave control units, so the warning is repeated at three positions along the approach with no cabling between them. All units run on 12 Vdc from battery or photovoltaic panels and are set up on site with THB plug connectors.



INCLUDED COMPONENTS		
1	7822100	RAV mobile master control unit, 12 Vdc with radio modem
1	7822102	RAV laser scanner 10 x 10 m, mobile system, THB 4P, incl. IR remote control and stainless steel case
1	7820107	RAV laser scanner bracket, band-it
1	7822106	RAV mobile slave 1 control unit, 12 Vdc with radio modem
1	7820109	RAV LED message panel, 2 lines, 100 mm characters
2	7820114	RAV Basic 201 LED flasher, 12 V external control
1	7820112	RAV red traffic light Ø200 mm, 12 V
1	7820108	RAV junction box, 3-4 outlets
1	7822107	RAV mobile slave 2 control unit, 12 Vdc with radio modem
1	7822108	RAV speaker with support and THB connector
1	7822109	RAV LED beacon 12 V amber with THB connector and support
1	7822110	RAV extension cable 2 m, THB 2-pole M/F

SYSTEM DATA	
Article no.	7822120
Detection	One laser scanner, time-of-flight, motion and presence; area up to 10 x 10 m (max. 25 x 25 m version), programmable via IR remote control
Module connection	Wireless radio modem between master and slave units, max. distance 1 km
Power supply	12 Vdc per module from battery or photovoltaic panel (not included)
Control unit consumption	2.4 W (200 mA @ 12 V) per module
Outputs	Fixed or flashing outputs on every module; THB plug connectors
Warning devices in set	LED message panel HEIGHT EXCEEDED, 2 x Ø200 mm LED flashers, Ø200 mm red traffic light, speaker and amber LED beacon
Environment	Scanner IP65, -30 to +60 °C; message panel IP55

RAV laser scanner 10 x 10 m

Infrared laser scanner, time-of-flight measurement

ELECTRICAL FEATURES

Article no.	7822102 (band-it bracket 7820107)
Technology	Laser scanner, time-of-flight measurement
Power supply	10 ÷ 35 Vdc
Power consumption	< 5 W
Detection area	10 x 10 m (5 x 5 m and 25 x 25 m versions available)
Detection mode	Motion and presence
Response time	typ. 20 ms, max. 80 ms (plus output activation delay)
Outputs	2 electronic relays, galvanically isolated, polarity free
Laser	IR 905 nm, Class 1 (IEC 60825-1); visible red 650 nm alignment laser, Class 3R, inactive in normal operation
LED signal	Blue power-on · orange error · 2 bi-coloured detection/output
Wiring	THB 4P plug connector to the master control unit
Programming	IR remote control (included)
Insulation class	Class III

MECHANICAL FEATURES

Operating temperature	-30 °C ÷ +60 °C
IP protection degree	IP65
Dimensions	188.37 x 152.4 x 212.12 mm (without brackets)
Weight	2.5 kg (cable included)
Materials	PC/ASA (laser); painted stainless steel (case and plate)
Fixing	Wall, 60 mm pole, 90 mm pole or band-it bracket (band-it included in this set)



RAV mobile control units

Master and two slave modules, radio linked

MASTER CONTROL UNIT	
Article no.	7822100
Supply	12 Vdc
Consumption	2.4 W (200 mA @ 12 V)
Dimensions	288 x 360 mm
Communication	Radio modem, max. 1 km between modules
Timer	Yes
Outputs	Fixed and flashing outputs, THB connectors
Sensor input	THB 4P for the laser scanner
Mounting	p90mm



SLAVE 1 CONTROL UNIT	
Article no.	7822106
Supply	12 Vdc
Consumption	2.4 W (200 mA @ 12 V)
Dimensions	288 x 360 mm
Communication	Radio modem, max. 1 km between modules
Timer	Yes
Outputs	Fixed and flashing outputs, THB connectors

SLAVE 2 CONTROL UNIT	
Article no.	7822107
Supply	12 Vdc
Consumption	2.4 W (200 mA @ 12 V)
Dimensions	288 x 360 mm
Communication	Radio modem, max. 1 km between modules
Timer	Yes
Outputs	Fixed and flashing outputs, THB connectors
Typical devices	Speaker and LED beacon at the structure

RAV speaker, LED beacon and extension cable

Acoustic and visual warning at the structure

FEATURES	
Speaker (7822108)	Acoustic warning on detection, with mounting support and THB connector
LED beacon (7822109)	Amber LED beacon, 12 V, with mounting support and THB connector
Extension cable (7822110)	2 x 1 mm ² , 2 m, H07RN, THB 2-pole male/female



RAV LED message panel

Two-line fixed message display, HEIGHT EXCEEDED / FLOODED TUNNEL

OPTICAL FEATURES	
Article no.	7820109
Optic	Single-side
Number of lines displayed	2
Character height	101 mm
Distance between two contiguous pixels	16 mm
LED colour	Amber



ELECTRICAL FEATURES	
Power supply	12 Vdc
Power consumption	28 W
Insulation class	Class III
Wiring	Two power cables, one per message

MECHANICAL FEATURES	
IP protection degree	IP55
Dimensions	850 x 380 x 70 mm
Weight	7 kg
Operating temperature	-30 ÷ +85 °C
Housing material	EN AW 6060 aluminium alloy, matte black

RAV red traffic light Ø200 mm

Single red traffic light, 12 V, switched by the control unit

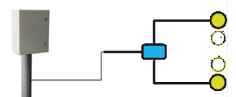
FEATURES	
Article no.	7820112
Colour	Red
Diameter	200 mm
Supply	12 V
Operation	Steady output from the RAV/RAS control unit
Max. per control unit	16



RAV junction box, 3-4 outlets

Distribution box for warning lights on one post

FEATURES	
Article no.	7820108
Outlets	3-4
Use	One feed from the control unit to the flashers and traffic light on the same post

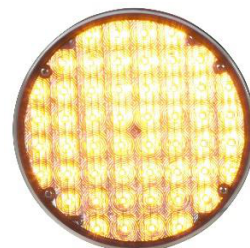


RAV Basic 201 LED flasher (2 pcs)

Ø200 mm LED flasher, 12 V external control, EN 12352 L8H/L8M

OPTICAL FEATURES

Article no.	7820114
Light source	52 SMD LEDs
Optics	Single-sided
Colour	Amber / Red
EN 12352 class	L8H/L8M
Duration of the optical group	> 50'000 hours



ELECTRICAL FEATURES

Supply	12 Vdc (11 ÷ 13 Vdc) or 12/24 Vdc (11 ÷ 30 Vdc)
Nominal power	7.8 W @ 12 Vdc
Nominal current	650 mA @ 12 Vdc
Protections	Reverse polarity; overvoltages
Operation	External control by the RAV/RAS control unit (steady or flashing)
Insulation class	Class III

MECHANICAL FEATURES

Operating temperature	-30 °C / +55 °C
Lens / body	Polycarbonate / PA6
IP protection class	IP65
Weight	500 g
Dimensions	Ø 200 mm x 25 mm
Fixing	4 rear inserts for bracket attachment
Wiring	Supplied with 5.1 m long 2x0.75 mm² cable