



## Overview

Modern attractive looking and hardwearing materials which endure the most challenging weather conditions. Multicolour programmable light frame on all readers which enhance the look and functionality of the reader. The customer can choose colours for each outcome and rest state.



## Key Features

- ✓ Multicolour LED light frame
- ✓ Auto dim in reduced light
- ✓ Graphical OLED display
- ✓ OSDP or Wiegand connectivity
- ✓ MIFARE card technology including EV1, EV2<sup>s</sup> and EV3<sup>s</sup>
- ✓ Hardwearing materials
- ✓ IK class 08 and temperature range of -40°C to +70°C
- ✓ Easy to mount and connect
- ✓ Card reader only or card reader with keypad and/or display variants

## PRODUCT/TECHNICAL SPECIFICATION

	Full-size Readers	Mullion Readers
<b>Protocol</b>	OSDP	OSDP / Wiegand
<b>Interface to Controller</b>	RS485	RS485 / Wiegand
<b>Operating Voltage</b>	8.5 – 30.0 VDC	8.5 – 30.0 VDC
<b>Power Consumption</b>	<b>VR10S-MF:</b> - DC 12V 43mA Peak 168mA - DC 24V 26mA Peak 100mA <b>VR40S-MF:</b> - DC 12V 60mA Peak 220mA - DC 24V 40mA Peak 125mA	<b>VR20M-MF:</b> - DC 12V 50mA Peak 150mA - DC 24V 35mA Peak 100mA <b>VR50M-MF:</b> - DC 12V 50mA Peak 150mA - DC 24V 30mA Peak 100mA
<b>Tamper Protection</b>	Yes	Yes
<b>Card Technology</b>	MIFARE	MIFARE
<b>Card Compatibility</b>	- MIFARE Classic - MIFARE PLUS (UID only) - MIFARE - DESFire EV1 - MIFARE DESFire EV2 <sup>3</sup> - MIFARE DESFire EV3 <sup>3</sup> - JCOP2 <sup>4</sup> - JCOP3 <sup>4</sup>	- MIFARE Classic - MIFARE PLUS (UID only) MIFARE - DESFire EV1 - MIFARE DESFire EV2 <sup>3</sup> - MIFARE DESFire EV3 <sup>3</sup> - JCOP2 <sup>4</sup> - JCOP3 <sup>4</sup>
<b>Reading Distance</b>	Up to 6cm	Up to 6cm
<b>Indicators</b>	- 3 x LED (red/yellow/green) - 1 Buzzer - Multicolour light frame	- 3 x LED (red/yellow/green) - 1 Buzzer - Multicolour light frame
<b>Keypad</b>	- VR10S-MF: No - VR40S-MF: Yes	- VR20M-MF: No - VR50M-MF: Yes
<b>Display</b>	- VR10S-MF: No - VR40S-MF: Yes	- VR20M-MF: No - VR50M-MF: No
<b>Operating Temperatures <sup>1</sup></b>	-40° to +70°C	-40° to +70°C
<b>Operating Humidity</b>	5-95% non-condensing	5-95% non-condensing
<b>IP Rating <sup>2</sup></b>	IP54	IP66
<b>IK Class</b>	08	08
<b>Housing</b>	Zinc casted metal bezel with polycarbonate plastic front	Zinc casted metal bezel with polycarbonate plastic front
<b>Dimensions (W x H x D)</b>	85mm x 114mm x 22mm	50mm x 130mm x 22mm
<b>Approvals</b>	- CE according to RED & EMC Directives - IEC/EN60839-11, Grade 4, Class III - FCC, UL, CCC, RCM, BIS, F&P - EN50131-3, Grade 3, Class III - SSF1014:5, Grade 3 Class III, Bypass Unit (VR40 only)	- CE according to RED & EMC Directives - IEC/EN60839-11, Grade 4, Class IV - FCC, UL, CCC, RCM, BIS, F&P - EN50131-3, Grade 3, Class III - SSF1014:5, Grade 3 Class III, Bypass Unit (VR50 only)
<b>Warranty</b>	3 years	3 years



<sup>1</sup> Only applicable to surface mounted readers. Back box mounted readers are specified from -10°C to +55°C.

<sup>2</sup> Only applicable to surface mounted readers. Back box mounted readers are specified to IP3X.

<sup>3</sup> Card compatibility: MIFARE DESFire EV2/EV3 (EV1 conditions and security standard).

<sup>4</sup> Supported in lieu of MIFARE DESFire. Earliest firmware versions supporting the feature: 2.005.006 (Full-size), 2.003.006 (Mullion).

## ORDERING INFORMATION

Type	Art. No.	Description	Weight*
<b>VR10S-MF</b>	V54504-F101-A100	VR10S-MF MIFARE EV1 card reader	0.622kg
<b>VR40S-MF</b>	V54504-F102-A100	VR40S-MF MIFARE EV1 reader Keypad / Display	0.628kg
<b>VR20M-MF</b>	V54504-F111-A100	VR20M-MF MIFARE EV1 Mullion reader	0.296kg
<b>VR50M-MF</b>	V54504-F112-A100	VR50M-MF MIFARE EV1 Mullion with keypad	0.294kg

\* Total weight of the product inclusive of the weight of its accessories and packaging.

## SELECTED ACCESSORIES

Type	Art. No.	Description
<b>3CT-KIT</b>	V54504-S101-A100	3CT configuration card creation kit
<b>SH5</b>	V54504-H101-A100	SH5 Protection hood for VR10S-MF & VR40S-MF
<b>SH6</b>	N54504-Z111-A100	SH6 Protector for AR/VR 10-40
<b>SH7</b>	N54504-Z112-A100	SH7 Protector for AR/VR 20-50
<b>EV10C3</b>	V54515-Z143-A100	EV10C3 MF DESFire EV3 ISO Card (10pcs)

For outdoor installations, we recommend using protection hoods to prolong reader lifespan.

Programming the reader is easily achieved using our special purpose 3CT kit. With this kit you can choose colours and assign them different functions. Setting encryption keys is also done through this kit. It creates configuration cards which can be used to update the readers.

