# **NGCR Family**

New Generation Card Readers



#### **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 include:**

- Multicolour LED light frame
- Auto dim in reduced light
- Graphical OLED display
- OSDP or Wiegand connectivity
- MIFARE card technology including EV1 and EV2
- 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







## **NGCR Family** New Generation Card Readers

### **Product/Technical Specification:**

ProtocolOSDPOSDP / WiegandInterface to controllerR5485R5485 / WiegandOperating voltage85 -30.0 VDC85 -30.0 VDCPower consumptionVR105-MF: DC 12V 43mA Peak 108mA DC 24V 25mA Peak 100mA VR405-MF: DC 12V 60mA Peak 220mA DC 24V 35mA Peak 100mA VR405-MF: DC 12V 60mA Peak 220mA DC 24V 35mA Peak 100mA VR405-MF: DC 12V 60mA Peak 220mA DC 24V 30mA Peak 100mATamper protectionYesYesCard TechnologyMIFAREMIFARE MIFARE Classic MIFARE PLUS (UID only) MIFARE PDSFire EV2Reading distanceUp to 6cmUp to 6cmIndicators3 x LED (red/yellow/green) 1 Buzzer Multicolour light frame3 x LED (red/yellow/green) 1 Buzzer Multicolour light frameKeypadVR105-MF: No VR405-MF: YesVR20M-MF: No VR50M-MF: No VR5		Full-size Readers	Mullion Readers
Operating voltage85-30.0 VDC85-30.0 VDCPower consumptionVR105-MF: DC 12V 43mA Peak 168mA DC 24V 26mA Peak 100mA VR405-MF: DC 12V 60mA Peak 220mA DC 24V 35mA Peak 100mA VR50M-MF: DC 12V 50mA Peak 100mAVR20M-MF: DC 24V 35mA Peak 100mATamper protectionYesYesCard TechnologyMIFAREMIFARE ClassicCard compatibilityMIFARE Classic MIFARE DESFire EV1 MIFARE DESFire EV2MIFARE Classic MIFARE DESFire EV1 MIFARE DESFire EV2Reading distanceUp to 6cmUp to 6cmIndicators3 x LED (red/yellow/green) 1 Buzzer Multicolour light frame3 x LED (red/yellow/green) 1 Buzzer Multicolour light frameKeypadVR105-MF: No VR405-MF: YesVR20M-MF: No VR20M-MF: N	Protocol	OSDP	OSDP / Wiegand
Power consumptionVR105-MF: DC 12V 43mA Peak 168mA DC 24V 26mA Peak 100mA VR405-MF: DC 12V 50mA Peak 150mA DC 24V 35mA Peak 100mA VR50M-MF: DC 12V 50mA Peak 150mA DC 24V 35mA Peak 100mATamper protectionYesYesCard TechnologyMIFARE MIFARE DLS (UID only) MIFARE DLSFire EV1 MIFARE DLSFire EV2MIFARE Classic MIFARE DLS (UID only) MIFARE DLSFire EV2Reading distanceUp to 6cmUp to 6cmIndicators3 x LED (red/yellow/green) 1 Buzzer Multicolour light frame3 x LED (red/yellow/green) 1 Buzzer Multicolour light frameKeypadVR105-MF: No VR405-MF: YesVR20M-MF: No VR50M-MF: NO VR50	Interface to controller	RS485	RS485 / Wiegand
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VR40S-MF: YesVR50M-MF: YesDisplayVR10S-MF: No VR40S-MF: YesVR20M-MF: No VR50M-MF: NoOperating temperatures1-40° to +70°C-40° to +70°COperating humidity5-95% non-condensing 1P rating25-95% non-condensing 1P55IK Class0808HousingZinc casted metal bezel with polycarbonate plastic frontZinc casted metal bezel with polycarbonate plastic frontDimensions85mm x 114mm x 22mmSomm x 130mm x 22mmApprovalsCE according to R&TTE and EMC Directives IEC/EN60839-11, Grade 4, Class III. RED FCC UL RCMCE according to R&TE and EMC Directives IEC/EN60839-11, Grade 4, Class IV. RED FCC UL RCMCE according to R&TE and EMC Directives IEC/EN60839-11, Grade 4, Class IV. RED RCD RCM	Indicators	1 Buzzer	1 Buzzer
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EMC DirectivesEMC DirectivesIEC/EN60839-11, Grade 4,IEC/EN60839-11, Grade 4,Class III.Class IV.REDREDFCCFCCULULRCMRCM	Dimensions	85mm x 114mm x 22mm	50mm x 130mm x 22mm
Warranty 3 years 3 years	Approvals	EMC Directives IEC/EN60839-11, Grade 4, Class III. RED FCC UL	EMC Directives IEC/EN60839-11, Grade 4, Class IV. RED FCC UL
	Warranty	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.





#### **Ordering Information:**

Туре	Art. No.	Description	Weight*
VR10S-MF	V54504-F101-A100	VR10S-MF MIFARE EV1 card reader	0.622kg
VR40S-MF	V54504-F102-A100	VR40S-MF MIFARE EV1 reader Keypad / Display	0.628kg
VR20M-MF	V54504-F111-A100	VR20M-MF MIFARE EV1 Mullion reader	0.296kg
VR50M-MF	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:**

Туре	Art. No	Description
3CT-KIT	V54504-S101-A100	3CT configuration card creation kit
SH5	V54504-H101-A100	SH5 Protection hood for VR10S-MF & VR40S-MF
EV10C1	V54515-Z140-A100	EV10C1 MIFARE DESFire EV2 ISO card

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.





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