



MF Signal

MF signals are dwarf signals at the beginning of a signal block and function as main signal, distant signal or shunt signal

 VRS Railway Industry



PRODUCT BENEFITS

- ✓ Most commonly used dwarf main signal and distant signal on Dutch railways
- ✓ Highly reliable and energy-efficient thanks to VIRLU160 LED light
- ✓ Good visibility under all weather conditions
- ✓ Signals are virtually maintenance free due to high reliability

OPTING FOR SAFETY

MF signals are dwarf signals at the beginning of a signal block and function as main signal, distant signal or shunt signal. Most frequently used dwarf signals on Dutch rail network, specified by national regulations.

Dwarf main signal features 3 aspects of 4 possible colours: red, yellow, green or white.
Dwarf distant signal features 2 colour aspects, typically yellow and green.
Dwarf shunt signals feature an additional white signal added to the 3 colour dwarf main signal.



MF signals can be supplied with adjustable foot, raised foot or with platform wall mounting.

VRS can customize the product based on desired power supply voltages or currents. Shape, light colours and light brightness can be tailored to specific customer requirements.



Technical specifications

Areas of application	1500V and 25kV zone
Supply voltage	to 24 Vac/dc
Supply voltage	110V/80V (day/night)
Power usage	< 1'8 A @ 10,2V Vac/dc
Power-on Time	1
Isolation voltage	3kV (1 minute)
Luminous intensity	220cd (+30% / -15%)
Luminous intensity variation	± 15%
Colour of light	red 615nm as per EN12368
Luminous intensity distribution	wide beam as per EN12368
Light rise and fall time	< 20ms
Frequency	50 of 75 Hz ± 4%
Climate test	as per IEC 60068-2-38, additional till -25°C
Operation temperature	-25°C - +65°C
Storage temperature	-30°C - +80°C
Shock and bump test	as per IEC 571
EMC compatibility	as per EN 50121-4
Impact resistance	IR3 as per EN12368
Ingress protection	IP54 as per EN60529 test 13 & 14
MTBF	> 1.000.000 uur
Service life	15 years

Colour of light as per IE S 004/E-2001

Red	Red Light signal colours Class A with restriction $y \leq 0,295$
Yellow	Yellow Light signal colours
Green	Green Light signal colours Class A
White	White Light Signal Colours, Class A, with restriction $x \leq 0,420$
Blue	Blue Light Signal Colours, Class A

VIRLU 160

Capacity	100 Watt
Voltage	110 ± 10% V AC
Supply voltage, dimmed	80 ± 10% V AC
Frequency	50 en 75 Hz ± 4%
Nominal voltage	10.2 Vac (at 110 Vac line voltage)
Night voltage	7.4 Vac (at 80 Vac line voltage)
Power consumption at 10.2 Vac	30 Watts ±15%
EMC-compliance	as per ENV 50121-4 + RLN00007 version 3
MTBF	> 10.000.000 hours(calculated as per IEC 1709/SN29500)



Want to find out more about our products and services?
Go to www.vrsrail.nl or contact us by e-mail and phone.

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