

Product overview M-Line

Digital panel meters



e.g.: M2 tricolour, digital 5-digit indicator with 14 mm digit height

The new M-Line offers you among other things:

- minimal installation depth from 25 mm
- IP65 protection class as standard
- pluggable screw terminal as standard
- 4 colours are available: Red - Green - Yellow - Blue
- Option Tricolour: 3 colours reversible in one device
- permanent Min-/Max-value recording
- Tara-/Hold-Function
- 30 additional adjustable setpoints
- User-friendly operation due to a new menu navigation
- at first available in housing sizes 48x24, 96x24 & 94x48 mm

Current loop M1-7SR4A.0001.K70AO (Standard type)

Input

Direct current:	4...20 mA
Supply:	via current loop
Housing size:	48x24x54 mm incl. plug-in terminal
Display colour:	Red
Display:	4-digit, -1999...9999, 10 mm
Protection class:	IP65



M1-7VR4A.0001.770BD (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/3-wire:	-200°C...850°C / -328°F...1562°F
Thermocouple:	Type L, J, K, B, S, N, E, T, R

Supply:	24 VDC galv. insulated
Housing size:	48x24x54 incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	4-digit, -1999...9999, 10 mm
Protection class:	IP65



M2-7VR5A.0001.572AO (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Supply:	230 VAC
Switching output:	2 PhotoMos-outputs (NOC)
Housing size:	48x24x101 mm incl. plug-in terminal
Display colours:	Red, Green, Yellow, Blue
Display:	5-digit, -19999...99999, 10 mm
Protection class:	IP65



M3-7VR5A.0001.772AD (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/3-wire:	-200°C...850°C / -328°F...1562°F
Thermocouple:	Type L, J, K, B, S, N, E, T, R

Supply:	24 VDC galv. insulated
Sensor supply:	10 VDC/20 mA (incl. digital input) / 24 VDC/50 mA (incl. digital input)

Digital input:	1 digital input
Switching outputs:	2 PhotoMos-outputs (NOC)
Analog output:	0-10 VDC, 0/4-20 mA
Housing size:	48x24x109 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	5-digit, -19999...99999, 10 mm
Protection class:	IP65



Current loop M1-3SR4B.0001.K70AD (Standard type)



Input	
Direct current:	4...20 mA
Supply:	via current loop
Setpoints:	2 PhotoMos-outputs (NOC)
Housing size:	96x24x63 mm incl. plug-in terminal
Display colour:	Red
Display:	4-digit, -1999...9999, 14 mm
Protection class:	IP65

M1-3VR4B.0001.770BD (Standard type) M1-3VR4B.0001.570BD (Standard type)



Input types	
Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV
Potentiometer:	> 1 kOhm....10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/3-wire:	-200°C...850°C / -328°F...1562°F
Thermocouples:	Type L, J, K, B, S, N, E, T, R
Supply:	24 VDC galv. insulated / 230 VAC
Housing size:	96x24x74 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	4-digit, -1999...9999, 14 mm
Protection class:	IP65

M3-3VR5B.0001.672AD (Standard type) M3-3VR5B.0001.S72AD (Standard type)



Input types	
Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV; 0-300 mV; 0-1 VDC
Potentiometer:	> 1 kOhm....10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
AC:	10 VDC, 50 VDC, 1 A, 5 AAC
PT100 4-wire:	-200°C...850°C / -328°F...1562°F
Thermocouple:	Type L, J, K, B, S, N, E, T, R
DMS:	1-3.3 mV
Weighing technology:	1-3.3 mV
Frequency:	0.01 Hz to 999.99 kHz
Supply:	10-30 VDC galv. insulated / 85-265 VAC
Switching outputs:	2 relay outputs (Changer)
Sesnor supply:	10 VDC/20 mA (incl. digital input), 24 VDC/50 mA (incl. digital input), 24 VDC/50 mA (incl. digital input & frequency output)
DC-devices:	600 VDC, 300 VDC, 50 VDC, 1 ADC
AC-devices:	300 VAC, 600 VAC, 1 AAC, 5 AAC
Digital input:	1 digital input
Interfaces:	RS232 or RS485 (galv. insulated or with digital input)
Housing size:	96x24x74 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue, Red-Green- Yellow
Display:	5-digit, -19999...99999, 14 mm
Protection class:	IP65

Current loop M1-1SR4B.0001.K70AD (Standard type)

Input

Direct current:	4...20 mA
Supply:	via current loop
Setpoints:	2 PhotoMOS-outputs (NOC)
Housing size:	96x48x41 mm incl. plug-in terminal
Display colour:	Red
Display:	4-digit, -1999...9999, 14 mm
Protection class:	IP65



M1-1VR4B.0001.770BD (Standard type) M1-1VR4B.0001.570BD (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/3-wire:	-200°C...850°C / -328°F...1562°F
Thermocouple:	Type L, J, K, B, S, N, E, T, R
Supply:	24 VDC galv. insulated / 230 VAC
Housing size:	96x48x41 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	4-digit, -1999...9999, 14 mm
Protection class:	IP65



Tricolour indicator M1-1VT4B.0001.772AD (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Supply:	24 VDC galv. insulated
Switching outputs:	2 relay outputs (Changer)
Housing size:	96x48x45 mm incl. plug-in terminal
Display colours:	Tricolour (Red-Green-Yellow)
Display:	4-digit, -1999...9999, 14 mm
Protection class:	IP65



Setpoint generator**M2-1GR5B.00X0.670AD (Standard type)****M2-1GR5B.00X0.570AD (Standard type)**

Indicator type:	Setpoint generator
Digital input:	2 digital inputs (Standard)
Analog output:	0-10 VDC, 0/4-20 mA
Setpoints:	2 relay outputs (Changer)
Supply voltage:	10-30 VDC galv. insulated / 230 VAC
Housing size:	96x48x89 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	5-digit, -19999...99999, 14 mm
Protection class:	IP65

M2-1VR5B.0001.670AD (Standard type)**M2-1VR5B.0001.570AD (Standard type)**

Input types	
Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV; 0-300 mV; 0-1 VDC
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/4-wire:	-200°C...850°C / -328°F...1562°F
AC:	10 VAC, 50 VAC, 1AAC, 5 AAC
Thermocouple:	Type L, J, K, B, S, N, E, T, R
Frequency:	0.01 Hz to 999.99 kHz
DMS/Weighing techn.:	1-3.3 mV (DMS/Weighing technology)
Supply:	10-30 VDC galv. insulated / 230 VAC
Switching outputs:	2 relay outputs (Changer)
Sensor supply:	10 VDC/20 mA (incl. digital input), 24 VDC/50 mA (incl. digital input), 24 VDC/50 mA (incl. digital input. & pulse output, 10 kHz at frequency metering)
DC-devices:	600 VDC, 300 VDC, 50 VDC, 1 ADC
AC-devices:	300 VAC, 600 VAC, 1 AAC, 5 AAC
Digital input:	1 digital input, without sensor supply
Housing size:	96x48x89 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	5-digit, -19999...99999, 14 mm
Protection class:	IP65

Tricolour indicator**M2-1TR5B.0001.670AD (Standard type)****M2-1TR5B.0001.570AD (Standard type)**

Input types	
Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV; 0-300 mV; 0-1 VDC
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/4-wire:	-200°C...850°C / -328°F...1562°F
AC:	10 VAC, 50 VAC, 1AAC, 5 AAC
Thermocouple:	Type L, J, K, B, S, N, E, T, R
Frequency:	0.01 Hz to 999.99 kHz
DMS/Weighing techn.:	1-3.3 mV (DMS/Weighing technology)
Supply:	10-30 VDC galv. insulated / 230 VAC
Switching outputs:	2 relay outputs (Changer)
Sensor supply:	10 VDC / 20 mA or 24 VDC / 50 mA
DC-devices:	100 VDC, 600 VDC, 200 mA
Analog output:	0-10 VDC, 0/4-20 mA
Digital input:	1 digital input
Housing size:	96x48x89 mm incl. plug-in terminal
Display colours:	Tricolour (Red-Green-Orange)
Display:	5-digit, -19999...99999, 14 mm
Protection class:	IP65

M3-1VR5B.0001.670AD (Standard type)
M3-1VR5B.0001.570AD (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 4-wire:	-200°C...850°C / -328°F...1562°F
Thermo couple:	Type L, J, K, B, S, N, E, T, R
DMS/Weighing techn.:	1-3.3 mV
AC True RMS:	10 V, 50 VA, 1 AAC, 5 AAC
Frequency:	0.01 Hz to 999.99 kHz
Supply:	10-30 VDC galv. insulated/ 230 VAC
Switching outputs:	2 or 4 relay outputs (Changer) or 8 PhotoMos outputs (NOC)
Analog output:	1 or 2x 0-10 VDC, 0/4-20 mA
Sensor supply:	10 VDC/20 mA (incl. digital input), 24 VDC/50 mA (incl. digital input), 24 VDC/50 mA (incl. digital input & frequency)
DC-devices:	600 VDC, 300 VDC, 50 VDC, 1 ADC
AC-devices:	300 VAC, 600 VAC, 1 AAC, 5 AAC
Digital input:	1 digital input
Interfaces:	RS232 or RS485 (galv. insulated or with digital input)
Housing size:	96x48x139 mm incl. plug-in terminal
Display colours:	Red, Green, Orange, Blue
Display:	5-digit, -19999...99999, 14 mm
Protection class:	IP65



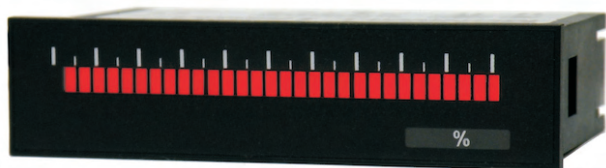
Tricolour indicator

M3-1VT5B.0001.670AD (Standard type)
M3-1VT5B.0001.570AD (Standard type)

Input types

Direct current/voltage:	0...10 VDC / 0/4...20 mA
Shunt:	0...60 mV; 0...150 mV
Potentiometer:	> 1 kOhm...10 kOhm
Resistance:	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 4-wire:	-200°C...850°C / -328°F...1562°F
Thermocouple:	Type L, J, K, B, S, N, E, T, R
DMS/Weighing techn.:	1-3.3 mV
AC True RMS:	10 V, 50 VA, 1 AAC, 5 AAC
Frequency:	0.01 Hz to 999.99 kHz
Supply:	10-30 VDC galv. insulated / 230 VAC
Switching outputs:	2 or 4 relay outputs (Changer) or 8 PhotoMos outputs (NOC)
Analog output:	1 or 2x 0-10 VDC, 0/4-20 mA
Sensor supply:	10 VDC/20 mA (incl. digital input), 24 VDC/50 mA (incl. digital input), 24 VDC/50 mA (incl. digital input & frequency output)
DC-devices:	600 VDC, 300 VDC, 50 VDC, 1 ADC
AC-devices:	300 VAC, 600 VAC, 1 AAC, 5 AAC
Digital input:	1 digital input
Interfaces:	RS232 or RS485 (galv. insulated or with digital input)
Housing size:	96x48x139 mm incl. plug-in terminal
Display colours:	Tricolour (Red-Green-Orange)
Display:	5-digit, -19999...99999, 14 mm
Protection class:	IP65



MB1-33RxO.0001.770AD (Standard type)**Bargraph indicator**

Standard signal:	0...10 VDC / 0/4...20 mA
Resolution:	30 points
Supply:	24 VDC galv. insulated
Design:	horizontally or vertically
Housing size:	96x24x69 mm incl. plug-in terminal
Display colours:	Red, Green, Orange
Protection class:	IP65

MB3-3VT3xR.0001.670AD (Standard type)**MB3-3VT3xR.0001.S70AD (Standard type)****Bargraph indicator**

Standard signal:	0...10 VDC / 0/4...20 mA
Setpoints:	2 relay outputs (Changer)
Analog output:	0-10 VD, 0/4-20 mA
Supply:	10-30 VDC (galv. Insulated) / 85-265 VAC
Bargraph colour:	Tricolour (Red-Green-Orange)
Resolution:	30 points
Design:	horizontally or vertically
Housing size:	96x24x145 mm incl. plug-in terminal
Display colours:	Red, Green, Orange
Protection class:	IP65



Product overview M-Lines

Product line	M1	M2	M3
Installation sizes	96x48 mm, 96x24 mm, 48x24 mm	96x48 mm, 48x24 mm	96x48 mm, 96x24 mm, 48x24 mm
Display colours	Red, Green, Yellow, Blue, Tricolour	Red, Green, Yellow, Blue, Tricolour	Red, Green, Yellow, Blue, Tricolour
Display	4-digit, -1999...9999,	5-digit, -19999...99999	5-digit, -19999...99999
LED height	10 mm / 14 mm	10 mm / 14 mm / 20 mm	10 mm / 14 mm / 20 mm
Protection class	IP65 front, IP00 rearside	IP65 front, IP00 rearside	IP65 front, IP00 rearside
Input types			
Direct current/voltage	0...10 VDC / 0/4...20 mA	0...10 VDC / 0/4...20 mA	0...10 VDC / 0/4...20 mA
H-version (High voltage)	-	600 V, 300 V, 50 V, 1 ADC	600 V, 300 V, 50 V, 1 ADC
Shunt	0...60 mV; 0...150 mV	0...60 mV; 0...150 mV; 300 mV, 1 VDC	0...60 mV; 0...150 mV; 300 mV, 1 VDC
Potentiometer	>1 kOhm ... 1000 kOhm	>1 kOhm ... 1000 kOhm	>1 kOhm ... 1000 kOhm
Resistance	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm	0-1 kOhm, 0-10 kOhm, 0-100 kOhm, 0-1000 kOhm
PT100 2-/3-wire	-200 °C... 850 °C / -328...1562°F	-200 °C... 850 °C / -328...1562°F	-200 °C... 850 °C / -328...1562°F
Thermocouple	Type L, J, K, B, S, N, E, T, R	Type L, J, K, B, S, N, E, T, R	Type L, J, K, B, S, N, E, T, R
AC true RMS	-	10 VA; 50 VAC, 1 AAC, 5 AAC	10 VA; 50 VAC, 1 AAC, 5 AAC
Frequency	-	0.01 Hz to 999.99 kHz	0.01 Hz to 999.99 kHz
DMS-metering (96x48)	-	1 mV/V; 2 mV/V; 3.3 mV/V 10 V bridge supply; 350 Ohm	1 mV/V; 2 mV/V; 3.3 mV/V 10 V bridge supply; 350 Ohm
Supply			
230 VAC	96x48 mm / 96x24 mm / 48x24 mm	96x48 mm / 48x24 mm	96x48 mm / 96x24 mm / 48x24 mm
24 VDC	96x48 mm / 96x24 mm / 48x24 mm	96x48 mm / 48x24 mm	-
10-30 VDC galv. insulated	-	96x48 mm / 48x24 mm	96x48 mm / 96x24 mm / 48x24 mm
15-75 VDC (in preparation)	-	96x48 mm / 48x24 mm	96x48 mm / 96x24 mm / 48x24 mm
85-265 VAC	-	96x48 mm / 48x24 mm	96x48 mm / 96x24 mm / 48x24 mm
Outputs			
Analog output current/voltage	-	0/4...20 mA galv. insulated; 0...10 V; galv. insulated	0/4...20 mA galv. insulated; 0...10 V; galv. insulated
Sensor supply	-	24 VDC; 50 mA	24 VDC; 50 mA
Switching outputs	2, only available with M1 -Tricolor & 2 Photo-MOS-outputs in a M1-current loop device	2, available in 96x48, 48x24 mm	4 available in 96x48 mm 2 available in 96x24 and 48x24 mm
Interfaces	-	-	RS232 or RS485, Modbus
Brightness control	-	Dimming (in preparation)	Dimming (in preparation)