

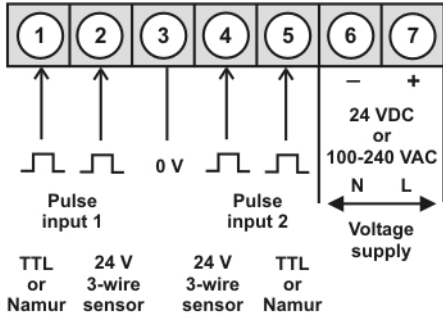


**IM3 – 5-digit digital panel meter in 48x24 mm (BxH)  
Frequency 0.01 Hz to 999.99 kHz / 0.01 Hz to 9.999 kHz / 0-2.5000 kHz  
Connection for Namur, 3-wire NPN/PNP, position survey via  
incremental encoder (HTL- or TTL-output)**

- red display from -19999...99999 digits (optional green, orange or blue display)
- installation depth: 90 mm without plug-in terminal
- multi voltage power supply unit 100-240 VAC
- adjustment via factory default or directly on the sensor signal
- min/max-memory with adjustable permanent display
- 30 additional adjustable support points
- display flashing at threshold exceedance / threshold undershooting
- Schmitt-Trigger-input
- digital frequency filter for contact bounce suppression and interference suppression
- frequency filter with different pulse-duty factor
- navigation keys for the triggering of Hold, Tara, display change, setpoint setting, alarm actuator
- flexible alarm system with adjustable delay times
- volume measuring (totaliser) for frequencies up to 1 kHz (pulse precisely)
- mathematical functions like reciprocal value, square root, square, rounding
- constant setting / setpoint setting
- sliding averaging
- brightness control via parameter or front keys
- programming interlock via access code
- protection class IP65 at the front
- pluggable screw terminal
- optional: 2 PhotoMos-outputs
- optional: sensor supply
- optional: 1 independently scalable analog output
- optional: galv. isolated digital input for the triggering of Tara, Hold, display change
- accessories: pc-based configuration-kit PM-TOOL with CD & USB adapter
- on request: devices for working temperatures of -20°C...50°C or -40°C...70°C without condensation

- Frequency (0.01 Hz to 999.99 kHz)

- Frequency (0.01Hz to 9.9999 kHz for transmitter / 0 to 2.5000 kHz for position survey)



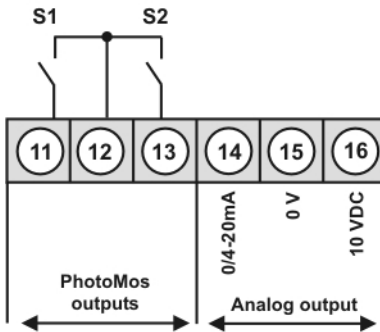
Supply 24 VDC ± 10%

**IM3-7FR5A.0007.770xD 238.30**

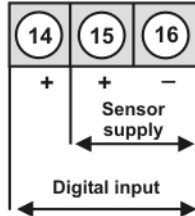
Supply 100-240 VAC, DC ± 10%

**IM3-7FR5A.0007.S70xD 248.90**

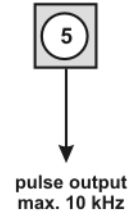
Options: devices for a supply of 24 VDC



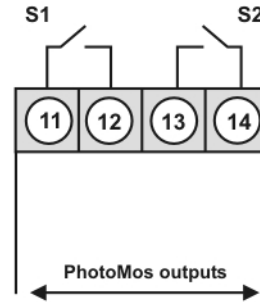
alternatively to analog output  
for devices with position survey (required)



alternatively to pulse input 2



Options: devices for a supply of 100-240 VAC



- Product key options: devices with a supply of 24 VDC

| IM | 3- | 7 | F | R | 5 | A. | 0 | 0 | 0 | 7. | 7 | 7 | 0 | x | D | EUR |   |        |
|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|-----|---|--------|
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2   | 2 PhotoMos outputs  | 31.80  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 1   | Without keypad, operation via parameterisation software PM-TOOL   | 10.60  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | X   | Analog output 0/4-20 mA, 0-10 VDC galvanic isolated               | 127.10 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2   | Sensor supply 10 VDC / 20 mA incl. digital input                  | 53.00  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 3   | Sensor supply 24 VDC / 50 mA incl. digital input                  | 53.00  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | K   | Sensor supply 24 VDC / 50 mA incl. digital input and pulse output | 58.30  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | I   | Digital input galvanic isolated                                   | 21.20  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | B   | Blue  | 46.60  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | G   | Green   | 10.10  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | Y   | Orange  | 10.10  |

- Product key options: devices with a supply of 100-240 VAC

| IM | 3- | 7 | F | R | 5 | A. | 0 | 0 | 0 | 7. | S | 7 | 0 | x | D | EUR |   |       |
|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|-----|---|-------|
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2   | 2 PhotoMos outputs  | 31.80 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 1   | Without keypad, operation via parameterisation software PM-TOOL | 10.60 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | B   | Blue  | 46.60 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | G   | Green   | 10.10 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | Y   | Orange  | 10.10 |

Please state physical unit on demand in your order, e.g. U/min.

- Parameterisation software

PC based configuration software PM-Tool for devices without keypad, for a simple adjustment of standard devices, incl. CD & USB-adapter. Programming happens via an interface on the back.

**ORDER NUMBER**

**EUR**

**PM-TOOL-MUSB4**

**94.30**

• **Technical data**

|                           |   |   |
|---------------------------|---|---|
| <b>Housing dimension</b>  | Housing   | B48 x H24 x T90 mm, (with plug-in terminal D= 109 mm)   |
|                           | Panel cut-out   | 45.0 <sup>+0.6</sup> x 22.2 <sup>+0.3</sup> mm  |
|                           | Fixing  | screw elements for wall thicknesses up to 5 mm  |
|                           | Housing material  | PC Polycarbonate, black   |
|                           | Sealing material  | EPDM, 65 Shore, black   |
|                           | Protection class  | at the front IP65 standard, at the back IP00  |
|                           | Weight  | approx. 200 g   |
|                           | Connection  | plug-in terminal; wire cross section up to 2.5 mm <sup>2</sup>  |
| <b>Display</b>            | Display   | 5-digit   |
|                           | Digit height  | 10 mm   |
|                           | Segment colour  | red (Standard), optional available in green, orange and blue  |
|                           | Display range   | -19999 to 99999   |
|                           | Limit values  | optical display flashing  |
|                           | Overflow  | horizontal bars at the top  |
|                           | Underflow   | horizontal bars at the bottom   |
| Display time              | 0.1 to 10.0 seconds   |   |
| <b>Measuring input</b>    | Signal  | Pulse input, TTL, Namur, 3-wire initiator PNP/NPN   |
|                           | Input resistance  | Ri at 24 V / 4 kΩ<br>HTL level >15 V / < 4 V<br>TTL level >4.6 V / <1.9 V                                 |
|                           | Input frequency   | 0.01 Hz...999.99 kHz,<br>0.01 Hz...9.9999 kHz with rev counter,<br>0...2.5000 kHz with position recording |
|                           | Measuring fault   | 0.05% of measuring range, ± 1 digit   |
| <b>Output</b>             | PhotoMos  | Closer contacts: 30 VDC/AC, 0.4 A   |
|                           | Pulse output  | max. 10 kHz   |
|                           | Analog output   | 0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit   |
|                           | Sensor supply   | 24 VDC / 50 mA<br>10 VDC / 20 mA  |
| <b>Digital input</b>      | Input galv. isolated  | <2.4 V OFF; >10 V ON; max. 30 VDC, Ri ~ 5 kΩ  |
| <b>Power pack</b>         | Supply  | 100-240 VAC 50/60 Hz / DC ± 10% (max. 5 VA)<br>24 VDC ± 10%, galvanic isolated (max. 4 VA)                |
| <b>Memory</b>             | EEPROM  | Data life ≥ 100 years at 25°C   |
| <b>Ambient conditions</b> | Working temperature   | 0 to +50°C  |
|                           | Storing temperature   | -20 to +80°C  |
|                           | Climatic density  | relative humidity 0-85% on years average without dew  |
| <b>CE-sign</b>            | Conformity to directive 2014/30/EU                                    |   |
| <b>EMV</b>                | EN 61326, EN 55011  |   |
| <b>Safety standard</b>    | According to low voltage directive 2014/35/EU<br>EN 61010; EN 60664-1 |   |

**Housing:**

