BASIC M18



| Nominal Voltage |
| :--- |
| Residual Ripple |
| Hysteresis |
| Max. Output Current |
| Min. Output Current |
| Residual Current |
| Voltage Drop |
| Operation Led |
| Switching Frequency |
| Start Up Delay |
| Repeatability |
| Short Circuit Protection |
| Electric Protection |
| Temperature Limit |
| Protection Degree |
| Cable Length |
| Cable Section |
| Housing Material |
| Weight - Cable Output |
| Weight - Connector Output |


| 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) |
| :---: | :---: | :---: | :---: |
| < 10\% | < 10\% | < 10\% | < 10\% |
| < 10\% | < 10\% | < 10\% | < 10\% |
| 200 mA | 200 mA | 200 mA | 200 mA |
| $>1,6 \mathrm{~mA}$ (2wires ver.) | $>1,6 \mathrm{~mA}$ (2wires ver.) | $>1,6 \mathrm{~mA}$ (2wires ver.) | $>1,6 \mathrm{~mA}$ (2wires ver.) |
| < 10 mA | < 10 mA | < 10 mA | < 10 mA |
| $<1,8 V_{i}<6,5 \mathrm{~V}$ (2wires ver.) | $<1,8 V_{i}<6,5 \mathrm{~V}$ (2wires ver.) | $<1,8 \mathrm{~V} ;<6,5 \mathrm{~V}$ (2wires ver.) | $<1,8 \mathrm{~V} ;<6,5 \mathrm{~V}$ (2wires ver.) |
| Yellow | Yellow | Yellow | Yellow |
| $1000 \mathrm{~Hz} / 200 \mathrm{~Hz}$ ( 2 wires NO-NC) | $1000 \mathrm{~Hz} / 200 \mathrm{~Hz}$ (2 wires NO-NC) | $1000 \mathrm{~Hz} / 200 \mathrm{~Hz}$ (2 wires NO-NC) | $1000 \mathrm{~Hz} / 200 \mathrm{~Hz}$ (2 wires NO-NC) |
| < 50 ms | < 50 ms | < 50 ms | < 50 ms |
| < 3\% | < 3\% | < 3\% | < $3 \%$ |
| Present (self-resetting) | Present (self-resetting) | Present (self-resetting) | Present (self-resetting) |
| Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversal inductive loads |
| $\left(-25 . . .+60^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+60^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+60^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+60^{\circ} \mathrm{C}\right)$ |
| IP67 | IP67 | IP67 | IP67 |
| --- | 2 m | --- | 2 m |
| --- | $2 / 3 / 4 \times 0,25 \mathrm{~mm}^{2}$ | --- | 2/3/4 $\times 0,25 \mathrm{~mm}^{2}$ |
| Nickel-plated brass | Nickel-plated brass | Nickel-plated brass | Nickel-plated brass |
| --- | 145g | --- | 145g |
| 95g | --- | 95g | --- |



| SHORT |  |  |  |
| :---: | :---: | :---: | :---: |
| FLUSH |  | NON FLUSH |  |
| M12 conn | cable | M12 conn | cable |
| 5 mm | 5 mm | 8 mm | 8 mm |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| 1S-18-B1-S2 | 15-18-B1-03 | IS-18-D1-S2 | 15-18-D1-03 |
| 95B062151 | 958062141 | 95B062551 | 958062541 |
| IS-18-B2-S2 | 15-18-B2-03 | 1S-18-D2-S2 | 15-18-D2-03 |
| 958062171 | $95 \mathrm{B062161}$ | 95B062571 | $95 \mathrm{B062561}$ |
| IS-18-B3-S2 | 1S-18-B3-03 | 1S-18-D3-S2 | 15-18-D3-03 |
| $95 \mathrm{B062111}$ | $95 \mathrm{B062101}$ | 95B062511 | 95B062501 |
| 15-18-B4-S2 | 15-18-B4-03 | 1S-18-D4-S2 | 15-18-D4-03 |
| 95B062131 | $95 \mathrm{B062121}$ | 95B062531 | 958062521 |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |


| 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | $10-30 \operatorname{Vdc}(-15 / 10 \%)$ | 10-30 Vdc (-15/10\%) |
| :---: | :---: | :---: | :---: |
| < 10\% | < 10\% | < 10\% | < 10\% |
| < 10\% | < 10\% | < 10\% | < 10\% |
| 200 mA | 200 mA | 200 mA | 200 mA |
| --- | --- | --- | --- |
| < 10 mA | < 10 mA | < 10 mA | < 10 mA |
| $<1,8 \mathrm{~V}$ (l= 100 mA ) | $<1,8 \mathrm{~V}$ (l= 100 mA ) | $<1,8 \mathrm{~V}$ (l=100mA) | $<1,8 \mathrm{~V}$ (l=100mA) |
| Yellow | Yellow | Yellow | Yellow |
| 1000 Hz | 1000 Hz | 1000 Hz | 1000 Hz |
| < 50 ms | < 50 ms | < 50 ms | < 50 ms |
| < $3 \%$ | < $3 \%$ | < $3 \%$ | < $3 \%$ |
| Present (self-resetting) | Present (self-resetting) | Present (self-resetting) | Present (self-resetting) |
| Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversal inductive loads |
| $\left(-25 . . .+60^{\circ} \mathrm{C}\right)$ | $\left(-25 . . .+60^{\circ} \mathrm{C}\right)$ | $\left(-25 . . .+60^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+60^{\circ} \mathrm{C}\right)$ |
| IP67 | IP67 | IP67 | IP67 |
| --- | 2 m | --- | 2 m |
| --- | $3 \times 0,25 \mathrm{~mm}^{2}$ | --- | $3 \times 0,25 \mathrm{~mm}^{2}$ |
| Nickel-plated brass | Nickel-plated brass | Nickel-plated brass | Nickel-plated brass |
| --- | 145g | --- | 145g |
| 95g | --- | 95g | --- |

## 2 wires NO or NC



3 wires PNP or NPN


4 wires (PNP/NPN, NO/NC)


M12 connector - connections


2 wires NO or NC

| CONTACTS CONFIGURATION |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Analosia | 1 | 2 | 3 | 4 |
| NO | + |  | - |  |
| NC | - |  | + |  |

3 wires

| CONTACTS CONFIGURATION |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Avalable 1 2 3 <br>  +  - <br> NONC    |  |  |  |

4 wires (PNP/NPN, NO/NC)
CONTACTS CONFIGURATION

| Cutput |  |  | Contanumbs |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |  |  |
| NPNNO | + | NO | - | - |  |  |
| NPNNC | - | NC | + | - |  |  |
| PNPNO | + | + | - | NO |  |  |
| PNPNC | - | + | + | NC |  |  |

BASIC M18


| NOMINAL SWITCHING DISTANCE |  |  |  |
| :--- | :--- | :--- | :--- |
| $10-30$ Vdc | PNP/NPN <br> NO-NC | 4 wires | order No. |
| $10-30$ Vdc | PNP <br> NO | 3 wires | order No. |
| $10-30$ Vdc | PNP <br> NC | 3 wires | order No. |
| $10-30$ Vdc | NPN <br> NO | 3 wires | order No. |
| $10-30$ Vdc | NPN <br> NC | 3 wires | order No. |
| $10-30$ Vdc | PNP <br> NO-NC | 4 wires | order No. |
| $10-30$ Vdc | NPN <br> NO-NC | 4 wires | order No. |
| $10-30$ Vdc | NO-NC | 2 wires | order No. |
| $20-250$ Vac/Vdc | NO | 2 wires | order No. |
| $20-250$ Vac/Vdc | NC | 2 wires | order No. |
| $20-250$ Vac | NO | $2 / 3$ wires | order No. |
| $10-30$ Vdc | Analog |  |  |
| O-20 mA | 3 wires | order No. |  |
| NAMUR amplifier | NAMUR | 2 wires | order No. |


| 8 mm |  | 14 mm |  |
| :---: | :---: | :---: | :---: |
| IS-18-EO-S2 | IS-18-E0-03 | IS-18-FO-S2 | IS-18-F0-03 |
| $95 \mathrm{B067310}$ | $95 \mathrm{B067270}$ | 95B067330 | $95 \mathrm{B067290}$ |
| IS-18-E1-S2 |  | IS-18-F1-S2 |  |
| $95 \mathrm{B067050}$ |  | 95B067040 |  |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | -- | -- | --- |
| --- | --- | --- | --- |
| 15-18-E9-52 | \|S-18-E9-03 | 1S-18-F9-S2 | IS-18-F9-03 |
| $95 \mathrm{B067320}$ | 95B067280 | 95B067340 | $95 \mathrm{B067300}$ |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |


| Nominal Voltage |
| :--- |
| Residual Ripple |
| Hysteresis |
| Max. Output Current |
| Min. Output Current |
| Residual Current |
| Voltage Drop |
| Operation Led |
| Switching Frequency |
| Start Up Delay |
| Repeatability |
| Short Circuit Protection |
| Electric Protection |
| Temperature Limit |
| Protection Degree |
| Cable Length |
| Cable Section |
| Housing Material |
| Weight - Cable Output |
| Weight - Connector Output |


| 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | $10-30 \mathrm{Vdc}(-15 / 10 \%)$ |
| :---: | :---: | :---: | :---: |
| < 10\% | < 10\% | < 10\% | < 10\% |
| < 10\% | < 10\% | < 10\% | < 10\% |
| 200 mA | 200 mA | 200 mA | 200 mA |
| --- | --- | --- | --- |
| < 10 mA | < 10 mA | < 10 mA | < 10 mA |
| < $1,2 \mathrm{~V}$ ( $(=100 \mathrm{~mA})$ | $<1,2 \mathrm{~V}$ ( $1=100 \mathrm{~mA}$ ) | <1,2 V (l= 100 mA ) | $<1,2 \mathrm{~V}$ ( $=100 \mathrm{~mA}$ ) |
| Yellow | Yellow | Yellow | Yellow |
| 400 Hz | 400 Hz | 100 Hz | 100 Hz |
| < 50 ms | < 50 ms | < 50 ms | < 50 ms |
| < 3\% | < 3\% | < 3\% | < 3\% |
| Present (self-resetting) | Present (self-resetting) | Present (self-resetting) | Present (self-resetting) |
| Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversal inductive loads |
| $\left(-25 \ldots+70^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+70^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+70^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+70^{\circ} \mathrm{C}\right)$ |
| IP67 | IP67 | IP67 | IP67 |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| Nickel-plated brass | Nickel-plated brass | Nickel-plated brass | Nickel-plated brass |
| --- | --- | 145g | 145g |
| 95 g | 95g | --- | --- |



| SHORT X2 |  |  |  |
| :---: | :---: | :---: | :---: |
| FLUSH |  | NON FLUSH |  |
| M12 conn | cable | M12 conn | cable |
| 8 mm | 8 mm | 14 mm | 14 mm |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| IS-18-G1-S2 | 1S-18-G1-03 | IS-18-H1-S2 | 15-18-H1-03 |
| 95B063531 | $95 \mathrm{B063521}$ | 958063611 | $95 \mathrm{B063601}$ |
| IS-18-G2-S2 | IS-18-G2-03 | IS-18-H2-S2 | 15-18-H2-03 |
| 958063551 | 958063541 | 958063631 | $95 \mathrm{B063621}$ |
| IS-18-G3-S2 | IS-18-G3-03 | IS-18-H3-S2 | 15-18-H3-03 |
| 95B063491 | $95 \mathrm{B063061}$ | 958063571 | $95 \mathrm{B063561}$ |
| IS-18-G4-S2 | IS-18-G4-03 | IS-18-H4-S2 | 15-18-H4-03 |
| 958063511 | 958063501 | 958063591 | $95 \mathrm{B063581}$ |
| IS-18-G5-S2 | IS-18-G5-03 | 1S-18-H5-S2 | IS-18-H5-03 |
| 95B062731 | 958062721 | 958062811 | $95 \mathrm{B064220}$ |
| IS-18-G6-S2 | IS-18-G6-03 | IS-18-H6-S2 | 15-18-H6-03 |
| 958062711 | 958064200 | $95 B 062791$ | $95 B 064210$ |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |
| --- | --- | --- | --- |


| 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) | 10-30 Vdc (-15/10\%) |
| :---: | :---: | :---: | :---: |
| < 10\% | < 10\% | < 10\% | < 10\% |
| < 10\% | < 10\% | < 10\% | < 10\% |
| 200 mA | 200 mA | 200 mA | 200 mA |
| $>1,6 \mathrm{~mA}$ (2wires ver.) | $>1,6 \mathrm{~mA}$ (2wires ver.) | $>1,6 \mathrm{~mA}$ (2wires ver.) | $>1,6 \mathrm{~mA}$ (2wires ver.) |
| < 10 mA | < 10 mA | < 10 mA | < 10 mA |
| $<1,2 \mathrm{~V}$ ( $=100 \mathrm{~mA}$ ) | < $1,2 \mathrm{~V}$ ( $(=100 \mathrm{~mA})$ | <1,2 V (I=100mA) | $<1,2 \mathrm{~V}$ ( $1=100 \mathrm{~mA}$ ) |
| Yellow | Yellow | Yellow | Yellow |

$400 \mathrm{~Hz} / 100 \mathrm{~Hz}$ ( 4 wires NO-NC) $400 \mathrm{~Hz} / 100 \mathrm{~Hz}(4$ wires NO-NC) $400 \mathrm{~Hz} / 100 \mathrm{~Hz}(4$ wires NO-NC) $400 \mathrm{~Hz} / 100 \mathrm{~Hz}(4$ wires NO-NC)

| $<75 \mathrm{~ms}$ | $<75 \mathrm{~ms}$ | $<75 \mathrm{~ms}$ | $<75 \mathrm{~ms}$ |
| :---: | :---: | :---: | :---: |
| < 3\% | < 3\% | < 3\% | < 3\% |
| Present (self-resetting) | Present (self-resetting) | Present (self-resetting) | Present (self-resetting) |
| Against polarity reversal inductive loads | Against polarity reversal inductive loads | Against polarity reversa inductive loads | Against polarity reversa inductive loads |
| $\left(-25 \ldots+60^{\circ} \mathrm{C}\right)$ | $\left(-25 . . .+70^{\circ} \mathrm{C}\right)$ | $\left(-25 . . .+60^{\circ} \mathrm{C}\right)$ | $\left(-25 \ldots+70^{\circ} \mathrm{C}\right)$ |
| IP67 | IP67 | IP67 | IP67 |
| --- | 2 m | --- | 2 m |
| --- | $3 \times 0,25 \mathrm{~mm}^{2}$ | --- | $3 \times 0,25 \mathrm{~mm}^{2}$ |
| Nickel-plated brass | Nickel-plated brass | Nickel-plated brass | Nickel-plated brass |
| --- | 145g | --- | 145g |
| 95g | --- | 95g | --- |

2 wires NO or NC


3 wires PNP or NPN


4 wires (PNP/NPN, NO/NC)


4 wires (NO+NC)


## M12 connector connections

2 wires NO or NC


3 wires

| contacts configuration |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Avalsble | Contacts momeers |  |  |  |
|  | 1 | 2 | 3 | 4 |
| (NOO or NC) | + |  | - | NONTC |

4 wires (PNP/NPN, NO/NC)

| COntacta conncuration |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Quput | Cortaca numbera |  |  |  |
|  | $t$ | 2 | 3 | 4 |
| NPFNMO | $+$ | no | - | - |
| TEFNE | - | $n{ }^{1}$ | $+$ | - |
| PNP NO | $+$ | $+$ | - | NO |
| PTPNC: | - | + | + | NC |

4 wires (NO+NC)

| Anstase | Cotesmurter |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (100+NO) | + | m | - | 10 |

