## WS200120 <br> MONITORS•ZERO SPEED MONITORS

The monitoring of rotation speed or rotating movements is necessary in many applications to ensure the proper operation of the plant. Our rotation- and zero speed monitors operate according to different operating principles: 1 . Monitoring of pulses of a transducer via a current transfomer, 2.Frequency measurement of the phase current Our devices feature, depending on the type, a wide variety of functions. For a further evaluation in a higher-level control, the results are i.e. outputted as easy relay contact (over-/ underspeed) or as analog output signal resolved to the set rotation speed range.

## MECHANICAL DATA

| Ambient temperature (MAX) | $60^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Degree of protection (IP) | IP67 |
| Housing material | Plastic |
| Storage temperature | $60^{\circ} \mathrm{C}$ |
| Storage temperature | $-20^{\circ} \mathrm{C}$ |

## ELECTRICAL DATA

| Hysteresis | $5 \%$ |
| :--- | :--- |
| Input voltage at DC (MAX) | 30 V |
| Input voltage at DC (MIN) | 10 V |
| Max. output current | 400 mA |
| Minimum pulse length | 10 ms |
| No-load current | 1 |
| Number of outputs | 1 |
| Number of outputs, signaling function, undelayed, semicon- |  |
| ductors | 1000 Hz |
| Operating frequency (MAX) | 0.02 Hz |
| Operating frequency (MIN) | 10 V |
| Rated control supply voltage Us at DC (MAX) | 30 V |
| Rated control supply voltage Us at DC (MIN) | No |
| Rotation speed monitoring function | Teach-In |
| Setting procedure | Yes |
| Standstill monitoring function | Plug-in connection |
| Type of electrical connection | Normally open contact |
| Type of switching function | PNP |
| Type of switching output | PNP |
| Type of transistor output | Normally open contact |
| Type of transistor switching function | DC |
| Voltage type for actuation |  |

## CONNECTION



Colors: A: $1=B N$ (brown), $3=B U$ (blue), $4=B K$ (black)
$\mathrm{B}: 1=\mathrm{BN}$ (brown), $2=\mathrm{WH}$ (white), $3=\mathrm{BU}$ (blue), $4=\mathrm{BK}$ (black)Functions: $\mathrm{A}: 1=\mathrm{L}+, 3=\mathrm{L}-, 4=$ PNP NO B: 1 = L+, 2 = teach-In, 3 = L-, $4=$ PNP NO

## DIMENSIONAL DRAWING



INSTALLATION


Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL


## SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.

