

Monitor for speed, standstill, direction DZ 251 and DZ 252



DZ 251 and **DZ 252** are designed for monitoring overspeed, underspeed with start-up delay, standstill and direction rotation. Both types are similar in construction and function and are only different with respect to their outputs:



Fig.: DZ 252

DZ 251: 4 opto-isolated transistor outputs to signal speed alarm, standstill, forward and reverse rotation.

DZ 252: relay outputs (potential free changeover 230 V / 100 VA) of each relay can be assigned by setting internal jumpers (eg. relay 1 = overspeed and relay 2 = standstill).

Setup and operation:

Both units have two impulse input channels and a reset input. For monitoring of speed or standstill, only input A need be used and for monitoring of direction of rotation inputs A and B must both receive impulses which are 90° displaced in phase. Internal slide switches provide selection of the input characteristics (PNP or NPN or Namur) and the desired input level (5 V TTL or 10...30 V HTL). This allows easy operation with standard sensors such as proximity switches, photocells or shaft encoders. For sensor supply, auxiliary voltages of + 5 V and + 12 V are built in. All settings are fully digital. There are 5 small thumbwheel switches located behind the front plate to preset the desired alarm level, to define "standstill" and to set the start-up delay.

Construction:

Both units are built into a 16-terminal DIN case with the dimensions 55 x 75 x 110 mm, for DIN rail mounting or screw mounting on the cabinet plate. The digital setup switches are located behind the front plate.

Technical data:

Power supply		230 / 115 VAC, 50 / 60 Hz ± 15 %, 5 VA 18 ... 30 VDC, 100 mA
Inputs	DZ 251	3 x NPN / TTL / HTL / NAMUR
	DZ 252	3 x TTL / HTL / NPN / PNP / NAMUR
		R _i = 2,7 kOhms
Outputs	DZ 251	4 x transistor 5...30 V, 50 mA
	DZ 252	2 x relays (250 V / 150 mA)
Preset switches	DZ 251	1 x TTL / HTL 3 x frequency preset 1 x start 1 x stop
	DZ 252	1 x TTL / HTL 1 x PNP / NPN 3 x Frequency preset 1 x start 1 x stop
Input frequency		0.1 Hz - 200 kHz
Operating temperature range		0 °C to 45 °C
Weight		approx. 350 g