ACU-RITE®

IOB 610 External input/output unit for DRO300

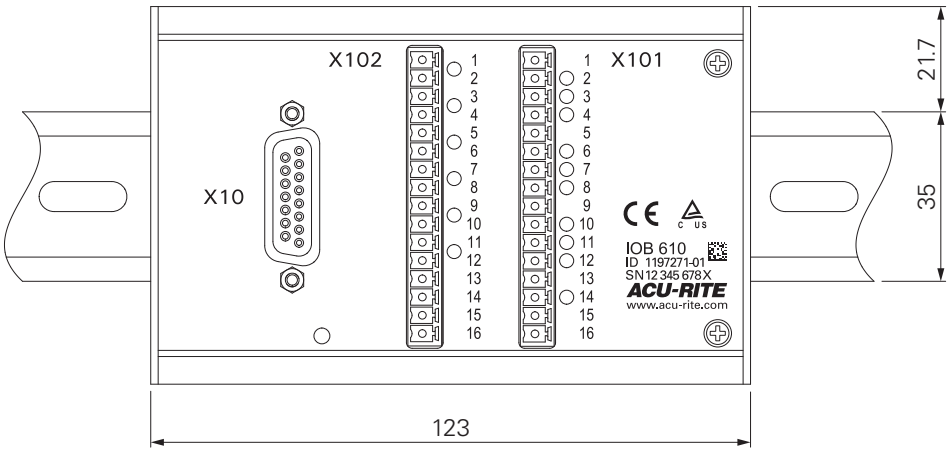
The DRO300 provides application-dependent additional functions that can be used when the IOB 610 external input/output unit is connected using the touch probe input. LEDs show the power supply, the data transmission and the status of the inputs and outputs.

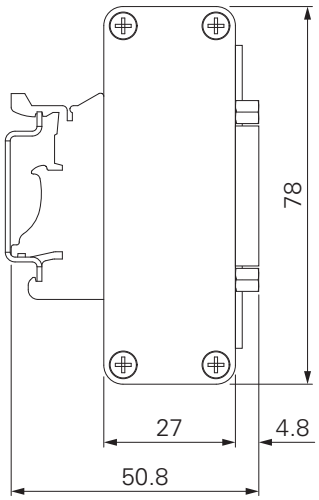
	IOB 610
6 switching inputs	Zero reset of axes 1 to 4 (for milling applications) Recognition of max. 4 gear ranges (for turning applications) External activation of CSS (for turning applications)
10 switching outputs	9 relay outputs as switching functions (for milling applications) 1 relay output for readiness
1 analog output	0 V to 10 V *Turning mode:* For constant surface speed *Milling mode:* For controlling the spindle speed
Voltage supply	Via DRO300
Cable length	≤ 4 m to DRO300
Operating temperature **Storage temperature**	0°C to 45°C -20°C to 70°C

Accessories:

Connecting cable
Complete with connectors, between IOB 610 and DRO300

Distribution cable
Complete with connectors, for parallel connection of IOB 610 and KT 130 on DRO300





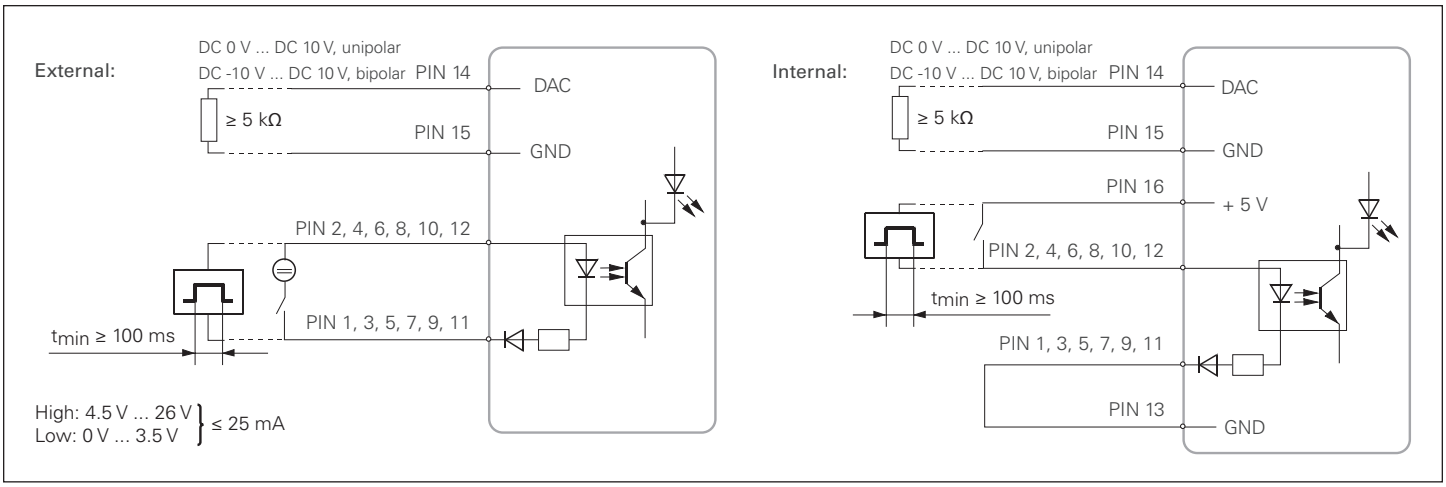
Switching inputs

The switching inputs are active when a HIGH signal (contact or pulse) is present. They are isolated and can be supplied externally or internally.

Signal level of the switching outputs
0 V ≤ U_L ≤ 1.5 V
4.5 V ≤ U_H ≤ 26 V
I_L ≤ 25 mA
t_{min} ≥ 100 ms

Zero reset
In the milling mode, each axis can be set to the display value 0 over an external signal.

Detection of gear ranges
In turning mode, four switching inputs are available for the recognition of gear stages.



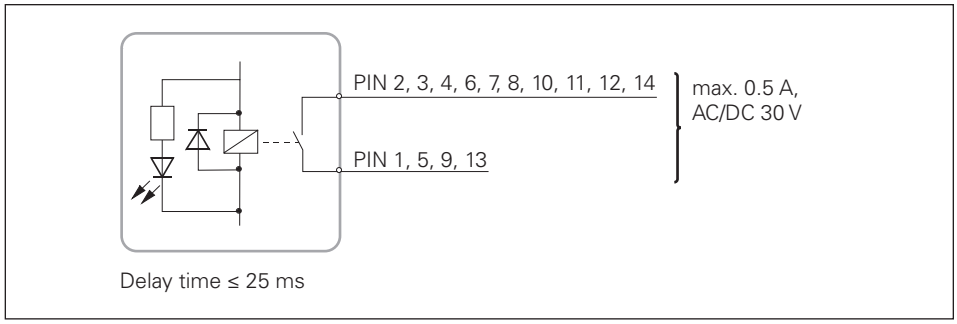
Switching outputs

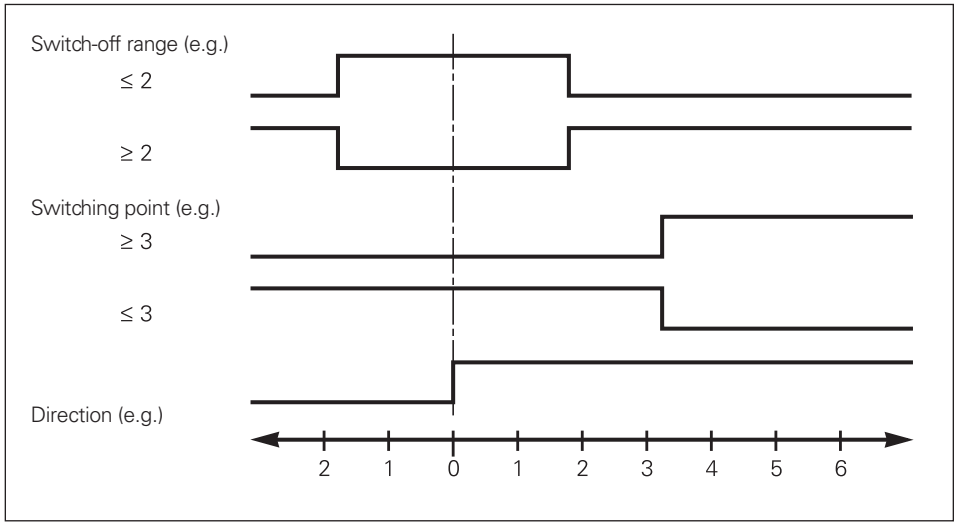
The IOB 610 features ten floating relay outputs.

Standby
The standby output is at LOW level if the DRO300 cannot operate the IOB (e.g., not switched on, cable disconnected, etc.).

Switching functions
(for milling applications)
One or more switching ranges or switching points can be defined for an axis. The **switch-off ranges** are located symmetrically around the display value 0. If **switching points** are used, the relay activates when the position display reaches a specific value. The **direction** function switches when the algebraic sign is changed.

You can set whether:
- the switching function should apply to the actual value or distance-to-go mode,
- the relay will open or close when the condition is met
- or the relay remains activated as long as the switching condition is met (continuous mode) or for a specified duration (pulsed mode).

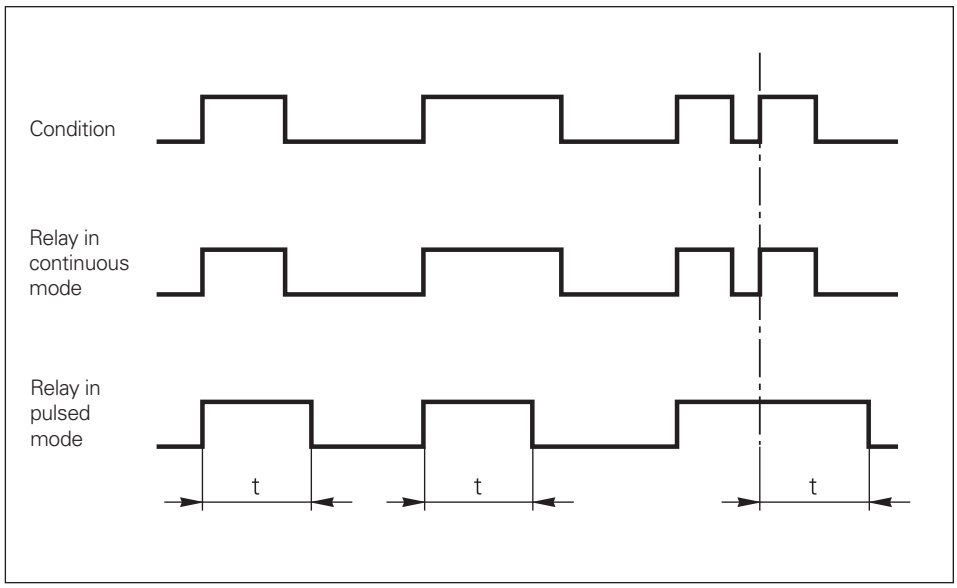


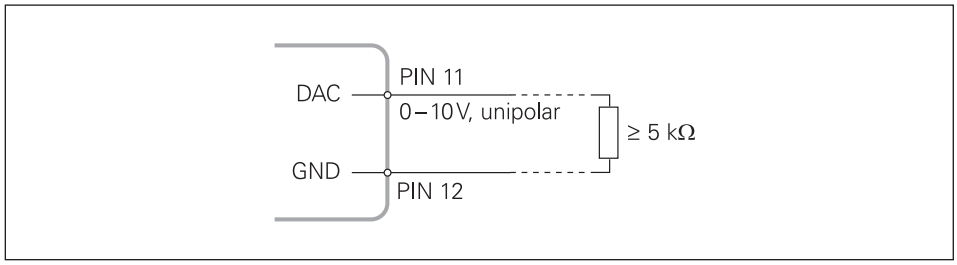


Analog output

Constant surface cutting speed CSS
(only in turning applications)
CSS provides spindle speed control as the diameter of the workpiece changes. A speed command signal is sent to the inverter of the spindle motor via the analog interface (DAC 0 V to 10 V) of the IOB 610. The maximum and minimum permissible spindle speeds can be specified. In addition, a maximum of four operating gears can be taken into account. The DRO300 recognizes the current gear stage by means of the switching inputs of the IOB 610. CSS control can also be started remotely (via an input to the CSS board) with an external switch.

Controlling the spindle speed
(only in milling applications)
With the analog outputs, the speed of the spindle on milling machines can be controlled in an open controlled loop. A spindle speed can be assigned to each tool defined in the tool table. The speed can be manually adjusted during machining.





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Certifications
ISO-9001, UL, CSA, CE

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