

### Locking processor

#### Subject: System load problems

##### The situation

An additional one or more welding machines need to be operated from the supply system but there is not sufficient power to do so. As a result not all the machines may weld simultaneously for fear of overloading the supply system. However a staggered welding procedure considerably reduces production.

##### Your requirements

Optimum distribution of the available system load. If interlocking is necessary, the waiting for the logged on machines must be limited to the welding time only and must not noticeably disrupt the welding process. Priorities must be placed in order not to disrupt machines with automatic operation.

Low starting costs: Start small and expand as the need arises.

##### Our solution

The **VP-4 locking processor** is a small modular interlocking device used to control the central network load controls and the monitoring. The **VP-4** takes priority settings into account and controls the welding operations in such a way as to ensure an optimum adaptation to the available power supply. Furthermore, several machines are activated if they fall within this limit. Is also prevents the available system load from being exceeded.



Short information

## The design

The modular design of the **VP-4 interlocking processor** expands with its given tasks. The basic module allows for an intelligent interlocking of up to 4 welding machines. Four of these modules can be cascaded. Thus in its final version 16 channels are available for system load monitoring. The allocated power requirement lies between 0 and 100%. In operation only as many

machines are simultaneously activated as to make 100% usage of the power supply network.

Activation occurs according to requirement order whilst ensuring that no machine has to wait a long time. Once the interlocking contact has been connected the power is made available to other machines after termination of the current time. The network load (0-100%) is displayed via a luminous bar.

## Technical data

<b>Interlocking:</b>	4-way interlocking
<b>Cascading:</b>	Can be extendable to up to 16 interlocking positions, i.e. 4 x VP-4
<b>Display:</b>	Requests and interlocking via LED's. Network loading displayed via LED luminous bar.
<b>Mains voltage:</b>	230V / 50Hz (+/- 10%)
<b>Inputs:</b>	4 requests via a solenoid - voltage 24, 42V=/>»
<b>Outputs:</b>	4 activations via potential-free contact (max. 48V, 0.4A, 20W).
<b>Dimensions (mm)</b>	width(100), height(75), depth(109.5) Top-hat rail securing system



rent times (interlocking

The illustration shows a VP-4plus interlocking device in a housing (2xVP-4 = 8 interlocks) ready for connection.



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