Controllers from the 902 / 93 series with LCD and 903 / 93 series can receive status and error messages by means of supplementary internal or external binary inputs and display them in plain text in the lower two display lines. The texts associated with the currently activated binary inputs are displayed chronologically in a message list. Additionally, a history can be displayed depending on the version. The messages can also be optionally assigned to relays as collective or new value messages.

Function:

By means of the corresponding activation of a binary input, the associated message text is shown on the display. Depending on the message logic that has been set, a flashing circle symbol appears before the text line (new value). The message can be confirmed by means of binary input 1 (reset). This is indicated by the permanent display of the symbol before the message. Following deactivation of the binary input, the associated text and, if applicable, the additional symbol are removed from the display.

Through various terminal connections it is possible to activate the binary inputs by means of external voltages or also by means of floating contacts.

The functions of the binary inputs can be set (direct or inverted) and they can each be provided with a separate time delay. In addition each input can be assigned to a collective relay. The requisite contact output is provided by means of the configuration of the additionally existing supplementary contact. Depending on type a further configurable supplementary contact is available for announcing new values, e.g. by means of a buzzer or a new value pulse. This contact is always activated (single 3 sec. pulse or permanent) when a new message appears. After confirming with reset, the contact is reset.

The display texts can be edited simply using the KFM PKS PC software.

Note: Special features of controllers 902 / 93 with status and error messages see manual 991s_BE.

Versions:	List no.:
16 Binary inputs for status and error messages with plain text display incl. 2 freely configurable relays	991s16
20 Binary inputs for status and error messages with plain text display incl. 2 freely configurable relays	991s20
24 Binary inputs for status and error messages with plain text display incl. 2 freely configurable relays	991s24
Possibility of indication of status and error messages from external binary input and relay modules in clear text, connection at the service interface (only for 902 series, standard for 903 series)	991sw

Special features of controllers 903 / 93 with status and error messages:

When an appropriate signal is registered at a binary input the corresponding text is shown on the display. Additionally, messages are marked with a green (operating), yellow (pre alarm), red (alarm) respectively flashing circle symbol with time and date depending on the configured logic (new value). The message can be confirmed by using binary input 1 (reset). This is signalized by the permanent display of the symbol in front of the message. The corresponding text and possibly the additionally symbol are blanked out after deactivation of the binary input. Binary input 2 (LED-Test) is used for functional testing of the LEDs. The history of malfunction- and operating indications can be recorded optionally.

Depending on different wire connention to the terminals, the use of external voltage alternatively to potential-free change-over switches is possible.

The characteristic (direct or inverse) and a seperate time delay is adjustable for each of the binary inputs. Furthermore each input can be configured as alarm, pre- alarm or operating indication. The neccesary contact output is provided by configuration of each additionally existing I/O module contact.
More freely configurable contacts can be used for new value messages e.g. by means of an audible alarm or for new value pulse. If another message in addition to an existing one occurs, this contact is activated always (operates one-time for 3 sec. or permanent). Once the reset is actuated, the contact is set back.

For information on displaying and calling binary input messages, message list and history, see page 6, operating Instructions 903.._BD.

Configuration level (parameters available depending on version)**:** | **factory setting**

[#] **Di* Dir**	Characteristic binary input * direct / inverse / disable (di/in/dis)	di
[#] **Di* Func**	Function binary input * (Alrm (alarm) / AloR (alarm without reset) / AloS (alarm without collective message) / PrAl (pre alarm)/ PAoR (pre alarm without reset) / PAoS (pre alarm without collective message) / STAT (without))	Alrm
[#] **Di* Tdel**	Switch-on delay binary input * (0...300 sec)	0
[#] **Di* Hist**	Save in history binary input * (on/off)	on
Accept Fct	Accept function for malfunction indications (on/off)	off
Blink Fct	Flash function for malfunction indications (1Val/NewV/off)	NewV
	(1Val = In the event of a further fault occurring in addition to an existing, not yet acknowledged fault, the LED of the new fault message will have steady light, whilst the LED of the first fault message will continue to flash.	
	NewV = In the event of further faults occurring in addition to an existing fault, the LED of the new fault message will flash.	
REL*	Switching function for relay contact *	SR A
	Additional function selection options for supplementary contacts:	
	SR A Collective message function, relay is de-energised if there is a message.	
	SR E Collective message function, relay is energised if there is a message.	
	NW A New value message, relay is de-energised if a new message appears that has not yet been confirmed with reset.	
	NW E New value message, relay is energised if a new message appears that has not yet been confirmed with reset.	
	IP A New value pulse, relay is de-energised for 3 sec if a new message appears.	
	IP E New value pulse, relay is energised for 3 sec if a new message appears.	
	SRIA Collective message function with new value pulse, relay is de-energised if there is a message. If a further (new) message appears, the relay is energised for 3 sec.	
	SRIE Collective message function with new value pulse, relay is energised if there is a message. If a further (new) message appears, the relay is de-energised for 3 sec.	
	BUS Bus function, relay is de- / energized depending on control via service-interface, for example with Profibus- adapter 99spde..	
REL*	reference value * (alarm (Alrm) / pre alarm (PrAl))	Alrm
StmTxt*	Texts applied to the active binary input *, max. 40 character	Fault*

Hint:Binary input 1 and 2 are used for reset and LED test !

*= Number of the binary input or relay   #= Number of the module