Technical Information

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Principle of Warning

The sensor system of Hermes+ allows to calculate the diameters of label and ribbon supply rolls during operation. This will be done by measuring the rotational speed of the unwinders at known print speed.

Warning levels can be activated by definition of threshold diameters, which advert to a near end of the material without interrupting the print job.

> **!** **Attention!**
> **The activation of the warning parameters in the printer configuration is necessary for all warning methods described below !**

Activation of the Warning Parameters

▶ Press the **menu** button.

▶ Select `Setup > Print param.`.

▶ Select `Warn level ribbon` or `Warn level labels`.

▶ Set the threshold diameters.

▶ If the print job should be paused when reaching a threshold diameter, set `Pause on media low` to `On`.

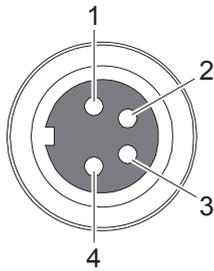| Parameter	Meaning	Default
`Warn level ribbon`	Warning when the remaining diameter of the ribbon supply roll undershoots the set value (32–74 mm).	`Off`
`Warn level labels`	Warning when the remaining diameter of the label supply roll under-shoots the set value (45–300 mm).	`Off`
`Pause on media low`	The printer switches to the **Pause** state when rest diameters set in the parameters `Warn level ribbon` or `Warn lave labels` are undershot.	`Off`

Table 1   Warn level parameters

Warning via Warning Light

The Warning Light Hermes+, Part No. 5961237.001, shows the most important status information of Hermes+.

Color	Meaning
red	Error
yellow	Warning ribbon end or warning label end is active
green	Device is switched on

Table 2   Color assignment of the warning light

The signals for the warning light can also be measured directly on the connector :

Pin	Direction	Name	Description	Active State
1	⊖▶	24V	Internal operating voltage 24 V	
2	⊖▶	/SGR	Device is switched on	low
3	⊖▶	/SGE	Warning ribbon end or label end is active	low
4	⊖▶	/SRT	Error	low

Fig. 1   Connector warning light   Table 3 Pin assignment connector warning light

Warning via I/O Interface

Warning messages can be sent via I/O interface to the control of the network.

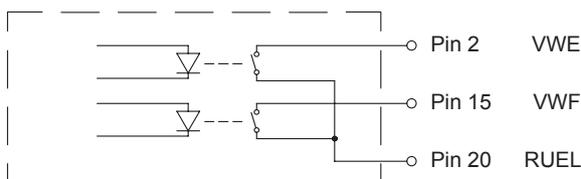| Pin	Signal	Name	Description	Active State
2	⊖▶	VWE	Warning end of labels	Contact between Pin 2 and Pin 20 (RUEL) is open
15	⊖▶	VWF	Warning end of ribbon	Contact between Pin 15 and Pin 20 (RUEL) is open
20		RUEL	Common reverse line for all output signals with reference potential e.g. EXT_24P	

Table 4   I/O Warning signals

Fig. 2   Internal circuit of the warning signals

Warning via SNMP

Warning messages can be sent via SNMP (Simple Network Management Protocol).
For that purpose the printer must be operated via Ethernet interface in a network.

Definition of Management Stations

▶ Call up the printer website by entering the printer IP address e.g. **http://192.169.9.105**.
  ▷ Configuration Manual.
▶ Select in "Setup" tab the menu "Interface" > "Ethernet".
▶ Set parameter "SNMP" to "On".
▶ Enter IP address of the management station(s) (Sink 1 or Sink 2).
▶ Assign the "Community" parameter the value "public".

Activation of SNMP Messages

▶ Select "System messages" tab.
▶ Select the warning messages "Low ribbon" or "Low labels" by clicking the cells in the columns "SNMP 1" or.
  "SNMP 2".
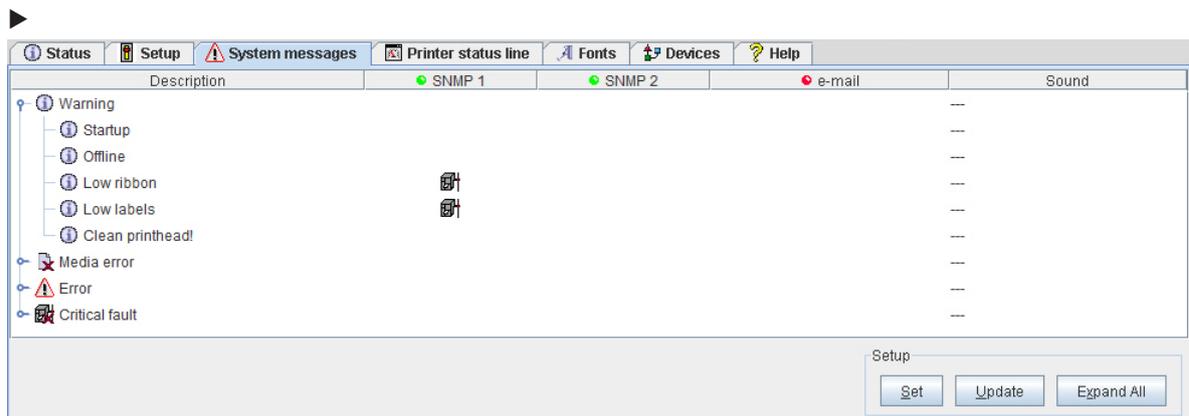 The selection is indicated via a symbol. To undo the selection click it again.
▶

Fig. 2   Selection of SNMP warning messages

Display of a Warning Message at the Management Station

▶ Start a suitable SNMP monitoring tool.
  The warning message will shown in an info line.

Fig. 3   SNMP warning message

Warning via E-mail

Warning messages can be sent via e-mail to selected addresses.
For that purpose the printer must be operated via Ethernet interface in a network.

Definition of the E-mail Parameters

▶ Call up the printer website by entering the printer IP address e.g. **http://192.169.9.105**.
  ▷ Configuration Manual.

▶ Select in "Setup" tab the menu "Interface" > "Ethernet".

▶ Set parameter "SMTP server" to "On".

▶ Enter IP address of the SMTP server.

▶ Enter a valid e-mail address for the printer in the "From address" field.

Activation of E-mail Messages

▶ Select "System messages" tab.

▶ Select the warning messages "Low ribbon" or "Low labels" by clicking the cells in the column "e-mail".

▶ Enter e-mail address or select from pull-down menu.

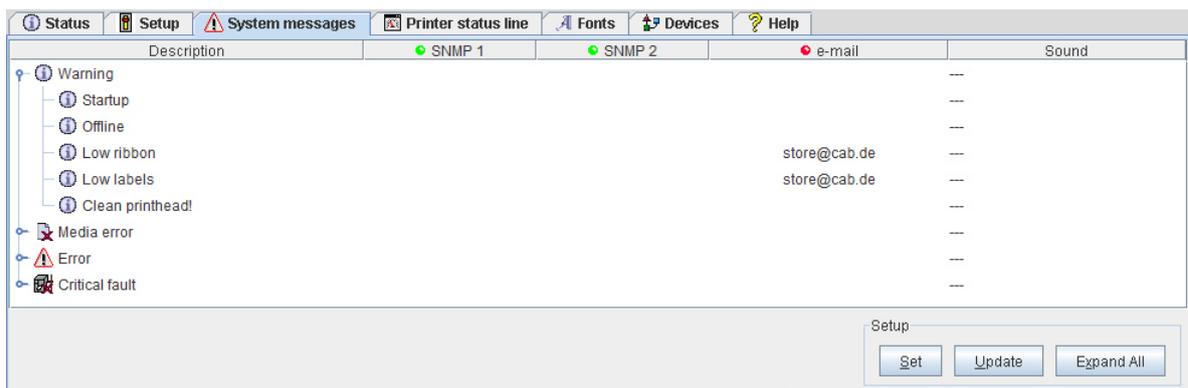| Description	● SNMP 1	● SNMP 2	● e-mail	Sound
⊙ Warning				---
ⓘ Startup				---
ⓘ Offline				---
ⓘ Low ribbon			store@cab.de	---
ⓘ Low labels			store@cab.de	---
ⓘ Clean printhead!				---
✗ Media error				---
⚠ Error				---
▨ Critical fault				---

Setup: Set   Update   Expand All

Fig 4   Selection of e-mail warning messages

E-mail Reception

▶ Start e-mail program.
  When occurring a warning event an e-mail appears the in-box.
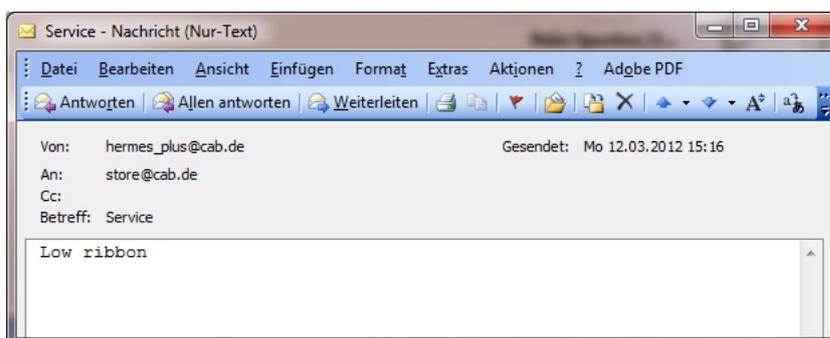

Fig. 5   E-mail warning message

Warning via JScript Status Request

The JScript command **ESCz** can be used to query the status of the warning signals ▷ Programming Manual.

▶ Install a serial or Ethernet connection via a terminal program.

▶ Send **ESCz**.
The printer responds with a character string.

Fig. 6   Response after querying the status with **ESCz**

The warning information is shown in the 5th and 6th characters :

Character 5 = Y --> Warning end of ribbon on

Character 6 = Y --> Warning end of labels on

ⓘ   **Notice!**
With the ESCz command the status will be queried respectively one time. In order to get a real warning effect the ESCz command must be repeated at frequent intervals.

Displaying the Diameters of Label and Ribbon Supply Rolls

A more indirect warning method is the request of the unwinding diameters of ribbon roll (**qr** command) and label roll (**qw** command). For that purpose no threshold diameter must be defined in the printer configuration.

▶ Install a serial or Ethernet connection via a terminal program.
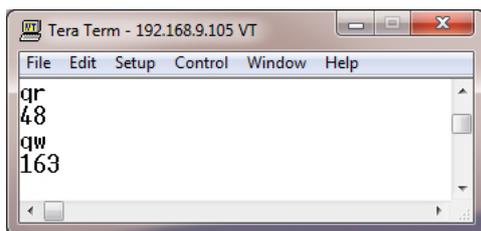
▶ Send **qr** or **qw**.
The printer responds with the appropriate diameter value.

Fig. 7   Display of the unwinding diameters