

Sourcetric Meter
Option: Handler Interface

V1.1

Operation Manual

Manual Identification:

Model Number	Handler
Date Printed	06/2005
Part Number	49-60001-H02
Ver.	1.1

Version

Ver. 1.0	07/2001
Ver. 1.1	06/2005

Chapter 1

Steps before operation

Overview

State that pay attention on Attention before install this function accessory

Summary

Handler Interface is controlling message interface, generally used on controlling contacting line with outside controlled device. It is can achieve the best effect to make automatically control with product.

Specification

This interface function can output judged result of Sourcetric Meter through message. Among good devices or bad devices, it can recognize bad ones' parameter is higher or lower and recognize that first parameter or second parameter is bad.

Output signal : Negative true, open collector, opto-isolated.

Decision Output

HI/LO Function : PASS, FAIL

Sorting Function : Bin number, out of bin

ACQ : Analog measurement complete

EOM : Full measurement complete

Input signal : Opto-isolated

EXT. : External trigger, Pulse width $\geq 1\mu\text{s}$.

Chapter 2

LCR-H operation

Overview

State that when use Handler Interface function must known some things and how to operation.

Message contents

Handler Interface has three kinds: comparison output, control input, control output. These messages could have different output by main device using different compared function like main device using HI/LO comparator function or sorting comparator.

Message kinds

As mentioned last part, due to using different compared function will has different output. It is explain output of using different compared function as below:

HI/LO comparator function:

- Comparison Output Signals:
/PASS, /P_FAIL, /AUX_FAIL, /P_HI, /P_LO, /AUX_H, /AUX_L
/P_PASS, /AUX_PASS,
- Control Output Signals:
/ACQ → analog measurement completed signal.
/EOM → End Of Measure and comparison data valid signal
- Control Output Signals:
/EXT. → External trigger signal

Sorting comparator function:

- Comparison Output Signals:
/BIN1~/BIN8,
/BIN0(secondary parameter fail), /BIN9(primary parameter fail)
- Control Output Signals:
/ACQ → analog measurement completed signal.
/EOM → End Of Measure and comparison data valid signal
- Control Output Signals:
/EXT. → External trigger signal

Message illustration

Handler Interface uses three messages: comparison output, control input, control output. The contact assignments for HI/LO comparator function are shown below.

HI/LO comparator function

Table 2-1 Contact Assignments for HI/LO comparator function

Pin No.	Signal Name	Description
1	/EXT.	External trigger
3	/P_LO	Primary parameter LO
4	/P_HI	Primary parameter HI
5,6,7	COM	Common for EXT._DCV
8	/AUX_HI	Secondary parameter HI
9	/AUX_LO	Secondary parameter LO
10	EXT._DCV	External DC voltage. DC voltage supply pin for DC Isolated input (EXT.) and DC Isolated output (/ACQ, /EOM). Setting of internal jumpers must be changed when using an internal voltage supply.
13	/P_FAIL	Primary parameter FAIL
15	/AUX_FAIL	Secondary parameter FAIL
17	/PASS	Primary and Secondary parameter PASS
18	/EOM	End Of Measurement: This signal is asserted when the measurement data and comparison results are valid.
19	/AUX_PASS	Secondary parameter PASS
21	/P_PASS	Primary parameter PASS
22	/ACQ	/ACQ signal is asserted when an analog measurement is completed and the DU602x is ready for the next DUT to be connected to the UNKNOWN terminals. The measurement data, however, is not valid until /EOM is asserted.
2,11,12 14,16, 20,23, 24	NC	No connection

P_HI	P_HI (AUX_PASS)	P_HI
AUX_LO (P_PASS)	PASS	AUX_HI (P_PASS)
P_LO	(AUX_PASS) P_LO	P_LO

Figure 2-1 Signals Area Example for HI/LO comparator function

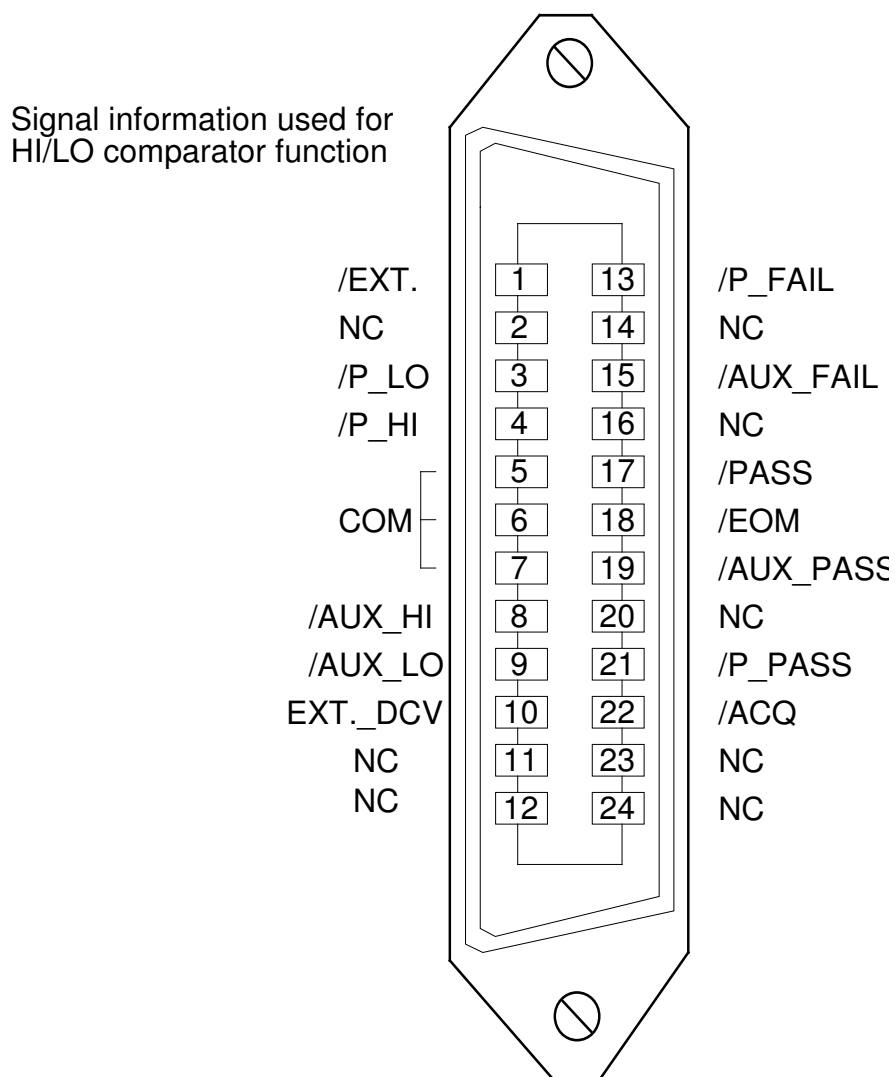


Figure 2-2 Pin Assignment For Handler Interface connector (HI/LO comparator)

Sorting comparator function

Table 2-2 Contact Assignments for Sorting comparator function

Pin No.	Signal Name	Description
1	/EXT.	External trigger
5,6,7	COM	Common for EXT._DCV
10	EXT._DCV	External DC voltage. DC voltage supply pin for DC Isolated input (EXT.) and DC Isolated output (/ACQ, /EOM). Setting of internal jumpers must be changed when using an internal voltage supply.
15	/BIN0	Secondary parameter FAIL
17	/BIN1	Sorting judgments PASS All /BIN_ signal outputs are open collector
19	/BIN2	
21	/BIN3	
23	/BIN4	
14	/BIN5	
16	/BIN6	
20	/BIN7	
24	/BIN8	
13	/BIN9	Primary parameter FAIL
18	/EOM	End Of Measurement: This signal is asserted when the measurement data and comparison results are valid.
22	/ACQ	/ACQ signal is asserted when an analog measurement is complete and the DU602x is ready for the next DUT to be connected to the UNKNOWN terminals. The measurement data, however, is not valid until /EOM is asserted.
2,3,4 8,9, 11.12	NC	No connection

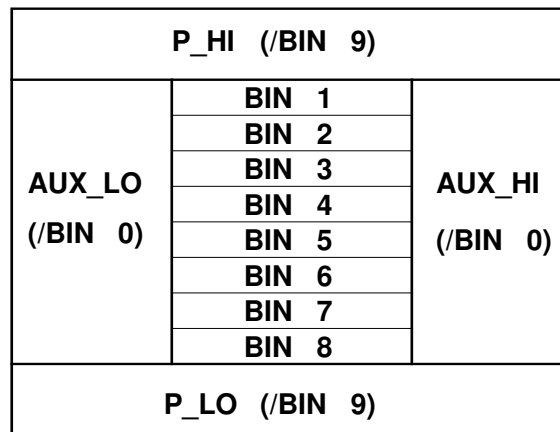


Figure 2-3 Signals Area Example for sorting comparator function

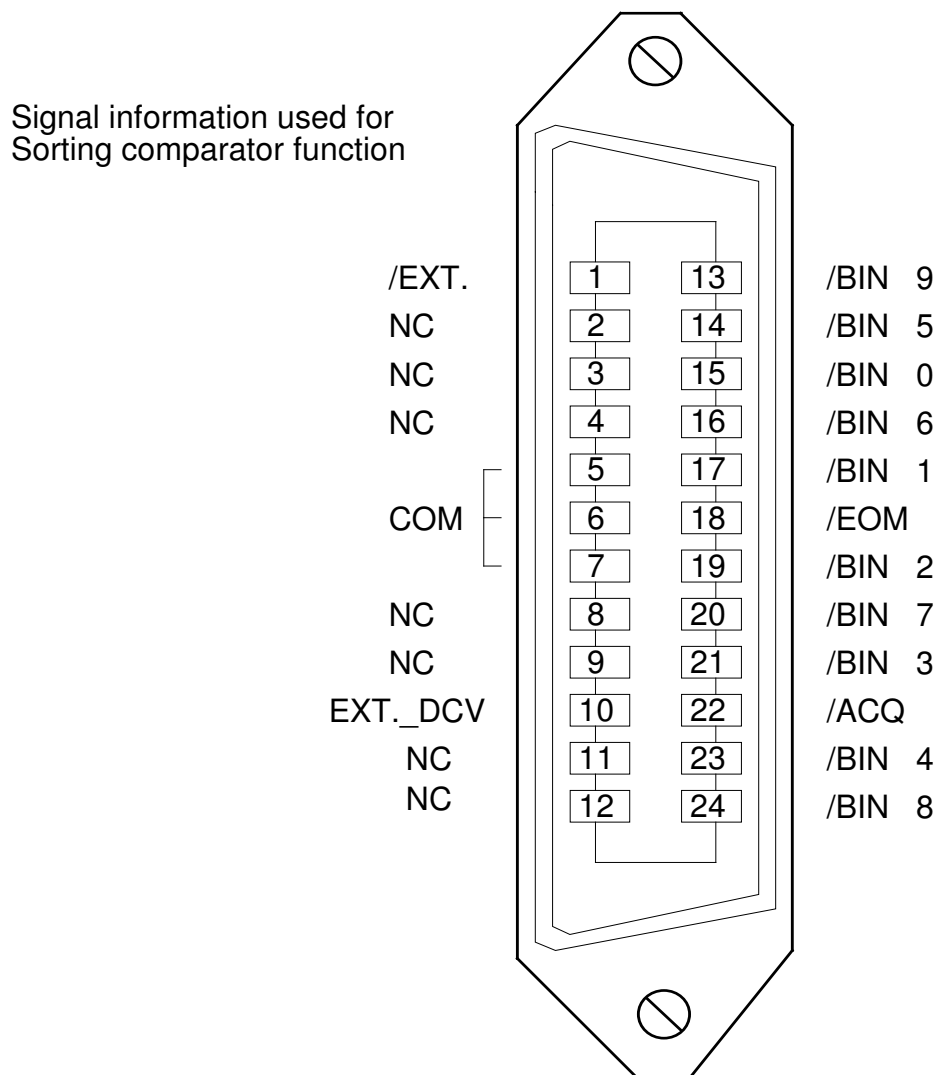


Figure 2-4 Pin Assignment For Handler Interface connector (Sorting comparator)

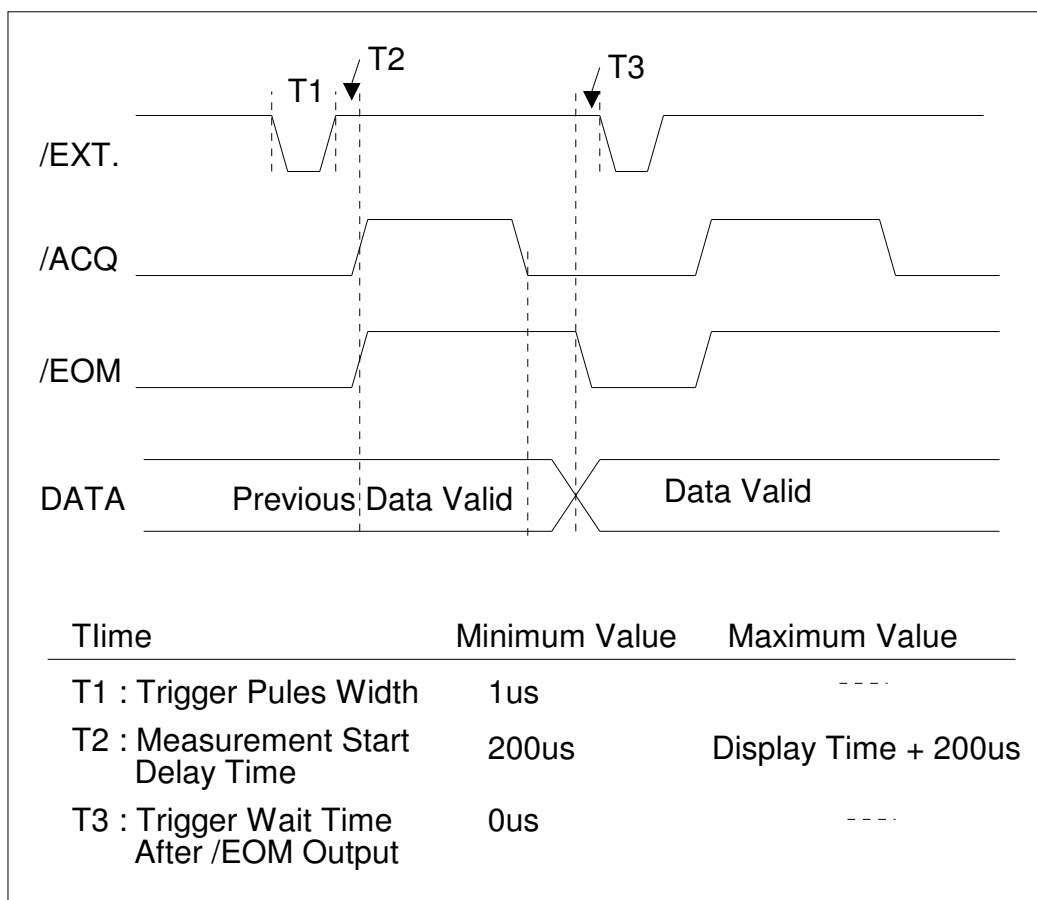


Figure 2-5 Timing Diagram

Message electrical characteristics

Output message of test device has using inside power and outside power. So must take care power and power current’s characteristics.

Table 2-3 Signal Electrical Characteristics

Signal	Voltage Output Rating		Maximum Current	Circuit Common
	Low	High		
Output	≤ 0.5V	+5~+24V	6 mA	Inter pull-up voltage: DU602x circuit common
Input	≤ 0.5V	+5~+24V	16 mA	External Pull-up voltage: COM..*1

*1...When using outside power and COMMON, take care pull out JMP1 and JMP2 of interface. When JMP1,2 is short current, please use DU602X inside power.

Attention of using outside power

Attention of using outside power as shown below:

1. JMP1,2 must pull out in open condition
2. In accordance with different outside power change PULL-UP resistance value as shown below

Table 2-4 Handler Interface External voltage Pull-up R

Part No. Voltage	R2	RZ2	RZ3
+5V	330 ohm	1 Kohm	1 Kohm
+12V	1 Kohm	2.2 Kohm	2.2 Kohm
+24V	2.2 Kohm	4.7 Kohm	4.7 Kohm

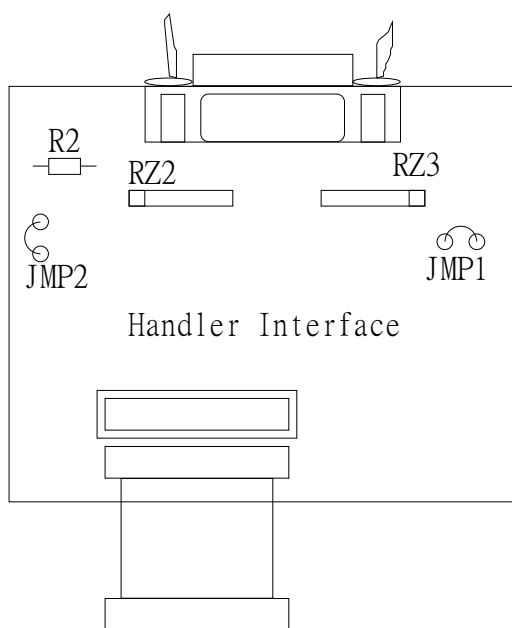


Figure 2-6 Handler Interface PCB

HANDLER I/F Operation

When using handler card, must set this function on Start position as shown below.

Entry into setting system parameter function frame.

Press the [SYSTEM] into setting system parameter function frame as below.

SYSTEM SETUP		
<table border="1"> <tr> <td style="text-align: center;">INTERFACE</td> </tr> <tr> <td style="text-align: center;">UTILITY</td> </tr> </table>	INTERFACE	UTILITY
INTERFACE		
UTILITY		

Use [^] [v] enabling the reserve cursor moving to INTERFACE; then press the [ENTER] into setting frame as shown below.

INTERFACE	<input checked="" type="radio"/> INSTALLED	<input type="radio"/> NOT INSTALLED
<input checked="" type="radio"/> HANDLER :	OFF	<input type="radio"/> MEMORY : OFF
<input type="radio"/> PRINTER :	OFF	
<input type="radio"/> RS-232 :	OFF	
<input type="radio"/> GPIB :	OFF	
<input type="radio"/> TIMER :	OFF	

Use [^] [v] enabling the reserve cursor moving to HANDLER; then press the [ENTER] into setting frame as shown below.

INTERFACE	<input checked="" type="radio"/> INSTALLED	<input type="radio"/> NOT INSTALLED
<input checked="" type="radio"/> HANDLER :	ON	<input type="radio"/> MEMORY : OFF
<input type="radio"/> PRINTER :	OFF	
<input type="radio"/> RS-232 :		
<input type="radio"/> GPIB :		
<input type="radio"/> TIMER :		

Use [^] [v] enabling the reverse cursor moving to ON and press the [ENTER] to open star HANDLER interface function.