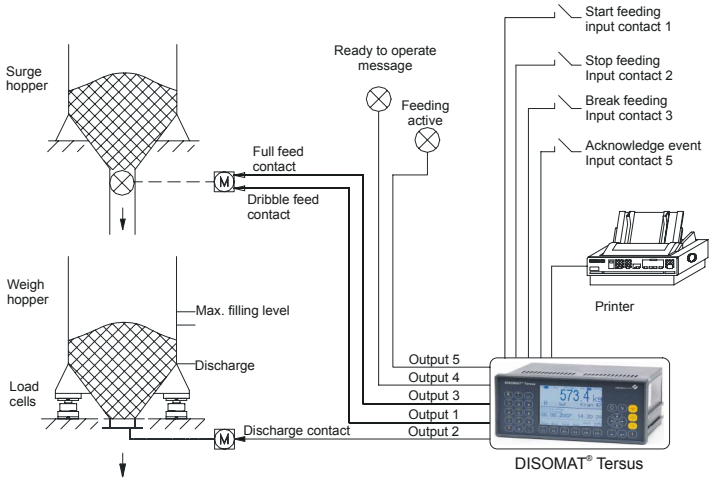
DISOMAT® Tersus - Filling Scale

Filling Scale



- **Function variant for fill feed into scale hoppers or containers on platform scales**
- **Feeding with full and dribble feed**
- **Automatic tolerance check and tracking optimization**
- **Control of weighing sequence via key-board, input contacts or EDP interface or fieldbus**
- **Weighing report and totals printout**
- **10 fixed tare memories for containers with residual contents**
- **10 parameter records for materials with different feed properties**

Application

The filling Scale function variant provides all functions required for the DISOMAT Tersus to realize a single-ingredient feed control: Set/act comparison in full feed and dribble feed, material flow monitoring, tolerance check and tracking optimization.

Equipment

Permanently stored in the DISOMAT Tersus, the linkage can be loaded by the user and changed to suit his specific requirements.
Individual functions, operating instructions, function block plan and parameter table are detailed in the Operating Manual.

If required, setting can be made by Schenck with known scale and calibration parameters, as well as dosing parameters being adapted accordingly.

For materials with varying properties, 10 selectable parameter records (materials files) are available.

Functions

The filling scale is designed to feed liquids or bulk solids into hoppers or fill them into containers. Filling is in two speeds, by full feed and dribble feed, to setpoint. You can also trigger feed units with an analog interface (such as discharge screws). The amount fed is checked for tolerance and made up, if necessary. Overfill is reported by a message. For optimization of feed process, pre-act and main contact are tracked.
After each aborted or completed batch, weigh data are automatically printed and totalised. Accumulation contains cumulative total of NET weights and number of totalised batches. Accumulation can be displayed and printed.

Weighing Sequences

- Fill weighing
- Fill weighing with discharge
- Multiple fill weighings with discharge

Function keys

- Acquire Tare
- Clear Tare
- Start
- Stop
- Abort
- Print intermediate total
- Print total and clear cumulative total
- Print Repeat
- Select Material / Enter Setpoint
- Set to Zero
- Test Functions

Other Menu Tree Functions

- Enter String
- Key-in Tare
- Select Fixed Tare
- Single Printout
- Settings

Input Contact Assignment

1: Start
2: Stop
3: Abort
4: N.C.
5. Acknowledge event

Output Contact Assignment

1: Full Feed
2: Dribble Feed
3: Discharge
4: Ready
5: Feeding active
5: N.C.

Printing

Single printout is preset with Print Pattern 2; totals printout, with Print Pattern 3. Assignment of print pattern to function key can be changed e.g. Single Printout key can also be assigned Print Pattern 1.

The variable print pattern formatting gives the user the possibility to design his own weighing reports. Defaults are as follows:

Print Pattern 1:

One head line and one line for weigh data. A string with product data of up to 30 digits can be entered for each printout. This string remains stored until being overwritten. After each printout a form feed is effected.

Print Pattern 2:

One line for weigh data. String can be entered and remains stored until being overwritten. After each printout a line feed is effected.

Print Pattern 3:

One line for totals printout without string.

Print Pattern

Single Printout (Print Pattern 1):

Date	Time	Cons. No.	(Weigh Data)	Weight		
25.02.00	10:45:00	123	1234567890	<123.5kg>B	<24.0kg>T	<99.5kg>Net

Single Printout List (Print Pattern 2):

25.02.00	10:45:00	123	1234567890	<99.5kg>Net
25.02.00	10:47:00	124	1234567890	<100.0kg>Net
.				
25.02.00	11:55:00	150	1234567890	<99.5kg>B
25.02.00	12:10:00	151	1234567890	<99.0kg>B
25.02.00	12:25:00	152	1234567890	<100.5kg>Net

Totals Printout (Print Pattern 3):

25.02.00	12:30:00	30	3001.5kg SU

EDP communication

For DISOMAT Tersus, the following EDP transmission procedures are available:

- SCHENCK Standard Protocol (DDP 8672)
- SCHENCK Poll Protocol (DDP 8785)
- SIEMENS 3964 R (DDP 8782)
- SIEMENS 3964 R for SIMATIC S5/S7

Disomat Tersus caters for a fixed set of commands that can be addressed by the EDP programmer, if required. Eligible commands, messages and procedures are detailed in the Data Communication Manual.
The EDP commands most frequently used are listed below.

Typical EDP commands:

- Tare
- Clear tare
- Preset tare value
- Set to zero
- Request single weight
- Request weight at standstill
- Request cyclic weight
- Request cumulative total
- Clear cumulative total
- Preset string
- Print patterns 1, 2, 3
- Print with copy to EDP

Response messages by DISOMAT Tersus

- Message is processed
- Command executed
- Command executed, send data to EDP

Messages Initiated by DISOMAT Tersus

- Feeding complete
- Feeding interrupted
- Weight at standstill
- Cyclic weight
- Taring complete
- Zeroing complete
- On the “Print With EDP Copy” command, DISOMAT Tersus acknowledges successful printout in form of a message that can widely be configured at will.

Fieldbuses

In addition to the serial EDP interfacing, DISOMAT Tersus Discharge Scale can also be controlled using the most frequent fieldbus systems.

- Modbus
- Profibus DP-V0
- Device Net
- Modbus -TCP (via Ethernet)

For details, see System Manual BV-H2334 and Data Communication Manual BV-H2359.

Flexibility

Although the Filling Scale function has been set and supplied, the logical function block system can be used to the full extent. The filling scale can be matched to new requirements or replaced by a totally different function. This can be performed using the DISOMAT Tersus keyboard or, even more convenient, on PC using the DISOPLAN software tool.

Variants

DISOMAT Tersus Weighing Terminal see Spec Sheet BV-D2273GB

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