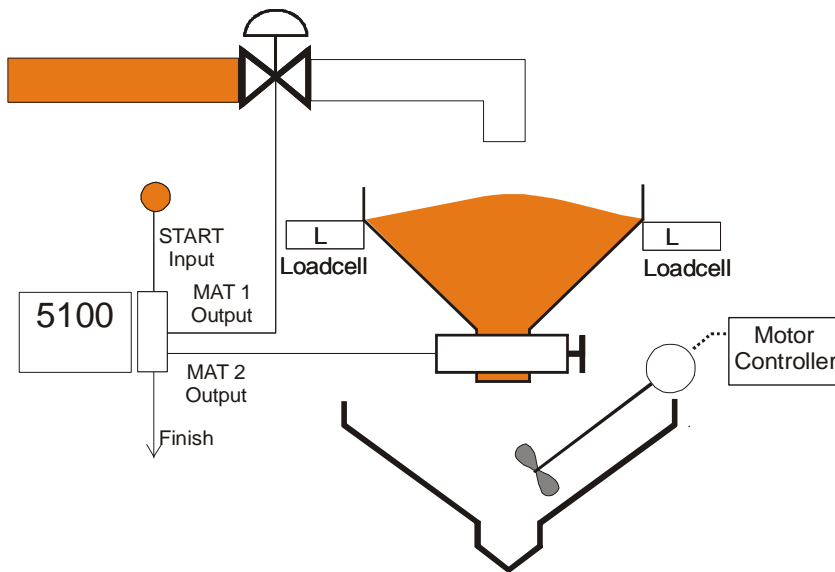


Application Note: 5100 Batch In - Batch Out

Application:



Using one recipe, a hopper is filled to a bulk amount then batched out into a mixer vessel to a target amount using auto correction. The system is set to send an “end of batch” signal to the PLC on completion of the batch out.

The targets for the batch in (MAT1 material 1) and the batch out (MAT2 material 2) are set through the front key pad or Viewer software. The MAT1 target is a positive weight and is the bulk fill of the hopper and MAT2 is a negative weight

as it is the actual batched out quantity. MAT2 should be lesser value than MAT1 to avoid the batched out falling short.

An external start button is configured and a BATCH button is set on the programmable function key on the indicator. The cycle is set to automatically restart in this case but it can be set as a single batch run only. When auto is used a BATCH or PAUSE key is recommended to allow the batch process to be halted.

Full batch printing can be used for this process please refer to the reference manual for detailed information on the batch printing.

Components:



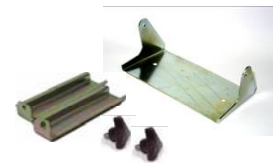
5100-DC or 5100-AC



0241
Acc Card, Setpoint
I/O, for 5xxx

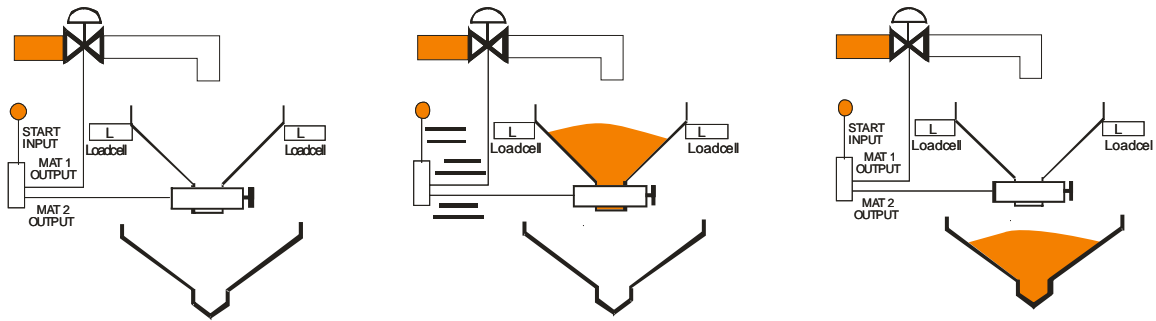


0215
Module, Relay,
12VDC, DIN Rail, for
5xxx
or
0216
Module, Relay,
24VDC, DIN Rail, for
5xxx



0305
H ware, Desk Mount,
Inc Slides, inc. slides,
for 5xxx & 6700

Operation:

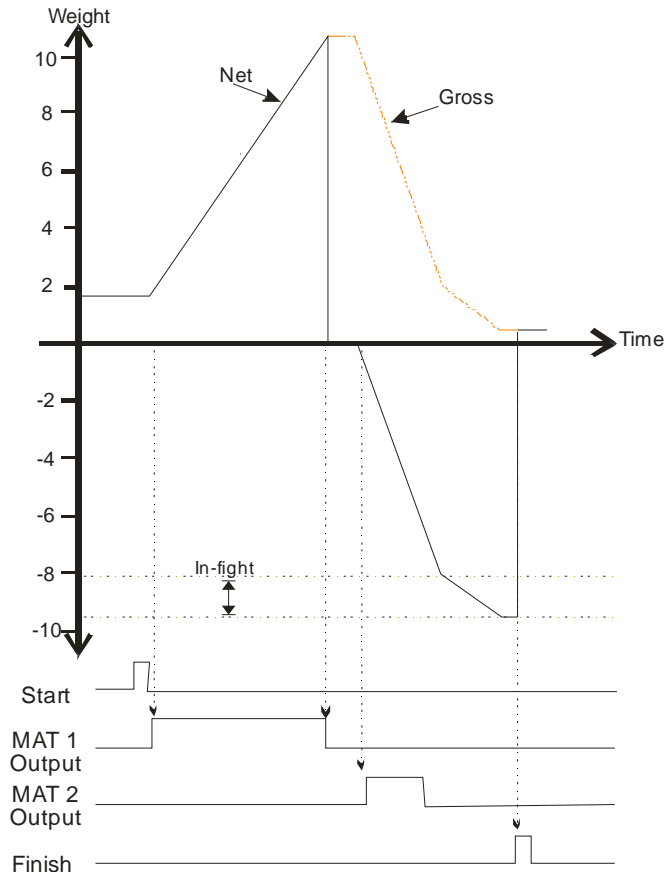


1. Start of day check recipe:
 - select RECIPE, set TARGETS for MAT1=105kg and MAT2= -100kg, set FLIGHT in-flight, prelim and tolerance.
2. Start batch cycle - Press front key pad BATCH key (assigned) or EXTERNAL START button.

3. Batch in - MAT1 output will energize, filling the hopper to target. The display remains in the gross mode thus any material left in the hopper is also included in this batched amount. This batched weight is set higher than the actual required discharged weight so there is no short discharged batches; no correction is required.





4. Batch out – Tare and change to Net model. MAT2 will energize, discharging the material from the hopper to the mixing vessel, displaying a negative value. The use of in-flight allows for more accurate batching.
5. FINISH will energize for a preset time to acknowledge the completed batch cycle to the PLC. The displayed weight reading will return to the GROSS value.

Time versus Weight:



Configuration:

Enter the setup and configure the unit with the required BUILD and CAL settings also enter the following to obtain the required output.

				
GROUP	ITEM	SELECT	EDIT	
(SPEC) SPECIAL SETTINGS MENU				
	(PASSCD)			
	(BUTTON)		YYYY	
	(FUNCTION)			
		FRONT	BATCH	
		REM1	START	
		REM2...5	As required	
	(ID.TYPE)			
			
	(AUX.DSP)			
	(SyNC)			
(SeT.PTS) SET POINTS				
	(DEFLT)			
	(SET.TYP)	SETP 1	MAT.1	G O _ - -
		SETP 2	MAT.2	N U _ - F
		SETP 3	FINISH	G _ _ - _
	(GEN.OPT)	OPTION	n S E d - -	Auto restart and display options
		FLT.ADJ	00000	Set to required value 0-100%
		TOL	NONE	Out of tolerance response
		AUT.CLR	NONE	Clear targets after batch end?
		PRO.PC	OFF	Recipe adjustments
	(LABELS)	NAME 1	MAT IN	Set to material name
		NAME 2	MATOUT	
	(DELAY)	DElaY1..2	As required	Delay after feeders
		FiniSH	As required	Length of finish pulse
	(JOG)	JOG.ON 1		