Synergy Series

Simplify Batching with the 680 and 682 Synergy Series

The 680 and 682 Synergy Series digital weight indicators do more than display results. With batching presets and easy-to-use controls, a variety of commands are available to simplify processes with weight-based automation.

Setpoints and Batching

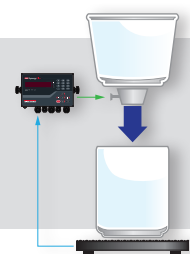Models include 20 setpoints and eight predefined batch preset modes.

Batch Presets

SINGLE FILL SINGLE SPEED

Batching of one ingredient, such as gravel or grain, at a consistent pace.

- Target to fill: fills containers to a specified amount
- Zero interlock: ensures a container is in place before starting fill cycle
- Lower threshold: ensures container is removed before next batch starts
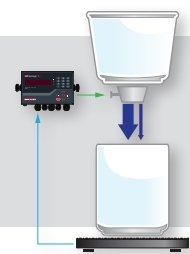
Setpoint Parameter Presets

	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
Alias	Zero Tol	WSS	Target	Print SS	Tare Reset	Off	Off	Off
Kind, Trip, Value	GROSS, HIGHER	WSS	NET, HIGHER, 0	WSS	NET, LOWER, 1			
Start, End								
Preact, Value, Adjust			LEARN, 1, 1					
Actions		PUSH TARE		PUSH PRINT	CLEAR TARE			
DIGITAL OUTPUT			SOB1					
BATCH, ACCESS	ON, ON	ACCESS OFF	ON, ON	ACCESS OFF	ON, OFF			

Preset DIO	680	682	Preset Softkeys (682)	
DIO1	OUTPUT	OUTPUT	SK1	SETPOINTS
DIO2			SK2	
DIO3	BATCH START		SK3	Batch Start
DIO4	BATCH STOP		SK4	
			SK5	Batch Stop

SINGLE INGREDIENT DUAL SPEED

Batching of one ingredient, such as with cosmetics or single spices, where pacing varies for precision.

- Fast fill target: shifts to slow fill once target is reached
- Final target: marks as full once target is reached

	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
ALIAS	ZERO TOL	WSS	FAST FILL TARGET	SLOW FILL TARGET	PRINT SS	TARE RESET	CONCURRENT	OFF
KIND, TRIP, VALUE	GROSS, HIGHER, 1	WSS	NET, HIGHER, 0	NET, HIGHER, 0	WSS	NET, LOWER, 1	CONCUR	
START, END							3,4	
PREACT, VALUE, ADJUST			LEARN, 1, 1	LEARN, 1, 1				
ACTIONS		PUSH TARE			PUSH PRINT	CLEAR TARE		
DIGITAL OUTPUT			SOB1	SOB2			SOB2	
BATCH, ACCESS	ON, ON	ACCESS OFF	ON,ON	ACCESS OFF	ON,OFF			

Preset DIO	680	682	Preset Softkeys (682)	
DIO1	OUTPUT	OUTPUT	SK1	SETPOINTS
DIO2	OUTPUT	OUTPUT	SK2	
DIO3	BATCH START		SK3	BATCH START
DIO4	BATCH STOP		SK4	
			SK5	BATCH STOP

THREE-INGREDIENT

Batching in a recipe with up to three ingredients, such as fertilizer.

- Zero interlock: ensures a container is in place before starting fill cycle
- Three targets: monitors targets for each ingredient
- Sequential fill: deposits ingredients in a set order
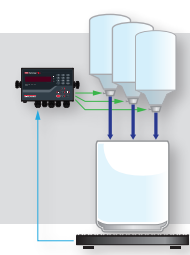
	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
ALIAS	ZERO TOL	WSS	TARGET1	WSS	TARGET2	WSS	TARGET3	CLEAR
KIND, TRIP, VALUE	GROSS, HIGHER, 1	WSS	NET, HIGHER, 0	WSS	NET, HIGHER, 0	WSS	NET,HIGHER, 0	WSS
START,END								
PREACT, VALUE, ADJUST			LEARN, 1, 1		LEARN, 1, 1		LEARN, 1, 1	
ACTIONS		PUSH TARE	PUSH PRINT WSS	PUSH TARE	PUSH PRINT WSS	PUSH TARE	PUSH PRINT WSS	PUSH PRINT, CLEAR TARE
DIGITAL OUTPUT			SOB1		SOB2		SOB3	
BATCH, ACCESS	ON, ON	ACCESS OFF	ON,ON	ACCESS OFF	ON,ON	ACCESS OFF	ON,ON	ACCESS OFF

Preset DIO	680	682	Preset Softkeys (682)	
DIO1	OUTPUT	OUTPUT	SK1	SETPOINTS
DIO2	OUTPUT	OUTPUT	SK2	
DIO3	OUTPUT	OUTPUT	SK3	BATCH START
DIO4	BATCH START		SK4	
			SK5	BATCH STOP

LOSS-IN-WEIGHT

Batching of an ingredient out of a hopper or tank, such as concrete mixing.

- Taring: tares before filling to target
- Starting weight: begins with weight in the hopper, tank or scale
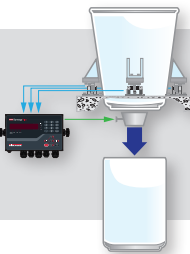
	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
ALIAS	ZERO TOL	WSS	TARGET					
KIND, TRIP, VALUE	GROSS, HIGHER, 1	WSS	NEGATIVE NET, LOWER, 0					
START,END								
PREACT, VALUE, ADJUST			LEARN, 1, 1					
ACTIONS		PUSH TARE						
DIGITAL OUTPUT			SOB1					
BATCH, ACCESS	ON, ON	ACCESS OFF	ON,ON					

Preset DIO	680	682	Preset Softkeys (682)	
DIO1	OUTPUT	OUTPUT	SK1	SETPOINTS
DIO2			SK2	
DIO3	BATCH START		SK3	BATCH START
DIO4	BATCH STOP		SK4	
			SK5	BATCH STOP

SINGLE-SPEED DOSING

Batching recipes at one speed that don't require high precision, such as individual ingredient processing with salt or sugar. Single-speed dosing is available with a pause before discharge mode.

- Single speed: fills then immediately discharged
- Pause before discharge: fills to target, stays until operator manually approves
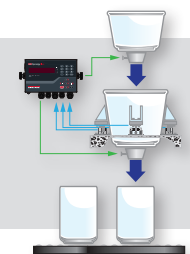
	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
ALIAS	ZERO TOL	WSS	TARGET	PRINT SS	OFF	DISCHARGE	OFF	OFF
KIND, TRIP, VALUE	GROSS, HIGHER, 1	WSS	NET, HIGHER, 0	WSS		NET, LOWER, 0		
START,END								
PREACT, VALUE, ADJUST			LEARN, 1, 1					
ACTIONS		PUSH TARE		PUSH PRINT				
DIGITAL OUTPUT			SOB1			SOB2		
BATCH, ACCESS	ON, ON	ACCESS OFF	ON,ON	ACCESS OFF		ON, OFF		

Preset DIO	680	682	Preset Softkeys (682)	
DIO1	OUTPUT	OUTPUT	SK1	SETPOINTS
DIO2	OUTPUT	OUTPUT	SK2	
DIO3	BATCH START		SK3	BATCH START
DIO4	BATCH STOP		SK4	
			SK5	BATCH STOP

DUAL-SPEED DOSING

Batching recipes that need efficiency and high accuracy, such as agricultural pesticides or pet food. Dual-speed dosing is available with a pause before discharge mode.

- Fast fill target: shifts to slow fill once target is reached
- Final target: marks as full once target is reached
- Pause before discharge: fills to target, stays until operator manually approves
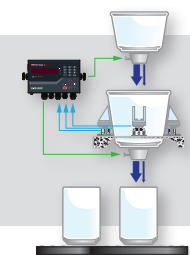
	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
ALIAS	ZERO TOL	WSS	FAST FILL TARGET	SLOW FILL TARGET	PRINT SS	OFF	DISCHARGE	CONCUR
KIND, TRIP, VALUE	GROSS, HIGHER, 1	WSS	NET, HIGHER, 0	NET, HIGHER, 0	WSS		NET, LOWER, 0	CONCUR
START,END								3, 4
PREACT, VALUE, ADJUST				LEARN, 1, 1				
ACTIONS		PUSH TARE			PUSH PRINT			
DIGITAL OUTPUT			SOB1	SOB2			SOB3	SOB2
BATCH, ACCESS	ON, ON	ACCESS OFF	ON,ON	ON, ON	ACCESS OFF		ON, OFF	ACCESS OFF

Preset DIO	680	682	Preset Softkeys (682)	
DIO1	OUTPUT	OUTPUT	SK1	SETPOINTS
DIO2	OUTPUT	OUTPUT	SK2	
DIO3	BATCH START		SK3	BATCH START
DIO4	BATCH STOP		SK4	
			SK5	BATCH STOP