BOLDER.

LIW weigh hopper series BTW

Product information

Characteristics:

- hopper fixed on load cell
- robust construction
- high overload protection
- simple removal
- easy to clean
- reliable butterfly valve

Scope of application

* mass-flow measurement of free-flowing bulk material
* material: pellets, regrind, powder
* application: extruder und feeder
* weigh hopper position: on material inlet of extruder or feeder decoupled from the storage hopper by a flexible tube
* weigh hopper as a gauge to control mass-flow or loss-in-weight feeders

Configuration

* flexible tube: length: 1 meter, to feed material from storage hopper to weigh hopper free of mechanical interference
* hopper: size of hopper according to maximal mass-flow and bulk density to provide optimal refilling cycles.
* adaptation: a base flange is offered as standard. The adaption to the extruder or feeder inlet has to be offered and designed customized.

Function

The loss-in-weight measurement is a reliable and well-proven method to measure the throughput of extruders and feeders. When the valve is closed and the hopper is full the load cell measures a loss in weight over a period of time corresponding to the material fed into the extruder or feeder. The process value of throughput is derived from the difference in weight over a difference in time. In closed-loop control the process value has to reach a given set-point by changing the screw speed accordingly.

Accessory

* enclosure (box) with electronic instrument:
* Throughput measurement **and** closed-loop control
* valve switch: Open / AUTO / Closed
* interface to PLC: Profibus DP or Modbus-RTU

Specification

		BTW													box
volume	[l]	2	3	3	4,5	6	9	12	15	24	30	40	60	100	all
max. throughput polyolefins on ρ=0,55kg/l	[kg/h]	40	60	60	90	120	200	250	300	480	600	800	1200	2000	
max. throughput regrind on ρ=0,35kg/l	[kg/h]	---	---	40	55	75	125	160	190	300	380	500	750	1300	
hopper size D	[mm]	150	150	240	240	240	240	240	240	400	400	400	600	600	
width	[mm]	338	338	380	380	380	380	380	380	505	505	505	705	705	+ 120
deep	[mm]	200	200	300	300	300	300	300	300	430	430	430	650	650	
hight	[mm]	575	645	650	670	710	770	835	900	920	1000	1100	1130	1275	

Device coding

BTW -   weigh hopper
G( )   pellets (volume)
M( )   regrind (volume)
P( )   powder(Volume)
E( )   valve (diameter)
D( )   hopper (diameter)
K(/)   cone combination
V( )   valve supply voltage
A( )   base flange (diameter)
CF   feeder
Z   customized
MIL   load cell connector
Box   box-terminals
L( )   cable (length)
S( )   tube (diameter)

example: (weigh hopper see picture above)
BTW- G9- E65- D240- K45/70- V24- A100- Box- S100