

# 3100P

## PENDULAR COMPRESSION LOAD CELL

Compression load cell.

Model 3100P - 10 t



### Features

- Canister, high capacity load cell (up to 500 tons)
- Totally made of stainless steel
- Protection IP 67
- Pendular technology - Self restoring
- Available in C1,5 (1'500 d) OIML / R 60
- Matched impedance and sensitivity (for parallel connection)
- A whole range of mounting accessories is available
- Cable length: 12m (500t: 20m)
- Available options (non exhaustive list) :
  - o ATEX intrinsic safety Ex II 1GD Ex ia IIC T6 or T4 Ga Ex ia IIIC T80 C Da
  - o high service temperature (up to 180 °C)
  - o protection IP68

### Applications

The SENSY's load cell 3100P is perfectly designed to the following applications :

- Weighbridges
- Silos, tanks or hoppers weighing
- High capacity reactors weighing
- Train scales etc...

### Capacities

3100P : (3) - 5 - (7.5) - 10 - (15) - 20 - 30 - 50 - (75) - 100 - (150) - 200 - 300 - 500 t

Specifications	0.25	0.1	C 1.5	
Accuracy class	0.25 % F.S.	0.1% F.S.	1500 d OIML	-
Combined error	< ± 0.25	< ± 0.1	< ± 0.035	% F.S.
Linearity error	< ± 0.25	< ± 0.1	< ± 0.03	% F.S.
Repeatability error	< ± 0.1	< ± 0.03	< ± 0.015	% F.S.
Creep error over 30 min.	< ± 0.1	< ± 0.06	< ± 0.035	% F.S.
Zero shift after loading	< ± 0.025	< ± 0.015	< ± 0.0075	% F.S.
Reference temperature	23	23	23	C
Nominal temperature range	-10...+45	-10...+45	-10...+45	C
Service temperature range	-30...+70	-30...+70	-30...+70	C
Storage temperature range	-50...+85	-50...+85	-50...+85	C
Temperature coefficient of the sensitivity	< ± 0.05	< ± 0.05	< ± 0.017	% F.S./10 C
Temperature coefficient of zero signal	< ± 0.035	< ± 0.035	< ± 0.025	% F.S./10 C
Zero balance	± 0.02	± 0.02	± 0.02	mV/V
Sensitivity tolerance	< ± 0.3	< ± 0.3	< ± 0.2	%
Insulation resistance (50V)	> 5000	> 5000	> 5000	Megaohm
Reference excitation voltage	10	10	10	VDC
Nominal range of excitation voltage	3..12	3..12	3..12	VDC
Nominal sensitivity	1.5	1.5	1.5	mV/V
Safe load limit	150	150	150	% F.S.
Breaking load	>300	>300	>300	% F.S.
Static lateral force limit	15	15	15	% F.S.
Permissible dynamic loading	50	50	50	% F.S.
Input resistance	350..702 ± 2	350..702 ± 2	350..702 ± 2	Ohm
Output resistance	350..702 ± 2	350..702 ± 2	350..702 ± 2	Ohm

# LOAD CELLS

model 3100P

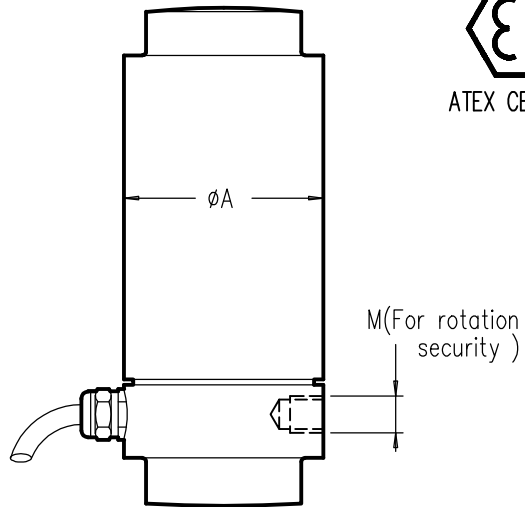
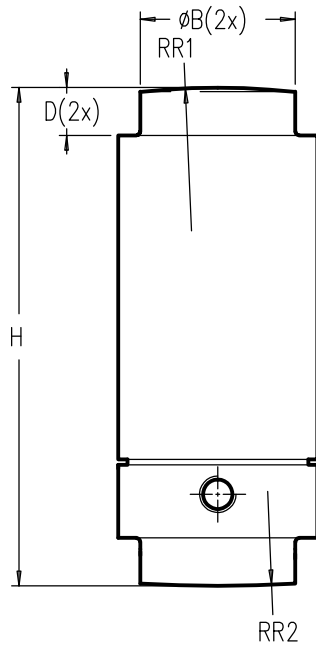
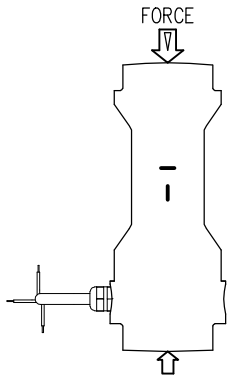
stainless steel

## COMPRESSION

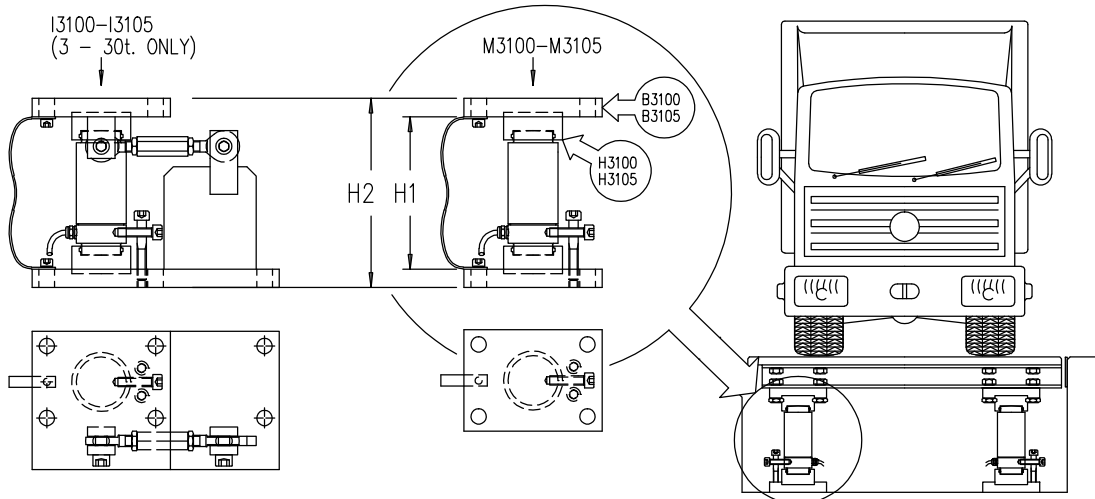
Range 3 – 500t IP 67 (IP 68)  
Cable length : 12 m (500t: 20m)



ATEX CERTIFIED



CAPACITIES	$\phi A$	$\phi B \begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	D	H	M	RR1	RR2	H1	H2	Max.deflexion (mm)	R Input(ohms)	Weight (kg)
3 – 20 t	54	42	13	135	M10	200	250	165	205	0.03–0.1	$\pm 350$	2.2 kg
30 t												
50 – 100t	$\pm 89$	64	30	190	M12	300	300	234	294	0.26–0.34	$\pm 700$	5 kg
150 – 200t	115	90	20	210	M16	400	400	290	370	0.33		15 kg
300t	136	110	20	240	M16	400	400	338	418	0.4		23 kg
500t (2mV/V)	180	130	25	350	M12	600	600	610	594	0.57		46 kg



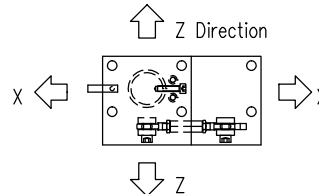
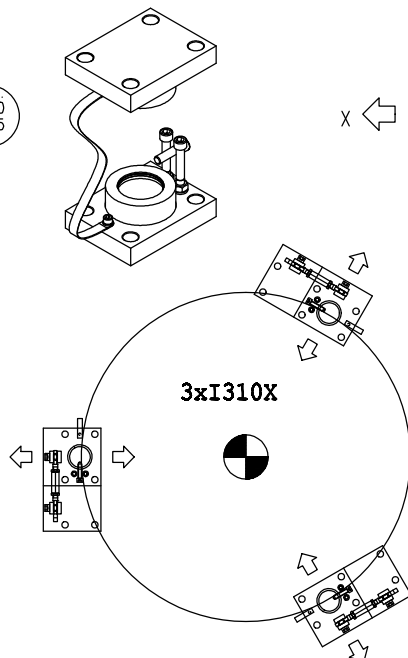
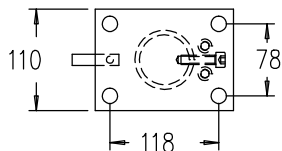
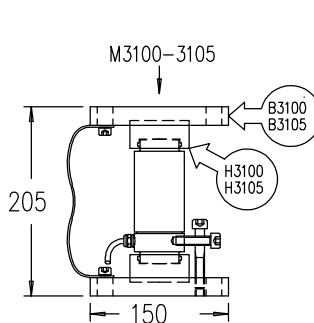
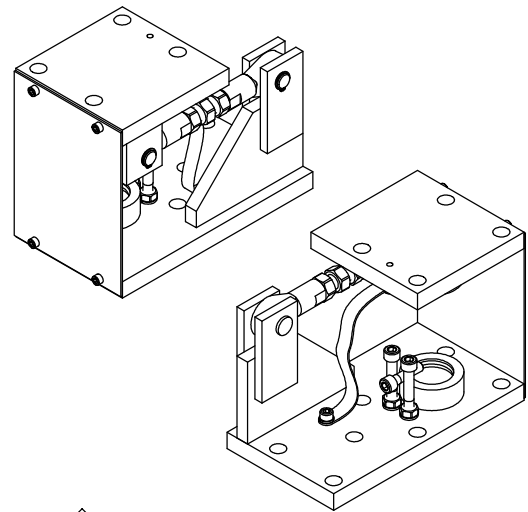
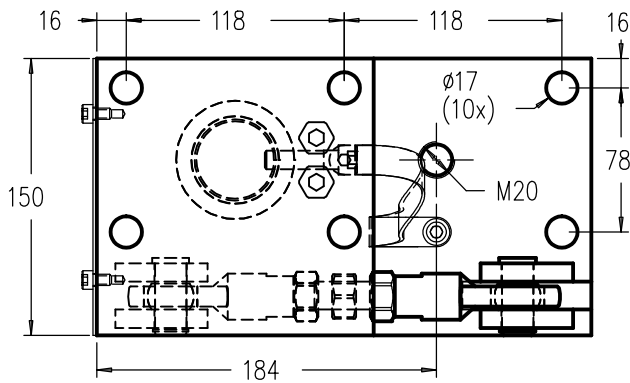
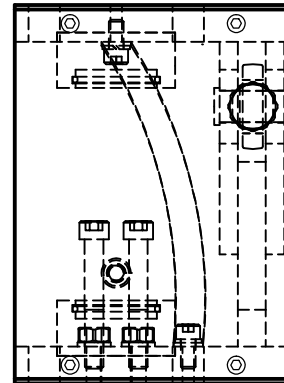
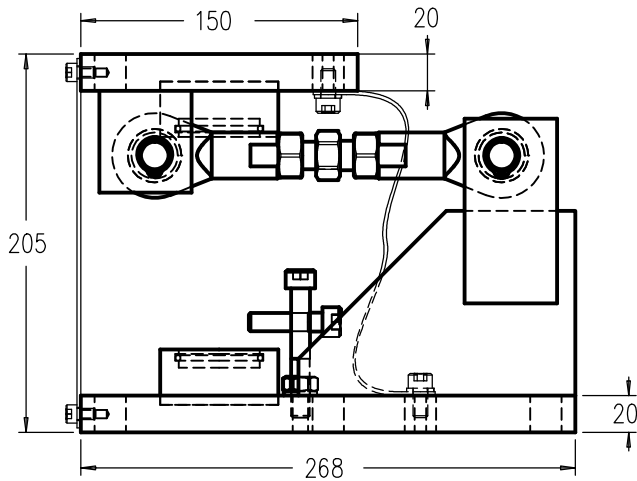
## ACCESSORIES

model **I3100** stainless steel\*  
 model **I3105** coated steel

\* ROD ENDS IN  
 STAINLESS STEEL

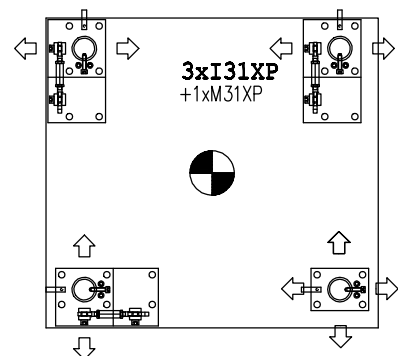
### EASY MOUNT FOR MODELS 3100P-3105P

Range 3 - 30 t



X Direction  
 (MAX.5200 Kg. STAT.  
 2240 Kg. DYN.)

Stainless steel  
 (MAX.2100 kg STAT  
 800 kg DYN.)

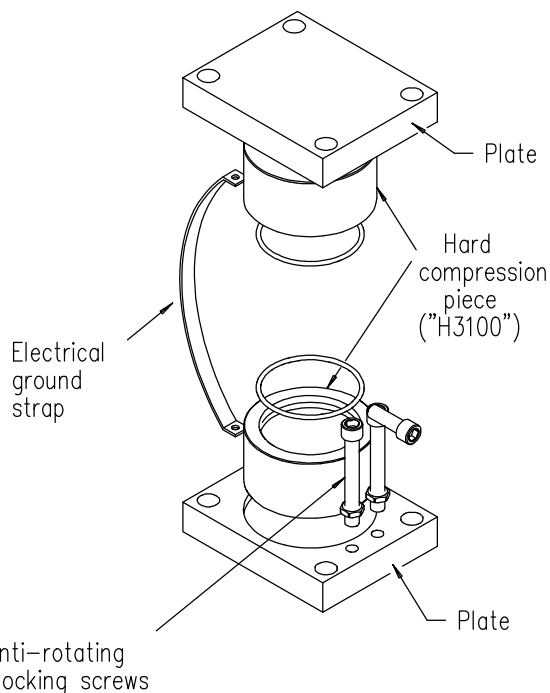
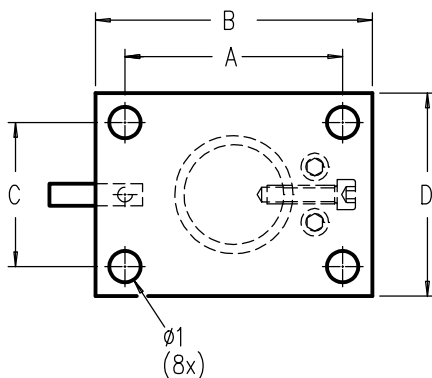
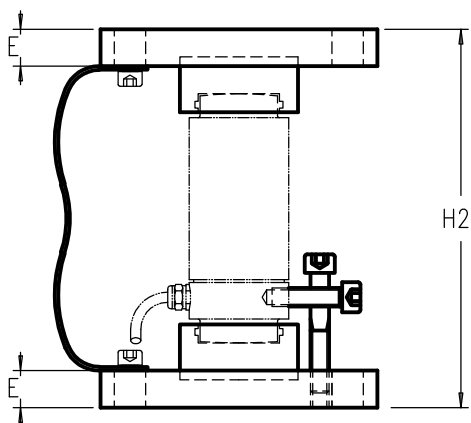


## ACCESSORIES

model M3100 stainless steel  
 model M3105 coated steel

### PENDULAR KIT UNIT FOR MODELS 3100P-3105P

Range 3 - 500 t



CAPACITIES	A	B	C	D	E	Ø1	H2	Weight (kg)
3 - 30 t	118	150	78	110	20	17	205	±5.7
50 - 100t	130	170	90	130	30	21	294	±13
150 - 200t	185	235	135	185	40	25	370	±35.5
300t							418	±41
500t.	200	260	200	260	40	27	594	±78

