

Digital single point load cell designed for high speed filling and check weighing applications. Serial Interface with an optional dual logical input and four logical output enables direct connection to the PLC. The stainless steel load cell is hermetically sealed and is ideal for use in heavy washdown applications.



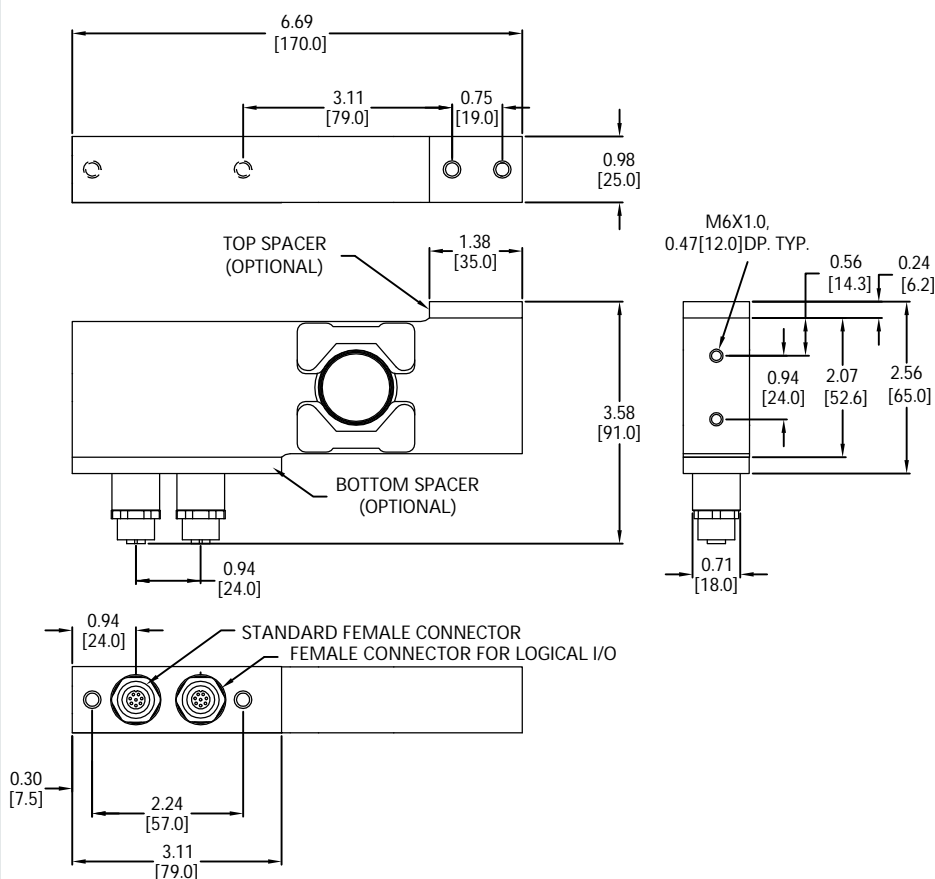
FEATURES

- Capacities from 10 to 50 kg.
- Stainless steel construction.
- Environmental Protection IP69k with complete hermetic sealing.
- AD conversion rate up to 1200 upd./sec.
- The current drive per channel is $\leq 1A$.
- Over voltage, over current, EMC protection.
- The total constant current through all channels is 3Amps (Power < 0.66W).
- Any two output channels can be paralleled to drive 2A (The load cell itself can virtually be a (simple) PLC with outputs of 2 x 2Amps or 1 x 2Amps + 2 x 1 Amp etc).
- Free professional software for setting up the digital load cell.
- Maximum platform size up to 450 x 450 mm.

APPLICATIONS

- Bench scales, conveyor scales, check weighers, filling plants, packaging machines and industrial process control.

OUTLINE DIMENSIONS



Group Four Transducers

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digital single point SPF5-DUAL 4086D

SPECIFICATIONS

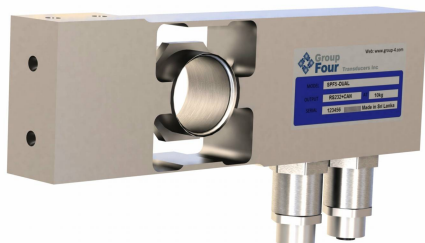
Model	SPF5			
Capacities (Emax)	kg	10	20	50
Recommended min. external division	g	1	2	5
PERFORMANCES				
Accuracy class according to the OIML R60	C3			
Maximum load cell verification interval(Vmin)	Emax/10000			
Combined error	%FS	≤±0.017		
Creep @ 30min	%FS	≤±0.017		
Zero balance, raw counts	increment	±2000		
Output resolution at full load, raw counts	increment	256000	512000	512000
Internal AD conversion rate	upd./sec	1200		
Fix, digital low pass IIR filter, default	Hz	18 (Supress 50Hz and 60Hz influence)		
Adjustable , digital low pass IIR filter	Hz	18-0.25; Selectable in 8 steps		
Adjustable , digital low pass FIR filter		40-5; Selectable in 8 steps		
Adjustable, external output update rate	upd./sec	1200-9; Selectable in 8 steps		
GENERAL I/O's				
Hardware interface, CAN version	CAN and RS232 RS485 and RS422 (Both four wire)			
Hardware interface, RS version				
Data transmission rates CAN	kb	125;250;500;1000		
Data transm. rates RS485/RS422/RS232		9.6;19.2;38.4;57.6;115.2;230.4;460.8		
Protocol CAN	CAN Open ASCII or Modbus RTU			
Protocol RS485/ RS422/ RS232				
Logical input, programmable	Trigger Level 2-30Vdc, <3mA, Ref to Gnd.			
Power supply	VDC	10-30 ≤ 0.4 Watt		
Connections	Standard 8 pin, female M12MF 0008			
LOGICAL I/O's				
Number of logic inputs	Two (2) with common GND			
Programmable Logic input data	Trigger level 2-30Vdc, <3mA, Ref to GND			
Number of logic outputs	Four (4) channels with common High drive.			
Single channel logic output data	ON : Current ≤ 1.0 Amp. Rds 0.055Ω			
Dual paralleled channel output data	ON : Current ≤ 2.0 Amp. Rds 0.028Ω (Paralleled wiring and programmed for synchronous switching)			
Four channel total constant	ON: Current ≤ 3.0 Amp and 660mW			
	OFF: ≤ 40Vdc			
Protection measures of all channels	Short circuit protection; Over temperature shut down; Over voltage protection ; ESD protection			
Isolation body/ Electronics at 500VDC	GΩ	≥1		
Power supply	VDC	9-40		
Connection	Separate 8 pin, female M12MF 0008			

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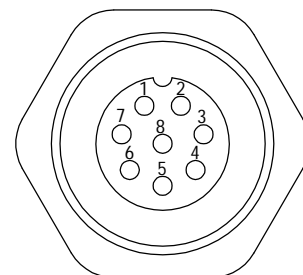
INFLUENCES				
Safe load limit	%* Emax	300	150	150
Ultimate load	%* Emax	600	300	300
Eccentric loading error acc. to OIML R76	%FS	±0.0233		
Max platform size	mm x mm	450 x 450		
Temperature effect on zero	%FS/°C	0.001		
Temperature effect on span	%FS/°C	0.001		
Temperature range	°C	Operating: -10/+40, Storage: -40/+70		
EMC performance	MID Class E2 (Industrial locations)			
I/O protection, all pins	Reversed polarity; Excess voltage and surge			
Isolation body/ Electronics at 500VDC	GΩ	≥1		
Vibration	2.5G operational; 5G non-operational			
Environmental Protection	Body IP69k; Connectors IP68			
Corrosion resistance	All stainless steel			

WIRING

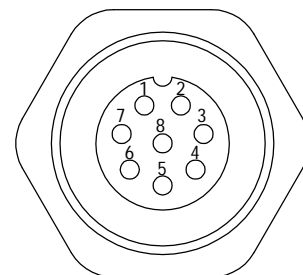
Standard Female Connector Signal Electronics M12AF0008		
Pin No.	RS-232+CAN	RS-485+RS-422
1	GND1	GND1
2	PROGRAM	PROGRAM
3	CANH	Rx+
4	TRIGGER INPUT	TRIGGER INPUT
5	CANL	Rx-
6	RxD	Tx-
7	TxD	Tx+
8	PWR+	PWR+

Logical I/O'S Female Connector Signal Electronics M12AF0008	
Pin No.	Connection
1	OUT 1
2	OUT 2
3	OUT 3
4	OUT 4
5	UB2
6	GND2
7	IN1
8	IN2

PIN Configuration Standard Female Connector



PIN Configuration Logical I/O'S Female Connector



PART NUMBERS

Capacity(kg)	RS232+CAN	RS485+RS422
10	4086D-000-02	4086D-000-03
20	4086D-001-02	4086D-001-03
50	4086D-002-02	4086D-002-03



Pioneering Measured Solutions

Dimensions and specifications subject to change without notice

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