

DATA SHEET

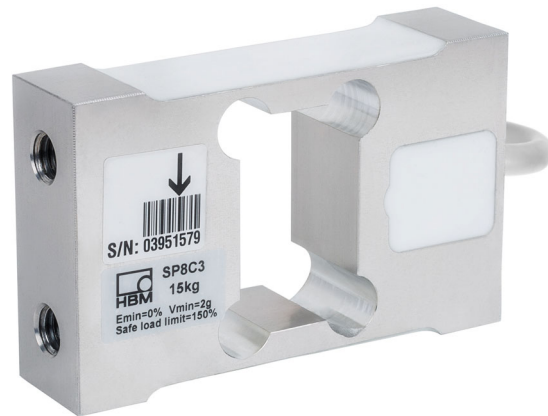


SP8... Single point load cell

with  **IO-Link**
option

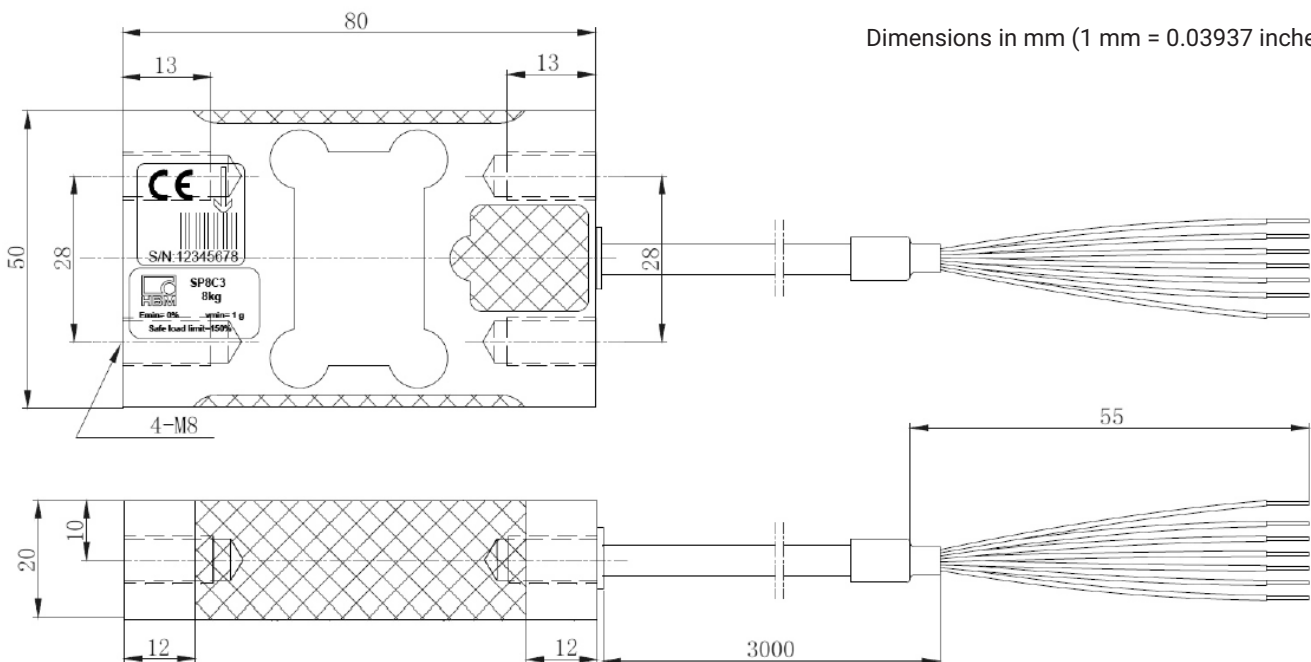
SPECIAL FEATURES

- Maximum capacities 5 kg ... 100 kg
- Aluminum
- High ratio of minimum verification interval Y
- Off-center load compensation
- Shielded connection cable
- Available as LCMC measurement chain with smart option (IO-Link), with digital option (CANopen or RS-485), with analog option (4 ... 20 mA or 0 ... 10 V)



DIMENSIONS

Dimensions in mm (1 mm = 0.03937 inches)



SPECIFICATIONS

Type			SP8...						
Accuracy class ¹⁾			C3						
Number of load cell verification intervals	n_{LC}		3000						
Maximum capacity	E_{max}	kg	5	8	15	30	50	100	
Minimum load cell verification interval	v_{min}	g	0.5	1	2	5	5	10	
Temperature coefficient of zero signal per 10 K	TC_0	% of C_n	±0.0140	±0.0175	±0.0186	±0.0233	±0.0140		
Ratio of minimum verification interval Y	Y		10,000	8,000	7,500	6,000	10,000		
Maximum platform size		mm	360 x 360			380 x 380			
Nominal sensitivity	C_n	mV/V	2.0 ± 0.2						
Zero signal (without initial load)		mV/V	0 ± 0.2						
Temperature coefficient of sensitivity +20 ... +40 °C -10 ... +20 °C	TC_S	% of C_n /10 K	±0.0175 ±0.0117						
Relative reversibility error	d_{hy}	% of C_n	±0.0150						
Non-linearity	d_{lin}		±0.0150						
Load creep in 30 minutes	d_{cr}		±0.0166						
Off-center load error			±0.0233						
Input resistance	R_{LC}	Ω	300 ... 500						
Output resistance	R_0		300 ... 500						
Reference excitation voltage	U_{ref}	V	5						
Nominal (rated) range of the excitation voltage	B_U		1 .. 12						
Maximum excitation voltage			15						
Insulation resistance at 100 V _{DC}	R_{is}	GΩ	>2						
Nominal (rated) range of the ambient temperature	B_T	°C	-10 ... +50						
Operating temperature range	B_{tu}		-10 ... +60						
Storage temperature range	B_{tl}		-25 ... +70						
Service load	E_{iq}	% of E_{max}	150						
Breaking load	E_d		300						
Rated displacement at E_{max} , approx.	s_{nom}	mm	<0.2						
Resonance frequency, approx.		Hz	330	420	620	920	1220	1720	
Degree of protection ²⁾			IP67						
Material			Aluminum						

¹⁾ Not certified to OIML R60

²⁾ Per EN 60 529 (IEC529)

CABLE ASSIGNMENT

Shielded 6-core round cable (6 x 0.14mm²), free ends

Pin 1	Signal (+)	white
Pin 2	Signal (-)	red
Pin 3	Excitation voltage (-)	black
Pin 4	Excitation voltage (+)	blue
Pin 5	Sense line (+)	green
Pin 6	Sense line (-)	grey
	Shield	yellow, connected to load cell

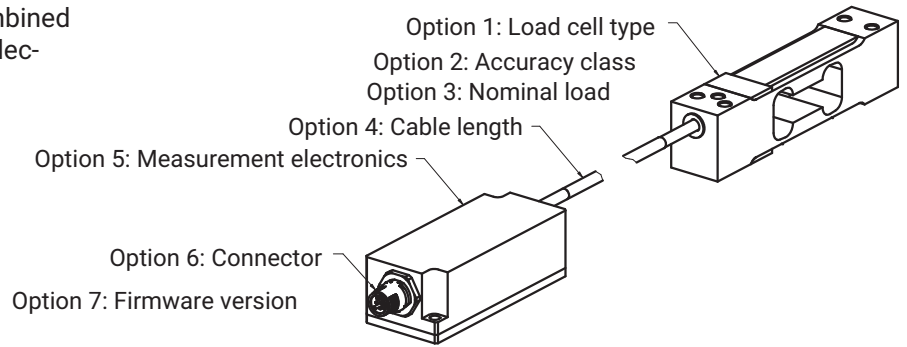
ORDERING CODES (OVERVIEW)

Type	SP8
Accuracy class	C3
Comments	Cable length 3 m (6-wire, free ends)

Capacity [kg]	Bestell-Nr.
5	1-SP8C3/5KG-1
8	1-SP8C3/8KG-1
15	1-SP8C3/15KG-1
30	1-SP8C3/30KG-1
50	1-SP8C3/50KG-1
100	1-SP8C3/100KG-1

LCMC - LOAD CELL MEASURING CHAIN

A wide range of famous load cells combined with a choice of excellent measuring electronics makes your tailored Load Cell Measuring Chain.



K-LCMC-SP8 ordering options

K-LCMC		
1	Code	Option 1: Load cell type
	SP8	SP8
2	Code	Option 2: Accuracy class
	C3	C3
3	Code	Option 3: Nominal load
	5K00	5 kg
	8K00	8 kg
	15K0	15 kg
	30K0	30 kg
	100K	100 kg
4	Code	Option 4: Cable length
	0M3	0.3 m
	0M5	0.5 m
	1M0	1.0 m
	3M0	3.0 m ±0.03 m
5	Code	Option 5: Measurement electronics
	105C	CAN (200 S/s)
	105R	RS485 (200 S/s) 2-wire
	112C	CAN (1,200 S/s)
	112R	RS485 (1,200 S/s) 4-wire
	RM42	Analog 4 ... 20 mA
	RM43	Analog 0 .. 10 V
RMIO	IO-link	
6	Code	Option 6: Connector
	M12A8	M12 A-coded, male, 8-pin [only with option 5 = 105C, 105R, 112C, 112R, RM42, RM43]
	M12A4	M12 A-coded, male, 4-pin [only with option 5 = RMIO]
7	Code	Option 7: Firmware version
	N	NA [only with option 5 = 105C, 105R, 112C, 112R, RM42, RM43]
	01	WTIO 1.07 [only with option 5 = RMIO]

K-LCMC - S P 8 - M R - - - - -

1 2 3 4 5 6 7

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