Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Supplementary Certificate of Approval

NMI S529

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Mettler Toledo Model SLC820 Digital Load Cell

submitted by Mettler Toledo Limited
220 Turner Street
Port Melbourne VIC 3207

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval becomes subject to review on **1/03/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	26/02/10
1	Pattern & variant 1 approved – certificate issued	23/04/10
2	Pattern & variant 1 **reviewed** & updated – variant 1 amended (Table 1) – variant 2 approved – certificate issued	8/09/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S529' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S529' in addition to the approval number of the instrument.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Dr A Rawlinson

TECHNICAL SCHEDULE No S529

1. Description of Pattern approved on 26/02/10

A Mettler Toledo model SLC820 digital load cell of 30 000 kg maximum capacity (Figure 1 and Table 1) and approved for use with up to 6000 verification scale intervals. These cells may also be known as the model POWERCELL PDX.

These load cells shall only be used with indicators which are NMI-approved for use with compatible Mettler Toledo digital load cells.

The load cells are provided with two communication ports and are connected to an indicator in daisy chain fashion as shown in Figure 2. A termination device is used in the second port of the last load cell in the chain.

1.1 Method of Mounting

Mounting is to be in accordance with the manufacturer's instructions and as shown in Figure 3.

1.2 Markings

Each load cell is marked with the following:

Manufacturer's mark, or name written in full	Mettler Toledo
Model number	SLC820 (or POWERCELL PDX)
Maximum capacity, E_{max}	…….. kg (or t)
Serial number	……..
Pattern approval mark	S529

1.3 Table of Specifications

Specifications for the pattern are given below in Table 1.

2. Description of Variant 1 approved on 26/02/10

Certain other capacities of the SLC820 series as listed below in Table 1.

3. Description of Variant 2 approved on 8/09/16

Certain high capacity versions of the SLC820 series (Figure 4) as listed below in Table 2.

Type: Mettler Toledo Model SLC820 (aka POWERCELL PDX) series

TABLE 1 – Pattern & variant 1

Maximum capacity, *Emax* (kg)	20 000	30 000	30 000	30 000	50 000	50 000	90 000
Accuracy class	C						
Maximum number of verification intervals, n_{LC}	3000	3000	4000	6000	3000	4000	6000
Minimum value of verification interval, *vmin* (kg)	3.5	4.7	2.4	1.5	5.7	4	3.6
Minimum dead load output return value, (DR) (kg)	3.3	5	3.8	2.5	8.3	6.3	7.5
Output rating (resolution) counts at *Emax*	200 000	300 000	300 000	300 000	500 000	500 000	900 000
Maximum supply voltage	30 V (DC)						
Maximum cable length	300 m (±0.1 m) (*)						
Communication	CANOpen						
Digital indicator	Mettler Toledo model IND780 indicator with a POWERCELL PDX interface card (#)						

(*) The load cells are provided with two communication ports into which connecting cables to other load cells and to the indicator are fitted (Figure 1). These cables may be up to 300 metres in length. The load cells are connected to an indicator in daisy chain fashion as shown in Figure 2. A termination device is used in the second port of the last load cell in the chain.

(#) Or alternative NMI-approved for use with compatible Mettler Toledo digital load cells.

TABLE 2 – Variant 2

Type: Mettler Toledo Model SLC820 (aka POWERCELL PDX) series

Maximum capacity, *Emax* (kg)	100 000	200 000	300 000	400 000	500 000
Accuracy class	C				
Maximum number of verification intervals, n_{LC}	3000	3000	3000	3000	3000
Minimum value of verification interval, *vmin* (kg)	10	20	30	40	50
Minimum dead load output return value, (DR) (kg)	16.7	33.3	50	66.7	83.3
Output rating (resolution) counts at *Emax*	1 000 000	2 000 000	3 000 000	4 000 000	5 000 000
Maximum supply voltage	30 V (DC)				
Maximum cable length	300 m (±0.1 m) (*)				
Communication	CANOpen				
Digital indicator	Mettler Toledo model IND780 indicator with a POWERCELL PDX interface card (#)				

(*) The load cells are provided with two communication ports into which connecting cables to other load cells and to the indicator are fitted (Figure 1). These cables may be up to 300 metres in length. The load cells are connected to an indicator in daisy chain fashion as shown in Figure 2. A termination device is used in the second port of the last load cell in the chain.

(#) Or alternative NMI-approved for use with compatible Mettler Toledo digital load cells.

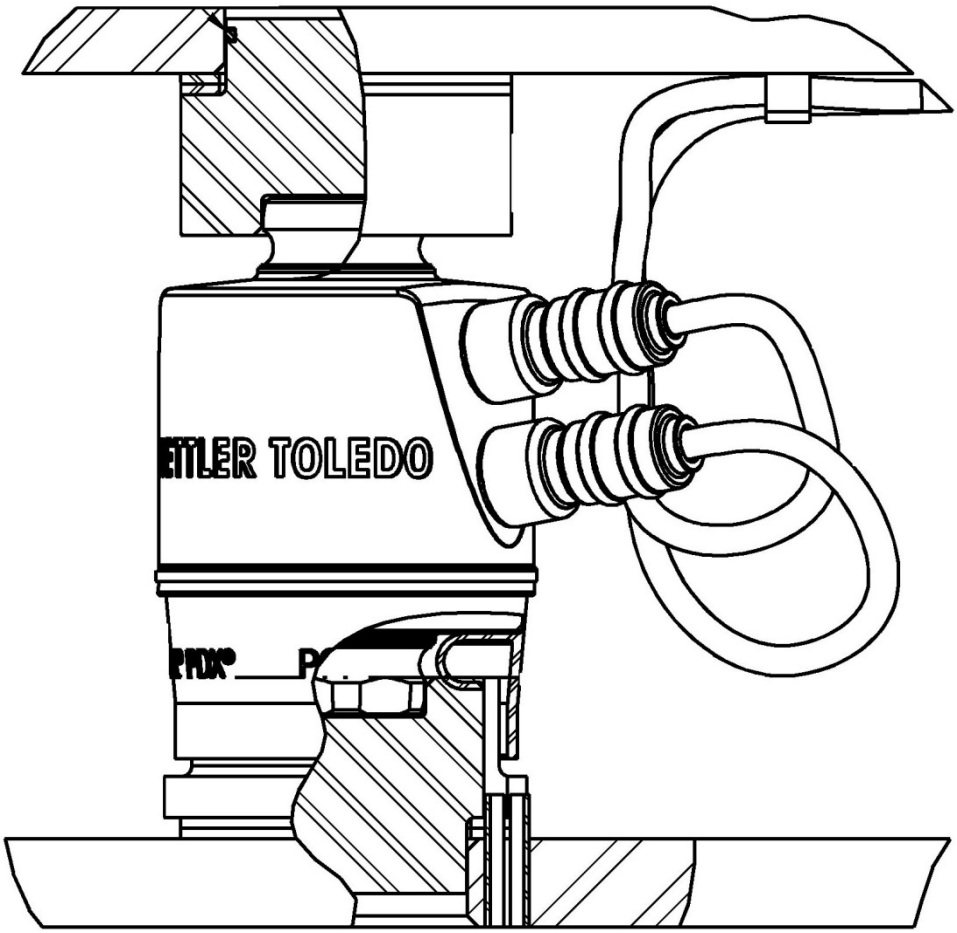
FIGURE S529 – 1

Mettler Toledo Model SLC820 (aka POWERCELL PDX) Load Cell
(pattern & variant 1)

FIGURE S529 – 2

Typical POWERCELL PDX Daisy Chain Network (pattern & variants)

FIGURE S529 – 3



Typical POWERCELL PDX Mounting Arrangement (pattern & variants)

FIGURE S529 – 4

Typical High Capacity SLC820 Series (aka POWERCELL PDX) Load Cell (Variant 2)

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