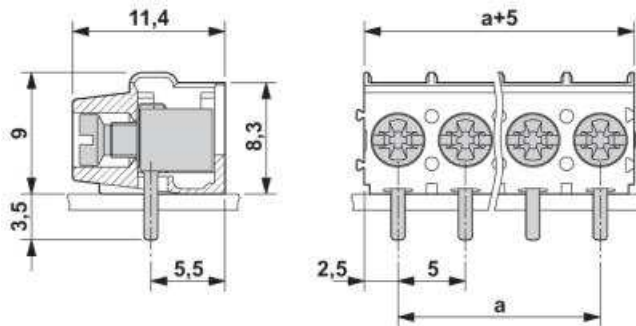


OSM/IN DECISION

Standard: EN 60730-1:2000 + A12:2003 + A1:2004 + A13:2004 + A14:2005 + A15:2007 + A16:2007 + A2:2008	Sub clause: 10.1.4, 10.1.5, 19.1, figures 10 to 13	Sheet N°: OSM/IN 260
Subject: Torque applied to terminals mounted on a printed circuit board and what conductor sizes may be specified	Key words: - Torque - Terminal - Printed circuit board	Meeting N°: 20 (2010) Item: 6.1

Questions: What torque should be applied to terminals blocks of the following style soldered onto printed circuit boards and what conductor sizes may be specified?



Question 1: This type of printed circuit board terminal block is not described in the definitions associated with the standard. Are they 'screw' terminals, or pillar terminals?

They do not clamp the conductor under the head, as shown in the screw terminal examples in fig. 10. They are similar in shape to the pillar terminals shown in fig. 11, however the head of the screw is retained in the moulding and they do not comply with all of the sizes shown in fig. 11 e.g. 'Minimum diameter conductor space (D)'. So, do these terminals have to conform to the other requirements shown in fig. 11 e.g. minimum diameter of conductor space 'D' or maximum gap between restraining parts 'e', or not?

If these are screw terminals (using as an example a 3mm size screw), the torque applied is 0.5 Nm (table 19.1). If, however, they are pillar terminals (again using a 3 mm size screw), the torque applied is 0.8 Nm. Does this mean however the terminals are declared, they must withstand the higher torque?

To be continued

OSM/IN DECISION

Standard: (See page 1)	Sub clause: 10.1.4, 10.1.5, 19.1, figures 10 to 13	Sheet N°: OSM/IN 260
Subject: (See page 1)	Key words: (See page 1)	Meeting N°: 20 (2010) Item: 6.1
Decision 1:	According to 10.1.5.1, the torque value for 16 A shall be according to table 19.1 or according to figures 10-13, <u>whichever is greater</u> . When this is followed, the above mentioned terminal shall be torqued with 1,2 Nm when it is a Screw-terminal and with 0,8 Nm, when it is a Pillar terminal. This style of terminal is to be tested to the requirements for pillar terminals, using the greater value of torque specified.	
Question 2:	For one of the most common ratings used in Europe i.e. 16 A, does this mean that the terminal has to accept 1.5 to 4.0 mm ² conductors (for fixed wiring), or does the 'or declared' mean that a smaller range of conductor sizes can be declared and is acceptable? It is common for PCB terminals to only accept 2.5 mm ² , for a 16 A rating.	
Decision 2:	It is not permissible for a smaller range of conductor sizes to be specified.	
Explanatory notes:	-	