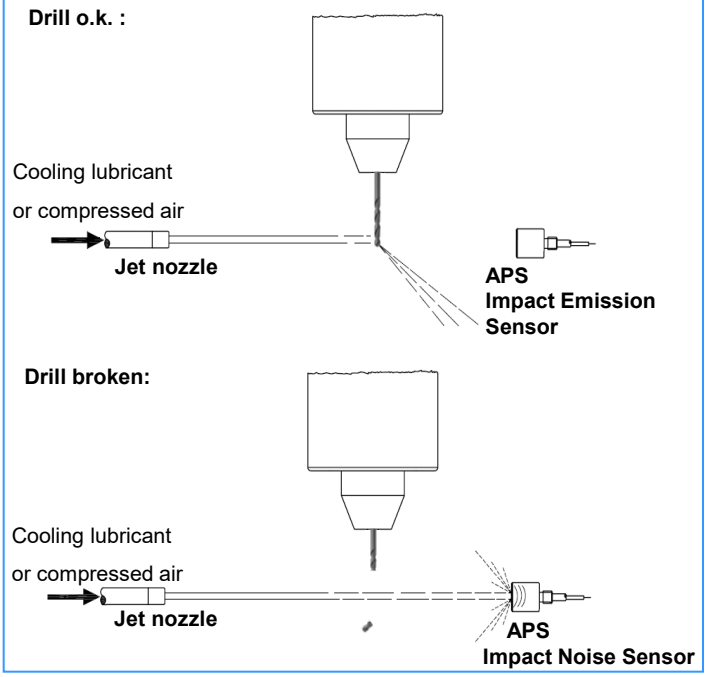
NORDMANN
METAL CUTTING MONITORING

Jet barrier on the basis of Impact Emission Sensor APS

Jet nozzle

Measuring principle:



Impact Emission Sensor APS-L

Impact Emission Sensor APS-Q

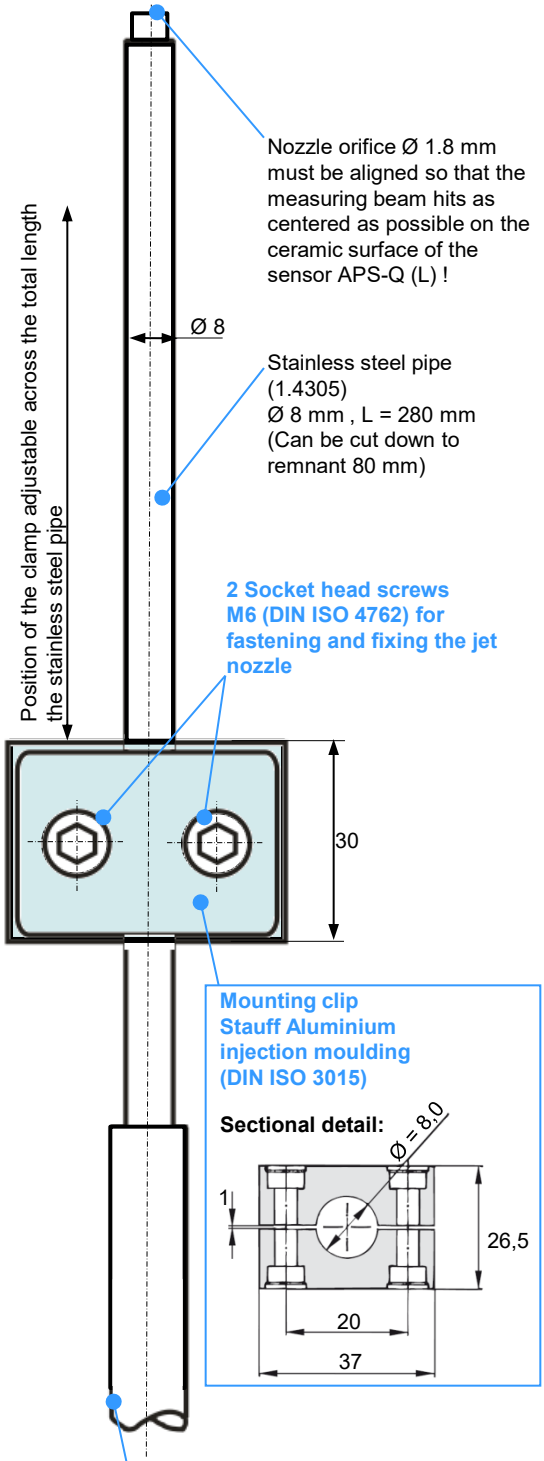
Technical Details:

Measuring range:	10 – 100 dB
Temperature range:	-40°C to +85°C
Power supply:	Via SEP (Acoustic emission processor) (Order No. 6.5.10)
Line:	Koax RG 174U Standard length: 5m
Casing material:	Stainless Steel 1.4305

Function:

- **Construction of jet barriers by means of cooling lubricant or compressed air beam to monitor breakage-induced tool shortening or the clamping position or the presence of workpieces (Alternative to laser light curtain)**
- **Measurement of the crackling noise of the beam hitting on its round ceramic plate**

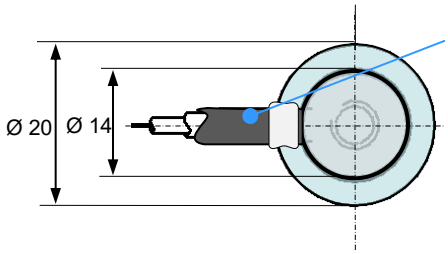
Jet nozzle

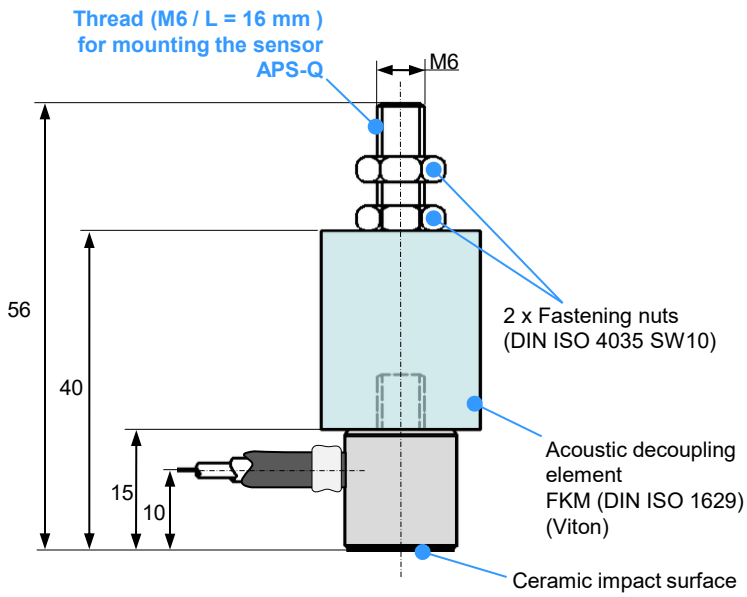


Connections for cooling lubricant or compressed air

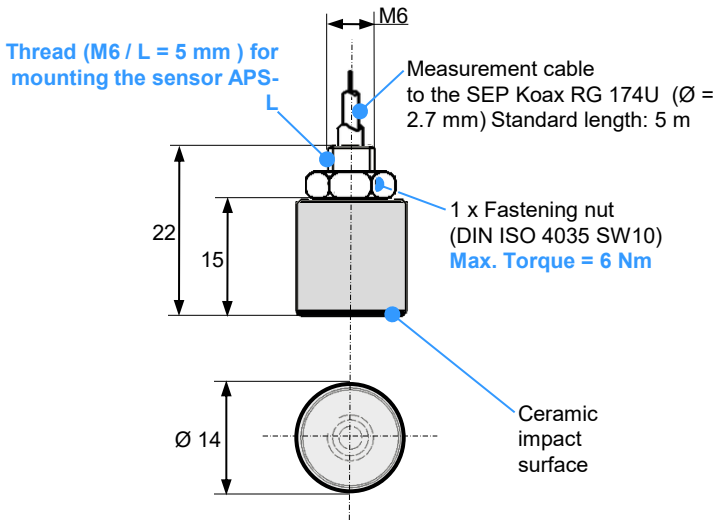
Polyurethane hose			Hose connection Norma GRS 12-10	
Length	Outside	Inside	Length	Outside
L= 300	Ø= 8.4	Ø= 6	L= 35	Ø= 12 / 10

APS-Q





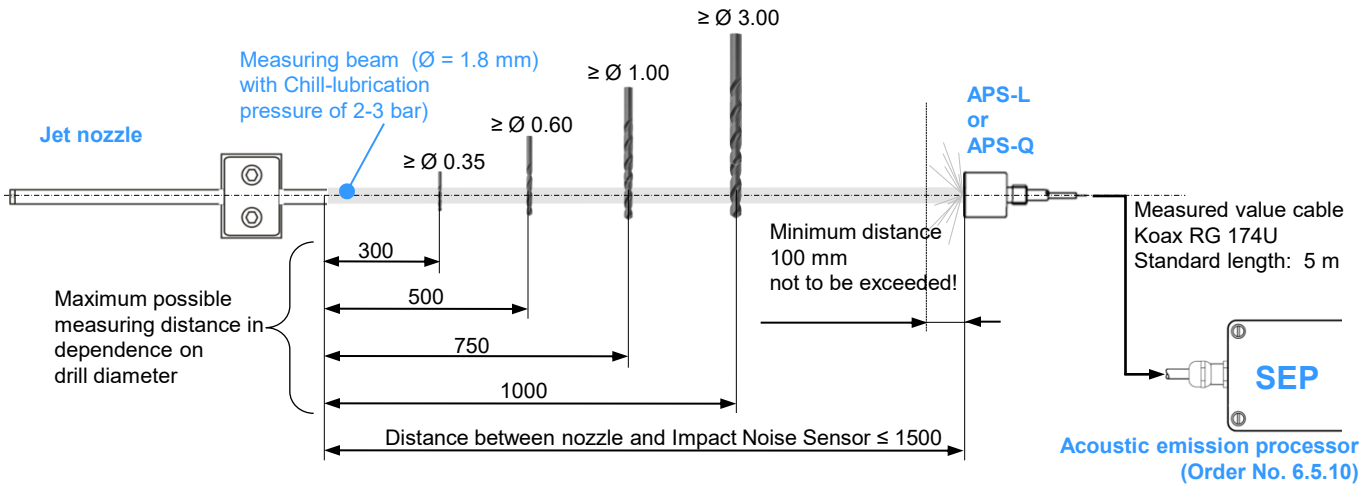
APS-L



Assembly:

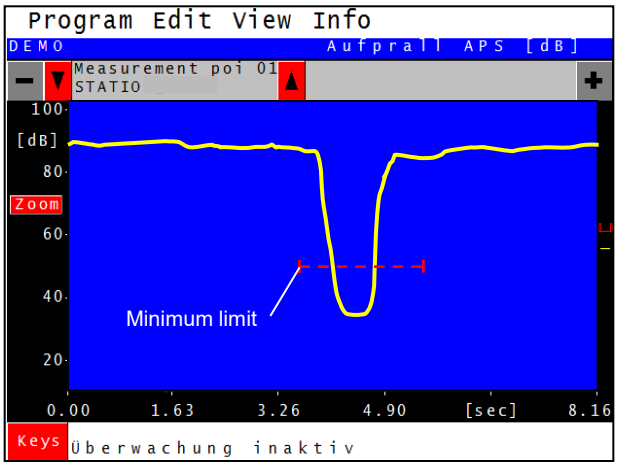
The jet nozzle is to be mounted in such a manner that the measuring beam hits concentrically on the ceramic surface of the Sensor (APS-L and/or APS-Q). The Impact Emission Sensors differ in the array of the measuring cable exits: Lengthwise = APS-L, across = APS-Q. The respective distances of the tools to be tested for rupture-related shortening to the jet nozzle can be seen below in the assembly array. The connection of the APS-L/-Q to the tool monitor occurs via **Acoustic emission processor SEP (order number 6.5.10)**. You will find further information on the connections in the installation instructions of the **Acoustic emission processor SEP**.

Assembly array with jet medium Chill lubricant (Emulsion):



[Dimensions in mm]

Curve view in Tool Monitor with interruption of the beam by a drill:



Order number:

6.11.L	**APS-L**	(Impact Sound Sensor APS-L for Jet barriers)
6.11.Q	**APS-Q**	(Impact Sound Sensor APS-Q for Jet barriers)
9.7.1	**Jet nozzle**	(Nozzle tube with nozzle and clamp fixture for jet barrier with air or chill lubricant beam)